

RAPPORT

KU for Moifjellet Vindkraftverk - Skyggekast

OPPDRAKSGIVER

Statkraft

EMNE

SKYGGEKAST FOR MOIFJELLET VINDKRAFTVERK

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Rapport

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SAMMENDRAG

På oppdrag fra Statkraft er det utført en skyggekastanalyse for Moifjellet vindkraftverk i Bjerkreim kommune, Rogaland fylke.

Analysen er gjort i henhold til NVE sin veileder nr. 2/2014 som ble utarbeidet for å vurdere skyggekast fra vindturbiner. I tillegg er rapport fra 2022 anvendt i fastsettelse av influensområde.

Rapporten kartlegger hvor skyggekast kan oppstå, samt omfanget av dette på nærliggende boliger, friluftsområder og andre relevante steder. Det er utarbeidet kart over omfanget av skyggekast. Det er også sett på omfanget av sumvirkninger av skyggekast fra flere vindkraftverk på bygg som blir utsatt for skyggekast fra Moifjellet vindkraftverk.

Skyggekastanalysen viser at områdene i umiddelbar nærhet til Moifjellet vindkraftverk vil bli utsatt for skyggekast. Når det ikke tas hensyn til sumvirkninger fra nærliggende vindkraftverk er det 26 av 40 mottakere som overskrider NVEs anbefalte grenseverdi. Ser man derimot på sumvirkningen av Moifjellet vindkraftverk og Bjerkreim vindkraftverk, Måkaknuten vindkraftverk og Stigafjell vindkraftverk viser analysen at 30 mottakere vil overskride NVEs anbefalte grenseverdi. Analysen viser at boligene ved Mellomstrand vil ligge under grenseverdiene, både når man ser på Moifjellet alene og med sumvirkninger fra nærliggende vindkraftverk.

Flere friluftsområder og turruter kan også bli påvirket av skyggekast fra Moifjellet vindkraftverk.

For å redusere belastningen av skyggekast på mottakerne kan det derfor være nødvendig med avbøtende tiltak. For å unngå skyggekast over grenseverdiene kan det lages skyggekastkalendere som viser når skyggekast er forventet. Turbinene kan stoppes på disse tidspunktene for å redusere påvirkningen, og automatiserte lyssensorer kan brukes til å stanse turbinen ved klarvær. Dette vil minimere ulempene for naboer og berørte.

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01	30.01.25	Oppdatering av rapport etter tilbakemelding	Martine Bjugg	Jonas B Ghini	Håvard Finanger
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1 Bakgrunn

I forbindelse med konsekvensutredningen av Moifjellet vindkraftverk er det utført en skyggekastanalyse for det planlagte vindkraftverket. Moifjellet vindkraftverk er planlagt i Bjerkreim kommune, Rogaland fylke.

Det er 6 eksisterende vindkraftverk i området rundt Moifjellet vindkraftverk. Bare de i umiddelbar nærhet vil bli tatt til betraktning i vurderingen av sumvirkninger. Dette inkluderer Bjerkreim, Stigafjellet og Måkaknuten, de tre andre, som ligger lenger unna, er ikke tatt med i betraktningen av sumvirkninger. Noter at det ble gjort egne simuleringer for å forsikre at de tre vindkraftverkene alene ikke ville bidra til med skyggekastbelastning over grenseverdiene i Moifjellet vindkraftverk sitt influensområde.

Analysen er gjort i henhold til NVE sin veileder nr. 2/2014 som ble utarbeidet for å vurdere skyggekast fra vindturbiner.

For utredningen av skyggekast er det lagt til grunn et eksempelutlegg med 38 vindturbiner og det er lagt til grunn en turbin som er 200 meter til vingetipp, rotordiameter på noe over 160 meter og en kapasitet på rundt 7 MW. Figur 3-1 viser det analyserte turbinutlegget.

2 Skyggekast

Et punkt er skyggelagt dersom det står et legeme mellom punktet og solskiven langs strålen fra solskiven mot punktet. Dersom det skyggende legemet beveger seg vil også den resulterende skyggen bevege seg, og dette vil kunne oppleves som sjenerende.

En vindturbin skiller seg ut fra andre høye byggverk og installasjoner med sine roterende blader. Normalt vil man bare observere den direkte bevegelsen når man betrakter turbinene. Men under spesielle omstendigheter vil turbinen stå i en posisjon mellom solen og betraktingsstedet. Da vil rotorbladene sveipe foran solskiven og kaste en bevegelig skygge som vil projiseres mot betraktingsstedet i et repeterende mønster. Dels vil man oppleve dette som en sveipende skygge over en flate, dels vil man merke en hurtig veksling mellom direkte lys og korte «glimt» med skygge. Dette kan være sjenerende mens fenomenet pågår. Et slikt betraktingssted, som mottar skyggekast, kalles for en skyggekastmottaker. En skyggekastmottaker er altså eksponert for en roterende skygge i løpet av mer eller mindre avgrensede tidsrom ettersom solen beveger seg gjennom året.

Fordi skyggen kastes lengst når solbanen er lav, er det typisk om morgen og kveld skyggekast inntreffer, og oftere i vintermånedene enn om sommeren. Imidlertid er det nødvendig med eksakte beregninger for å få en klar forståelse av skyggekastproblematikken.

For skyggekast fra vindturbiner er det etablert solide metoder og grenseverdier (Norges vassdrags- og energidirektorat, u.å.) og NVE har publisert en veileder til gjennomføring av slike beregninger (Norges vassdrags- og energidirektorat, 2014).

2.1 Skyggekastmottakere

Flere typer mottakere defineres som følsomme for skyggekastmottak. Det er i stor grad snakk om bygg der mennesker oppholder seg over tid, og i noen grad uteareal med spesielle bruksmønstre. NVE definerer følgende typer mottakere som sensitive for skyggekast fra vindturbiner:

- Helårsboliger, samt fritidsboliger i aktiv bruk
- Skoler og barnehager
- Sykehus, samt alders- og sykehjem
- Hoteller og andre overnattingsbygg, kafeer, restauranter og veikroer

- Kontor- og næringslokaler med regelmessige dagaktiviteter som samtidig har eksponerte vindusflater

I tillegg til dette kan NVE trekke inn følgende kategorier som sensitive, etter skjønn:

- Veldefinerte kulturminner/kulturmiljøer med stor opplevelsesverdi/pedagogisk verdi
- Kirker, kirkegårder, parker, idrettsanlegg og lekeplasser
- Definerte turmål, utsiktspunkter og lignende
- Havneanlegg, marinaer

2.2 Anbefalte grenseverdier for vindturbiner

Grenseverdiene NVE oppgir referer til antallet timer i året en skyggekastsensitiv mottaker kan utsettes for skyggekast fra en vindturbin før omfanget av belastningen vil regnes som sjenerende. Verdiene gis for to forskjellige scenarier: verst tenkelig grad av skyggekast, og realistisk grad av skyggekast. Verdiene er anbefalinger, og grenseverdiene kan fravikes i unntakstilfeller.

Verst tenkelig scenario

En skyggekastmottaker, som f.eks. en helårsbolig, regnes som et slags drivhus, med vinduer i alle retninger, slik at all skygge som faller på boligen også legges til total belastningsgrad. I tillegg regner man at solen alltid skinner i alle timer med dagslys, at turbinen alltid står vinkelrett på mottakerpunktet, og man tar ikke høyde for driftsstans på anlegg (for vindturbiner er det snakk om vedlikehold og dårlige vindforhold).

NVEs anbefalinger er at skyggekastmottakere ikke utsettes for mer enn 30 timer verst-tenkelig skyggekast per år, eller mer enn 30 minutter per dag

Realistisk scenario

Samme som for verst tenkelig scenario regnes en skyggekastmottaker som et slags drivhus, med vinduer i alle retninger, slik at all skygge som faller på boligen også legges til total belastningsgrad. Videre vil det realistiske scenarioet utføre beregninger med en viss sannsynlighet for solskinn i løpet av timene med dagslys, som altså reduserer total belastning siden under overskyet vær er lyset fra solskiven altfor diffust til at en skygge regnes som sjenerende. I tillegg tar man hensyn til realistisk driftstid for anlegget, basert på vindrosen for området. Ved å bruke vindrosen blir turbinene orientert slik at de vender mot vindretningen, og de er ikke standard fordelt. En viktig effekt av dette er at når vinden dreier turbinene kan det oppstå perioder der skyggen slutter å flakke over mottakeren og dermed reduseres skyggekastbelastningen til null i en slik periode. Dette skyldes at dersom turbinen roterer i et plan (tilnærmet) parallelt med linjen mellom en mottaker og solskiven, så vil skyggen fra bladene være fast, ikke «blinkende».

For realistisk skyggekastmottak anbefaler NVE at en mottaker ikke utsettes for mer enn 8 timer per år. NVE trekker også inn at i en situasjon der verst tenkelig skyggekast overskrider grenseverdien kan man fravike denne dersom realistisk skyggekast kan reduseres til under 8 timer per år ved avbøtende tiltak.

2.3 NVEs krav til beregningsmetodikk

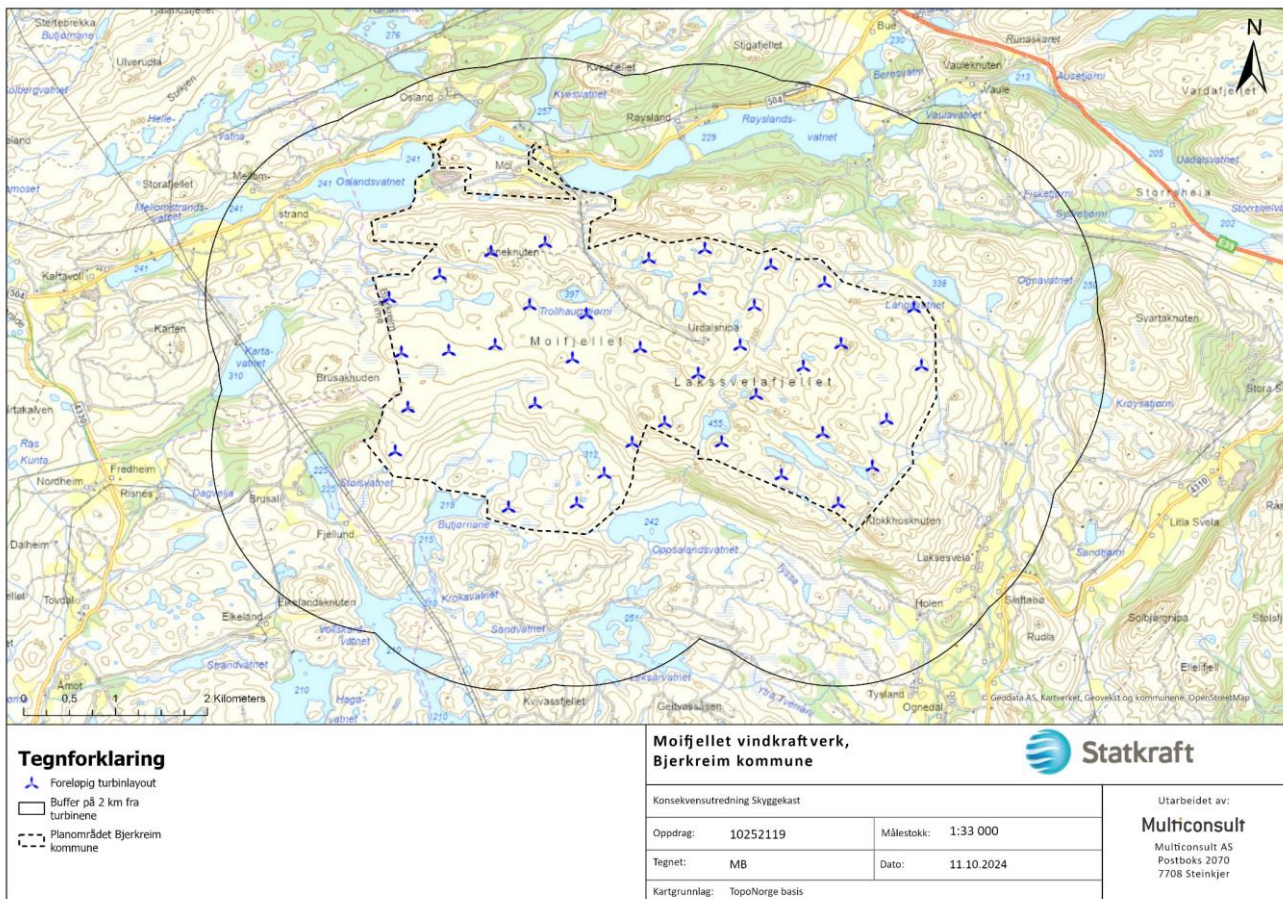
NVEs veileder beskriver noen detaljer rundt fremgangsmåten for skyggekastberegninger.

- Beregningene skal ta hensyn til terrengets høydeprofil i området som vurderes, og dette inkluderer skjermingseffekter av terreng som ligger mellom en mottaker og en kilde til skygge.
- Beregningene av teoretisk skyggekast skal baseres på drivhustilstand, det vil si at bygningene ikke har én bestemt retning mot vindturbinene og at mottakeren har vinduer i alle retninger. Mottakeren skal være en standard vertikal flate på 2 x 2 meter hevet 2 meter over bakken med mindre spesielle forhold tilsier noe annet.

- I det realistiske scenarioet skal en solskinnssannsynlighet på 50% benyttes. Dette er stort sett en overvurdering for de fleste steder i Norge, som forsikrer at man holder seg til et konservativt estimat for skyggekastbelastning. Det skal benyttes en retningsfordeling på vind fordelt på minst 8 sektorer og en årlig driftstid på 7000 timer.
- For beregningene regnes skyggekast fra en kilde som er mer enn 1500 m fra en mottaker som så svakt at det ikke bidrar til total belastning.

3 Skyggekastmottakere og analyseområde

NVEs krav til beregningsmetodikk innebærer at ingen områder som er lenger enn 1500 meter fra vindkraftverket er relevante for skyggekastanalysen. Det er planlagt å bruke mer moderne og større turbiner som vil ha bredere blader enn det som ble lagt til grunn for NVEs krav fra 2014. Det vil derfor bli anvendt en radius på 2000 meter etter anbefalinger i rapport utarbeidet av Norconsult på oppdrag fra NVE (Norges vassdrags- og energidirektorat [NVE], 2022). Denne avstanden ekskluderer boligene langs E39 ved Vikeså, Røysland og Bue. Figur 3-1 viser området som er relevant for skyggekastanalysen, der det er lagt til grunn an avstand på 2000 meter.



Figur 3-1: Området som er relevant for skyggekastanalysen (svart strek), med en avstand på 2000 meter fra turbinene.

På grunn av flere vindkraftverk i området, kan noen mottakere oppleve skyggekast fra ulike vindkraftverk på forskjellige tider av dagen eller året. Selv om hvert enkelt vindkraftverk ikke nødvendigvis overskrider de anbefalte grenseverdiene for skyggekast, kan sumvirkningene føre til at den totale mengden skyggekast i løpet av et år overstiger disse grenseverdiene. Det er derfor gjort simuleringer i to omganger. Første omgang tar bare

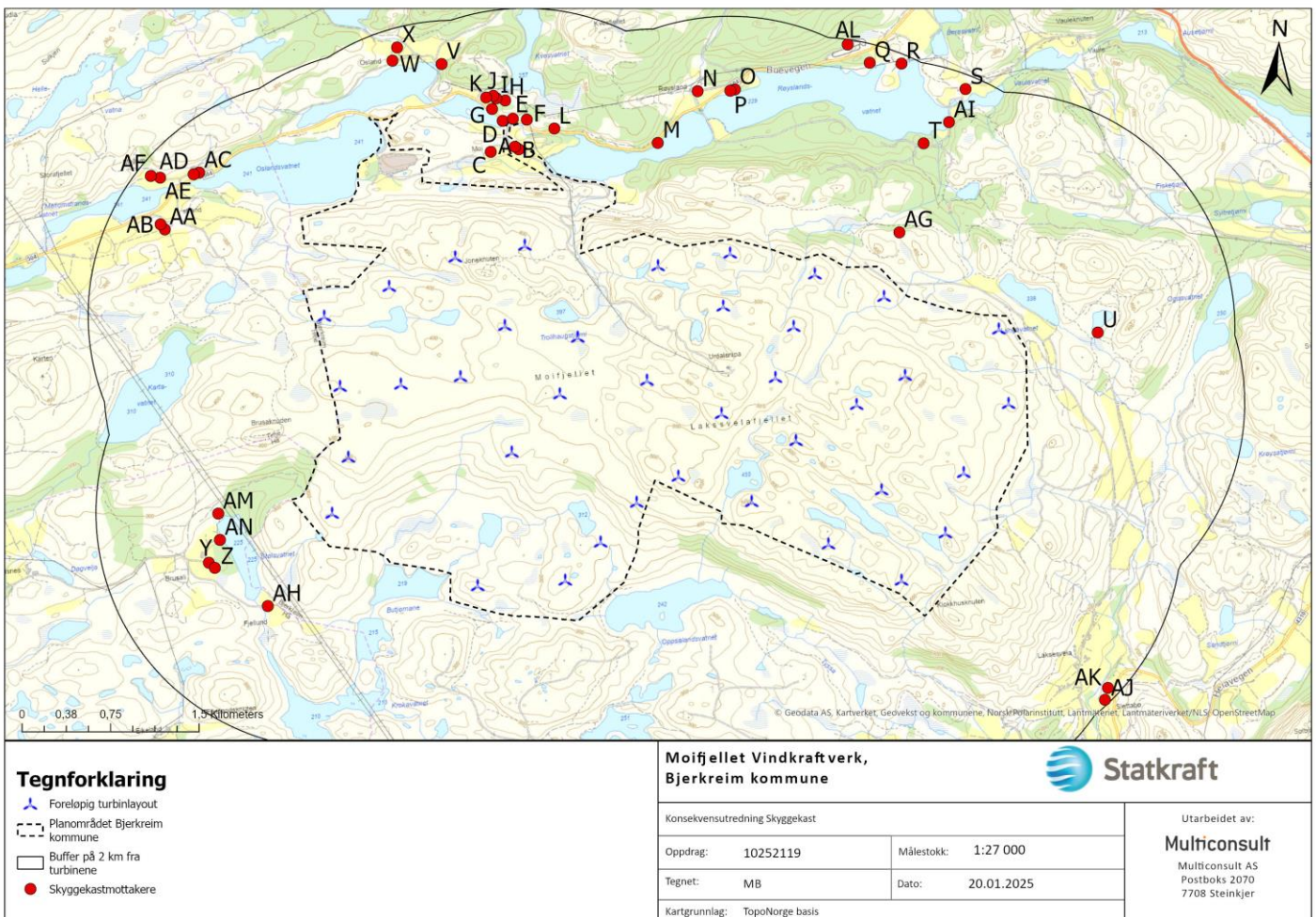
hensyn til vindturbinene i Moifjellet vindkraftverk, mens andre omgang inkluderer nærliggende vindkraftverk for å vurdere sumvirkninger skyggekast.

Det er forventet at utbyggingen vil føre til mest skyggekast oppe på Moifjellet og Lakssvelafjellet, og i grensene mellom Moifjellet vindkraftverk og de allerede etablerte vindkraftverkene nord og sør for Moifjellet vindkraftverk. Det er forventet at boliger nord for vindkraftverket vil kunne oppleve mye skyggekast. Spesielt boligene rundt Røyslandsvatnet og Oslandsvatnet forventes å bli berørt av utbygging av Moifjellet vindkraftverk. Disse boligene vil ha de eksisterende vindkraftverkene, Stigafjellet og Måkaknuten nord for seg og få Moifjellet vindkraftverk sør for seg.

3.1 Definerde skyggekastmottakere

Figur 3-2 viser skyggekastmottakerne som røde sirkler i området rundt Moifjellet, og Tabell 3-1 viser oversikt over boligene, deres posisjon og avstand til nærmeste vindturbin. Det er mest eneboliger og fritidsboliger spredt i området nord for Moifjellet, men noen er også lokalisert både på østsiden og vestsiden av planområdet. Det er registrert en mottaker inne i planområdet i umiddelbar nærhet til en av turbinene.

Det er totalt definert 40 mottakere som er alle vist på Figur 3-2. Utvalget av mottakere er i praksis gjort ved en iterativ prosess der flere simuleringer er kjørt etter hverandre for å bestemme hvilke mottakere som skal undersøkes i detalj og hvilke mottakere som ikke undersøkes videre. Simuleringene viste at ikke alle boligene innenfor en radius på 2 km blir utsatt for skyggekast. Det kan være på grunn av beliggenhet i forhold til solen og vindkraftverket eller skjerming i terrenget. De mottakerne som ikke undersøkes er beskrevet i kapittel 3.2. For de utvalgte mottakerne er der valgt å ta med alle boligene hver for seg og ikke inkludere dem i grupper for å grundigere vurdere mengden skyggekast de vil utsettes for.



Figur 3-2: Definerde skyggekastmottakere (røde sirkler).

I tråd med NVE sine krav for beregningsmetodikk (avsnitt 2.3) for verst tenkelig scenario utføres beregningene presentert i avsnitt 0 og 6.2 med skyggekastmottakerne vist i Figur 3-2 definert som «drivhus», hvor hver mottaker er et vindu 2x2 meter, som alltid peker rett mot skyggekjilden. For det realistiske scenarioet, der solskinnssannsynligheten er 50% og driftstiden satt til 7000 timer, brukes samme størrelse og mål på mottakerne som for verst tenkelig scenario, resultater presentert i avsnitt 5.3 og 6.4.

Tabell 3-1: Oversikt over skyggekastmottakere, deres lokasjon og avstand til nærmeste vindturbin. Koordinatsystemet er EU89, UTM 32.

	Mottaker	Retning		Avstand til nærmeste turbin (m)
		Østlig	Nordlig	
A	Våningshus– Moi 32	321 454	6 505 063	808
B	Enebolig – Moi 26	321 420	6 505 084	841
C	Våningshus – Moi 21	321 215	6 505 041	840
D	Fritidsbygning – Buevegen 1805	321 315	6 505 303	1 067
E	Fritidsbygning – Buevegen 1816	321 403	6 505 321	1 076
F	Fritidsbygning – Buevegen 1818	321 520	6 505 315	1 060
G	Fritidsbygning – Buevegen 1786	321 226	6 505 404	1 183
H	Fritidsbygning – Buevegen 1784	321 338	6 505 475	1 230
I	Fritidsbygning – Buevegen 1782	321 263	6 505 492	1 260
J	Fritidsbygning – Buevegen 1780	321 239	6 505 515	1 287
K	Fritidsbygning – Buevegen 1778	321 178	6 505 500	1 289
L	Fritidsbygning – Buevegen 1850	321 753	6 505 237	1 015
M	Fritidsbygning – Buevegen 1941	322 631	6 505 117	1 034
N	Bygning for overnatting – Buevegen 1988	322 968	6 505 553	1 392
O	Fritidsbygning – Buevegen 2023	323 284	6 505 569	1 383
P	Fritidsbygning – Buevegen 2021	323 246	6 505 557	1 371
Q	Fritidsbygning – Buevegen 2141	324 426	6 505 794	1 844
R	Fritidsbygning – Buevegen 2165	324 693	6 505 786	1 922
S	Enebolig – Vaule 176	325 238	6 505 571	1 883

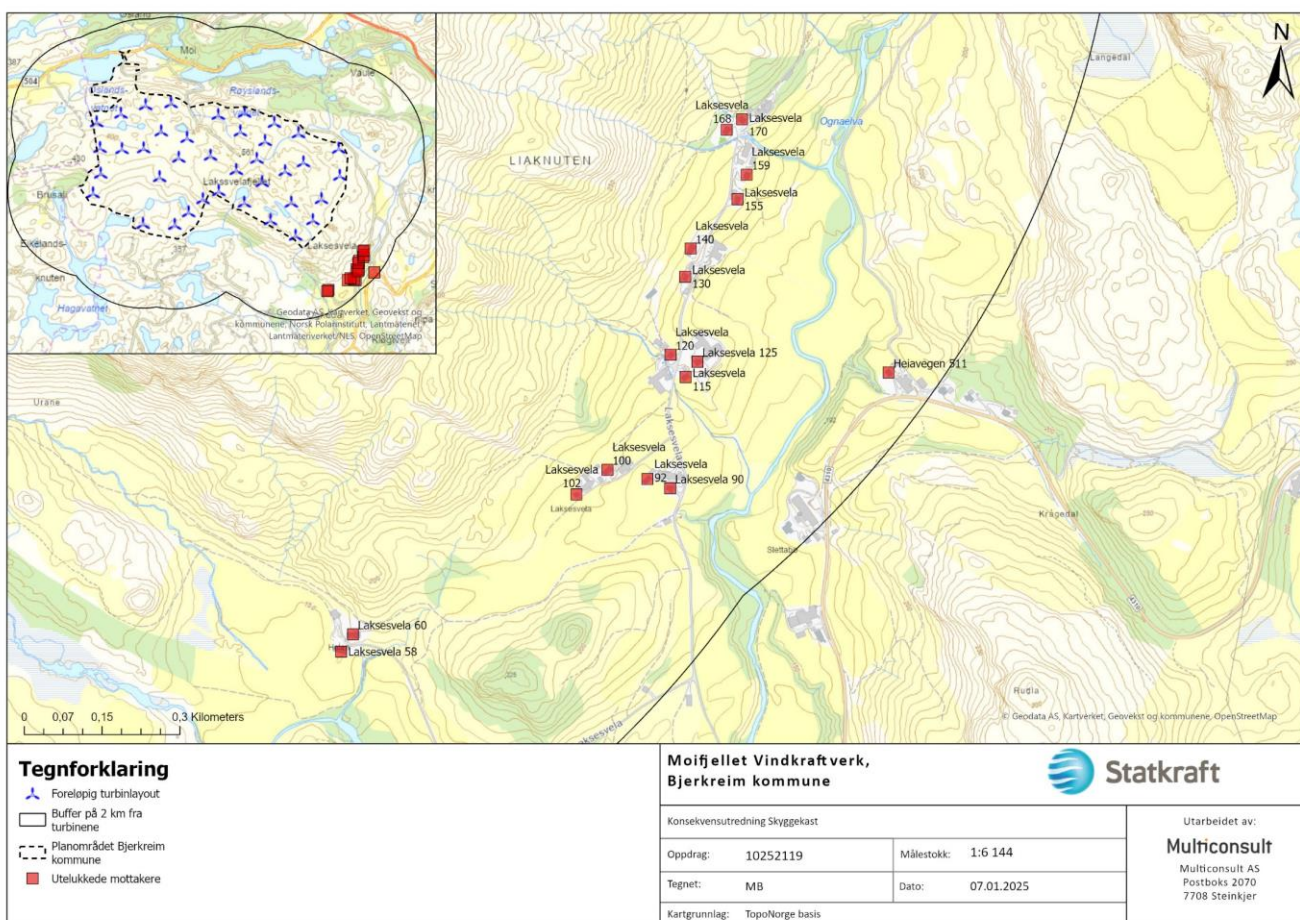
T	Fritidsbygning – Vaule 247	324 881	6 505 111	1 334
U	Fritidsbygning – Store Svela – eiendom 60/5 - Bjerkreim kommune	326 356	6 503 511	835
V	Våningshus – Osland 45	320 801	6 505 783	1 636
W	Våningshus – Osland 85	320 384	6 505 811	1 740
X	Våningshus – Osland 65	320 423	6 505 925	1 837
Y	Enebolig – Brusalivegen 215	318 829	6 501 559	1 129
Z	Enebolig – Brusalivegen 217	318 880	6 501 518	1 096
AA	Våningshus – Buevegen 1463	318 453	6 504 383	1 536
AB	Enebolig – Buevegen 1461	318 418	6 504 425	1 587
AC	Enebolig – Buevegen 1502	318 747	6 504 864	1 607
AD	Våningshus – Buevegen 1500	318 697	6 504 851	1 631
AE	Våningshus – Buevegen 1498	318 415	6 594 822	1 815
AF	Våningshus – Buevegen 1496	318 337	6 504 834	1 884
AG	Fritidsbygning (ikke ferdig bygd) – Bjerkreim kommune – eiendom 57/3	324 676	6 504 359	553
AH	Våningshus – Brusalivegen 201	319 326	6 501 193	961
AI	Fritidsbygning - Vaule 218	325 098	6 505 291	1 560
AJ	Enebolig – Heiavegen 543	326 420	6 500 403	1 959
AK	Våningshus – Heiavegen 541	326 443	6 500 501	1 905
AL	Gatekjøkken, kioskbygning – Buevegen 2100	324 241	6 505 947	1 956

AM	Fritidsbygning – eiendom 121/8, Hå kommune	318 902	6 501 969	969
AN	Fritidsbygning – Brusalivegen 219	318 928	6 501 743	974

3.2 Skyggekastmottakere som ble utelukket

Etter flere simuleringer, både verst tenkelig og realistisk simulering, ble flere boliger ekskludert fra vurderingene til tross for at de ligger innenfor en radius på 2 km fra turbinene. Alle simuleringene viste at disse boligene ikke ville oppleve belastning fra skyggekast, og de ble derfor utelatt fra resultatene for å forenkle fremstillingen og utregningene.

Bygningene som ble utelukket fra vurderingen ligger sørøst for planområdet ved Laksesvela. De innledende simuleringene indikerte at disse boligene sannsynligvis ikke vil bli påvirket av skyggekast fra vindkraftverkene. Dette skyldes flere faktorer, inkludert bygningenes plassering i forhold til turbinene og solens bane. I tillegg spiller topografien en viktig rolle, da boligene ligger relativt tett oppunder østsida av dalen, som betyr at dersom skyggekast skulle nådd disse mottakerne, så måtte solen ha stått høyt i nordvest. Selv ikke midt på sommeren kommer solen i en slik posisjon, og dermed treffes ikke disse ekskluderte mottakerne av skyggekast. Figur 3-3 viser de utelukkede mottakerne.



Figur 3-3: Utelukkede mottakere.

4 Modellering

Modellen tar inn de planlagte turbinplasseringene, høyde på turbinene og rotordiameter.

4.1 Hvordan beregningene utføres

Beregningen av skyggekast i programvaren skjer ved en kombinasjon av:

- Kjent geografisk posisjon, for å finne solbanen gjennom året.
- Definert terreng, så man kan bestemme når solens bane er under horisonten sett fra ethvert relevant punkt i simuleringen.
- Turbinenes posisjon og størrelse.

For å sikre en grundig analyse av området rundt Moifjellet, er det lagt til grunn et influensområde som dekker en avstand på omtrent 12 x 12 km. Dette gir tilstrekkelig rom for å inkludere de omkringliggende omgivelsene som kan ha innvirkning på resultatene. Influensområdet deles inn i et rutenett med 10 x 10 meter oppløsning. Dette rutenettet utgjør en stor samling individuelle punkt (altså små «lapper» á 10 x 10 m), og modellen stiller seg i hvert slikt punkt, og ser mot solen. Dersom en av turbinene står mellom observasjonspunktet og solskiven uten at det er skyggende terreng i veien, tikkles det opp en teller som holder styr på hvor mange minutter skyggekast dette ene punktet mottar per år. Solbanen representeres ved at man hopper tre dager av gangen (dette håndterer årstider), og vurderer hvert døgn oppstykket i 2-minuttersbolker. Etter at alle punkt i rutenettet har gått gjennom en slik solbaneberegning blir det satt sammen kart som beskriver forskjellige karakteristikker ved skyggekastbelastningen.

I tillegg til kartene brukes de spesifikke skyggekastmottakerne, omtalt i avsnitt 3.1, for mer avanserte beregninger.

5 Resultater for Moifjellet Vindkraftverk

I dette kapitlet presenteres skyggekastberegningene for Moifjellet vindkraftverk. Det er ikke tatt hensyn til sumvirkninger i dette kapitlet, de vises i kapittel 6. Resultatene, og diskusjonen rundt disse, som presenteres i dette kapitlet starter med kart over maksimal teoretisk skyggekastbelastning på en flate 1.5 meter over bakkenivå. Dette vil representere den typen skyggekast en person ute på en plen vil kunne motta. Deretter vises skyggekastmottak for de definerte mottakerne i avsnitt 3.1.

Etter dette presenteres et kart der sannsynligheten for solskinn er satt til 50% og driftstiden til turbinen satt til 7000 timer i tråd med NVEs retningslinjer for beregninger av vindturbiner. For å oppnå en mer realistisk orientering av turbinene, er vindrosen for Moifjellet benyttet i fordelingen av driftstid per sektor/vindretning. Deretter presenteres beregnet realistisk skyggekast for de definerte mottakerne.

Noter at sammenligningen av kartene med de individuelt definerte mottakerne er ikke rett frem; geometrien for modellen er annerledes. Kartene viser skyggekast ned på en tenkt horisontal flate, hvor oppgitt belastning er et gjennomsnitt for en rute på 10 x 10 meter, mens de individuelle beregningene ser på et vertikalt vindu med 2 x 2 meter med senter 2 meter over bakken. Kartene vil gi en kvalitativ indikasjon på hvilke deler av et område som er tungt belastet, men ikke nødvendigvis et nøyaktig tall på hvor mange timer skyggekast et kjøkkenvindu utsettes for per år. Generelt viser kartene et lavere antall timer med skyggekastbelastning enn det man finner ved den detaljerte beregningen for mottakere representert med vinduer.

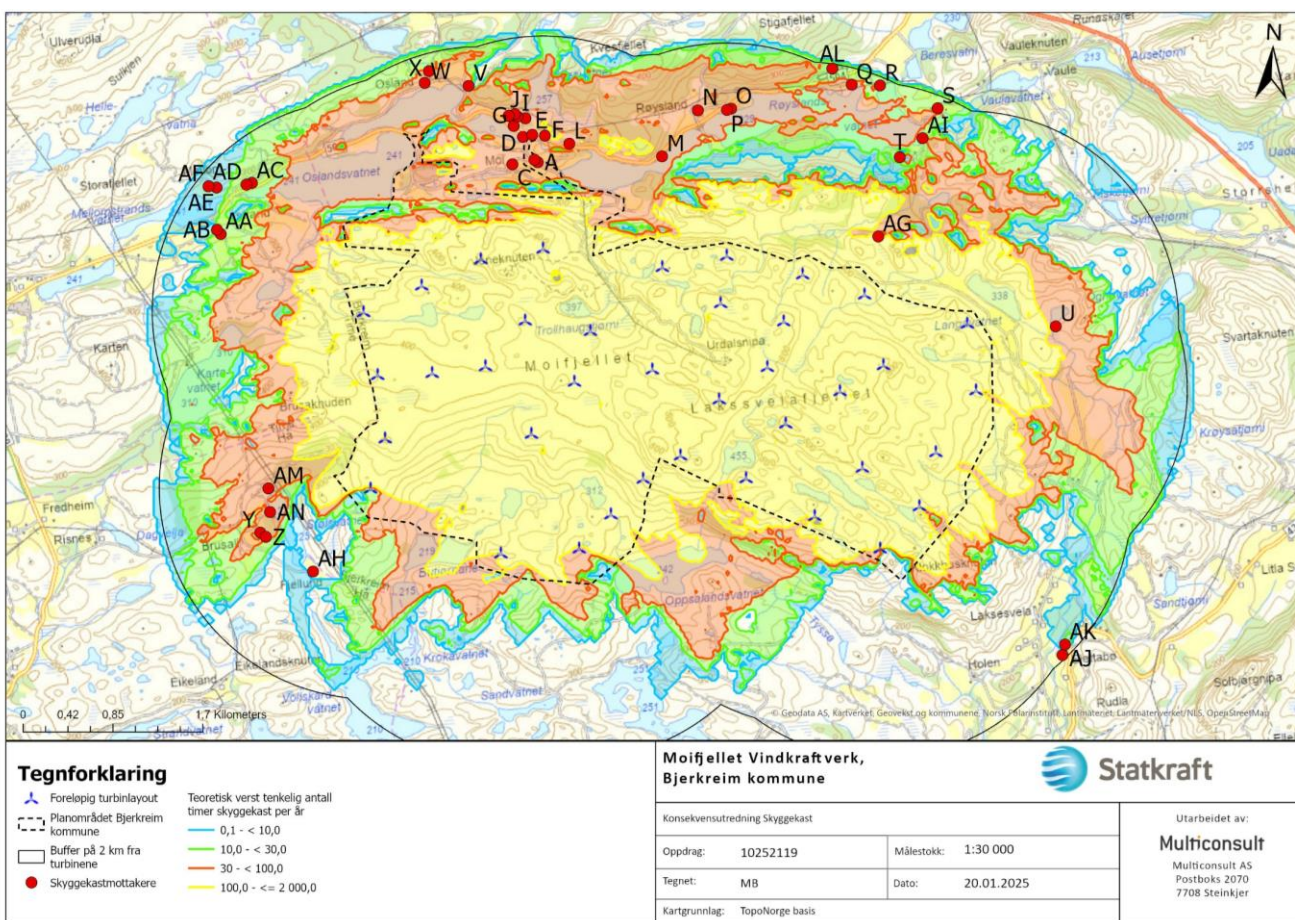
5.1 Kart – Verst tenkelig scenario

Figur 5-1 viser kartet over teoretisk verst tenkelig skyggekast, målt i antall timer per år. For denne beregningen antas at solen skinner alle timer i løpet av en dag og at turbinen alltid står vinkelrett på mottakerpunktet, og man ender da opp med en beskrivelse av den maksimale skyggekastbelastningen man forventer fra vindkraftverket.

De tykke linjene i kartet representerer koter eller konturlinjer, tilsvarende de som brukes på et terrengekart, men i denne sammenhengen viser de mengden skyggekast i løpet av et år. Innenfor hver konturlinje er skyggekastvarigheten høyere enn verdien angitt i tegnforklaringen. Dette betyr at områdene som befinner seg innenfor en bestemt kontur vil oppleve lengre perioder med skyggekast sammenlignet med områdene utenfor.

Fargene grønn og blå indikerer akseptable nivåer av skyggekast, som ligger under de anbefalte grenseverdiene for maksimalt teoretisk skyggekast. Fargene rød og gul indikerer områder som er over akseptable nivåer for skyggekast, der gul er områder som er mest utsatt. Kartet gir en klar visualisering av hvor man kan forvente mest skyggekast fra vindkraftverket, som forventet er størst skyggekastbelastning innenfor vindkraftverkets planområde.

Figuren gir en god indikasjon på hvilke områder og mottakere som vil bli meget utsatt for skyggekast. Nord til nordvest for vindkraftverket er det en konsentrasjon av røde områder, med noen gule flekker, som indikerer høy skyggekastpåvirkning. Boliger i disse områdene kan derfor bli betydelig utsatt for skyggekast.



Figur 5-1: Teoretisk verst tenkelig scenario, målt i antall timer per år.

Individuelle mottakere – Verst tenkelig scenario

Tabell 5-1 viser resultatet av beregningene av maksimalt teoretisk skyggekast for alle de definerte mottakerne i avsnitt 3.1. Det kommer tre delresultater fra beregningen. Det første er vist i kolonnen «Timer/år». Dette er antall timer med skyggekast på mottakeren (på format *timer: minutter*). Det andre delresultatet, vist i kolonnen «Dager/år», gir hvor mange dager i løpet av året det inntreffer skyggekast på mottakeren. Det sier ikke i seg selv noe om intensiteten per dag. Demonstrert med for eksempel, Moi 32 (mottaker A), der det kommer omtrent 97 timer skyggekast fordelt over 117 dager. Dette betyr i snitt, ca. 49 minutter skyggekast per dag med skyggekast. Men, som man ser i kolonnen «Timer/dag (verste dag)» (på format *timer: minutter*), som gir belastningen på den verste dagen, ser vi at maksimalt mottak på én dag er 1 time og 43 minutter. Altså er det mange dager med kortere skyggekastmottak enn 49 minutter, og andre dager med mottak opp mot maksimal teoretisk verdi.

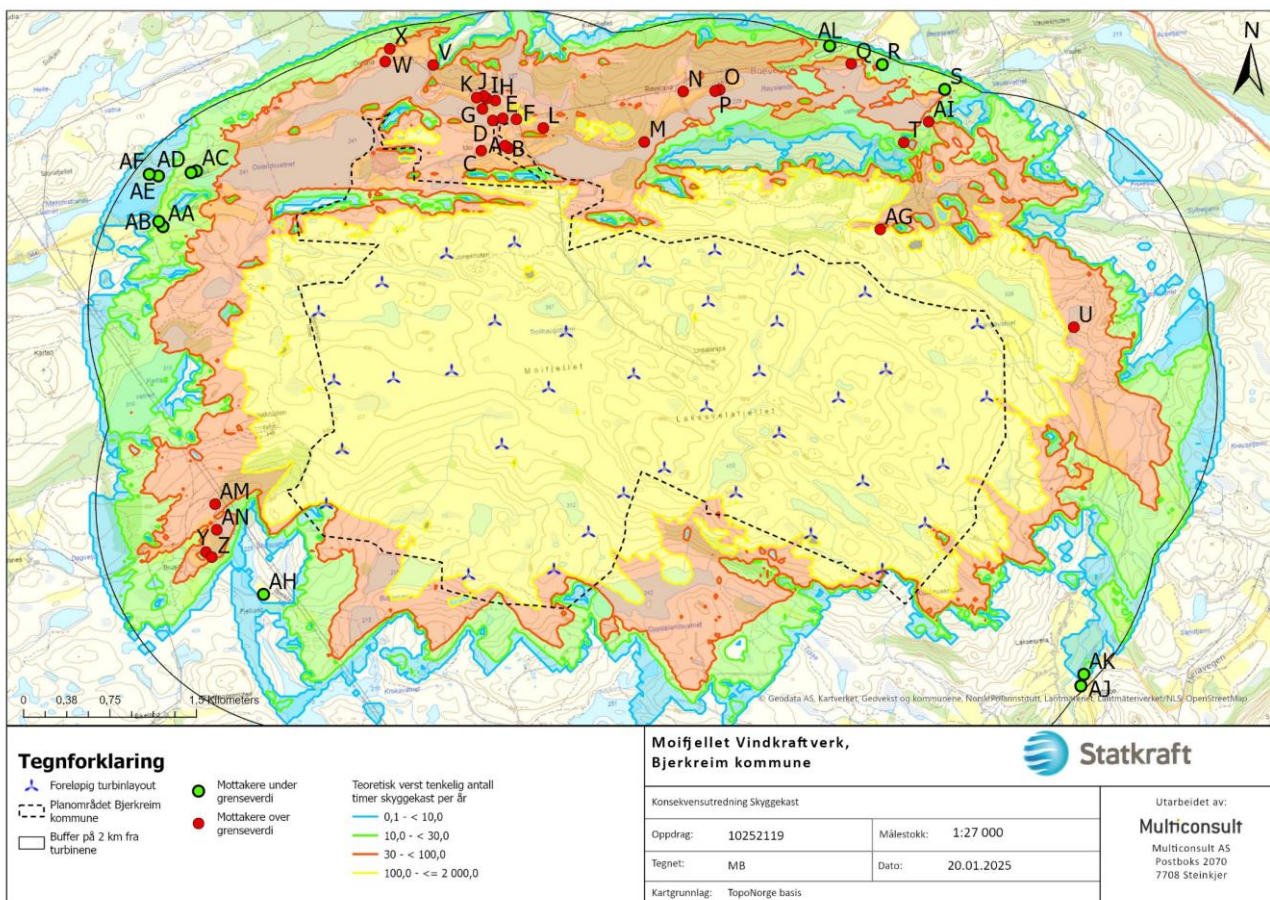
Tabell 5-1: Maksimalt teoretisk skyggekast for skyggekastmottakerne for Moifjellet vindkraftverk. Kolonnen «Timer/år» gir totalt antall timer skyggekast på mottakeren per år. Kolonnen «Dager/år» gir antallet dager per år det inntreffer skyggekast i det hele tatt. Kolonnen «Timer/dag (verste dag)» gir antallet timer skyggekast på den dagen med aller størst belastning.

	Mottaker	Timer/år	Dager/år	Timer/dag (verste dag)
A	Våningshus– Moi 32	97:05	117	1:43
B	Enebolig – Moi 26	93:36	103	1:42
C	Våningshus – Moi 21	86:09	91	1:52
D	Fritidsbygning – Buevegen 1805	86:54	112	1:30
E	Fritidsbygning – Buevegen 1816	89:51	118	1:28
F	Fritidsbygning – Buevegen 1818	94:18	136	1:27
G	Fritidsbygning – Buevegen 1786	75:03	111	1:29
H	Fritidsbygning – Buevegen 1784	84:52	122	1:28
I	Fritidsbygning – Buevegen 1782	83:18	123	1:29
J	Fritidsbygning – Buevegen 1780	82:37	122	1:28
K	Fritidsbygning – Buevegen 1778	70:44	89	1:28
L	Fritidsbygning – Buevegen 1850	93:11	157	1:30
M	Fritidsbygning – Buevegen 1941	59:03	78	1:34
N	Bygning for overnatting – Buevegen 1988	52:09	72	1:06
O	Fritidsbygning – Buevegen 2023	43:17	58	1:14
P	Fritidsbygning – Buevegen 2021	41:32	56	1:15
Q	Fritidsbygning – Buevegen 2141	38:42	104	0:36
R	Fritidsbygning – Buevegen 2165	27:58	84	0:27
S	Enebolig – Vaule 176	22:43	87	0:22
T	Fritidsbygning – Vaule 247	35:34	100	0:46

U	Fritidsbygning – Store Sveta – eiendom 60/5 - Bjerkreim kommune	88:43	177	1:04
V	Våningshus – Osland 45	39:44	74	0:43
W	Våningshus – Osland 85	38:18	102	0:32
X	Våningshus – Osland 65	37:42	92	0:32
Y	Enebolig – Brusalivegen 215	31:42	76	0:34
Z	Enebolig – Brusalivegen 217	37:54	72	0:37
AA	Våningshus – Buevegen 1463	22:51	83	0:25
AB	Enebolig – Buevegen 1461	15:19	54	0:24
AC	Enebolig – Buevegen 1502	18:26	62	0:24
AD	Våningshus – Buevegen 1500	17:27	61	0:24
AE	Våningshus – Buevegen 1498	8:09	30	0:21
AF	Våningshus – Buevegen 1496	7:31	28	0:21
AG	Fritidsbygning (ikke ferdig bygd) – Bjerkreim kommune – eiendom 57/3	239:41	207	1:56
AH	Våningshus – Brusalivegen 201	0:00	0	0:00
AI	Fritidsbygning- Vaule 218	29:38	80	0:45
AJ	Enebolig – Heiavegen 543	0:55	23	0:04
AK	Våningshus – Heiavegen 541	10:49	46	0:19
AL	Gatekjøkken, kioskbygning – Buevegen 2100	18:07	66	0:20
AM	Fritidsbygning – eiendom 121/8, Hå kommune	51:08	110	0:39

AN	Fritidsbygning – Brusalivegen 219	49:02	102	0:40
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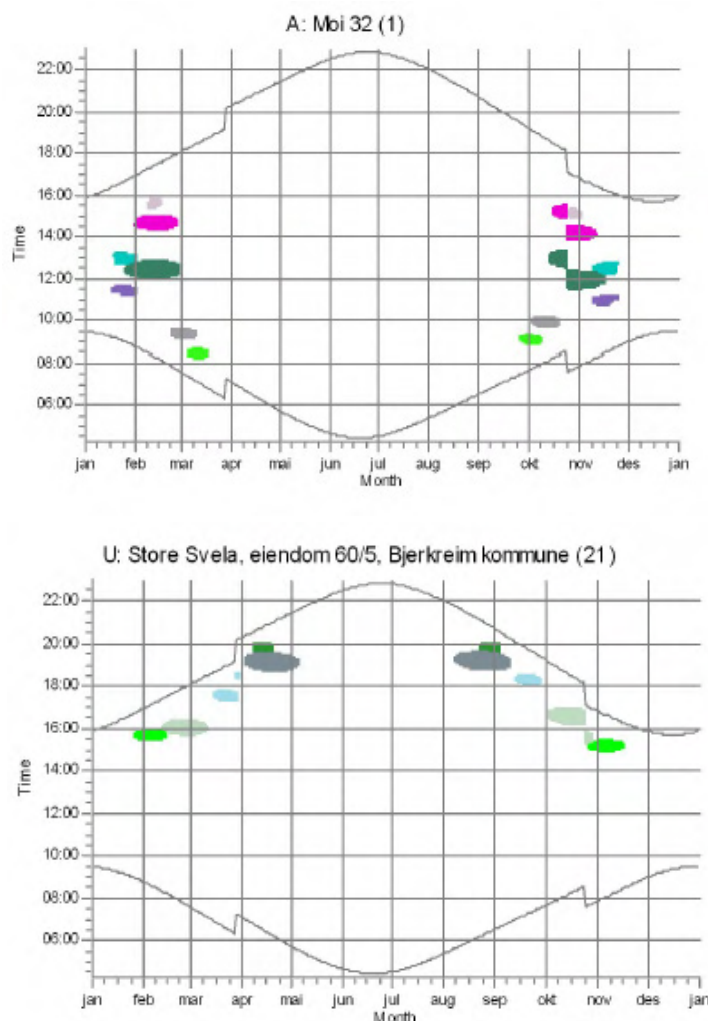
Det er anslått at 12 av 40 mottakere ligger under NVEs anbefalte grenseverdi for teoretisk maksimalt skyggekast, se Figur 5-2 der disse 12 mottakerne er vist med grønne prikker. Tre av disse mottakerne er lokalisert nordøst for planområdet nært Beresvatni (mottakere R, S og AL i tabell), seks mottakere er lokalisert nordvest for planområdet ved Mellomstrand (mottakere AA – AF i tabell), en er lokalisert sørvest for planområdet ved Fjellund (mottaker AH i tabell) og to er lokalisert sørøst for planområdet ved Slettabø (mottakere AJ og AK i tabell). Den mottakeren som blir mest utsatt for skyggekast er den som ligger nært en turbin, mottakeren er lokalisert nord for planområdet, det er en hytte som er under bygging og er omtrent 553 meter unna en turbin (mottaker AG i tabell).



Figur 5-2: Verst tenkelig skyggekast med mottakere. Mottakere vist i grønt ligger under anbefalt grenseverdi mens mottakere vist i rødt ligger over anbefalt grenseverdi.

Mange av de mest utsatte boligene og fritidsbygningene er lokalisert rett nord for vindkraftverket, noe som gjør det sannsynlig at de vil oppleve skyggekast på samme tid i løpet av dagen. Grunnet boligenes posisjon i forhold til vindkraftverket og solens bane vil de fleste av mottakerne mest sannsynlig oppleve mest skyggekast på dagtid, mellom 9 - 16. Mottakernes lokalisering kombinert med solens bevegelsesmønster gjør at belastningen av skyggekast på mottakerne er høyest når solen står høyest på himmelen i løpet av vinterhalvåret. Da strekker skyggen fra vindturbinene seg lenger og mottakerne i nord opplever skyggekast. De fleste av mottakerne vil kun oppleve skyggekast om vinteren, mens noen få vil kunne merke det også i sen høst og tidlig vår. Seks av mottakerne kan imidlertid oppleve skyggekast om sommeren, men da enten tidlig om morgenen eller sent på kvelden.

Figur 5-3 illustrerer når to mottakere forventes å oppleve skyggekast gjennom året (x-aksen), samt på hvilke tidspunkter av døgnet dette skjer (y-aksen). De ulike fargene representerer de ulike vindturbinene som vil bidra til skyggekast. Tynn grå linje representerer solbanen og viser når det er teoretisk mulig å oppleve skyggekast. Mottakerne A og U er valgt for å illustrere den forventede skyggekastbelastningen for de områdene som ligger nord og øst for planområdet. Disse mottakerne er valgt spesielt fordi det antas at de vil oppleve ulike resultater, basert på deres beliggenhet i forhold til vindkraftverket og solens bane. En fullstendig oversikt over når hver mottaker kan forvente skyggekast for alle fire scenarioene legges ved rapporten som vedlegg.



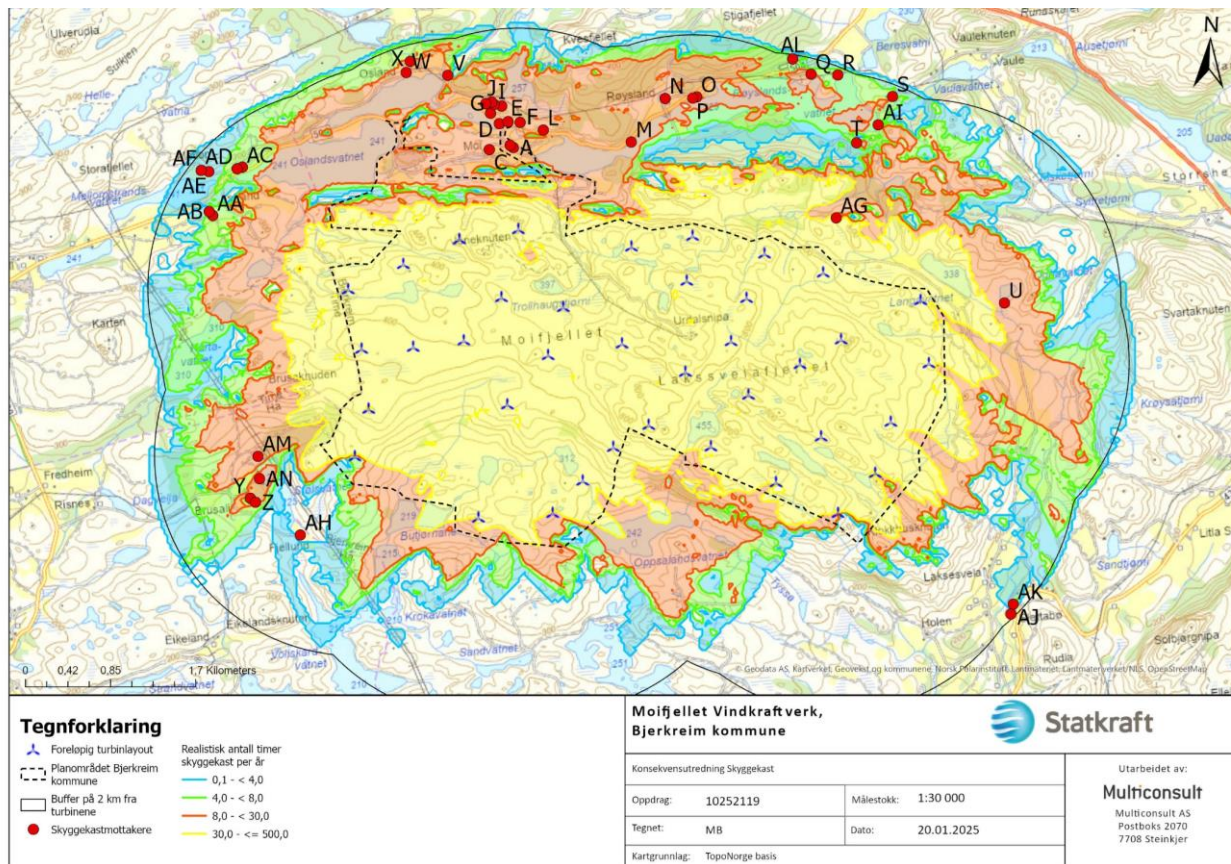
Figur 5-3: Forventet tidspunkt for skyggekast for mottaker A og U. Mottaker A er lokalisert nord for planområdet, mens mottaker U ligger nært planområdet på østsiden.

5.2 Kart – Realistisk scenario

Figur 5-4 viser et tilsvarende kart som Figur 5-1, men nå er en solskinnssannsynlighet på 50% og driftstid basert på vindrosen tatt med. Forskjellen i resultatet er at simuleringen først beregner teoretisk maksimum som om sola skinner hele tiden (nøyaktig på samme vis som vist i Figur 5-1), og deretter reduseres denne teoretiske maksimumsbelastningen med 50%, basert på antakelsen om at faktisk solskinn bare inntreffer halvparten av tiden. I tillegg justeres belastningen med en driftstid på totalt 7000 timer, basert på vindrosen og driftstid per sektor/vindretning.

Sammenlignet med maksimalt teoretisk skyggekast reduseres utstrekningen av skyggekast noe, og områdene som viser verdier over anbefalt nivå krymper. Denne reduksjonen er imidlertid ikke betydelig nok til å være

visuelt fremtredende. Kartet indikerer at arealene med høy belastning forblir omfattende, noe som indikerer at de fleste mottakerne fremdeles vil bli eksponert for skyggekast i mengder som overskrider anbefalte verdier.



Figur 5-4: Realistisk scenario med antall timer per år.

5.3 Individuelle mottakere – Realistisk scenario

Den realistiske skyggekastbelastningen skiller seg fra den verst tenkelige på to viktige områder. For det første anvendes en solskinnssannsynlighet på 50% for det realistiske scenarioet. For det andre tar man høyde for en årlig driftstid på 7000 timer for vindkraftverket, som er basert på vindrosen og driftstid per sektor/vindretning.

Reduksjonen i solskinnssannsynlighet håndteres i praksis ved at tallene i tabellen for verst tenkelig skyggekastbelastning (se

Tabell 5-1) reduseres med solskinnssannsynligheten (i dette tilfellet ekvivalent med å dele på 2). Driftstiden håndteres med å gi analyseprogrammet en gitt driftstid per vindretningssektor, som er basert på vindrosen for området, som til sammen utgjør 7000 timer. For analyser av vindparker regner man at skyggen som skyldes en stasjonær vindturbin ikke bidrar til skyggekastbelastning da den ikke beveger seg i det hele tatt.

Tabell 5-2 oppsummerer resultatet av denne beregningen. Sammenlignet med tallene for teoretisk maksimum (se

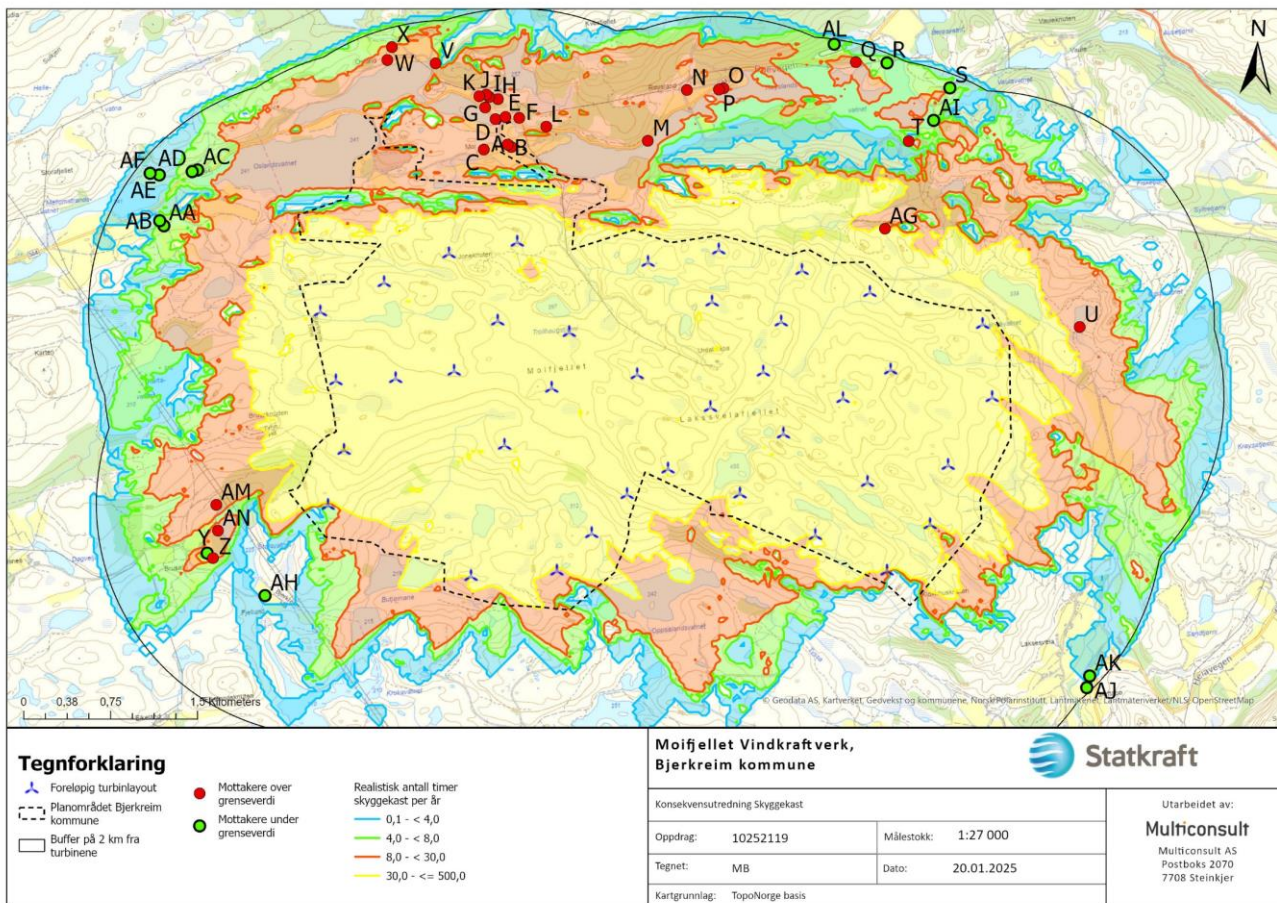
Tabell 5-1) er disse tallene redusert både på grunn av 50% solskinnssannsynlighet og driftstiden til turbinene.

Tabell 5-2: Realistisk skyggekastberegning for skyggekastmottakerne for Moifjellet Vindkraftverk definert i avsnitt 3.1. Tredje kolonne «Timer/dag (verste dag)» er hentet fra tabell 5-1 for sammenligningsgrunnlag.

	Mottaker	Timer/år	Timer/år (verst tenkelig)
A	Våningshus– Moi 32	24:26	97:05
B	Enebolig – Moi 26	23:24	93:36

C	Våningshus – Moi 21	21:53	86:09
D	Fritidsbygning – Buevegen 1805	21:42	86:54
E	Fritidsbygning – Buevegen 1816	22:25	89:51
F	Fritidsbygning – Buevegen 1818	23:27	94:18
G	Fritidsbygning – Buevegen 1786	18:47	75:03
H	Fritidsbygning – Buevegen 1784	20:53	84:52
I	Fritidsbygning – Buevegen 1782	20:40	83:18
J	Fritidsbygning – Buevegen 1780	20:34	82:37
K	Fritidsbygning – Buevegen 1778	17:29	70:44
L	Fritidsbygning – Buevegen 1850	22:55	93:11
M	Fritidsbygning – Buevegen 1941	14:25	58:55
N	Bygning for overnatting – Buevegen 1988	12:51	51:15
O	Fritidsbygning – Buevegen 2023	10:45	40:55
P	Fritidsbygning – Buevegen 2021	10:18	39:31
Q	Fritidsbygning – Buevegen 2141	9:14	33:39
R	Fritidsbygning – Buevegen 2165	6:36	24:05
S	Enebolig – Vaule 176	4:58	20:07
T	Fritidsbygning – Vaule 247	8:48	34:15
U	Fritidsbygning – Store Svela – eiendom 60/5 - Bjerkreim kommune	21:51	89:46
V	Våningshus – Osland 45	9:46	39:44
W	Våningshus – Osland 85	10:16	38:18
X	Våningshus – Osland 65	10:08	37:42
Y	Enebolig – Brusalivegen 215	7:23	31:42
Z	Enebolig – Brusalivegen 217	8:44	37:54
AA	Våningshus – Buevegen 1463	6:34	22:51
AB	Enebolig – Buevegen 1461	4:22	15:19
AC	Enebolig – Buevegen 1502	5:20	18:26
AD	Våningshus – Buevegen 1500	5:04	17:27
AE	Våningshus – Buevegen 1498	2:23	8:09
AF	Våningshus – Buevegen 1496	2:12	7:31
AG	Fritidsbygning (ikke ferdig bygd) – Bjerkreim kommune – eiendom 57/3	55:38	239:41
AH	Våningshus – Brusalivegen 201	0:00	0:00
AI	Fritidsbygning – Vaule 218	6:43	29:38
AJ	Enebolig – Heiavegen 543	0:16	0:55
AK	Våningshus – Heiavegen 541	3:10	10:49
AL	Gatekjøkken, kioskbygning – Buevegen 2100	4:22	18:07
AM	Fritidsbygning – eiendom121/8, Hå kommune	12:35	51:08
AN	Fritidsbygning – Brusalivegen 219	11:37	49:02

I det realistiske scenarioriet observeres samme hovedtrender som i det maksimale teoretiske scenarioriet, noe som indikerer en konsistent fordeling av skyggekastbelastningen. Det er estimert at 14 mottakere befinner seg under NVEs anbefalte grenseverdi på 8 timer årlig skyggekast (mottakere R, S, Y, AA – AF og AH - AL), se Figur 5-5. Av disse 14 er 12 de samme som også lå under grenseverdien i det maksimale teoretiske scenarioriet. De to mottakerne, Y og AI, som kun ligger under grenseverdien i det realistiske scenarioriet, er lokalisert sørvest og nordøst for planområdet.



Figur 5-5: Realistisk skyggekast med mottakere. Mottakere vist i grønt ligger under anbefalt grenseverdi mens mottakere vist i rødt ligger over anbefalt grenseverdi

For begge scenariene er det de samme tre turbinene som genererer mest skyggekast, noe som understreker at plasseringen og designet av disse turbinene er avgjørende faktorer for skyggekastpåvirkningen. Den mottakeren som befinner seg nærmest turbinene, er den som er mest utsatt for skyggekast. Dette antyder at både fysisk avstand fra turbinene og den lokale topografien spiller en sentral rolle i hvor mye skyggekast en mottaker vil oppleve.

For mottakerne som opplever skyggekast rundt midt på dagen, reduseres varigheten av skyggekast primært på grunn av lavere sannsynlighet for solskinn. Dette betyr at selv om skyggekast teoretisk sett kan vare lenger, vil faktiske værforhold, som perioder med overskyet vær, bidra til å korte ned skyggekastets varighet. Dermed oppstår en reduksjon i skyggekastets påvirkning, selv i de mest utsatte periodene, noe som fører til en lavere faktisk eksponering enn beregningene for teoretisk maksimalt skyggekast skulle tilsi. For eksempel Buevegen 2023 (mottaker O) har gått fra 43:17 til 10:45 og Brusalivegen 215 (mottaker Y) har gått fra 31:42 til 7:23. Det er viktig å nevne at Buevegen 2023 fortsatt ikke er under grenseverdiene, mens Brusalivegen 215 er akkurat under anbefalt grenseverdi.

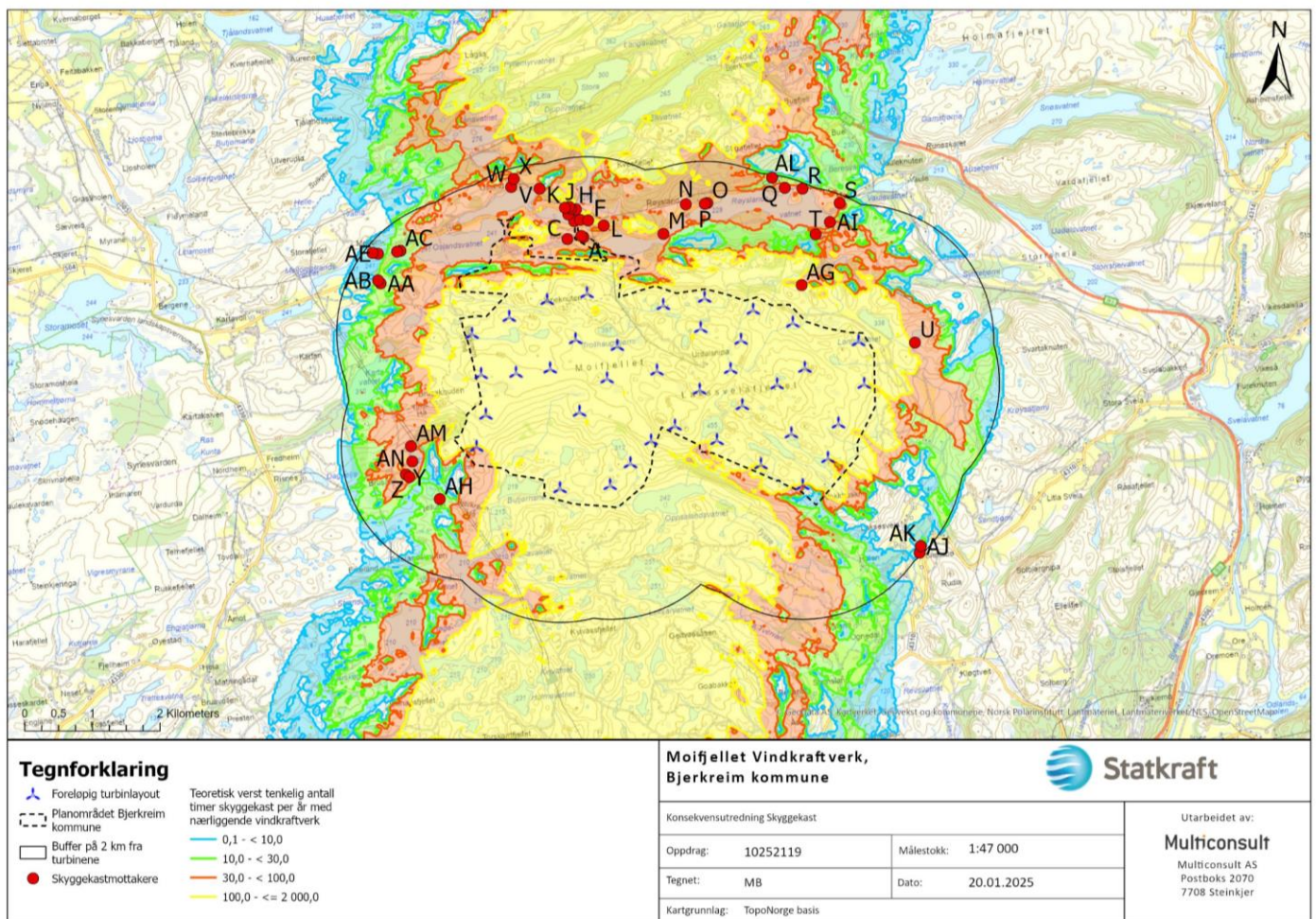
6 Resultater for sumvirkninger fra nærliggende vindkraftverk

I dette kapittelet presenteres skyggekastberegningene for Moifjellet Vindkraftverk med hensyn til nærliggende vindkraftverk. Resultatene og diskusjonen rundt disse vil ha samme oppsett som i forrige kapittel for å gi et godt sammenligningsgrunnlag, og tydelig vise hvilke skyggekastmottakere som får ekstra belastning på grunn av sumvirkningen av flere vindkraftverk.

Noter at for realistisk skyggekastberegning er vindrosen for Moifjellet benyttet. Dette kan medføre en viss usikkerhet når den anvendes på de andre vindkraftverkene, da vindrosen spesifikt representerer vindforholdene ved Moifjellet og ikke nødvendigvis de eksakte forholdene ved de andre lokasjonene.

6.1 Kart – Verst tenkelig scenario

Figur 6-1 viser kartet over teoretisk verst tenkelig skyggekast, målt i antall timer per år. For denne beregningen antas at solen skinner alle timer i løpet av en dag og at turbinen alltid står vinkelrett på mottakerpunktet, og man ender da opp med en beskrivelse av den maksimale skyggekastbelastningen man forventer som følge av alle de tre vindkraftverkene rundt Moifjellet Vindkraftverk sitt influensområde.



Figur 6-1: Teoretisk verst tenkelig skyggekast med hensyn til nærliggende vindkraftverk med definerte skyggekastmottakere.

Når man tar hensyn til nærliggende vindkraftverk ser man en større utstrekning nord og sør for Moifjellet av arealer som ligger over anbefalt grenseverdi, spesielt røde arealer har blitt større. Dette er naturlig siden disse vindkraftverkene hver for seg vil lage skyggekast som nå legges sammen for en større total belastning. Figuren viser at det vil bli mer skyggekast sør for Moifjellet Vindkraftverk, men der er det ikke registret noen mottakere. Områdene nord for planområdet er i hovedsak fremdeles rød og det forventes av den grunn ikke særlig endring for mottakerne som er lokalisert der.

6.2 Individuelle mottakere – Verst tenkelig scenario

Tabell 6-1 viser resultatet av beregningene av maksimalt teoretisk skyggekast for alle de definerte mottakerne i Figur 3-2 og tar hensyn til sumvirkninger fra alle vindkraftverkene. Resultatene er vist med de samme oppsettet som delresultatene i avsnitt 0, der første er vist i kolonnene «Timer/år». Dette er antall timer med skyggekast på mottakeren (på format *timer:minutter*). Det andre delresultatet, vist i kolonne «Dager/år», gir hvor mange dager i løpet av året det inntreffer skyggekast på mottakeren. Den tredje kolonnen «Timer/dag (verste dag)» (på format *timer:minutter*), gir belastningen på den verste dagen.

Tabell 6-1: Teoretisk skyggekast for skyggekastmottakerne for Moifjellet vindkraftverk med hensyn til nærliggende vindkraftverk. Kolonne 6, 7 og 8 (i grått) er hentet fra tabell 5-1 for skyggekast for Moifjellet uten nærliggende vindkraftverk for sammenligningsgrunnlag.

	Mottaker	Timer/år	Dager/år	Timer/dag (verste dag)	Timer/år	Dager/år	Timer/dag (verste dag)
A	Våningshus– Moi 32	97:05	117	1:43	97:05	117	1:43
B	Enebolig – Moi 26	93:36	103	1:42	93:36	103	1:42
C	Våningshus – Moi 21	86:09	91	1:52	86:09	91	1:52
D	Fritidsbygning – Buevegen 1805	86:54	112	1:30	86:54	112	1:30
E	Fritidsbygning – Buevegen 1816	89:51	118	1:28	89:51	118	1:28
F	Fritidsbygning – Buevegen 1818	94:18	136	1:27	94:18	136	1:27
G	Fritidsbygning – Buevegen 1786	76:55	129	1:29	75:03	111	1:29
H	Fritidsbygning – Buevegen 1784	85:59	137	1:28	84:52	122	1:28
I	Fritidsbygning – Buevegen 1782	90:47	162	1:29	83:18	123	1:29
J	Fritidsbygning – Buevegen 1780	93:47	169	1:28	82:37	122	1:28
K	Fritidsbygning – Buevegen 1778	84:48	141	1:28	70:44	89	1:28
L	Fritidsbygning – Buevegen 1850	93:11	157	1:30	93:11	157	1:30
M	Fritidsbygning – Buevegen 1941	59:03	78	1:34	59:03	78	1:34
N	Bygning for overnatting – Buevegen 1988	52:09	72	1:06	52:09	72	1:06
O	Fritidsbygning – Buevegen 2023	67:50	136	1:14	43:17	58	1:14
P	Fritidsbygning – Buevegen 2021	65:28	126	1:15	41:32	56	1:15
Q	Fritidsbygning – Buevegen 2141	56:00	209	0:36	38:42	104	0:36
R	Fritidsbygning – Buevegen 2165	40:17	156	0:27	27:58	84	0:27
S	Enebolig – Vaule 176	35:28	167	0:22	22:43	87	0:22

T	Fritidsbygning – Vaule 247	43:58	141	0:46	35:34	100	0:46
U	Fritidsbygning – Store Svela – eiendom 60/5 - Bjerkreim kommune	88:43	177	1:04	88:43	177	1:04
V	Våningshus – Osland 45	39:44	74	0:43	39:44	74	0:43
W	Våningshus – Osland 85	50:52	155	0:32	38:18	102	0:32
X	Våningshus – Osland 65	50:47	143	0:32	37:42	92	0:32
Y	Enebolig – Brusalivegen 215	38:48	115	0:34	31:42	76	0:34
Z	Enebolig – Brusalivegen 217	45:31	110	0:37	37:54	72	0:37
AA	Våningshus – Buevegen 1463	22:51	83	0:25	22:51	83	0:25
AB	Enebolig – Buevegen 1461	15:19	54	0:24	15:19	54	0:24
AC	Enebolig – Buevegen 1502	18:26	62	0:24	18:26	62	0:24
AD	Våningshus – Buevegen 1500	17:27	61	0:24	17:27	61	0:24
AE	Våningshus – Buevegen 1498	8:09	30	0:21	8:09	30	0:21
AF	Våningshus – Buevegen 1496	7:31	28	0:21	7:31	28	0:21
AG	Fritidsbygning (ikke ferdig bygd) – Bjerkreim kommune – eiendom 57/3	239:41	207	1:56	239:41	207	1:56
AH	Våningshus – Brusalivegen 201	20:54	76	0:28	0:00	0	0:00
AI	Fritidsbygning – Vaule 218	37:28	141	0:45	29:38	80	0:45
AJ	Enebolig – Heiavegen 543	0:55	23	0:04	0:55	23	0:04
AK	Våningshus – Heiavegen 541	10:49	46	0:19	10:49	46	0:19
AL	Gatekjøkken, kioskbygning – Buevegen 2100	18:07	66	0:20	18:07	66	0:20
AM	Fritidsbygning – eiendom 121/8, Hå kommune	54:36	131	0:39	51:08	110	0:39
AN	Fritidsbygning – Brusalivegen 219	56:21	141	0:40	49:02	102	0:40

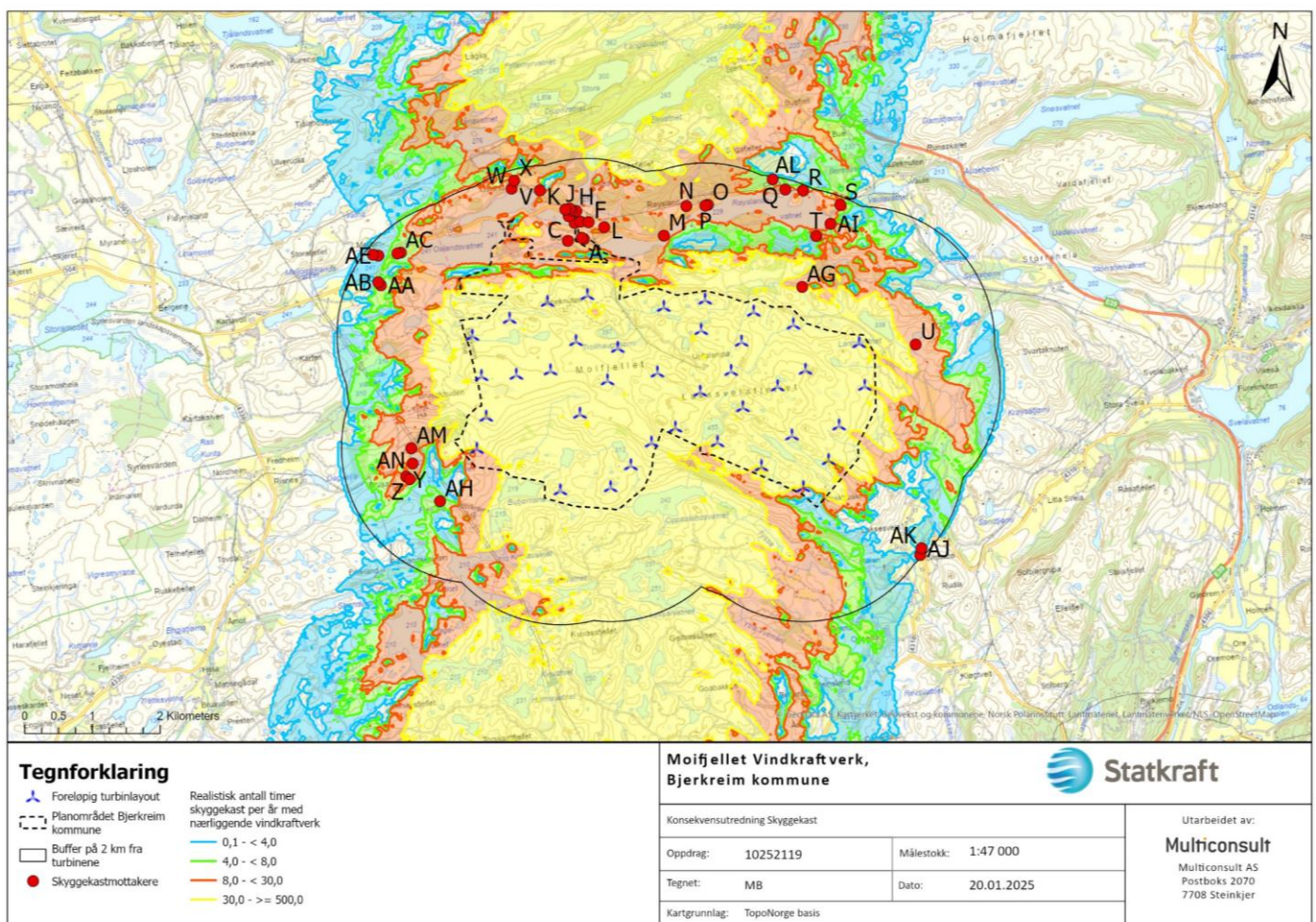
Det er noen forskjeller mellom denne tabellen og tabell 5-1 i avsnitt 5.2. For 19 mottakere er det en endring i antall timer per år og antall dager hvor det oppleves skyggekast, men det er ingen forskjell på timer per dag. Det er 2 mottakere (mottakere R og S) som overskrider grenseverdiene når man tar til betraktning nærliggende vindkraftverk. Basert på den maksimerte teoretiske analysen vil det ikke bli stor endring for mottakerne når man ser på sumeffekten av alle aktuelle nærliggende vindkraftverk. Det vil kunne bli en endring på antall timer over et helt år, men ingen endring i hva som maksimalt kan oppleves gjennom en dag. Dette betyr at når man vurderer sumvirkninger fra nærliggende vindkraftverk, kan det oppstå endringer i forholdene for mottakerne. Selv om den verste dagen fortsatt vil ha samme belastning, kan det bli flere dager med høy skyggekastbelastning, noe som kan merkes av enkelte mottakere.

6.3 Kart – Realistisk scenario

Figur 6-2 viser et tilsvarende kart som Figur 6-1, men nå er en solskinnssannsynlighet på 50% tatt med og driftstid basert på vindrosen tatt med. Forskjellen i resultatet er at simuleringen først beregner teoretisk maksimum som om sola skinner hele tiden (nøyaktig på samme vis som vist i Figur 6-1), og deretter reduseres denne teoretiske maksimumsbelastningen med 50%, basert på antakelsen om at faktisk solskinn bare inntreffer halvparten av tiden. I tillegg justeres belastningen med en driftstid på totalt 7000 timer, basert på vindrosen og driftstid per sektor/vindretning.

Sammenlignet med maksimalt teoretisk i avsnitt 6.1 kan man observere en liten endring. Selv om endringen ikke er svært merkbar, viser kartet at arealene har blitt noe redusert. Spesielt ser man at andelen av røde og gule områder har minsket, og disse strekker seg ikke like langt ut som tidligere.

Dersom man sammenligner med de tilsvarende figurene i kapittel 5 (som omtaler skyggekast fra Moifjellet Vindkraftverk alene) ser man derimot en litt større endring. De arealene som viser utsatte områder, er større og dekker mesteparten av områdene der det befinner seg mottakere. Dette antyder at sumvirkninger fra nærliggende vindkraftverk er noe mer omfattende enn den maksimale teoretiske beregningen indikerer.



Figur 6-2: Realistisk skyggekast med hensyn til nærliggende vindkraftverk med definerte skyggekastmottakere.

6.4 Individuelle mottakere – Realistisk scenario

Tabell 6-2 oppsummerer resultatet av det realistiske scenarioet. Det er benyttet samme metodikk som i avsnitt 5.3. Sammenlignet med tallene for teoretisk maksimum (se Tabell 6-1) er disse tallene redusert både på grunn av 50% solskinnssannsynlighet og driftstiden til turbinene. Mottakeren som anses å være mest utsatt for skyggekast opplever nesten 56 timer per år (mottaker AG). Denne fritidsboligen er

under bygging og ligger i nærhet av planområdet, omtrent 550 meter unna nærmeste turbin og det er derfor forventet at vil ha en stor belastning. Tabellen viser i tillegg økningen av forventet skyggekasttimer per år når man tar med sumvirkninger.

Tabell 6-2: Realistisk skyggekastberegning for skyggekastmottakerne for Moifjellet vindkraftverk med hensyn til nærliggende vindkraftverk. Tabellen viser økning i antatt skyggekast når det tas hensyn til sumvirkninger.

	Mottaker	Timer/år	Økning
A	Våningshus- Moi 32	24:26	-
B	Enebolig - Moi 26	23:24	-
C	Våningshus - Moi 21	21:53	-
D	Fritidsbygning - Buevegen 1805	21:42	-
E	Fritidsbygning - Buevegen 1816	22:25	-
F	Fritidsbygning - Buevegen 1818	23:27	-
G	Fritidsbygning - Buevegen 1786	19:12	0:25
H	Fritidsbygning - Buevegen 1784	21:08	0:15
I	Fritidsbygning - Buevegen 1782	22:23	1:43
J	Fritidsbygning - Buevegen 1780	23:08	2:42
K	Fritidsbygning - Buevegen 1778	20:43	3:14
L	Fritidsbygning - Buevegen 1850	22:25	-
M	Fritidsbygning - Buevegen 1941	14:25	-
N	Bygning for overnatting - Buevegen 1988	12:51	-
O	Fritidsbygning - Buevegen 2023	17:42	6:57
P	Fritidsbygning - Buevegen 2021	17:08	6:50
Q	Fritidsbygning - Buevegen 2141	14:08	4:54
R	Fritidsbygning - Buevegen 2165	10:04	3:28
S	Enebolig - Vaule 176	8:41	3:43
T	Fritidsbygning - Vaule 247	11:16	2:28
U	Fritidsbygning - Store Svela - eiendom 60/5 - Bjerkreim kommune	21:51	-
V	Våningshus - Osland 45	9:46	-
W	Våningshus - Osland 85	13:17	3:01
X	Våningshus - Osland 65	13:21	3:13
Y	Enebolig - Brusalivegen 215	9:25	2:02
Z	Enebolig - Brusalivegen 217	10:54	2:10
AA	Våningshus - Buevegen 1463	6:34	-
AB	Enebolig - Buevegen 1461	4:22	-
AC	Enebolig - Buevegen 1502	5:20	-
AD	Våningshus - Buevegen 1500	5:04	-
AE	Våningshus - Buevegen 1498	2:23	-
AF	Våningshus - Buevegen 1496	2:12	-
AG	Fritidsbygning (ikke ferdig bygd) - Bjerkreim kommune - eiendom 57/3	55:38	-
AH	Våningshus - Brusalivegen 201	5:54	5:54

AI	Fritidsbygning – Vaule 218	9:00	2:17
AJ	Enebolig – Heiavegen 543	0:16	-
AK	Våningshus – Heiavegen 541	3:10	-
AL	Gatekjøkken, kioskbygning – Buevegen 2100	4:22	-
AM	Fritidsbygning – eiendom 121/8, Hå kommune	13:37	1:02
AN	Fritidsbygning – Brusalivegen 219	13:45	2:08

I motsetning til teoretisk skyggekast, tar realistisk skyggekast mer hensyn til realistiske forhold som vær og solskinnsvariasjoner, og gir dermed et mer nøyaktig bilde av hvordan mottakerne vil bli påvirket av nærliggende vindkraftverk. Mens teoretisk skyggekast antar maksimal påvirkning basert på ideelle solforhold, reflekterer realistisk skyggekast hvordan mottakerne faktisk vil oppleve skyggekast under varierende værforhold, noe som ofte resulterer i kortere varighet og mindre intensitet enn de maksimale beregningene tilsier. Det er derfor ulike resultater mellom de to scenarioene.

Når man tar hensyn til nærliggende vindkraftverk, endres resultatene slik at færre mottakere ligger under NVEs anbefalte grenseverdi på 8 timer årlig skyggekast. Det er nå 10 mottakere som er under anbefalt grenseverdi (mottakere AA – AF, AH og AJ-AL). Seks av mottakerne er lokalisert ved Mellomstrand, en sørvest for området, to sørøst for området og en nordøst for området. Resultatene fra Tabell 6-2 viser at skyggekast fra flere vindkraftverk kan forekomme, det er fire mottakere (mottakere R, S, Y og AI) som går over anbefalt grenseverdi når man tar betraktning av nærliggende vindkraftverk. Det vil si at de nærliggende vindkraftverkene fører til en økning i den totale skyggekastbelastningen for enkelte mottakere.

Basert på hvilke mottakere som opplever en økning i skyggekast, kan vi konkludere med at de to vindkraftverkene, Stigafjell og Måkaknuten, nord for disse mottakerne i stor grad bidrar til de kumulative effektene. I tillegg får flere mottakere sørøst og sørvest for Moifjellet vindkraftverk økt skyggekastbelastning fra Bjerkreim vindkraftverk.

Det vil si at for kun Moifjellet vindkraftverk er det hovedsakelig mottakerne nord for vindkraftverket som belastes over anbefalt grenseverdi. Mens når man tar hensyn til nærliggende vindkraftverk vil noen av mottakere til øst og til vest merke en større belastning, over anbefalt grenseverdi. I tillegg vil noen mottakere nord for Moifjellet vindkraftverk merke en økt belastning.

Det er ingen av mottakerne som opplever skyggekast over anbefalt grenseverdi fra de eksisterende vindkraftverkene. De mottakerne som merker en belastning fra eksisterende, opplever det i hovedsak tidlig på morgenen eller sent på kvelden i sommerhalvåret. Det er ulike tidspunkt og på ulike tider av året enn hva det forventes Moifjellet vindkraftverk vil bidra med. Det vil si at det vil bidra med mer skyggekast på flere tidspunkt igjennom dagen. En oversikt over når hver mottaker opplever skyggekast ligger i vedlegg.

7 Avbøtende tiltak

For å sikre at ikke noen mottakere blir utsatt for skyggekast over anbefalt grenseverdi er det flere aktuelle tiltak som kan gjøres. Før utbygging burde det utarbeides skyggekastkalendere som indikerer når skyggekast er forventet å inntreffe. Ved å stanse turbinen på tidspunkt hvor skyggekast inntreffer kan virkningene for naboer og andre berørte reduseres. Turbinene burde bli utstyrt med automatiserte lyssensorer som stanser vindturbinen på forhåndsdefinerte tidspunkt dersom der er klarvær i det aktuelle tidsrommet. Et annet tiltak kan være endring av turbinlayout. Det er spesielt tre turbiner som bidrar med mye skyggekast, en liten justering i layout kan bidra til mindre skyggekastbelastning for mottakerne.

8 Påvirkning på bebyggelse, friluftsliv og eventuelt andre aktiviteter

Siden det er flere boliger i nærheten av vindkraftverket, forventes det at bebyggelsen kan påvirkes av skyggekast. Også flere friluftsområder kan bli utsatt, med deler av disse innenfor de "røde" sonene. I tillegg kan to registrerte turruter bli berørt av skyggekast. Dette kan føre til at turgåere opplever skyggekast i perioder med sollys, noe som kan påvirke brukervennligheten av områdene.

9 Konklusjon

Skyggekastanalysen viser at boligene rundt Moifjellet vindkraftverk kan bli utsatt for skyggekast og det kan være behov for avbøtende tiltak. Det er 30 utav 40 mottakere som overskrider NVEs anbefalte grenseverdi for skyggekast når man tar hensyn til nærliggende vindkraftverk. Dersom man kun tar Moifjellet vindkraftverk til betraktning er det 26 mottakere som overskrider anbefalt grenseverdi. Mesteparten av mottakerne vil oppleve høyest belastning av skyggekast midt på dagen gjennom vinterhalvåret, men noen få vil oppleve skyggekast på morgen og kveld på sommerhalvåret.

Det er anbefales avbøtende tiltak for å redusere skyggekast. For å unngå skyggekast over grenseverdiene kan det lages skyggekastkalendere som viser når skyggekast er forventet. Turbinene kan stoppes på disse tidspunktene for å redusere påvirkningen, og automatiserte lyssensorer kan brukes til å stanse turbinen ved klarvær. Dette vil minimere ulempene for naboer og berørte.

Flere friluftsområder og turruter kan bli påvirket av skyggekast fra Moifjellet vindkraftverk, særlig i perioder med direkte sollys. Dette kan skape ubehag for turgåere, som kan oppleve forstyrrende skyggeeffekter når de ferdes langs disse rutene. Over tid kan slik skyggekast redusere områdenes attraktivitet og brukervennlighet.

10 Vedlegg

1.1 Skyggekastkalender – Tabell – Verst tenkelig scenario kun Moifjellet vindkraftverk

Dokument: 10252119-01-RIVIND-RAP-001-Vedlegg-1.1_Tabell-kun-Moifjellet-worst-case

Vedlegget representerer råresultatet fra WindPRO sin SHADOW-modul der hver skyggekastmottaker har sin egen kalender.

1.2 Skyggekastkalender – Grafisk – Verst tenkelig scenario kun Moifjellet vindkraftverk

Dokument: 10252119-01-RIVIND-RAP-001-Vedlegg-1.2_Grafisk-kun-Moifjellet-worst-case

Vedlegget representerer råresultatet fra WindPRO sin SHADOW-modul der hver skyggekastmottaker har sin egen belastningsfigur som eksempelvis vist i Figur 5-3.

2.1 Skyggekastkalender – Tabell – Realistisk scenario kun Moifjellet vindkraftverk

Dokument: 10252119-01-RIVIND-RAP-001-Vedlegg-2.1_Tabell-kun-Moifjellet-realistic-case

Vedlegget representerer råresultatet fra WindPRO sin SHADOW-modul der hver skyggekastmottaker har sin egen kalender.

2.2 Skyggekastkalender – Grafisk – Realistisk scenario kun Moifjellet vindkraftverk

Dokument: 10252119-01-RIVIND-RAP-001-Vedlegg-2.2_Grafisk-kun-Moifjellet-realistic-case

Vedlegget representerer råresultatet fra WindPRO sin SHADOW-modul der hver skyggekastmottaker har sin egen belastningsfigur som eksempelvis vist i Figur 5-3.

3.1 Skyggekastkalender – Tabell – Verst tenkelig scenario med nærliggende vindkraftverk

Dokument: 10252119-01-RIVIND-RAP-001-Vedlegg-3.1_Tabell-med-nærliggende-worst-case

Vedlegget representerer råresultatet fra WindPRO sin SHADOW-modul der hver skyggekastmottaker har sin egen kalender.

3.2 Skyggekastkalender – Grafisk – Verst tenkelig scenario med nærliggende vindkraftverk

Dokument: 10252119-01-RIVIND-RAP-001-Vedlegg-3.2_Grafisk-med-nærliggende-worst-case

Vedlegget representerer råresultatet fra WindPRO sin SHADOW-modul der hver skyggekastmottaker har sin egen belastningsfigur som eksempelvis vist i Figur 5-3.

4.1 Skyggekastkalender – Tabell – Realistisk scenario med nærliggende vindkraftverk

Dokument: 10252119-01-RIVIND-RAP-001-Vedlegg-4.1_Tabell-med-nærliggende-realistic-case

Vedlegget representerer råresultatet fra WindPRO sin SHADOW-modul der hver skyggekastmottaker har sin egen kalender.

4.2 Skyggekastkalender – Grafisk – Realistisk scenario med nærliggende vindkraftverk

Dokument: 10252119-01-RIVIND-RAP-001-Vedlegg-4.2_Grafisk-med-nærliggende-realistic-case

Vedlegget representerer råresultatet fra WindPRO sin SHADOW-modul der hver skyggekastmottaker har sin egen belastningsfigur som eksempelvis vist i Figur 5-3.

11 Referanser

Norges vassdrags- og energidirektorat. (2014). *Skyggekast fra vindkraftverk: Veileder for beregning av skyggekast og presentasjon av NVEs forvaltningspraksis* (Veileder nr. 2/2014). NVE.

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Norges vassdrags- og energidirektorat. (2022). *Oppdatert kunnskapsgrunnlag om skyggekast fra vindturbiner* (Ekstern rapport nr. 4/2022). NVE.

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Vedlegg 1.1

SHADOW - Calendar

Calculation: Oppdatert layout - kun Moifjellet - worst case - oppdatert mottaker **Shadow receptor:** A - Moi 32 (1)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

The sun is shining all the day, from sunrise to sunset

The rotor plane is always perpendicular to the line from the WTG to the sun

The WTG is always operating

	January	February	March	April	May	June				
1	09:28	08:46	11:21 (34)	07:35	09:10 (16)	07:07	05:44	04:40		
	15:53	16:56	14:37 (24)	18:05	24	09:34 (16)	20:17	21:26	22:30	
2	09:27	08:43	12:08 (29)	07:33	09:10 (16)	07:04	05:41	04:38		
	15:54	16:58	14:44 (24)	18:07	24	09:34 (16)	20:19	21:28	22:32	
3	09:27	08:41	12:06 (29)	07:30	09:10 (16)	07:01	05:39	04:37		
	15:55	17:01	14:50 (24)	18:09	24	09:34 (16)	20:21	21:30	22:34	
4	09:26	08:39	12:06 (29)	07:27	09:10 (16)	06:58	05:36	04:36		
	15:57	17:03	14:52 (24)	18:12	23	09:33 (16)	20:24	21:33	22:35	
5	09:26	08:37	12:05 (29)	07:24	09:10 (16)	06:55	05:34	04:35		
	15:58	17:06	14:53 (24)	18:14	22	09:32 (16)	20:26	21:35	22:37	
6	09:25	08:34	12:05 (29)	07:21	09:10 (16)	06:52	05:31	04:34		
	16:00	17:08	14:55 (24)	18:17	29	09:31 (16)	20:28	21:37	22:38	
7	09:24	08:32	12:04 (29)	07:19	08:20 (18)	06:50	05:29	04:33		
	16:02	17:11	14:56 (24)	18:19	33	09:30 (16)	20:30	21:40	22:39	
8	09:24	08:30	12:04 (29)	07:16	08:19 (18)	06:47	05:26	04:32		
	16:03	17:13	14:57 (24)	18:21	31	09:28 (16)	20:33	21:42	22:40	
9	09:23	08:27	12:04 (29)	07:13	08:18 (18)	06:44	05:24	04:31		
	16:05	17:16	15:36 (25)	18:24	27	09:25 (16)	20:35	21:44	22:42	
10	09:22	08:25	12:03 (29)	07:10	08:17 (18)	06:41	05:22	04:30		
	16:07	17:18	15:42 (25)	18:26	18	08:35 (18)	20:37	21:46	22:43	
11	09:21	08:23	12:04 (29)	07:07	08:16 (18)	06:38	05:19	04:29		
	16:09	17:21	15:47 (25)	18:28	19	08:35 (18)	20:40	21:49	22:44	
12	09:20	08:20	12:03 (29)	07:04	08:17 (18)	06:35	05:17	04:29		
	16:11	17:23	15:49 (25)	18:31	19	08:36 (18)	20:42	21:51	22:45	
13	09:18	08:18	12:03 (29)	07:01	08:17 (18)	06:32	05:15	04:28		
	16:13	17:26	15:48 (25)	18:33	18	08:35 (18)	20:44	21:53	22:46	
14	09:17	08:15	12:04 (29)	06:59	08:17 (18)	06:30	05:13	04:28		
	16:15	17:28	15:48 (25)	18:35	17	08:34 (18)	20:47	21:55	22:47	
15	09:16	08:13	12:04 (29)	06:56	08:18 (18)	06:27	05:10	04:27		
	16:17	17:31	15:46 (25)	18:38	14	08:32 (18)	20:49	21:58	22:47	
16	09:15	08:10	12:03 (29)	06:53	08:20 (18)	06:24	05:08	04:27		
	16:19	17:33	15:43 (25)	18:40	10	08:30 (18)	20:51	22:00	22:48	
17	09:13	08:07	12:04 (29)	06:50		06:21	05:06	04:27		
	16:21	17:36	14:58 (24)	18:42		20:53	22:02	22:49		
18	09:12	11:27 (34)	08:05	06:47		06:19	05:04	04:27		
	16:23	6	11:33 (34)	17:38	76	14:58 (24)	18:45	20:56	22:04	22:49
19	09:10	11:28 (34)	08:02	06:44		06:16	05:02	04:27		
	16:25	6	13:07 (21)	17:40	75	14:58 (24)	18:47	20:58	22:06	22:50
20	09:08	11:28 (34)	08:00	06:41		06:13	05:00	04:27		
	16:28	23	13:08 (21)	17:43	72	14:57 (24)	18:49	21:00	22:08	22:50
21	09:07	11:26 (34)	07:57	06:38		06:10	04:58	04:27		
	16:30	24	13:08 (21)	17:45	67	14:55 (24)	18:51	21:03	22:10	22:50
22	09:05	11:22 (34)	07:54	06:36		06:08	04:56	04:27		
	16:32	38	13:07 (21)	17:48	62	14:54 (24)	18:54	21:05	22:12	22:50
23	09:03	11:17 (34)	07:52	06:33		06:05	04:54	04:27		
	16:34	43	13:08 (21)	17:50	68	14:53 (24)	18:56	21:07	22:14	22:50
24	09:02	11:11 (34)	07:49	06:30		06:02	04:52	04:27		
	16:37	48	13:08 (21)	17:53	66	14:51 (24)	18:58	21:10	22:16	22:51
25	09:00	11:12 (34)	07:46	06:27		05:59	04:51	04:28		
	16:39	48	13:08 (21)	17:55	55	14:47 (24)	19:01	21:12	22:18	22:50
26	08:58	11:13 (34)	07:44	06:24		05:57	04:49	04:28		
	16:41	48	13:08 (21)	17:57	41	12:35 (29)	19:03	21:14	22:20	22:50
27	08:56	11:13 (34)	07:41	06:21		05:54	04:47	04:29		
	16:44	58	13:07 (21)	18:00	33	12:30 (29)	19:05	21:17	22:22	22:50
28	08:54	11:14 (34)	07:38	06:18		05:52	04:46	04:30		
	16:46	61	13:07 (21)	18:02	23	09:33 (16)	19:07	21:19	22:24	22:50
29	08:52	11:15 (34)		07:15		05:49	04:44	04:30		
	16:49	60	13:06 (21)			20:10	21:21	22:25	22:50	
30	08:50	11:16 (34)		07:12		05:46	04:43	04:31		
	16:51	59	13:04 (21)			20:12	21:24	22:27	22:49	
31	08:48	11:18 (34)		07:10			04:41			
	16:54	55	13:03 (21)			20:14	22:29			
Potential sun hours	221		260	365	432	521	547			
Total, worst case	577		1972	352						

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Calculation: Oppdatert layout - kun Moifjellet - worst case - oppdatert mottaker **Shadow receptor:** A - Moi 32 (1)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

The sun is shining all the day, from sunrise to sunset

The rotor plane is always perpendicular to the line from the WTG to the sun

The WTG is always operating

	July	August	September	October	November	December				
1	04:32	05:24	06:33	07:39	08:56 (18)	07:51	11:33 (29)	09:00		
	22:49	22:01	20:40	19:13	18	09:14 (18)	16:49	91	15:09 (25)	15:51
2	04:33	05:26	06:35	07:42	08:55 (18)	07:54	11:33 (29)	09:02		
	22:48	21:58	20:37	19:10	19	09:14 (18)	16:46	79	15:05 (25)	15:50
3	04:34	05:28	06:37	07:44	08:55 (18)	07:56	11:34 (29)	09:03		
	22:47	21:56	20:34	19:07	18	09:13 (18)	16:44	73	14:26 (24)	15:49
4	04:35	05:31	06:40	07:46	08:55 (18)	07:59	11:34 (29)	09:05		
	22:47	21:54	20:31	19:04	24	10:00 (16)	16:41	71	14:25 (24)	15:48
5	04:36	05:33	06:42	07:48	08:56 (18)	08:01	11:35 (29)	09:07		
	22:46	21:51	20:28	19:02	29	10:04 (16)	16:39	68	14:24 (24)	15:47
6	04:37	05:35	06:44	07:51	08:56 (18)	08:03	11:36 (29)	09:09		
	22:45	21:49	20:25	18:59	32	10:05 (16)	16:37	66	14:24 (24)	15:46
7	04:39	05:37	06:46	07:53	08:57 (18)	08:06	11:36 (29)	09:10		
	22:44	21:47	20:22	18:56	32	10:06 (16)	16:34	61	14:22 (24)	15:45
8	04:40	05:39	06:49	07:55	09:00 (18)	08:08	11:37 (29)	09:12		
	22:43	21:44	20:20	18:53	27	10:07 (16)	16:32	56	14:20 (24)	15:45
9	04:41	05:42	06:51	07:57	09:45 (16)	08:11	11:38 (29)	09:13		
	22:42	21:42	20:17	18:50	22	10:07 (16)	16:30	46	14:15 (24)	15:44
10	04:43	05:44	06:53	08:00	09:45 (16)	08:13	10:52 (34)	09:15		
	22:40	21:39	20:14	18:47	23	10:08 (16)	16:28	47	14:09 (24)	15:44
11	04:44	05:46	06:55	08:02	09:44 (16)	08:15	10:49 (34)	09:16		
	22:39	21:37	20:11	18:45	24	10:08 (16)	16:25	55	12:34 (21)	15:43
12	04:46	05:48	06:57	08:04	09:43 (16)	08:18	10:48 (34)	09:18		
	22:38	21:34	20:08	18:42	24	10:07 (16)	16:23	60	12:36 (21)	15:43
13	04:47	05:51	07:00	08:07	09:44 (16)	08:20	10:47 (34)	09:19		
	22:37	21:31	20:05	18:39	23	10:07 (16)	16:21	60	12:38 (21)	15:42
14	04:49	05:53	07:02	08:09	09:43 (16)	08:22	10:46 (34)	09:20		
	22:35	21:29	20:02	18:36	23	10:06 (16)	16:19	61	12:39 (21)	15:42
15	04:51	05:55	07:04	08:11	09:44 (16)	08:25	10:46 (34)	09:21		
	22:34	21:26	19:59	18:33	37	13:05 (29)	16:17	58	12:40 (21)	15:42
16	04:52	05:57	07:06	08:13	09:45 (16)	08:27	10:46 (34)	09:22		
	22:32	21:24	19:56	18:31	42	13:08 (29)	16:15	46	12:41 (21)	15:42
17	04:54	06:00	07:08	08:16	09:46 (16)	08:29	10:45 (34)	09:23		
	22:30	21:21	19:54	18:28	61	15:21 (24)	16:13	48	12:41 (21)	15:42
18	04:56	06:02	07:11	08:18	09:47 (16)	08:32	10:45 (34)	09:24		
	22:29	21:18	19:51	18:25	66	15:23 (24)	16:11	48	12:42 (21)	15:42
19	04:58	06:04	07:13	08:20	09:50 (16)	08:34	10:52 (34)	09:25		
	22:27	21:16	19:48	18:22	68	15:25 (24)	16:09	43	12:43 (21)	15:42
20	05:00	06:06	07:15	08:23	12:38 (29)	08:36	10:57 (34)	09:26		
	22:25	21:13	19:45	18:20	64	15:25 (24)	16:08	38	12:42 (21)	15:43
21	05:01	06:08	07:17	08:25	12:37 (29)	08:39	11:01 (34)	09:26		
	22:24	21:10	19:42	18:17	68	15:27 (24)	16:06	24	12:43 (21)	15:43
22	05:03	06:11	07:19	08:27	12:35 (29)	08:41	11:04 (34)	09:27		
	22:22	21:08	19:39	18:14	72	15:27 (24)	16:04	22	12:44 (21)	15:43
23	05:05	06:13	07:22	08:30	12:35 (29)	08:43	11:04 (34)	09:27		
	22:20	21:05	19:36	18:12	75	15:28 (24)	16:02	9	12:44 (21)	15:44
24	05:07	06:15	07:24	08:32	12:34 (29)	08:45	11:04 (34)	09:28		
	22:18	21:02	19:33	18:09	77	15:28 (24)	16:01	6	11:10 (34)	15:44
25	05:09	06:17	07:26	07:35	11:34 (29)	08:47		09:28		
	22:16	20:59	19:30	17:06	78	14:28 (24)	15:59		15:45	
26	05:11	06:20	07:28	07:37	11:33 (29)	08:50		09:28		
	22:14	20:56	19:27	17:04	91	15:13 (25)	15:58		15:46	
27	05:13	06:22	07:30	09:03 (18)	07:39	11:33 (29)	08:52		09:28	
	22:12	20:54	19:25	8	09:11 (18)	17:01	15:16 (25)	15:56		15:47
28	05:16	06:24	07:33	09:00 (18)	07:42	11:33 (29)	08:54		09:28	
	22:10	20:51	19:22	12	09:12 (18)	16:59	15:17 (25)	15:55		15:48
29	05:18	06:26	07:35	08:58 (18)	07:44	11:32 (29)	08:56		09:28	
	22:07	20:48	19:19	15	09:13 (18)	16:56	15:18 (25)	15:54		15:49
30	05:20	06:29	07:37	08:56 (18)	07:47	11:33 (29)	08:58		09:28	
	22:05	20:45	19:16	18	09:14 (18)	16:54	15:19 (25)	15:52		15:50
31	05:22	06:31			07:49	11:33 (29)				09:28
	22:03	20:42			16:51	98	15:16 (25)			15:51
Potential sun hours	546	478	386	319	1635	236	1236	199		
Total, worst case			53							

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Calculation: Oppdatert layout - kun Moifjellet - worst case - oppdatert mottaker **Shadow receptor:** B - Moi 26 (2)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

The sun is shining all the day, from sunrise to sunset

The rotor plane is always perpendicular to the line from the WTG to the sun

The WTG is always operating

	January	February	March	April	May	June		
1	09:28 15:53	08:46 16:56	11:18 (34) 14:41 (24)	07:35 18:05	09:09 (16) 23 09:32 (16)	07:07 20:17	05:44 21:26	04:40 22:30
2	09:27 15:54	08:43 16:58	11:58 (29) 14:43 (24)	07:33 18:07	09:09 (16) 24 09:33 (16)	07:04 20:19	05:41 21:28	04:38 22:32
3	09:27 15:55	08:41 17:01	11:57 (29) 14:44 (24)	07:30 18:09	09:09 (16) 23 09:32 (16)	07:01 20:21	05:39 21:30	04:37 22:34
4	09:26 15:57	08:39 17:03	11:57 (29) 14:46 (24)	07:27 18:12	09:09 (16) 22 09:31 (16)	06:58 20:24	05:36 21:33	04:36 22:35
5	09:26 15:58	08:37 17:06	11:56 (29) 14:47 (24)	07:24 18:14	09:10 (16) 20 09:30 (16)	06:55 20:26	05:34 21:35	04:35 22:37
6	09:25 16:00	08:34 17:08	11:56 (29) 14:48 (24)	07:21 18:17	09:10 (16) 19 09:29 (16)	06:52 20:28	05:31 21:37	04:34 22:38
7	09:24 16:02	08:32 17:11	11:55 (29) 15:29 (25)	07:19 18:19	09:11 (16) 16 09:27 (16)	06:50 20:30	05:29 21:40	04:33 22:39
8	09:24 16:03	08:30 17:13	11:56 (29) 15:35 (25)	07:16 18:21	09:13 (16) 12 09:25 (16)	06:47 20:33	05:26 21:42	04:32 22:40
9	09:23 16:05	08:27 17:16	11:55 (29) 15:40 (25)	07:13 18:24		06:44 20:35	05:24 21:44	04:31 22:42
10	09:22 16:07	08:25 17:18	11:55 (29) 15:44 (25)	07:10 18:26		06:41 20:37	05:22 21:46	04:30 22:43
11	09:21 16:09	08:23 17:21	11:55 (29) 15:44 (25)	07:07 18:28		06:38 20:40	05:19 21:49	04:29 22:44
12	09:20 16:11	08:20 17:23	11:55 (29) 15:43 (25)	07:04 18:31		06:35 20:42	05:17 21:51	04:29 22:45
13	09:18 16:13	08:18 17:26	11:55 (29) 15:41 (25)	07:01 18:33		06:32 20:44	05:15 21:53	04:28 22:46
14	09:17 16:15	08:15 17:28	11:55 (29) 15:40 (25)	06:59 18:35		06:30 20:47	05:13 21:55	04:28 22:47
15	09:16 16:17	08:13 17:31	11:55 (29) 15:37 (25)	06:56 18:38		06:27 20:49	05:10 21:58	04:27 22:47
16	09:15 16:19	08:10 17:33	11:55 (29) 14:50 (24)	06:53 18:40		06:24 20:51	05:08 22:00	04:27 22:48
17	09:13 16:21	12:54 (21) 12:55 (21)	08:07 17:36	11:56 (29) 14:49 (24)	06:50 18:42	06:21 20:53	05:06 22:02	04:27 22:49
18	09:12 16:23	11:10 (34) 13:01 (21)	08:05 17:38	11:57 (29) 14:49 (24)	06:47 18:45	06:19 20:56	05:04 22:04	04:27 22:49
19	09:10 16:25	11:10 (34) 13:02 (21)	08:02 17:40	11:57 (29) 14:48 (24)	06:44 18:47	06:16 20:58	05:02 22:06	04:27 22:50
20	09:08 16:28	11:10 (34) 13:02 (21)	08:00 17:43	11:58 (29) 14:47 (24)	06:41 18:49	06:13 21:00	05:00 22:08	04:27 22:50
21	09:07 16:30	11:09 (34) 13:02 (21)	07:57 17:45	11:59 (29) 14:45 (24)	06:38 18:51	06:10 21:03	04:58 22:10	04:27 22:50
22	09:05 16:32	11:07 (34) 13:02 (21)	07:54 17:48	09:19 (16) 14:43 (24)	06:36 18:54	06:08 21:05	04:56 22:12	04:27 22:50
23	09:03 16:34	11:07 (34) 13:02 (21)	07:52 17:50	09:16 (16) 14:41 (24)	06:33 18:56	06:05 21:07	04:54 22:14	04:27 22:50
24	09:02 16:37	11:08 (34) 13:02 (21)	07:49 17:53	09:14 (16) 14:36 (24)	06:30 18:58	06:02 21:10	04:52 22:16	04:27 22:51
25	09:00 16:39	11:08 (34) 13:02 (21)	07:46 17:55	09:12 (16) 12:25 (29)	06:27 19:01	05:59 21:12	04:51 22:18	04:28 22:50
26	08:58 16:41	11:09 (34) 13:02 (21)	07:44 17:57	09:11 (16) 12:18 (29)	06:24 19:03	05:57 21:14	04:49 22:20	04:28 22:50
27	08:56 16:44	11:09 (34) 13:01 (21)	07:41 18:00	09:10 (16) 09:32 (16)	06:21 19:05	05:54 21:17	04:47 22:22	04:29 22:50
28	08:54 16:46	11:10 (34) 13:00 (21)	07:38 18:02	09:09 (16) 09:32 (16)	06:18 19:07	05:52 21:19	04:46 22:24	04:30 22:50
29	08:52 16:49	11:12 (34) 13:00 (21)		07:15 20:10		05:49 21:21	04:44 22:25	04:30 22:50
30	08:50 16:51	11:13 (34) 14:31 (24)		07:12 20:12		05:46 21:24	04:43 22:27	04:31 22:49
31	08:48 16:54	11:15 (34) 14:39 (24)		07:10 20:14			04:41 22:29	
Potential sun hours	221	260	365	432	521	547		
Total, worst case	708	1924	159					

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Calculation: Oppdatert layout - kun Moifjellet - worst case - oppdatert mottaker **Shadow receptor:** B - Moi 26 (2)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

The sun is shining all the day, from sunrise to sunset

The rotor plane is always perpendicular to the line from the WTG to the sun

The WTG is always operating

	July	August	September	October		November		December		
1	04:32 22:49	05:24 22:01	06:33 20:40	07:39 19:13		07:51 16:49	101	11:24 (29) 15:13 (25)	09:00 15:51	
2	04:33 22:48	05:26 21:58	06:35 20:37	07:42 19:10		07:54 16:46	96	11:25 (29) 15:09 (25)	09:02 15:50	
3	04:34 22:47	05:28 21:56	06:37 20:34	07:44 19:07		07:56 16:44	90	11:25 (29) 15:04 (25)	09:03 15:49	
4	04:35 22:47	05:31 21:54	06:40 20:31	07:46 19:04		07:59 16:41	81	11:25 (29) 14:58 (25)	09:05 15:48	
5	04:36 22:46	05:33 21:51	06:42 20:28	07:48 19:02	8	09:52 (16) 10:00 (16)	08:01 16:39	72	11:26 (29) 14:18 (24)	09:07 15:47
6	04:37 22:45	05:35 21:49	06:44 20:25	07:51 18:59	15	09:48 (16) 10:03 (16)	08:03 16:37	69	11:27 (29) 14:17 (24)	09:09 15:46
7	04:39 22:44	05:37 21:47	06:46 20:22	07:53 18:56	18	09:46 (16) 10:04 (16)	08:06 16:34	67	11:27 (29) 14:16 (24)	09:10 15:45
8	04:40 22:43	05:39 21:44	06:49 20:20	07:55 18:53	20	09:45 (16) 10:05 (16)	08:08 16:32	62	11:28 (29) 14:15 (24)	09:12 15:45
9	04:41 22:42	05:42 21:42	06:51 20:17	07:57 18:50	22	09:44 (16) 10:06 (16)	08:11 16:30	58	11:29 (29) 14:14 (24)	09:13 15:44
10	04:43 22:40	05:44 21:39	06:53 20:14	08:00 18:47	22	09:44 (16) 10:06 (16)	08:13 16:28	59	10:49 (34) 14:13 (24)	09:15 15:44
11	04:44 22:39	05:46 21:37	06:55 20:11	08:02 18:45	23	09:43 (16) 10:06 (16)	08:15 16:25	66	10:46 (34) 14:10 (24)	09:16 15:43
12	04:46 22:38	05:48 21:34	06:57 20:08	08:04 18:42	24	09:42 (16) 10:06 (16)	08:18 16:23	61	10:44 (34) 14:02 (24)	09:18 15:43
13	04:47 22:37	05:51 21:31	07:00 20:05	08:07 18:39	24	09:42 (16) 10:06 (16)	08:20 16:21	60	10:44 (34) 12:31 (21)	09:19 15:42
14	04:49 22:35	05:53 21:29	07:02 20:02	08:09 18:36	23	09:42 (16) 10:05 (16)	08:22 16:19	62	10:42 (34) 12:32 (21)	09:20 15:42
15	04:51 22:34	05:55 21:26	07:04 19:59	08:11 18:33	22	09:43 (16) 10:05 (16)	08:25 16:17	62	10:42 (34) 12:34 (21)	09:21 15:42
16	04:52 22:32	05:57 21:24	07:06 19:56	08:13 18:31	32	09:43 (16) 12:54 (29)	08:27 16:15	59	10:42 (34) 12:35 (21)	09:22 15:42
17	04:54 22:30	06:00 21:21	07:08 19:54	08:16 18:28	39	09:44 (16) 12:58 (29)	08:29 16:13	47	10:41 (34) 12:35 (21)	09:23 15:42
18	04:56 22:29	06:02 21:18	07:11 19:51	08:18 18:25	53	09:45 (16) 15:09 (24)	08:32 16:11	47	10:42 (34) 12:36 (21)	09:24 15:42
19	04:58 22:27	06:04 21:16	07:13 19:48	08:20 18:22	58	09:48 (16) 15:13 (24)	08:34 16:09	48	10:42 (34) 12:37 (21)	09:25 15:42
20	05:00 22:25	06:06 21:13	07:15 19:45	08:23 18:20	55	12:31 (29) 15:15 (24)	08:36 16:08	49	10:42 (34) 12:37 (21)	09:26 15:43
21	05:01 22:24	06:08 21:10	07:17 19:42	08:25 18:17	61	12:30 (29) 15:17 (24)	08:39 16:06	47	10:44 (34) 12:37 (21)	09:26 15:43
22	05:03 22:22	06:11 21:08	07:19 19:39	08:27 18:14	66	12:28 (29) 15:17 (24)	08:41 16:04	39	10:46 (34) 12:38 (21)	09:27 15:43
23	05:05 22:20	06:13 21:05	07:22 19:36	08:30 18:12	71	12:27 (29) 15:19 (24)	08:43 16:02	34	10:46 (34) 12:38 (21)	09:27 15:44
24	05:07 22:18	06:15 21:02	07:24 19:33	08:32 18:09	73	12:26 (29) 15:19 (24)	08:45 16:01	27	10:47 (34) 12:38 (21)	09:28 15:44
25	05:09 22:16	06:17 20:59	07:26 19:30	07:35 17:06	76	11:26 (29) 14:20 (24)	08:47 15:59	2	12:32 (21) 12:34 (21)	09:28 15:45
26	05:11 22:14	06:20 20:56	07:28 19:27	07:37 17:04	77	11:25 (29) 14:19 (24)	08:50 15:58			09:28 15:46
27	05:13 22:12	06:22 20:54	07:30 19:25	07:39 17:01	87	11:25 (29) 15:07 (25)	08:52 15:56			09:28 15:47
28	05:16 22:10	06:24 20:51	07:33 19:22	07:42 16:59	93	11:25 (29) 15:10 (25)	08:54 15:55			09:28 15:48
29	05:18 22:07	06:26 20:48	07:35 19:19	07:44 16:56	98	11:24 (29) 15:11 (25)	08:56 15:54			09:28 15:49
30	05:20 22:05	06:29 20:45	07:37 19:16	07:47 16:54	100	11:24 (29) 15:12 (25)	08:58 15:52			09:28 15:50
31	05:22 22:03	06:31 20:42		07:49 16:51	100	11:25 (29) 15:13 (25)				09:28 15:51
Potential sun hours	546	478	386	319		236				199
Total, worst case					1360		1465			

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Calculation: Oppdatert layout - kun Moifjellet - worst case - oppdatert mottaker **Shadow receptor:** C - Moi 21 (3)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

The sun is shining all the day, from sunrise to sunset

The rotor plane is always perpendicular to the line from the WTG to the sun

The WTG is always operating

	January	February	March	April	May	June		
1	09:28	08:46	10:42 (34)	07:35	08:50 (16)	07:07	05:44	04:40
	15:53	16:56	72 14:06 (24)	18:05	39 11:29 (29)	20:17	21:26	22:30
2	09:27	08:43	10:44 (34)	07:33	08:50 (16)	07:04	05:41	04:38
	15:54	16:58	70 14:08 (24)	18:07	31 11:25 (29)	20:19	21:28	22:32
3	09:27	08:41	10:46 (34)	07:30	08:49 (16)	07:01	05:39	04:37
	15:55	17:01	72 14:10 (24)	18:09	21 09:10 (16)	20:21	21:31	22:34
4	09:26	08:39	10:47 (34)	07:27	08:48 (16)	06:58	05:36	04:36
	15:57	17:03	77 15:02 (25)	18:12	22 09:10 (16)	20:24	21:33	22:35
5	09:26	08:37	10:50 (34)	07:24	08:48 (16)	06:55	05:34	04:35
	15:58	17:06	77 15:05 (25)	18:14	21 09:09 (16)	20:26	21:35	22:37
6	09:25	08:34	11:05 (29)	07:21	08:48 (16)	06:52	05:31	04:34
	16:00	17:08	82 15:12 (25)	18:17	21 09:09 (16)	20:28	21:37	22:38
7	09:24	08:32	11:03 (29)	07:19	08:48 (16)	06:50	05:29	04:33
	16:02	17:11	92 15:18 (25)	18:19	20 09:08 (16)	20:30	21:40	22:39
8	09:24	08:30	11:03 (29)	07:16	08:48 (16)	06:47	05:26	04:32
	16:03	17:13	101 15:25 (25)	18:21	19 09:07 (16)	20:33	21:42	22:40
9	09:23	08:27	11:02 (29)	07:13	08:48 (16)	06:44	05:24	04:31
	16:05	17:16	112 15:55 (23)	18:24	18 09:06 (16)	20:35	21:44	22:42
10	09:22	08:25	11:01 (29)	07:10	08:49 (16)	06:41	05:22	04:30
	16:07	17:18	104 15:51 (23)	18:26	15 09:04 (16)	20:37	21:46	22:43
11	09:21	08:23	11:01 (29)	07:07	08:51 (16)	06:38	05:19	04:29
	16:09	17:21	101 15:23 (25)	18:28	11 09:02 (16)	20:40	21:49	22:44
12	09:20	08:20	11:00 (29)	07:04		06:35	05:17	04:29
	16:11	17:23	98 15:21 (25)	18:31		20:42	21:51	22:45
13	09:18	08:18	10:59 (29)	07:02		06:33	05:15	04:28
	16:13	17:26	94 15:18 (25)	18:33		20:44	21:53	22:46
14	09:17	08:15	11:00 (29)	06:59		06:30	05:13	04:28
	16:15	17:28	83 14:14 (24)	18:35		20:47	21:55	22:47
15	09:16	08:13	10:59 (29)	06:56		06:27	05:10	04:27
	16:17	17:31	83 14:13 (24)	18:38		20:49	21:58	22:47
16	09:15	08:10	10:59 (29)	06:53		06:24	05:08	04:27
	16:19	17:33	81 14:12 (24)	18:40		20:51	22:00	22:48
17	09:13	08:07	10:59 (29)	06:50		06:21	05:06	04:27
	16:21	17:36	81 14:12 (24)	18:42		20:53	22:02	22:49
18	09:12	08:05	10:59 (29)	06:47		06:19	05:04	04:27
	16:23	17:38	80 14:12 (24)	18:45		20:56	22:04	22:49
19	09:10	08:02	10:59 (29)	06:44		06:16	05:02	04:27
	16:25	17:40	78 14:11 (24)	18:47		20:58	22:06	22:50
20	09:08	08:00	10:59 (29)	06:41		06:13	05:00	04:27
	16:28	17:43	74 14:09 (24)	18:49		21:00	22:08	22:50
21	09:07	07:57	10:59 (29)	06:39		06:10	04:58	04:27
	16:30	17:45	71 14:08 (24)	18:51		21:03	22:10	22:50
22	09:05	07:54	11:00 (29)	06:36		06:08	04:56	04:27
	16:32	17:48	66 14:06 (24)	18:54		21:05	22:12	22:50
23	09:03	07:52	11:01 (29)	06:33		06:05	04:54	04:27
	16:34	17:50	60 14:04 (24)	18:56		21:07	22:14	22:50
24	09:02	07:49	11:01 (29)	06:30		06:02	04:52	04:27
	16:37	17:53	50 14:00 (24)	18:58		21:10	22:16	22:51
25	09:00	07:46	11:02 (29)	06:27		06:00	04:51	04:28
	16:39	17:55	36 11:38 (29)	19:01		21:12	22:18	22:50
26	08:58	12:05 (21)	07:44	11:03 (29)	06:24	05:57	04:49	04:28
	16:41	5 12:10 (21)	17:57	11:36 (29)	19:03	21:14	22:20	22:50
27	08:56	12:05 (21)	07:41	08:54 (16)	06:21	05:54	04:47	04:29
	16:44	19 13:53 (24)	18:00	11:34 (29)	19:05	21:17	22:22	22:50
28	08:54	11:00 (34)	07:38	08:52 (16)	06:18	05:52	04:46	04:30
	16:46	40 13:59 (24)	18:02	11:32 (29)	19:08	21:19	22:24	22:50
29	08:52	10:56 (34)		07:15		05:49	04:44	04:30
	16:49	47 14:02 (24)		20:10		21:21	22:25	22:50
30	08:50	10:50 (34)		07:13		05:46	04:43	04:31
	16:51	55 14:03 (24)		20:12		21:24	22:27	22:49
31	08:48	10:44 (34)		07:10			04:41	
	16:54	61 14:05 (24)		20:14			22:29	
Potential sun hours	221	260	365	432	521	547		
Total, worst case	227	2110	238					

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Calculation: Oppdatert layout - kun Moifjellet - worst case - oppdatert mottaker **Shadow receptor:** C - Moi 21 (3)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

The sun is shining all the day, from sunrise to sunset

The rotor plane is always perpendicular to the line from the WTG to the sun

The WTG is always operating

	July	August	September	October		November		December
1	04:32 22:49	05:24 22:01	06:33 20:40	07:39 19:13		07:51 16:49	107	10:30 (29) 15:21 (23)
2	04:33 22:48	05:26 21:58	06:35 20:37	07:42 19:10	7	09:32 (16) 09:39 (16)	111	10:31 (29) 15:25 (23)
3	04:34 22:47	05:28 21:56	06:37 20:34	07:44 19:07	14	09:28 (16) 09:42 (16)	97	10:33 (29) 14:53 (25)
4	04:35 22:47	05:31 21:54	06:40 20:31	07:46 19:04	17	09:26 (16) 09:43 (16)	89	10:33 (29) 14:46 (25)
5	04:36 22:46	05:33 21:51	06:42 20:28	07:48 19:02	19	09:25 (16) 09:44 (16)	82	10:34 (29) 14:41 (25)
6	04:37 22:45	05:35 21:49	06:44 20:25	07:51 18:59	20	09:24 (16) 09:44 (16)	77	10:20 (34) 14:35 (25)
7	04:39 22:44	05:37 21:47	06:46 20:22	07:53 18:56	21	09:23 (16) 09:44 (16)	78	10:16 (34) 14:32 (25)
8	04:40 22:43	05:39 21:44	06:49 20:20	07:55 18:53	22	09:23 (16) 09:45 (16)	71	10:15 (34) 13:39 (24)
9	04:41 22:42	05:42 21:42	06:51 20:17	07:57 18:50	21	09:23 (16) 09:44 (16)	71	10:15 (34) 13:39 (24)
10	04:43 22:40	05:44 21:39	06:53 20:14	08:00 18:47	21	09:23 (16) 09:44 (16)	70	10:14 (34) 13:38 (24)
11	04:44 22:39	05:46 21:37	06:55 20:11	08:02 18:45	20	09:23 (16) 09:43 (16)	61	10:15 (34) 13:36 (24)
12	04:46 22:38	05:48 21:34	06:57 20:08	08:04 18:42	35	09:23 (16) 12:00 (29)	52	10:24 (34) 13:35 (24)
13	04:47 22:37	05:51 21:31	07:00 20:05	08:07 18:39	39	09:25 (16) 12:04 (29)	46	10:28 (34) 13:33 (24)
14	04:49 22:35	05:53 21:29	07:02 20:02	08:09 18:36	42	09:25 (16) 12:06 (29)	39	10:32 (34) 13:30 (24)
15	04:51 22:34	05:55 21:26	07:04 19:59	08:11 18:33	40	09:28 (16) 12:08 (29)	19	11:38 (21) 13:26 (24)
16	04:52 22:32	05:57 21:24	07:06 19:56	08:13 18:31	34	11:35 (29) 12:09 (29)	4	09:22 11:42 (21)
17	04:54 22:30	06:00 21:21	07:08 19:54	08:16 18:28	36	11:34 (29) 12:10 (29)		09:23 15:42
18	04:56 22:29	06:02 21:18	07:11 19:51	08:18 18:25	55	11:32 (29) 14:33 (24)		09:24 15:42
19	04:58 22:27	06:04 21:16	07:13 19:48	08:20 18:22	62	11:32 (29) 14:36 (24)		09:25 15:42
20	05:00 22:25	06:06 21:13	07:15 19:45	08:23 18:20	67	11:31 (29) 14:37 (24)		09:26 15:43
21	05:01 22:24	06:09 21:10	07:17 19:42	08:25 18:17	72	11:30 (29) 14:39 (24)		09:26 15:43
22	05:03 22:22	06:11 21:08	07:19 19:39	08:27 18:14	75	11:29 (29) 14:40 (24)		09:27 15:43
23	05:05 22:20	06:13 21:05	07:22 19:36	08:30 18:12	78	11:29 (29) 14:41 (24)		09:27 15:44
24	05:07 22:18	06:15 21:02	07:24 19:33	08:32 18:09	78	11:29 (29) 14:41 (24)		09:28 15:45
25	05:09 22:16	06:17 20:59	07:26 19:30	07:35 17:07	81	10:29 (29) 13:42 (24)		09:28 15:45
26	05:11 22:14	06:20 20:57	07:28 19:27	07:37 17:04	82	10:29 (29) 13:43 (24)		09:28 15:46
27	05:13 22:12	06:22 20:54	07:30 19:25	07:39 17:01	81	10:29 (29) 13:42 (24)		09:28 15:47
28	05:16 22:10	06:24 20:51	07:33 19:22	07:42 16:59	87	10:29 (29) 14:45 (25)		09:28 15:48
29	05:18 22:07	06:26 20:48	07:35 19:19	07:44 16:56	95	10:29 (29) 14:48 (25)		09:28 15:49
30	05:20 22:05	06:29 20:45	07:37 19:16	07:47 16:54	99	10:30 (29) 14:51 (25)		09:28 15:50
31	05:22 22:03	06:31 20:42		07:49 16:51	100	10:30 (29) 14:52 (25)		09:28 15:51
Potential sun hours	546	478	386	319		236		199
Total, worst case					1520		1074	

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Calculation: Oppdatert layout - kun Moifjellet - worst case - oppdatert mottaker **Shadow receptor:** D - Buevegen 1805 (4)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

The sun is shining all the day, from sunrise to sunset

The rotor plane is always perpendicular to the line from the WTG to the sun

The WTG is always operating

	January	February	March	April	May	June	
1	09:28 15:53	08:46 16:56	11:39 (29) 15:12 (25)	07:35 18:05	09:25 (16) 20:17	05:44 21:26	04:40 22:31
2	09:27 15:54	08:43 16:58	11:39 (29) 15:13 (25)	07:33 18:07	07:04 20:19	05:41 21:28	04:38 22:32
3	09:27 15:55	08:41 17:01	11:40 (29) 15:12 (25)	07:30 18:09	07:01 20:21	05:39 21:31	04:37 22:34
4	09:27 15:57	08:39 17:03	11:39 (29) 15:11 (25)	07:27 18:12	06:58 20:24	05:36 21:33	04:36 22:35
5	09:26 15:58	12:20 (21) 08:37 12:21 (21) 17:06	11:39 (29) 15:09 (25)	07:24 18:14	06:55 20:26	05:34 21:35	04:35 22:37
6	09:25 16:00	12:19 (21) 08:34 12:24 (21) 17:08	11:40 (29) 15:08 (25)	07:21 18:17	06:52 20:28	05:31 21:37	04:34 22:38
7	09:24 16:02	12:17 (21) 08:32 12:28 (21) 17:11	11:40 (29) 14:11 (24)	07:19 18:19	06:50 20:30	05:29 21:40	04:33 22:39
8	09:24 16:03	12:17 (21) 08:30 12:30 (21) 17:13	11:41 (29) 14:11 (24)	07:16 18:21	06:47 20:33	05:26 21:42	04:32 22:40
9	09:23 16:05	12:18 (21) 08:27 12:34 (21) 17:16	11:42 (29) 14:10 (24)	07:13 18:24	06:44 20:35	05:24 21:44	04:31 22:42
10	09:22 16:07	11:06 (34) 08:25 12:39 (21) 17:18	11:42 (29) 14:09 (24)	07:10 18:26	06:41 20:37	05:22 21:46	04:30 22:43
11	09:21 16:09	11:02 (34) 08:23 12:41 (21) 17:21	11:44 (29) 14:08 (24)	07:07 18:28	06:38 20:40	05:19 21:49	04:29 22:44
12	09:20 16:11	11:01 (34) 08:20 12:41 (21) 17:23	11:45 (29) 14:06 (24)	07:04 18:31	06:35 20:42	05:17 21:51	04:29 22:45
13	09:18 16:13	11:02 (34) 08:18 12:42 (21) 17:26	11:46 (29) 14:02 (24)	07:02 18:33	06:32 20:44	05:15 21:53	04:28 22:46
14	09:17 16:15	11:02 (34) 08:15 12:42 (21) 17:28	11:49 (29) 12:07 (29)	06:59 18:35	06:30 20:47	05:13 21:55	04:28 22:47
15	09:16 16:17	11:02 (34) 08:13 12:42 (21) 17:31	11:52 (29) 12:04 (29)	06:56 18:38	06:27 20:49	05:10 21:58	04:27 22:47
16	09:15 16:19	11:02 (34) 08:10 12:42 (21) 17:33	09:29 (16) 06:53 09:34 (16) 18:40	06:53 18:40	06:24 20:51	05:08 22:00	04:27 22:48
17	09:13 16:21	11:02 (34) 08:07 12:42 (21) 17:36	09:26 (16) 06:50 09:37 (16) 18:42	06:50 18:42	06:21 20:53	05:06 22:02	04:27 22:49
18	09:12 16:23	11:03 (34) 08:05 13:55 (24) 17:38	09:25 (16) 06:47 09:39 (16) 18:45	06:47 18:45	06:19 20:56	05:04 22:04	04:27 22:49
19	09:10 16:25	11:03 (34) 08:02 13:59 (24) 17:40	09:23 (16) 06:44 09:40 (16) 18:47	06:44 18:47	06:16 20:58	05:02 22:06	04:27 22:50
20	09:08 16:28	11:04 (34) 08:00 14:01 (24) 17:43	09:22 (16) 06:41 09:41 (16) 18:49	06:41 18:49	06:13 21:00	05:00 22:08	04:27 22:50
21	09:07 16:30	11:04 (34) 07:57 14:03 (24) 17:45	09:21 (16) 06:39 09:41 (16) 18:51	06:39 18:51	06:10 21:03	04:58 22:10	04:27 22:50
22	09:05 16:32	11:05 (34) 07:54 14:05 (24) 17:48	09:20 (16) 06:36 09:41 (16) 18:54	06:36 18:54	06:08 21:05	04:56 22:12	04:27 22:50
23	09:03 16:34	11:05 (34) 07:52 14:05 (24) 17:50	09:21 (16) 06:33 09:42 (16) 18:56	06:33 18:56	06:05 21:07	04:54 22:14	04:27 22:51
24	09:02 16:37	11:06 (34) 07:49 14:07 (24) 17:53	09:21 (16) 06:30 09:42 (16) 18:58	06:30 18:58	06:02 21:10	04:52 22:16	04:27 22:51
25	09:00 16:39	11:07 (34) 07:46 14:52 (25) 17:55	09:21 (16) 06:27 09:41 (16) 19:01	06:27 19:01	05:59 21:12	04:51 22:18	04:28 22:51
26	08:58 16:41	11:09 (34) 07:44 14:57 (25) 17:57	09:21 (16) 06:24 09:40 (16) 19:03	06:24 19:03	05:57 21:14	04:49 22:20	04:28 22:50
27	08:56 16:44	11:10 (34) 07:41 15:12 (25) 18:00	09:22 (16) 06:21 09:39 (16) 19:05	06:21 19:05	05:54 21:17	04:47 22:22	04:29 22:50
28	08:54 16:46	11:13 (34) 07:38 15:13 (25) 18:02	09:23 (16) 06:18 09:37 (16) 19:08	06:18 19:08	05:52 21:19	04:46 22:24	04:30 22:50
29	08:52 16:49	11:40 (29) 15:14 (25)	07:15 20:10	07:15 20:10	05:49 21:21	04:44 22:25	04:30 22:50
30	08:50 16:51	11:39 (29) 15:13 (25)	07:12 20:12	07:12 20:12	05:46 21:24	04:42 22:27	04:31 22:49
31	08:48 16:54	11:39 (29) 15:13 (25)	07:10 20:14	07:10 20:14	04:41 22:29	04:41 22:29	04:31 22:49
Potential sun hours	221	260	365	432	521	547	
Total, worst case	1489	1103	9				

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Calculation: Oppdatert layout - kun Moifjellet - worst case - oppdatert mottaker **Shadow receptor:** D - Buevegen 1805 (4)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

The sun is shining all the day, from sunrise to sunset

The rotor plane is always perpendicular to the line from the WTG to the sun

The WTG is always operating

	July	August	September	October		November		December			
1	04:32 22:49	05:24 22:01	06:33 20:40	07:39 19:13		07:51 16:49		11:12 (29) 13:38 (24)	09:00 15:51		10:44 (34) 12:23 (21)
2	04:33 22:48	05:26 21:58	06:35 20:37	07:42 19:10		07:54 16:46	53	11:11 (29) 13:40 (24)	09:02 15:50	31	10:48 (34) 12:23 (21)
3	04:34 22:47	05:28 21:56	06:37 20:34	07:44 19:07		07:56 16:44	58	11:11 (29) 13:41 (24)	09:03 15:49	27	12:01 (21) 12:18 (21)
4	04:35 22:47	05:31 21:54	06:40 20:31	07:46 19:04		07:59 16:41	60	11:10 (29) 13:41 (24)	09:05 15:48	17	12:01 (21) 12:14 (21)
5	04:36 22:46	05:33 21:51	06:42 20:28	07:48 19:02		08:01 16:39	63	11:10 (29) 14:38 (25)	09:07 15:47	13	12:02 (21) 12:13 (21)
6	04:37 22:45	05:35 21:49	06:44 20:25	07:51 18:59		08:03 16:37	75	11:10 (29) 14:40 (25)	09:09 15:46	11	12:05 (21) 12:10 (21)
7	04:39 22:44	05:37 21:47	06:46 20:22	07:53 18:56		08:06 16:34	79	11:09 (29) 14:41 (25)	09:10 15:45	5	12:07 (21) 12:09 (21)
8	04:40 22:43	05:39 21:44	06:49 20:20	07:55 18:53		08:08 16:32	84	11:09 (29) 14:42 (25)	09:12 15:45	2	
9	04:41 22:42	05:42 21:42	06:51 20:17	07:57 18:50		08:11 16:30	87	11:10 (29) 14:43 (25)	09:13 15:44		
10	04:43 22:41	05:44 21:39	06:53 20:14	08:00 18:47		08:13 16:28	87	11:10 (29) 14:44 (25)	09:15 15:43		
11	04:44 22:39	05:46 21:37	06:55 20:11	08:02 18:45		08:15 16:25	88	11:10 (29) 14:44 (25)	09:16 15:43		
12	04:46 22:38	05:48 21:34	06:57 20:08	08:04 18:42	4	10:01 (16) 10:05 (16)	88	11:11 (29) 14:45 (25)	09:18 15:43		
13	04:47 22:37	05:51 21:32	07:00 20:05	08:07 18:39	11	09:58 (16) 10:09 (16)	87	11:11 (29) 14:45 (25)	09:19 15:42		
14	04:49 22:35	05:53 21:29	07:02 20:02	08:09 18:36	16	09:55 (16) 10:11 (16)	89	10:45 (34) 14:45 (25)	09:20 15:42		
15	04:51 22:34	05:55 21:26	07:04 19:59	08:11 18:33	18	09:54 (16) 10:12 (16)	87	10:42 (34) 14:45 (25)	09:21 15:42		
16	04:52 22:32	05:57 21:24	07:06 19:56	08:13 18:31	19	09:53 (16) 10:12 (16)	87	10:41 (34) 14:30 (25)	09:22 15:42		
17	04:54 22:30	06:00 21:21	07:08 19:54	08:16 18:28	20	09:53 (16) 10:13 (16)	81	10:41 (34) 14:25 (25)	09:23 15:42		
18	04:56 22:29	06:02 21:18	07:11 19:51	08:18 18:25	21	09:52 (16) 10:13 (16)	84	10:40 (34) 13:41 (24)	09:24 15:42		
19	04:58 22:27	06:04 21:16	07:13 19:48	08:20 18:22	21	09:52 (16) 10:13 (16)	83	10:40 (34) 13:40 (24)	09:25 15:42		
20	05:00 22:25	06:06 21:13	07:15 19:45	08:23 18:20	20	09:52 (16) 10:12 (16)	82	10:39 (34) 13:39 (24)	09:26 15:43		
21	05:01 22:24	06:08 21:10	07:17 19:42	08:25 18:17	20	09:52 (16) 10:12 (16)	79	10:39 (34) 13:38 (24)	09:26 15:43		
22	05:03 22:22	06:11 21:08	07:19 19:39	08:27 18:14	19	09:52 (16) 10:11 (16)	75	10:40 (34) 13:37 (24)	09:27 15:43		
23	05:05 22:20	06:13 21:05	07:22 19:36	08:30 18:12	16	09:54 (16) 10:10 (16)	69	10:39 (34) 13:35 (24)	09:27 15:44		
24	05:07 22:18	06:15 21:02	07:24 19:33	08:32 18:09	14	09:54 (16) 10:08 (16)	58	10:40 (34) 13:32 (24)	09:28 15:44		
25	05:09 22:16	06:17 20:59	07:26 19:30	07:35 17:06	10	08:57 (16) 09:07 (16)	46	10:40 (34) 12:20 (21)	09:28 15:45		
26	05:11 22:14	06:20 20:57	07:28 19:27	07:37 17:04		07:37 15:58	43	10:41 (34) 12:21 (21)	09:28 15:46		
27	05:13 22:12	06:22 20:54	07:30 19:25	07:39 17:01	14	11:20 (29) 11:34 (29)	43	10:41 (34) 12:21 (21)	09:28 15:47		
28	05:16 22:10	06:24 20:51	07:33 19:22	07:42 16:59	19	11:18 (29) 11:37 (29)	42	10:42 (34) 12:22 (21)	09:28 15:48		
29	05:18 22:07	06:26 20:48	07:35 19:19	07:44 16:56	34	11:15 (29) 13:32 (24)	42	10:42 (34) 12:22 (21)	09:28 15:49		
30	05:20 22:05	06:29 20:45	07:37 19:16	07:47 16:54	42	11:14 (29) 13:35 (24)	40	10:42 (34) 12:22 (21)	09:28 15:50		
31	05:22 22:03	06:31 20:42		07:49 16:51	50	11:13 (29) 13:38 (24)			09:28 15:51		
Potential sun hours	546	478	386	319		236			199		
Total, worst case					388		2119			106	

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Calculation: Oppdatert layout - kun Moifjellet - worst case - oppdatert mottaker **Shadow receptor:** E - Buevegen 1816 (5)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

The sun is shining all the day, from sunrise to sunset

The rotor plane is always perpendicular to the line from the WTG to the sun

The WTG is always operating

	January	February	March	April	May	June	
1	09:28	11:12 (34) 08:46	11:58 (29) 07:35	07:07	05:44	04:40	
	15:53	2 11:14 (34) 16:56	87 15:21 (25) 18:05	20:17	21:26	22:30	
2	09:27	11:12 (34) 08:43	11:59 (29) 07:33	07:04	05:41	04:38	
	15:54	2 11:14 (34) 16:58	85 15:21 (25) 18:07	20:19	21:28	22:32	
3	09:27	11:11 (34) 08:41	12:00 (29) 07:30	07:01	05:39	04:37	
	15:55	4 12:42 (21) 17:01	84 15:21 (25) 18:09	20:21	21:31	22:34	
4	09:27	11:11 (34) 08:39	11:59 (29) 07:27	06:58	05:36	04:36	
	15:57	12 12:45 (21) 17:03	83 15:20 (25) 18:12	20:24	21:33	22:35	
5	09:26	11:11 (34) 08:37	11:59 (29) 07:24	06:55	05:34	04:35	
	15:58	18 12:46 (21) 17:06	81 15:19 (25) 18:14	20:26	21:35	22:37	
6	09:25	11:11 (34) 08:34	12:00 (29) 07:21	06:52	05:31	04:34	
	16:00	29 12:50 (21) 17:08	76 15:18 (25) 18:17	20:28	21:37	22:38	
7	09:24	11:11 (34) 08:32	12:01 (29) 07:19	06:50	05:29	04:33	
	16:02	35 12:50 (21) 17:11	67 15:15 (25) 18:19	20:30	21:40	22:39	
8	09:24	11:12 (34) 08:30	12:02 (29) 07:16	06:47	05:26	04:32	
	16:03	38 12:51 (21) 17:13	57 14:25 (24) 18:21	20:33	21:42	22:40	
9	09:23	11:12 (34) 08:27	12:03 (29) 07:13	06:44	05:24	04:31	
	16:05	40 12:52 (21) 17:16	54 14:24 (24) 18:24	20:35	21:44	22:42	
10	09:22	11:11 (34) 08:25	12:03 (29) 07:10	06:41	05:22	04:30	
	16:07	41 12:52 (21) 17:18	51 14:23 (24) 18:26	20:37	21:46	22:43	
11	09:21	11:12 (34) 08:23	12:05 (29) 07:07	06:38	05:19	04:29	
	16:09	42 12:53 (21) 17:21	45 14:22 (24) 18:28	20:40	21:49	22:44	
12	09:20	11:12 (34) 08:20	12:07 (29) 07:04	06:35	05:17	04:29	
	16:11	43 12:53 (21) 17:23	37 14:20 (24) 18:31	20:42	21:51	22:45	
13	09:18	11:12 (34) 08:18	12:09 (29) 07:02	06:32	05:15	04:28	
	16:13	44 12:54 (21) 17:26	26 14:17 (24) 18:33	20:44	21:53	22:46	
14	09:17	11:12 (34) 08:15	09:39 (16) 06:59	06:30	05:13	04:28	
	16:15	44 12:54 (21) 17:28	12 12:21 (29) 18:35	20:47	21:55	22:47	
15	09:16	11:12 (34) 08:13	09:36 (16) 06:56	06:27	05:10	04:27	
	16:17	51 12:54 (21) 17:31	11 09:47 (16) 18:38	20:49	21:58	22:47	
16	09:15	11:13 (34) 08:10	09:33 (16) 06:53	06:24	05:08	04:27	
	16:19	54 12:54 (21) 17:33	16 09:49 (16) 18:40	20:51	22:00	22:48	
17	09:13	11:13 (34) 08:07	09:32 (16) 06:50	06:21	05:06	04:27	
	16:21	58 12:54 (21) 17:36	17 09:49 (16) 18:42	20:53	22:02	22:49	
18	09:12	11:14 (34) 08:05	09:32 (16) 06:47	06:19	05:04	04:27	
	16:23	61 12:55 (21) 17:38	19 09:51 (16) 18:45	20:56	22:04	22:49	
19	09:10	11:15 (34) 08:02	09:31 (16) 06:44	06:16	05:02	04:27	
	16:25	63 12:55 (21) 17:40	20 09:51 (16) 18:47	20:58	22:06	22:50	
20	09:08	11:15 (34) 08:00	09:30 (16) 06:41	06:13	05:00	04:27	
	16:28	73 14:13 (24) 17:43	21 09:51 (16) 18:49	21:00	22:08	22:50	
21	09:07	11:16 (34) 07:57	09:30 (16) 06:38	06:10	04:58	04:27	
	16:30	76 14:15 (24) 17:45	21 09:51 (16) 18:51	21:03	22:10	22:50	
22	09:05	11:16 (34) 07:54	09:30 (16) 06:36	06:08	04:56	04:27	
	16:32	78 14:16 (24) 17:48	21 09:51 (16) 18:54	21:05	22:12	22:50	
23	09:03	11:17 (34) 07:52	09:31 (16) 06:33	06:05	04:54	04:27	
	16:34	79 14:18 (24) 17:50	20 09:51 (16) 18:56	21:07	22:14	22:51	
24	09:02	11:18 (34) 07:49	09:31 (16) 06:30	06:02	04:52	04:27	
	16:37	79 14:20 (24) 17:53	20 09:51 (16) 18:58	21:10	22:16	22:51	
25	09:00	11:20 (34) 07:46	09:31 (16) 06:27	05:59	04:51	04:28	
	16:39	73 14:21 (24) 17:55	18 09:49 (16) 19:01	21:12	22:18	22:51	
26	08:58	11:23 (34) 07:44	09:32 (16) 06:24	05:57	04:49	04:28	
	16:41	69 15:03 (25) 17:57	16 09:48 (16) 19:03	21:14	22:20	22:50	
27	08:56	11:58 (29) 07:41	09:33 (16) 06:21	05:54	04:47	04:29	
	16:44	66 15:04 (25) 18:00	13 09:46 (16) 19:05	21:17	22:22	22:50	
28	08:54	11:58 (29) 07:38	09:36 (16) 06:18	05:52	04:46	04:30	
	16:46	74 15:10 (25) 18:02	6 09:42 (16) 19:07	21:19	22:24	22:50	
29	08:52	11:59 (29)		07:15	05:49	04:44	04:30
	16:49	82 15:17 (25)		20:10	21:21	22:25	22:50
30	08:50	11:58 (29)		07:12	05:46	04:42	04:31
	16:51	86 15:21 (25)		20:12	21:24	22:27	22:49
31	08:48	11:59 (29)		07:10		04:41	
	16:54	87 15:22 (25)		20:14		22:29	
Potential sun hours	221		365	432	521	547	
Total, worst case	1603	1084					

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Calculation: Oppdatert layout - kun Moifjellet - worst case - oppdatert mottaker **Shadow receptor:** E - Buevegen 1816 (5)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

The sun is shining all the day, from sunrise to sunset

The rotor plane is always perpendicular to the line from the WTG to the sun

The WTG is always operating

	July	August	September	October	November	December	
1	04:32	05:24	06:33	07:39	07:51	11:33 (29) 09:00	
	22:49	22:01	20:40	19:13	16:49	50 13:53 (24) 15:51	
2	04:33	05:26	06:35	07:42	07:54	11:32 (29) 09:02	
	22:48	21:58	20:37	19:10	16:46	55 13:54 (24) 15:50	
3	04:34	05:28	06:37	07:44	07:56	11:31 (29) 09:03	
	22:47	21:56	20:34	19:07	16:44	59 13:55 (24) 15:49	
4	04:35	05:31	06:40	07:46	07:59	11:30 (29) 09:05	
	22:47	21:54	20:31	19:04	16:41	69 14:45 (25) 15:48	
5	04:36	05:33	06:42	07:48	08:01	11:30 (29) 09:07	
	22:46	21:51	20:28	19:02	16:39	76 14:48 (25) 15:47	
6	04:37	05:35	06:44	07:51	08:03	11:30 (29) 09:09	
	22:45	21:49	20:25	18:59	16:37	79 14:50 (25) 15:46	
7	04:39	05:37	06:46	07:53	08:06	11:29 (29) 09:10	
	22:44	21:47	20:22	18:56	16:34	83 14:50 (25) 15:45	
8	04:40	05:39	06:49	07:55	08:08	11:29 (29) 09:12	
	22:43	21:44	20:20	18:53	16:32	87 14:51 (25) 15:45	
9	04:41	05:42	06:51	07:57	08:11	11:30 (29) 09:13	
	22:42	21:42	20:17	18:50	16:30	86 14:52 (25) 15:44	
10	04:43	05:44	06:53	08:00	08:13	11:30 (29) 09:15	
	22:41	21:39	20:14	18:47	16:28	88 14:53 (25) 15:43	
11	04:44	05:46	06:55	08:02	08:15	11:29 (29) 09:16	
	22:39	21:37	20:11	18:45	16:25	87 14:52 (25) 15:43	
12	04:46	05:48	06:57	08:04	08:18	11:30 (29) 09:18	
	22:38	21:34	20:08	18:42	16:23	87 14:53 (25) 15:43	
13	04:47	05:51	07:00	08:07	08:20	11:31 (29) 09:19	
	22:37	21:31	20:05	18:39	16:21	81 14:49 (25) 15:42	
14	04:49	05:53	07:02	08:09	10:08 (16) 08:22	11:30 (29) 09:20	
	22:35	21:29	20:02	18:36	9 10:17 (16) 16:19	73 14:41 (25) 15:42	
15	04:51	05:55	07:04	08:11	10:06 (16) 08:25	11:31 (29) 09:21	
	22:34	21:26	19:59	18:33	14 10:20 (16) 16:17	67 14:37 (25) 15:42	
16	04:52	05:57	07:06	08:13	10:04 (16) 08:27	10:56 (34) 09:22	
	22:32	21:24	19:56	18:31	16 10:20 (16) 16:15	69 14:36 (25) 15:42	
17	04:54	06:00	07:08	08:16	10:03 (16) 08:30	10:54 (34) 09:23	
	22:30	21:21	19:54	18:28	19 10:22 (16) 16:13	73 13:55 (24) 15:42	
18	04:56	06:02	07:11	08:18	10:02 (16) 08:32	10:52 (34) 09:24	
	22:29	21:18	19:51	18:25	20 10:22 (16) 16:11	79 13:54 (24) 15:42	
19	04:58	06:04	07:13	08:20	10:02 (16) 08:34	10:52 (34) 09:25	
	22:27	21:16	19:48	18:22	21 10:23 (16) 16:09	79 13:53 (24) 15:42	
20	05:00	06:06	07:15	08:23	10:01 (16) 08:36	10:51 (34) 09:26	
	22:25	21:13	19:45	18:20	21 10:22 (16) 16:08	78 13:51 (24) 15:43	
21	05:01	06:08	07:17	08:25	10:01 (16) 08:39	10:51 (34) 09:26	
	22:24	21:10	19:42	18:17	21 10:22 (16) 16:06	76 13:50 (24) 15:43	
22	05:03	06:11	07:19	08:27	10:01 (16) 08:41	10:51 (34) 09:27	
	22:22	21:08	19:39	18:14	21 10:22 (16) 16:04	73 13:49 (24) 15:43	
23	05:05	06:13	07:22	08:30	10:01 (16) 08:43	10:51 (34) 09:27	
	22:20	21:05	19:36	18:12	20 10:21 (16) 16:02	63 12:31 (21) 15:44	
24	05:07	06:15	07:24	08:32	10:01 (16) 08:45	10:51 (34) 09:28	
	22:18	21:02	19:33	18:09	19 10:20 (16) 16:01	61 12:32 (21) 15:44	
25	05:09	06:17	07:26	07:35	09:02 (16) 08:47	10:51 (34) 09:28	
	22:16	20:59	19:30	17:06	17 09:19 (16) 15:59	59 12:32 (21) 15:45	
26	05:11	06:20	07:28	07:37	09:03 (16) 08:50	10:52 (34) 09:28	
	22:14	20:57	19:27	17:04	14 09:17 (16) 15:58	55 12:33 (21) 15:46	
27	05:13	06:22	07:30	07:39	09:06 (16) 08:52	10:52 (34) 09:28	
	22:12	20:54	19:25	17:01	10 09:16 (16) 15:56	51 12:33 (21) 15:47	
28	05:16	06:24	07:33	07:42	11:42 (29) 08:54	10:53 (34) 09:28	
	22:10	20:51	19:22	16:59	10 11:52 (29) 15:55	43 12:34 (21) 15:48	
29	05:18	06:26	07:35	07:44	11:38 (29) 08:56	10:53 (34) 09:28	
	22:07	20:48	19:19	16:56	28 13:47 (24) 15:54	43 12:34 (21) 15:49	
30	05:20	06:29	07:37	07:47	11:36 (29) 08:58	10:53 (34) 09:28	
	22:05	20:45	19:16	16:54	39 13:50 (24) 15:52	43 12:34 (21) 15:50	
31	05:22	06:31		07:49	11:35 (29)		09:28
	22:03	20:42		16:51	45 13:52 (24)		15:51
Potential sun hours	546	478	386	319	236		199
Total, worst case				364	2072		268

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)		Last time (hh:mm) with flicker	(WTG causing flicker last time)

SHADOW - Calendar

Calculation: Oppdatert layout - kun Moifjellet - worst case - oppdatert mottaker **Shadow receptor:** F - Buevegen 1818 (6)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

The sun is shining all the day, from sunrise to sunset

The rotor plane is always perpendicular to the line from the WTG to the sun

The WTG is always operating

	January	February	March	April	May	June	
1	09:28	11:23 (34) 08:46	12:23 (29) 07:35	07:07	05:44	04:40	
	15:53	17 11:40 (34) 16:56	82 15:30 (25) 18:05	20:17	21:26	22:30	
2	09:27	11:23 (34) 08:43	12:24 (29) 07:33	07:04	05:41	04:38	
	15:54	17 11:40 (34) 16:58	86 15:34 (25) 18:07	20:19	21:28	22:32	
3	09:27	11:23 (34) 08:41	12:25 (29) 07:30	07:01	05:39	04:37	
	15:55	18 11:41 (34) 17:01	84 15:34 (25) 18:09	20:21	21:31	22:34	
4	09:26	11:23 (34) 08:39	12:25 (29) 07:27	06:58	05:36	04:36	
	15:57	23 12:52 (21) 17:03	85 15:34 (25) 18:12	20:24	21:33	22:35	
5	09:26	11:23 (34) 08:37	12:25 (29) 07:24	06:55	05:34	04:35	
	15:58	25 12:53 (21) 17:06	82 15:33 (25) 18:14	20:26	21:35	22:37	
6	09:25	11:24 (34) 08:34	12:26 (29) 07:21	06:52	05:31	04:34	
	16:00	31 13:06 (21) 17:08	79 15:33 (25) 18:17	20:28	21:37	22:38	
7	09:24	11:24 (34) 08:32	12:26 (29) 07:19	06:50	05:29	04:33	
	16:02	34 13:07 (21) 17:11	74 15:31 (25) 18:19	20:30	21:40	22:39	
8	09:24	11:24 (34) 08:30	12:28 (29) 07:16	06:47	05:26	04:32	
	16:03	41 13:07 (21) 17:13	68 15:30 (25) 18:21	20:33	21:42	22:40	
9	09:23	11:24 (34) 08:27	12:28 (29) 07:13	06:44	05:24	04:31	
	16:05	42 13:07 (21) 17:16	60 15:26 (25) 18:24	20:35	21:44	22:42	
10	09:22	11:25 (34) 08:25	12:29 (29) 07:10	06:41	05:22	04:30	
	16:07	42 13:08 (21) 17:18	51 14:44 (24) 18:26	20:37	21:46	22:43	
11	09:21	11:25 (34) 08:23	12:32 (29) 07:07	06:38	05:19	04:29	
	16:09	43 13:09 (21) 17:21	44 14:43 (24) 18:28	20:40	21:49	22:44	
12	09:20	11:25 (34) 08:20	09:50 (16) 07:04	06:35	05:17	04:29	
	16:11	44 13:09 (21) 17:23	43 14:42 (24) 18:31	20:42	21:51	22:45	
13	09:18	11:26 (34) 08:18	09:46 (16) 07:01	06:32	05:15	04:28	
	16:13	44 13:10 (21) 17:26	41 14:40 (24) 18:33	20:44	21:53	22:46	
14	09:17	11:26 (34) 08:15	09:45 (16) 06:59	06:30	05:13	04:28	
	16:15	54 13:10 (21) 17:28	26 14:38 (24) 18:35	20:47	21:55	22:47	
15	09:16	11:26 (34) 08:13	09:43 (16) 06:56	06:27	05:10	04:27	
	16:17	57 13:10 (21) 17:31	18 10:01 (16) 18:38	20:49	21:58	22:47	
16	09:15	11:27 (34) 08:10	09:42 (16) 06:53	06:24	05:08	04:27	
	16:19	60 13:10 (21) 17:33	20 10:02 (16) 18:40	20:51	22:00	22:48	
17	09:13	11:27 (34) 08:07	09:41 (16) 06:50	06:21	05:06	04:27	
	16:21	63 13:10 (21) 17:35	21 10:02 (16) 18:42	20:53	22:02	22:49	
18	09:12	11:28 (34) 08:05	09:41 (16) 06:47	06:19	05:04	04:27	
	16:23	64 13:11 (21) 17:38	22 10:03 (16) 18:45	20:56	22:04	22:49	
19	09:10	11:29 (34) 08:02	09:41 (16) 06:44	06:16	05:02	04:27	
	16:25	63 13:11 (21) 17:40	22 10:03 (16) 18:47	20:58	22:06	22:50	
20	09:08	11:30 (34) 08:00	09:40 (16) 06:41	06:13	05:00	04:27	
	16:28	63 13:11 (21) 17:43	23 10:03 (16) 18:49	21:00	22:08	22:50	
21	09:07	11:31 (34) 07:57	09:40 (16) 06:38	06:10	04:58	04:27	
	16:30	62 13:10 (21) 17:45	22 10:02 (16) 18:51	21:03	22:10	22:50	
22	09:05	11:31 (34) 07:54	09:40 (16) 06:36	06:08	04:56	04:27	
	16:32	60 13:09 (21) 17:48	22 10:02 (16) 18:54	21:05	22:12	22:50	
23	09:03	11:33 (34) 07:52	09:42 (16) 06:33	06:05	04:54	04:27	
	16:34	66 14:33 (24) 17:50	20 10:02 (16) 18:56	21:07	22:14	22:50	
24	09:02	11:35 (34) 07:49	09:42 (16) 06:30	06:02	04:52	04:27	
	16:37	67 14:36 (24) 17:53	19 10:01 (16) 18:58	21:10	22:16	22:51	
25	09:00	11:39 (34) 07:46	09:43 (16) 06:27	05:59	04:51	04:28	
	16:39	58 14:38 (24) 17:55	16 09:59 (16) 19:01	21:12	22:18	22:50	
26	08:58	12:24 (29) 07:44	09:45 (16) 06:24	05:57	04:49	04:28	
	16:41	55 14:40 (24) 17:57	12 09:57 (16) 19:03	21:14	22:20	22:50	
27	08:56	12:23 (29) 07:41	09:48 (16) 06:21	05:54	04:47	04:29	
	16:44	57 14:40 (24) 18:00	5 09:53 (16) 19:05	21:17	22:22	22:50	
28	08:54	12:23 (29) 07:38		06:18	05:52	04:46	04:30
	16:46	61 15:15 (25) 18:02		19:07	21:19	22:24	22:50
29	08:52	12:24 (29)		07:15	05:49	04:44	04:30
	16:49	67 15:19 (25)		20:10	21:21	22:25	22:50
30	08:50	12:23 (29)		07:12	05:46	04:42	04:31
	16:51	74 15:23 (25)		20:12	21:24	22:27	22:49
31	08:48	12:24 (29)		07:10		04:41	
	16:53	77 15:26 (25)		20:14		22:29	
Potential sun hours	221		365	432	521	547	
Total, worst case	1549	260	1147				

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Calculation: Oppdatert layout - kun Moifjellet - worst case - oppdatert mottaker **Shadow receptor:** F - Buevegen 1818 (6)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

The sun is shining all the day, from sunrise to sunset

The rotor plane is always perpendicular to the line from the WTG to the sun

The WTG is always operating

	July	August	September	October	November	December			
1	04:32	05:24	06:33	07:39	07:51	11:59 (29) 09:00	11:07 (34)		
	22:49	22:01	20:40	19:13	16:49	51 14:13 (24) 15:51	43 12:51 (21)		
2	04:33	05:26	06:35	07:42	07:54	11:58 (29) 09:02	11:08 (34)		
	22:48	21:58	20:37	19:10	16:46	61 14:57 (25) 15:50	42 12:51 (21)		
3	04:34	05:28	06:37	07:44	07:56	11:57 (29) 09:03	11:08 (34)		
	22:47	21:56	20:34	19:07	16:44	71 15:00 (25) 15:49	42 12:51 (21)		
4	04:35	05:31	06:40	07:46	07:59	11:56 (29) 09:05	11:09 (34)		
	22:47	21:54	20:31	19:04	16:41	76 15:01 (25) 15:48	41 12:52 (21)		
5	04:36	05:33	06:42	07:48	08:01	11:55 (29) 09:07	11:09 (34)		
	22:46	21:51	20:28	19:02	16:39	80 15:02 (25) 15:47	35 12:52 (21)		
6	04:37	05:35	06:44	07:51	08:03	11:55 (29) 09:09	11:10 (34)		
	22:45	21:49	20:25	18:59	16:37	82 15:03 (25) 15:46	31 12:52 (21)		
7	04:38	05:37	06:46	07:53	08:06	11:54 (29) 09:10	11:11 (34)		
	22:44	21:47	20:22	18:56	16:34	84 15:03 (25) 15:45	24 12:40 (21)		
8	04:40	05:39	06:49	07:55	08:08	11:54 (29) 09:12	11:11 (34)		
	22:43	21:44	20:20	18:53	16:32	87 15:04 (25) 15:45	24 12:41 (21)		
9	04:41	05:42	06:51	07:57	08:11	11:55 (29) 09:13	11:12 (34)		
	22:42	21:42	20:17	18:50	16:30	87 15:05 (25) 15:44	20 12:37 (21)		
10	04:43	05:44	06:53	08:00	08:13	11:55 (29) 09:15	11:12 (34)		
	22:40	21:39	20:14	18:47	16:28	81 15:01 (25) 15:43	17 11:29 (34)		
11	04:44	05:46	06:55	08:02	08:15	11:54 (29) 09:16	11:14 (34)		
	22:39	21:37	20:11	18:45	16:25	78 14:57 (25) 15:43	16 11:30 (34)		
12	04:46	05:48	06:57	08:04	08:18	11:55 (29) 09:18	11:14 (34)		
	22:38	21:34	20:08	18:42	16:23	74 14:55 (25) 15:43	15 11:29 (34)		
13	04:47	05:51	07:00	08:07	08:20	11:55 (29) 09:19	11:15 (34)		
	22:37	21:31	20:05	18:39	16:21	68 14:51 (25) 15:42	15 11:30 (34)		
14	04:49	05:53	07:02	08:09	08:22	11:55 (29) 09:20	11:16 (34)		
	22:35	21:29	20:02	18:36	16:19	62 14:47 (25) 15:42	14 11:30 (34)		
15	04:51	05:55	07:04	08:11	10:19 (16)	08:25	11:56 (29) 09:21	11:16 (34)	
	22:34	21:26	19:59	18:33	8 10:27 (16)	16:17	57 14:13 (24) 15:42	14 11:30 (34)	
16	04:52	05:57	07:06	08:13	10:16 (16)	08:27	11:57 (29) 09:22	11:17 (34)	
	22:32	21:24	19:56	18:31	14 10:30 (16)	16:15	54 14:12 (24) 15:42	12 11:29 (34)	
17	04:54	06:00	07:08	08:16	10:15 (16)	08:29	11:12 (34) 09:23	11:17 (34)	
	22:30	21:21	19:54	18:28	17 10:32 (16)	16:13	58 14:11 (24) 15:42	12 11:29 (34)	
18	04:56	06:02	07:11	08:18	10:13 (16)	08:32	11:09 (34) 09:24	11:18 (34)	
	22:29	21:18	19:51	18:25	19 10:32 (16)	16:11	67 14:10 (24) 15:42	11 11:29 (34)	
19	04:58	06:04	07:13	08:20	10:12 (16)	08:34	11:08 (34) 09:25	11:19 (34)	
	22:27	21:16	19:48	18:22	21 10:33 (16)	16:09	66 14:08 (24) 15:42	11 11:30 (34)	
20	05:00	06:06	07:15	08:23	10:11 (16)	08:36	11:06 (34) 09:26	11:20 (34)	
	22:25	21:13	19:45	18:20	22 10:33 (16)	16:08	60 12:44 (21) 15:43	10 11:30 (34)	
21	05:01	06:08	07:17	08:25	10:11 (16)	08:39	11:06 (34) 09:26	11:20 (34)	
	22:24	21:10	19:42	18:17	23 10:34 (16)	16:06	62 12:45 (21) 15:43	10 11:30 (34)	
22	05:03	06:11	07:19	08:27	10:10 (16)	08:41	11:06 (34) 09:27	11:21 (34)	
	22:22	21:08	19:39	18:14	23 10:33 (16)	16:04	63 12:47 (21) 15:43	10 11:31 (34)	
23	05:05	06:13	07:22	08:30	10:11 (16)	08:43	11:05 (34) 09:27	11:21 (34)	
	22:20	21:05	19:36	18:12	22 10:33 (16)	16:02	63 12:47 (21) 15:44	10 11:31 (34)	
24	05:07	06:15	07:24	08:32	10:10 (16)	08:45	11:05 (34) 09:28	11:22 (34)	
	22:18	21:02	19:33	18:09	22 10:32 (16)	16:01	64 12:48 (21) 15:44	10 11:32 (34)	
25	05:09	06:17	07:26	07:35	09:11 (16)	08:47	11:05 (34) 09:28	11:22 (34)	
	22:16	20:59	19:30	17:06	21 09:32 (16)	15:59	63 12:48 (21) 15:45	11 11:33 (34)	
26	05:11	06:20	07:28	07:37	09:11 (16)	08:50	11:06 (34) 09:28	11:22 (34)	
	22:14	20:56	19:27	17:04	20 09:31 (16)	15:58	60 12:49 (21) 15:46	12 11:34 (34)	
27	05:13	06:22	07:30	07:39	09:13 (16)	08:52	11:05 (34) 09:28	11:23 (34)	
	22:12	20:54	19:25	17:01	17 09:30 (16)	15:56	58 12:49 (21) 15:47	11 11:34 (34)	
28	05:16	06:24	07:33	07:42	09:14 (16)	08:54	11:06 (34) 09:28	11:23 (34)	
	22:10	20:51	19:22	16:59	28 14:08 (24)	15:55	53 12:50 (21) 15:48	13 11:36 (34)	
29	05:18	06:26	07:35	07:44	09:16 (16)	08:56	11:06 (34) 09:28	11:22 (34)	
	22:07	20:48	19:19	16:56	42 14:10 (24)	15:54	44 12:50 (21) 15:49	14 11:36 (34)	
30	05:20	06:29	07:37	07:47	12:02 (29)	08:58	11:06 (34) 09:28	11:23 (34)	
	22:05	20:45	19:16	16:54	40 14:11 (24)	15:52	43 12:50 (21) 15:50	15 11:38 (34)	
31	05:22	06:31		07:49	12:01 (29)			09:28	11:23 (34)
	22:03	20:42		16:51	46 14:13 (24)			15:51	15 11:38 (34)
Potential sun hours	546	478	386	319	236	197	199	580	
Total, worst case				405	1977				

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Calculation: Oppdatert layout - kun Moifjellet - worst case - oppdatert mottaker **Shadow receptor:** G - Buevegen 1786 (7)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

The sun is shining all the day, from sunrise to sunset

The rotor plane is always perpendicular to the line from the WTG to the sun

The WTG is always operating

	January	February	March	April	May	June			
1	09:28 15:53		08:46 16:56	70	11:27 (29) 14:51 (25)	07:35 18:05	07:07 20:17	05:44 21:26	04:40 22:31
2	09:27 15:54	12:04 (21)	08:43 16:58	60	11:27 (29) 13:50 (24)	07:33 18:07	07:04 20:19	05:41 21:28	04:38 22:32
3	09:27 15:55	12:05 (21)	08:41 17:01	58	11:28 (29) 13:50 (24)	07:30 18:09	07:01 20:21	05:39 21:31	04:37 22:34
4	09:27 15:57	12:04 (21)	08:39 17:03	54	11:28 (29) 13:48 (24)	07:27 18:12	06:58 20:24	05:36 21:33	04:36 22:35
5	09:26 15:58	12:04 (21)	08:37 17:06	52	11:28 (29) 13:47 (24)	07:24 18:14	06:55 20:26	05:34 21:35	04:35 22:37
6	09:25 16:00	12:04 (21)	08:34 17:08	49	11:29 (29) 13:47 (24)	07:21 18:17	06:52 20:28	05:31 21:37	04:34 22:38
7	09:24 16:02	12:05 (21)	08:32 17:11	43	11:29 (29) 13:44 (24)	07:19 18:19	06:50 20:30	05:29 21:40	04:33 22:39
8	09:24 16:03	12:05 (21)	08:30 17:13	35	11:31 (29) 13:42 (24)	07:16 18:21	06:47 20:33	05:26 21:42	04:32 22:40
9	09:23 16:05	12:06 (21)	08:27 17:16	22	11:32 (29) 11:54 (29)	07:13 18:24	06:44 20:35	05:24 21:44	04:31 22:42
10	09:22 16:07	12:06 (21)	08:25 17:18	18	11:34 (29) 11:52 (29)	07:10 18:26	06:41 20:37	05:22 21:46	04:30 22:43
11	09:21 16:09	12:07 (21)	08:23 17:21	13	11:37 (29) 11:50 (29)	07:07 18:28	06:38 20:40	05:19 21:49	04:29 22:44
12	09:20 16:11	12:07 (21)	08:20 17:23	2	11:42 (29) 11:44 (29)	07:04 18:31	06:35 20:42	05:17 21:51	04:29 22:45
13	09:18 16:13	12:08 (21)	08:18 17:26			07:02 18:33	06:32 20:44	05:15 21:53	04:28 22:46
14	09:17 16:15	12:08 (21)	08:15 17:28	3	09:31 (16) 09:34 (16)	06:59 18:35	06:30 20:47	05:13 21:55	04:28 22:47
15	09:16 16:17	13:38 (24)	08:13 17:31	10	09:27 (16) 09:37 (16)	06:56 18:38	06:27 20:49	05:10 21:58	04:27 22:47
16	09:15 16:19	11:31 (29)	08:10 17:33	14	09:25 (16) 09:39 (16)	06:53 18:40	06:24 20:51	05:08 22:00	04:27 22:48
17	09:13 16:21	11:31 (29)	08:07 17:36	17	09:23 (16) 09:40 (16)	06:50 18:42	06:21 20:53	05:06 22:02	04:27 22:49
18	09:12 16:23	11:30 (29)	08:05 17:38	18	09:23 (16) 09:41 (16)	06:47 18:45	06:19 20:56	05:04 22:04	04:27 22:49
19	09:10 16:25	14:53 (25)	08:02 17:40	18	09:23 (16) 09:41 (16)	06:44 18:47	06:16 20:58	05:02 22:06	04:27 22:50
20	09:09 16:28	11:28 (29)	08:00 17:43	19	09:22 (16) 09:41 (16)	06:41 18:49	06:13 21:00	05:00 22:08	04:27 22:50
21	09:07 16:30	14:54 (25)	07:57 17:45	19	09:22 (16) 09:41 (16)	06:39 18:51	06:10 21:03	04:58 22:10	04:27 22:50
22	09:05 16:32	11:27 (29)	07:54 17:48	19	09:22 (16) 09:41 (16)	06:36 18:54	06:08 21:05	04:56 22:12	04:27 22:50
23	09:03 16:34	14:55 (25)	07:52 17:50	18	09:23 (16) 09:41 (16)	06:33 18:56	06:05 21:07	04:54 22:14	04:27 22:51
24	09:02 16:37	11:26 (29)	07:49 17:53	17	09:23 (16) 09:40 (16)	06:30 18:58	06:02 21:10	04:52 22:16	04:27 22:51
25	09:00 16:39	14:55 (25)	07:46 17:55	14	09:24 (16) 09:38 (16)	06:27 19:01	05:59 21:12	04:51 22:18	04:28 22:51
26	08:58 16:41	11:26 (29)	07:44 17:57	11	09:25 (16) 09:36 (16)	06:24 19:03	05:57 21:14	04:49 22:20	04:28 22:50
27	08:56 16:44	11:25 (29)	07:41 18:00	3	09:29 (16) 09:32 (16)	06:21 19:05	05:54 21:17	04:47 22:22	04:29 22:50
28	08:54 16:46	14:54 (25)	07:38 18:02			06:18 19:08	05:52 21:19	04:46 22:24	04:30 22:50
29	08:52 16:49	11:26 (29)				07:15 20:10	05:49 21:21	04:44 22:25	04:30 22:50
30	08:50 16:51	14:54 (25)				07:13 20:12	05:46 21:24	04:42 22:27	04:31 22:49
31	08:48 16:54	11:26 (29)				07:10 20:14		04:41 22:29	
Potential sun hours	221		260		365	432	521	547	
Total, worst case	1565		676						

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Calculation: Oppdatert layout - kun Moifjellet - worst case - oppdatert mottaker **Shadow receptor:** G - Buevegen 1786 (7)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

The sun is shining all the day, from sunrise to sunset

The rotor plane is always perpendicular to the line from the WTG to the sun

The WTG is always operating

	July	August	September	October		November		December	
1	04:32	05:24	06:33	07:39		07:51		11:03 (29)	09:00
	22:49	22:01	20:40	19:13		16:49	19	11:22 (29)	15:51
2	04:33	05:26	06:35	07:42		07:54		11:01 (29)	09:02
	22:48	21:59	20:37	19:10		16:46	23	11:24 (29)	15:50
3	04:34	05:28	06:37	07:44		07:56		11:01 (29)	09:03
	22:47	21:56	20:34	19:07		16:44	36	13:12 (24)	15:49
4	04:35	05:31	06:40	07:46		07:59		10:59 (29)	09:05
	22:47	21:54	20:31	19:04		16:41	43	13:14 (24)	15:48
5	04:36	05:33	06:42	07:48		08:01		10:59 (29)	09:07
	22:46	21:51	20:28	19:02		16:39	48	13:16 (24)	15:47
6	04:37	05:35	06:44	07:51		08:03		10:58 (29)	09:09
	22:45	21:49	20:25	18:59		16:37	53	13:18 (24)	15:46
7	04:39	05:37	06:46	07:53		08:06		10:57 (29)	09:10
	22:44	21:47	20:23	18:56		16:34	55	13:18 (24)	15:45
8	04:40	05:39	06:49	07:55		08:08		10:57 (29)	09:12
	22:43	21:44	20:20	18:53		16:32	58	13:19 (24)	15:45
9	04:41	05:42	06:51	07:57		08:11		10:57 (29)	09:13
	22:42	21:42	20:17	18:50		16:30	63	14:18 (25)	15:44
10	04:43	05:44	06:53	08:00		08:13		10:58 (29)	09:15
	22:41	21:39	20:14	18:47		16:28	71	14:22 (25)	15:43
11	04:44	05:46	06:55	08:02		08:15		10:57 (29)	09:16
	22:39	21:37	20:11	18:45		16:25	76	14:23 (25)	15:43
12	04:46	05:48	06:57	08:04		08:18		10:57 (29)	09:18
	22:38	21:34	20:08	18:42		16:23	80	14:25 (25)	15:43
13	04:47	05:51	07:00	08:07		08:20		10:58 (29)	09:19
	22:37	21:32	20:05	18:39		16:21	81	14:26 (25)	15:42
14	04:49	05:53	07:02	08:09		08:22		10:58 (29)	09:20
	22:35	21:29	20:02	18:36		16:19	82	14:26 (25)	15:42
15	04:51	05:55	07:04	08:11		08:25		10:58 (29)	09:21
	22:34	21:26	19:59	18:33	7	10:07 (16)	83	14:27 (25)	15:42
16	04:52	05:57	07:06	08:13		09:57 (16)	87	10:59 (29)	09:22
	22:32	21:24	19:56	18:31	12	10:09 (16)	83	14:28 (25)	15:42
17	04:54	06:00	07:08	08:16		09:55 (16)	87	11:00 (29)	09:23
	22:31	21:21	19:54	18:28	16	10:11 (16)	83	14:29 (25)	15:42
18	04:56	06:02	07:11	08:18		09:54 (16)	87	11:00 (29)	09:24
	22:29	21:18	19:51	18:25	17	10:11 (16)	81	14:29 (25)	15:42
19	04:58	06:04	07:13	08:20		09:54 (16)	87	11:01 (29)	09:25
	22:27	21:16	19:48	18:22	18	10:12 (16)	87	14:29 (25)	15:42
20	05:00	06:06	07:15	08:23		09:53 (16)	87	11:01 (29)	09:26
	22:25	21:13	19:45	18:20	19	10:12 (16)	89	14:29 (25)	15:43
21	05:01	06:08	07:17	08:25		09:53 (16)	87	11:03 (29)	09:26
	22:24	21:10	19:42	18:17	19	10:12 (16)	88	14:29 (25)	15:43
22	05:03	06:11	07:19	08:27		09:52 (16)	87	11:04 (29)	09:27
	22:22	21:08	19:39	18:14	20	10:12 (16)	88	14:30 (25)	15:43
23	05:05	06:13	07:22	08:30		09:53 (16)	87	11:05 (29)	09:27
	22:20	21:05	19:36	18:12	19	10:12 (16)	84	14:29 (25)	15:44
24	05:07	06:15	07:24	08:32		09:53 (16)	87	11:07 (29)	09:28
	22:18	21:02	19:33	18:09	17	10:10 (16)	72	14:30 (25)	15:44
25	05:09	06:17	07:26	07:35		08:54 (16)	87	11:08 (29)	09:28
	22:16	20:59	19:30	17:06	16	09:10 (16)	58	13:20 (24)	15:45
26	05:11	06:20	07:28	07:37		08:56 (16)	87	11:10 (29)	09:28
	22:14	20:57	19:27	17:04	13	09:09 (16)	54	13:20 (24)	15:46
27	05:13	06:22	07:30	07:39		08:57 (16)	87	11:12 (29)	09:28
	22:12	20:54	19:25	17:01	9	09:06 (16)	49	13:19 (24)	15:47
28	05:16	06:24	07:33	07:42		08:54		11:48 (21)	09:28
	22:10	20:51	19:22	16:59		15:55	35	13:18 (24)	15:48
29	05:18	06:26	07:35	07:44		08:56		11:48 (21)	09:28
	22:07	20:48	19:19	16:56		15:54	33	13:17 (24)	15:49
30	05:20	06:29	07:37	07:47		11:09 (29)		11:48 (21)	09:28
	22:05	20:45	19:16	16:54	7	11:16 (29)	30	13:15 (24)	15:50
31	05:22	06:31		07:49		11:06 (29)			09:28
	22:03	20:42		16:51	14	11:20 (29)			15:51
Potential sun hours	546	478	386	319		236		199	
Total, worst case					223		1885		154

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Calculation: Oppdatert layout - kun Moifjellet - worst case - oppdatert mottaker **Shadow receptor:** H - Buevegen 1784 (8)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

The sun is shining all the day, from sunrise to sunset

The rotor plane is always perpendicular to the line from the WTG to the sun

The WTG is always operating

	January	February	March	April	May	June
1	09:28 15:53	21 12:18 (21) 08:46 12:39 (21) 16:56	47 11:54 (29) 07:35 14:04 (24) 18:05	07:07 20:17	05:44 21:26	04:40 22:31
2	09:27 15:54	22 11:56 (29) 08:43 12:39 (21) 16:58	44 11:54 (29) 07:33 14:02 (24) 18:07	07:04 20:19	05:41 21:28	04:38 22:32
3	09:27 15:55	28 11:53 (29) 08:41 12:39 (21) 17:01	38 11:56 (29) 07:30 14:01 (24) 18:09	07:01 20:21	05:39 21:31	04:37 22:34
4	09:27 15:57	32 11:52 (29) 08:39 12:40 (21) 17:03	31 11:57 (29) 07:27 13:59 (24) 18:12	06:58 20:24	05:36 21:33	04:36 22:35
5	09:26 15:58	34 11:51 (29) 08:37 12:40 (21) 17:06	18 11:59 (29) 07:24 13:54 (24) 18:14	06:55 20:26	05:34 21:35	04:35 22:37
6	09:25 16:00	36 11:50 (29) 08:34 12:40 (21) 17:08	3 12:05 (29) 07:21 12:08 (29) 18:17	06:52 20:28	05:31 21:37	04:34 22:38
7	09:24 16:02	43 11:50 (29) 08:32 13:47 (24) 17:11	07:19 18:19	06:50 20:30	05:29 21:40	04:33 22:39
8	09:24 16:03	49 11:50 (29) 08:30 13:50 (24) 17:13	07:16 18:21	06:47 20:33	05:26 21:42	04:32 22:40
9	09:23 16:05	54 11:50 (29) 08:27 13:52 (24) 17:16	6 09:43 (16) 07:13 09:49 (16) 18:24	06:44 20:35	05:24 21:44	04:31 22:42
10	09:22 16:07	57 11:49 (29) 08:25 13:53 (24) 17:18	11 09:40 (16) 07:10 09:51 (16) 18:26	06:41 20:37	05:22 21:46	04:30 22:43
11	09:21 16:09	60 11:49 (29) 08:23 13:55 (24) 17:21	15 09:39 (16) 07:07 09:54 (16) 18:28	06:38 20:40	05:19 21:49	04:29 22:44
12	09:20 16:11	61 11:48 (29) 08:20 13:55 (24) 17:23	16 09:38 (16) 07:04 09:54 (16) 18:31	06:35 20:42	05:17 21:51	04:29 22:45
13	09:18 16:13	64 11:49 (29) 08:18 13:57 (24) 17:26	18 09:37 (16) 07:02 09:55 (16) 18:33	06:32 20:44	05:15 21:53	04:28 22:46
14	09:17 16:15	64 11:48 (29) 08:15 13:58 (24) 17:28	19 09:37 (16) 06:59 09:56 (16) 18:35	06:30 20:47	05:13 21:55	04:28 22:47
15	09:16 16:17	74 11:48 (29) 08:13 14:47 (25) 17:31	20 09:36 (16) 06:56 09:56 (16) 18:38	06:27 20:49	05:10 21:58	04:27 22:47
16	09:15 16:19	83 11:47 (29) 08:10 14:59 (25) 17:33	20 09:36 (16) 06:53 09:56 (16) 18:40	06:24 20:51	05:08 22:00	04:27 22:48
17	09:13 16:21	88 11:48 (29) 08:07 15:01 (25) 17:36	19 09:36 (16) 06:50 09:55 (16) 18:42	06:21 20:53	05:06 22:02	04:27 22:49
18	09:12 16:23	87 11:48 (29) 08:05 15:01 (25) 17:38	19 09:37 (16) 06:47 09:56 (16) 18:45	06:19 20:56	05:04 22:04	04:27 22:49
19	09:10 16:25	84 11:48 (29) 08:02 15:02 (25) 17:40	18 09:37 (16) 06:44 09:55 (16) 18:47	06:16 20:58	05:02 22:06	04:27 22:50
20	09:08 16:28	79 11:48 (29) 08:00 15:02 (25) 17:43	16 09:38 (16) 06:41 09:54 (16) 18:49	06:13 21:00	05:00 22:08	04:27 22:50
21	09:07 16:30	80 11:48 (29) 07:57 15:02 (25) 17:45	13 09:39 (16) 06:39 09:52 (16) 18:51	06:10 21:03	04:58 22:10	04:27 22:50
22	09:05 16:32	82 11:48 (29) 07:54 15:03 (25) 17:48	8 09:41 (16) 06:36 09:49 (16) 18:54	06:08 21:05	04:56 22:12	04:27 22:50
23	09:03 16:34	80 11:48 (29) 07:52 15:02 (25) 17:50	06:33 18:56	06:05 21:07	04:54 22:14	04:27 22:51
24	09:02 16:37	80 11:48 (29) 07:49 15:02 (25) 17:53	06:30 18:58	06:02 21:10	04:52 22:16	04:27 22:51
25	09:00 16:39	80 11:49 (29) 07:46 15:02 (25) 17:55	06:27 19:01	05:59 21:12	04:51 22:18	04:28 22:51
26	08:58 16:41	79 11:49 (29) 07:44 15:02 (25) 17:57	06:24 19:03	05:57 21:14	04:49 22:20	04:28 22:50
27	08:56 16:44	75 11:49 (29) 07:41 15:01 (25) 18:00	06:21 19:05	05:54 21:17	04:47 22:22	04:29 22:50
28	08:54 16:46	73 11:50 (29) 07:38 15:01 (25) 18:02	06:18 19:08	05:52 21:19	04:46 22:24	04:30 22:50
29	08:52 16:49	69 11:51 (29) 07:36 15:00 (25) 18:02	07:15 20:10	05:49 21:21	04:44 22:25	04:30 22:50
30	08:50 16:51	64 11:51 (29) 07:34 14:58 (25) 18:02	07:12 20:12	05:46 21:24	04:42 22:27	04:31 22:49
31	08:48 16:54	54 11:52 (29) 07:32 14:55 (25) 18:02	07:10 20:14	04:41 22:29	04:41 22:29	04:31 22:49
Potential sun hours	221	260	365	432	521	547
Total, worst case	1936	399				

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)		Last time (hh:mm) with flicker	(WTG causing flicker last time)

SHADOW - Calendar

Calculation: Oppdatert layout - kun Moifjellet - worst case - oppdatert mottaker **Shadow receptor:** H - Buevegen 1784 (8)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

The sun is shining all the day, from sunrise to sunset

The rotor plane is always perpendicular to the line from the WTG to the sun

The WTG is always operating

	July	August	September	October	November	December		
1	04:32	05:24	06:33	07:39	07:51	09:10 (16) 09:00	11:31 (29)	
	22:49	22:01	20:40	19:13	16:49	11 09:21 (16) 15:51	60 13:37 (24)	
2	04:33	05:26	06:35	07:42	07:54	09:13 (16) 09:02	11:32 (29)	
	22:48	21:59	20:37	19:10	16:46	5 09:18 (16) 15:50	56 13:36 (24)	
3	04:34	05:28	06:37	07:44	07:56	09:15 (16) 09:03	11:33 (29)	
	22:47	21:56	20:34	19:07	16:44	15:49	53 13:35 (24)	
4	04:35	05:31	06:40	07:46	07:59	09:16 (16) 09:05	11:34 (29)	
	22:47	21:54	20:31	19:04	16:41	15:48	49 13:34 (24)	
5	04:36	05:33	06:42	07:48	08:01	11:33 (29) 09:07	11:35 (29)	
	22:46	21:51	20:28	19:02	16:39	6 11:39 (29) 15:47	44 13:32 (24)	
6	04:37	05:35	06:44	07:51	08:03	11:30 (29) 09:09	11:36 (29)	
	22:45	21:49	20:25	18:59	16:37	20 13:26 (24) 15:46	37 12:27 (21)	
7	04:38	05:37	06:46	07:53	08:06	11:27 (29) 09:10	11:38 (29)	
	22:44	21:47	20:22	18:56	16:34	31 13:29 (24) 15:45	34 12:27 (21)	
8	04:40	05:39	06:49	07:55	08:08	11:26 (29) 09:12	11:40 (29)	
	22:43	21:44	20:20	18:53	16:32	38 13:31 (24) 15:45	32 12:28 (21)	
9	04:41	05:42	06:51	07:57	08:11	11:25 (29) 09:13	11:42 (29)	
	22:42	21:42	20:17	18:50	16:30	44 13:33 (24) 15:44	29 12:28 (21)	
10	04:43	05:44	06:53	08:00	08:13	11:24 (29) 09:15	11:44 (29)	
	22:41	21:39	20:14	18:47	16:28	48 13:34 (24) 15:43	24 12:28 (21)	
11	04:44	05:46	06:55	08:02	08:15	11:23 (29) 09:16	12:08 (21)	
	22:39	21:37	20:11	18:45	16:25	55 14:27 (25) 15:43	21 12:29 (21)	
12	04:46	05:48	06:57	08:04	08:18	11:23 (29) 09:18	12:08 (21)	
	22:38	21:34	20:08	18:42	16:23	63 14:30 (25) 15:43	21 12:29 (21)	
13	04:47	05:51	07:00	08:07	08:20	11:23 (29) 09:19	12:09 (21)	
	22:37	21:32	20:05	18:39	16:21	69 14:32 (25) 15:42	21 12:30 (21)	
14	04:49	05:53	07:02	08:09	08:22	11:22 (29) 09:20	12:09 (21)	
	22:35	21:29	20:02	18:36	16:19	73 14:33 (25) 15:42	21 12:30 (21)	
15	04:51	05:55	07:04	08:11	08:25	11:22 (29) 09:21	12:09 (21)	
	22:34	21:26	19:59	18:33	16:17	76 14:34 (25) 15:42	21 12:30 (21)	
16	04:52	05:57	07:06	08:13	08:27	11:22 (29) 09:22	12:10 (21)	
	22:32	21:24	19:56	18:31	16:15	79 14:35 (25) 15:42	20 12:30 (21)	
17	04:54	06:00	07:08	08:16	08:30	11:23 (29) 09:23	12:10 (21)	
	22:31	21:21	19:54	18:28	16:13	80 14:36 (25) 15:42	21 12:31 (21)	
18	04:56	06:02	07:11	08:18	08:32	11:22 (29) 09:24	12:11 (21)	
	22:29	21:18	19:51	18:25	16:11	80 14:36 (25) 15:42	20 12:31 (21)	
19	04:58	06:04	07:13	08:20	08:34	11:23 (29) 09:25	12:12 (21)	
	22:27	21:16	19:48	18:22	16:09	80 14:37 (25) 15:42	20 12:32 (21)	
20	05:00	06:06	07:15	08:23	10:11 (16) 08:36	11:22 (29) 09:26	12:12 (21)	
	22:25	21:13	19:45	18:20	10 10:21 (16) 16:08	82 14:37 (25) 15:43	20 12:32 (21)	
21	05:01	06:08	07:17	08:25	10:09 (16) 08:39	11:23 (29) 09:26	12:12 (21)	
	22:24	21:10	19:42	18:17	15 10:24 (16) 16:06	80 14:37 (25) 15:43	20 12:32 (21)	
22	05:03	06:11	07:19	08:27	10:08 (16) 08:41	11:24 (29) 09:27	12:13 (21)	
	22:22	21:08	19:39	18:14	16 10:24 (16) 16:04	79 14:38 (25) 15:43	20 12:33 (21)	
23	05:05	06:13	07:22	08:30	10:07 (16) 08:43	11:24 (29) 09:27	12:13 (21)	
	22:20	21:05	19:36	18:12	18 10:25 (16) 16:02	83 14:38 (25) 15:44	20 12:33 (21)	
24	05:07	06:15	07:24	08:32	10:06 (16) 08:45	11:25 (29) 09:28	12:14 (21)	
	22:18	21:02	19:33	18:09	19 10:25 (16) 16:01	87 14:38 (25) 15:44	21 12:35 (21)	
25	05:09	06:17	07:26	07:35	09:06 (16) 08:47	11:25 (29) 09:28	12:15 (21)	
	22:16	20:59	19:30	17:06	20 09:26 (16) 15:59	87 14:38 (25) 15:45	20 12:35 (21)	
26	05:11	06:20	07:28	07:37	09:06 (16) 08:50	11:26 (29) 09:28	12:15 (21)	
	22:14	20:57	19:27	17:04	20 09:26 (16) 15:58	83 14:38 (25) 15:46	20 12:35 (21)	
27	05:13	06:22	07:30	07:39	09:06 (16) 08:52	11:27 (29) 09:28	12:16 (21)	
	22:12	20:54	19:25	17:01	19 09:25 (16) 15:56	75 14:34 (25) 15:47	20 12:36 (21)	
28	05:16	06:24	07:33	07:42	09:06 (16) 08:54	11:28 (29) 09:28	12:16 (21)	
	22:10	20:51	19:22	16:59	19 09:25 (16) 15:55	65 13:38 (24) 15:48	21 12:37 (21)	
29	05:18	06:26	07:35	07:44	09:06 (16) 08:56	11:29 (29) 09:28	12:16 (21)	
	22:07	20:48	19:19	16:56	18 09:24 (16) 15:54	64 13:37 (24) 15:49	20 12:36 (21)	
30	05:20	06:29	07:37	07:47	09:07 (16) 08:58	11:29 (29) 09:28	12:17 (21)	
	22:05	20:45	19:16	16:54	17 09:24 (16) 15:52	62 13:37 (24) 15:50	20 12:37 (21)	
31	05:22	06:31		07:49	09:09 (16)		09:28	12:16 (21)
	22:03	20:42		16:51	14 09:23 (16)		15:51	21 12:37 (21)
Potential sun hours	546	478	386	319	236	1705	199	847
Total, worst case				205				

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Calculation: Oppdatert layout - kun Moifjellet - worst case - oppdatert mottaker **Shadow receptor:** I - Buevegen 1782 (9)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

The sun is shining all the day, from sunrise to sunset

The rotor plane is always perpendicular to the line from the WTG to the sun

The WTG is always operating

	January	February	March	April	May	June	
1	09:28	12:08 (21) 08:46	11:39 (29) 07:35	07:07	05:44	04:40	
	15:53	21 12:29 (21) 16:56	48 13:50 (24) 18:05	20:17	21:26	22:31	
2	09:27	12:08 (21) 08:43	11:40 (29) 07:33	07:04	05:41	04:38	
	15:54	21 12:29 (21) 16:58	44 13:48 (24) 18:07	20:19	21:28	22:32	
3	09:27	12:09 (21) 08:41	11:41 (29) 07:30	07:01	05:39	04:37	
	15:55	20 12:29 (21) 17:01	39 13:47 (24) 18:09	20:21	21:31	22:34	
4	09:27	12:09 (21) 08:39	11:42 (29) 07:27	06:58	05:36	04:36	
	15:57	21 12:30 (21) 17:03	31 13:44 (24) 18:12	20:24	21:33	22:35	
5	09:26	12:09 (21) 08:37	11:43 (29) 07:24	06:55	05:34	04:35	
	15:58	21 12:30 (21) 17:06	18 12:01 (29) 18:14	20:26	21:35	22:37	
6	09:25	12:10 (21) 08:34	11:46 (29) 07:21	06:52	05:31	04:34	
	16:00	26 13:33 (24) 17:08	14 12:00 (29) 18:17	20:28	21:37	22:38	
7	09:24	11:42 (29) 08:32	11:51 (29) 07:19	06:50	05:29	04:33	
	16:02	37 13:36 (24) 17:11	3 11:54 (29) 18:19	20:30	21:40	22:39	
8	09:24	11:40 (29) 08:30		07:16	06:47	05:26	04:32
	16:03	45 13:38 (24) 17:13		18:21	20:33	21:42	22:41
9	09:23	11:39 (29) 08:27		07:13	06:44	05:24	04:31
	16:05	50 13:40 (24) 17:16		18:24	20:35	21:44	22:42
10	09:22	11:38 (29) 08:25	09:40 (16) 07:10	06:41	05:22	04:30	
	16:07	52 13:40 (24) 17:18	2 09:42 (16) 18:26	20:37	21:46	22:43	
11	09:21	11:38 (29) 08:23	09:36 (16) 07:07	06:38	05:19	04:29	
	16:09	56 13:42 (24) 17:21	10 09:46 (16) 18:28	20:40	21:49	22:44	
12	09:20	11:37 (29) 08:20	09:34 (16) 07:04	06:35	05:17	04:29	
	16:11	63 14:47 (25) 17:23	14 09:48 (16) 18:31	20:42	21:51	22:45	
13	09:18	11:37 (29) 08:18	09:33 (16) 07:02	06:32	05:15	04:28	
	16:13	74 14:49 (25) 17:26	16 09:49 (16) 18:33	20:44	21:53	22:46	
14	09:17	11:36 (29) 08:15	09:33 (16) 06:59	06:30	05:13	04:28	
	16:15	82 14:49 (25) 17:28	17 09:50 (16) 18:35	20:47	21:55	22:47	
15	09:16	11:36 (29) 08:13	09:32 (16) 06:56	06:27	05:10	04:27	
	16:17	87 14:50 (25) 17:31	18 09:50 (16) 18:38	20:49	21:58	22:47	
16	09:15	11:35 (29) 08:10	09:31 (16) 06:53	06:24	05:08	04:27	
	16:19	87 14:50 (25) 17:33	19 09:50 (16) 18:40	20:51	22:00	22:48	
17	09:13	11:36 (29) 08:07	09:31 (16) 06:50	06:21	05:06	04:27	
	16:21	87 14:52 (25) 17:36	19 09:50 (16) 18:42	20:53	22:02	22:49	
18	09:12	11:36 (29) 08:05	09:32 (16) 06:47	06:19	05:04	04:27	
	16:23	89 14:52 (25) 17:38	19 09:51 (16) 18:45	20:56	22:04	22:49	
19	09:10	11:35 (29) 08:02	09:32 (16) 06:44	06:16	05:02	04:27	
	16:25	86 14:52 (25) 17:40	18 09:50 (16) 18:47	20:58	22:06	22:50	
20	09:09	11:35 (29) 08:00	09:32 (16) 06:41	06:13	05:00	04:27	
	16:28	83 14:53 (25) 17:43	17 09:49 (16) 18:49	21:00	22:08	22:50	
21	09:07	11:35 (29) 07:57	09:33 (16) 06:39	06:10	04:58	04:27	
	16:30	79 14:53 (25) 17:45	15 09:48 (16) 18:51	21:03	22:10	22:50	
22	09:05	11:35 (29) 07:54	09:34 (16) 06:36	06:08	04:56	04:27	
	16:32	80 14:53 (25) 17:48	12 09:46 (16) 18:54	21:05	22:12	22:50	
23	09:03	11:35 (29) 07:52	09:37 (16) 06:33	06:05	04:54	04:27	
	16:34	79 14:52 (25) 17:50	7 09:44 (16) 18:56	21:07	22:14	22:51	
24	09:02	11:35 (29) 07:49		06:30	06:02	04:52	04:27
	16:37	79 14:52 (25) 17:53		18:58	21:10	22:16	22:51
25	09:00	11:35 (29) 07:46		06:27	05:59	04:51	04:28
	16:39	78 14:52 (25) 17:55		19:01	21:12	22:18	22:51
26	08:58	11:36 (29) 07:44		06:24	05:57	04:49	04:28
	16:41	77 14:52 (25) 17:57		19:03	21:14	22:20	22:50
27	08:56	11:36 (29) 07:41		06:21	05:54	04:47	04:29
	16:44	73 14:51 (25) 18:00		19:05	21:17	22:22	22:50
28	08:54	11:36 (29) 07:38		06:18	05:52	04:46	04:30
	16:46	71 14:50 (25) 18:02		19:08	21:19	22:24	22:50
29	08:52	11:37 (29)		07:15	05:49	04:44	04:30
	16:49	66 14:49 (25)		20:10	21:21	22:25	22:50
30	08:50	11:37 (29)		07:13	05:46	04:42	04:31
	16:51	54 14:44 (25)		20:12	21:24	22:27	22:49
31	08:48	11:38 (29)		07:10		04:41	
	16:54	51 13:50 (24)		20:14		22:29	
Potential sun hours	221		365	432	521	547	
Total, worst case	1895	400					

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)		Last time (hh:mm) with flicker	(WTG causing flicker last time)

SHADOW - Calendar

Calculation: Oppdatert layout - kun Moifjellet - worst case - oppdatert mottaker **Shadow receptor:** I - Buevegen 1782 (9)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

The sun is shining all the day, from sunrise to sunset

The rotor plane is always perpendicular to the line from the WTG to the sun

The WTG is always operating

	July	August	September	October	November	December	
1	04:32	05:24	06:33	07:39	07:51	09:00	11:20 (29)
	22:49	22:01	20:40	19:13	16:49	15:51	56 13:24 (24)
2	04:33	05:26	06:35	07:42	07:54	09:02	11:21 (29)
	22:48	21:59	20:37	19:10	16:46	15:50	52 13:23 (24)
3	04:34	05:28	06:37	07:44	07:56	09:03	11:22 (29)
	22:47	21:56	20:34	19:07	16:44	15:49	50 13:23 (24)
4	04:35	05:31	06:40	07:46	07:59	11:19 (29)	09:05 11:24 (29)
	22:47	21:54	20:31	19:04	16:41	11:25 (29)	15:48 45 13:22 (24)
5	04:36	05:33	06:42	07:48	08:01	11:16 (29)	09:07 11:26 (29)
	22:46	21:51	20:28	19:02	16:39	11:30 (29)	15:47 38 13:21 (24)
6	04:37	05:35	06:44	07:51	08:03	11:14 (29)	09:09 11:56 (21)
	22:45	21:49	20:25	18:59	16:37	11:32 (29)	15:46 26 13:19 (24)
7	04:38	05:37	06:46	07:53	08:06	11:12 (29)	09:10 11:56 (21)
	22:44	21:47	20:23	18:56	16:34	13:14 (24)	15:45 21 12:17 (21)
8	04:40	05:39	06:49	07:55	08:08	11:11 (29)	09:12 11:57 (21)
	22:43	21:44	20:20	18:53	16:32	13:17 (24)	15:45 21 12:18 (21)
9	04:41	05:42	06:51	07:57	08:11	11:10 (29)	09:13 11:58 (21)
	22:42	21:42	20:17	18:50	16:30	13:19 (24)	15:44 20 12:18 (21)
10	04:43	05:44	06:53	08:00	08:13	11:10 (29)	09:15 11:57 (21)
	22:41	21:39	20:14	18:47	16:28	13:21 (24)	15:43 21 12:18 (21)
11	04:44	05:46	06:55	08:02	08:15	11:09 (29)	09:16 11:58 (21)
	22:39	21:37	20:11	18:45	16:25	13:21 (24)	15:43 21 12:19 (21)
12	04:46	05:48	06:57	08:04	08:18	11:09 (29)	09:18 11:58 (21)
	22:38	21:34	20:08	18:42	16:23	14:17 (25)	15:43 21 12:19 (21)
13	04:47	05:51	07:00	08:07	08:20	11:09 (29)	09:19 12:00 (21)
	22:37	21:32	20:05	18:39	16:21	14:21 (25)	15:42 20 12:20 (21)
14	04:49	05:53	07:02	08:09	08:23	11:08 (29)	09:20 12:00 (21)
	22:35	21:29	20:02	18:36	16:19	14:22 (25)	15:42 20 12:20 (21)
15	04:51	05:55	07:04	08:11	08:25	11:08 (29)	09:21 12:00 (21)
	22:34	21:26	19:59	18:33	16:17	14:24 (25)	15:42 20 12:20 (21)
16	04:52	05:57	07:06	08:13	08:27	11:09 (29)	09:22 12:00 (21)
	22:32	21:24	19:56	18:31	16:15	14:25 (25)	15:42 20 12:20 (21)
17	04:54	06:00	07:08	08:16	08:30	11:09 (29)	09:23 12:01 (21)
	22:31	21:21	19:54	18:28	16:13	14:26 (25)	15:42 20 12:21 (21)
18	04:56	06:02	07:11	08:18	08:32	11:09 (29)	09:24 12:02 (21)
	22:29	21:18	19:51	18:25	16:11	14:26 (25)	15:42 19 12:21 (21)
19	04:58	06:04	07:13	08:20	08:34	11:10 (29)	09:25 12:02 (21)
	22:27	21:16	19:48	18:22	16:09	14:27 (25)	15:42 20 12:22 (21)
20	05:00	06:06	07:15	08:23	10:05 (16)	11:10 (29)	09:26 12:03 (21)
	22:25	21:13	19:45	18:20	10:18 (16)	14:27 (25)	15:43 19 12:22 (21)
21	05:01	06:08	07:17	08:25	10:04 (16)	11:10 (29)	09:26 12:03 (21)
	22:24	21:10	19:42	18:17	10:19 (16)	14:28 (25)	15:43 19 12:22 (21)
22	05:03	06:11	07:19	08:27	10:02 (16)	11:11 (29)	09:27 12:04 (21)
	22:22	21:08	19:39	18:14	10:20 (16)	14:29 (25)	15:43 19 12:23 (21)
23	05:05	06:13	07:22	08:30	10:02 (16)	11:11 (29)	09:27 12:04 (21)
	22:20	21:05	19:36	18:12	10:20 (16)	14:28 (25)	15:44 19 12:23 (21)
24	05:07	06:15	07:24	08:32	10:01 (16)	11:13 (29)	09:28 12:05 (21)
	22:18	21:02	19:33	18:09	10:20 (16)	14:29 (25)	15:44 20 12:25 (21)
25	05:09	06:17	07:26	07:35	09:01 (16)	11:13 (29)	09:28 12:05 (21)
	22:16	20:59	19:30	17:06	09:20 (16)	14:29 (25)	15:45 20 12:25 (21)
26	05:11	06:20	07:28	07:37	09:02 (16)	11:14 (29)	09:28 12:06 (21)
	22:14	20:57	19:27	17:04	09:21 (16)	14:29 (25)	15:46 19 12:25 (21)
27	05:13	06:22	07:30	07:39	09:01 (16)	11:15 (29)	09:28 12:06 (21)
	22:12	20:54	19:25	17:01	09:20 (16)	14:29 (25)	15:47 20 12:26 (21)
28	05:16	06:24	07:33	07:42	09:02 (16)	11:16 (29)	09:28 12:07 (21)
	22:10	20:51	19:22	16:59	09:19 (16)	14:29 (25)	15:48 20 12:27 (21)
29	05:18	06:26	07:35	07:44	09:02 (16)	11:17 (29)	09:28 12:06 (21)
	22:07	20:48	19:19	16:56	09:18 (16)	14:29 (25)	15:49 20 12:26 (21)
30	05:20	06:29	07:37	07:47	09:04 (16)	11:18 (29)	09:28 12:07 (21)
	22:05	20:45	19:16	16:54	09:17 (16)	14:28 (25)	15:50 20 12:27 (21)
31	05:22	06:31		07:49	09:06 (16)		09:28 12:07 (21)
	22:03	20:42		16:51	09:15 (16)		15:51 20 12:27 (21)
Potential sun hours	546	478	386	319	236	199	766
Total, worst case				204	1733		

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Calculation: Oppdatert layout - kun Moifjellet - worst case - oppdatert mottaker **Shadow receptor:** J - Buevegen 1780 (10)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

The sun is shining all the day, from sunrise to sunset

The rotor plane is always perpendicular to the line from the WTG to the sun

The WTG is always operating

	January	February	March	April	May	June
1	09:28 15:53	21 12:05 (21) 08:46 12:26 (21) 16:56	45 11:36 (29) 07:35 13:44 (24) 18:05	07:07 20:17	05:44 21:26	04:40 22:31
2	09:27 15:54	20 12:06 (21) 08:43 12:26 (21) 16:58	40 11:37 (29) 07:33 13:42 (24) 18:07	07:04 20:19	05:41 21:28	04:38 22:32
3	09:27 15:55	20 12:06 (21) 08:41 12:26 (21) 17:01	34 11:38 (29) 07:30 13:40 (24) 18:09	07:01 20:21	05:39 21:31	04:37 22:34
4	09:27 15:57	21 12:06 (21) 08:39 12:27 (21) 17:03	20 11:39 (29) 07:27 11:59 (29) 18:12	06:58 20:24	05:36 21:33	04:36 22:35
5	09:26 15:58	28 12:06 (21) 08:37 13:28 (24) 17:06	16 11:41 (29) 07:24 11:57 (29) 18:14	06:55 20:26	05:34 21:35	04:35 22:37
6	09:25 16:00	31 12:07 (21) 08:34 13:30 (24) 17:08	10 11:44 (29) 07:21 11:54 (29) 18:17	06:52 20:28	05:31 21:37	04:34 22:38
7	09:24 16:02	39 11:38 (29) 08:32 13:32 (24) 17:11	07:19 18:19	06:50 20:30	05:29 21:40	04:33 22:39
8	09:24 16:03	46 11:37 (29) 08:30 13:34 (24) 17:13	07:16 18:21	06:47 20:33	05:26 21:42	04:32 22:41
9	09:23 16:05	50 11:36 (29) 08:27 13:36 (24) 17:16	07:13 18:24	06:44 20:35	05:24 21:44	04:31 22:42
10	09:22 16:07	58 11:35 (29) 08:25 14:41 (25) 17:18	5 09:38 (16) 07:10 09:43 (16) 18:26	06:41 20:37	05:22 21:46	04:30 22:43
11	09:21 16:09	71 11:34 (29) 08:23 14:43 (25) 17:21	10 09:36 (16) 07:07 09:46 (16) 18:28	06:38 20:40	05:19 21:49	04:29 22:44
12	09:20 16:11	79 11:33 (29) 08:20 14:44 (25) 17:23	14 09:34 (16) 07:04 09:48 (16) 18:31	06:35 20:42	05:17 21:51	04:29 22:45
13	09:18 16:13	81 11:34 (29) 08:18 14:45 (25) 17:26	16 09:32 (16) 07:02 09:48 (16) 18:33	06:32 20:44	05:15 21:53	04:28 22:46
14	09:17 16:15	84 11:33 (29) 08:15 14:45 (25) 17:28	18 09:32 (16) 06:59 09:50 (16) 18:35	06:30 20:47	05:13 21:55	04:28 22:47
15	09:16 16:17	86 11:32 (29) 08:13 14:46 (25) 17:31	18 09:32 (16) 06:56 09:50 (16) 18:38	06:27 20:49	05:10 21:58	04:27 22:47
16	09:15 16:19	87 11:32 (29) 08:10 14:46 (25) 17:33	19 09:31 (16) 06:53 09:50 (16) 18:40	06:24 20:51	05:08 22:00	04:27 22:48
17	09:13 16:21	87 11:32 (29) 08:07 14:47 (25) 17:36	19 09:31 (16) 06:50 09:50 (16) 18:42	06:21 20:53	05:06 22:02	04:27 22:49
18	09:12 16:23	88 11:32 (29) 08:05 14:48 (25) 17:38	18 09:32 (16) 06:47 09:50 (16) 18:45	06:19 20:56	05:04 22:04	04:27 22:49
19	09:10 16:25	86 11:32 (29) 08:02 14:48 (25) 17:40	17 09:32 (16) 06:44 09:49 (16) 18:47	06:16 20:58	05:02 22:06	04:27 22:50
20	09:09 16:28	77 11:32 (29) 08:00 14:48 (25) 17:43	16 09:32 (16) 06:41 09:48 (16) 18:49	06:13 21:00	05:00 22:08	04:27 22:50
21	09:07 16:30	77 11:32 (29) 07:57 14:48 (25) 17:45	14 09:33 (16) 06:39 09:47 (16) 18:51	06:10 21:03	04:58 22:10	04:27 22:50
22	09:05 16:32	79 11:32 (29) 07:54 14:49 (25) 17:48	10 09:35 (16) 06:36 09:45 (16) 18:54	06:08 21:05	04:56 22:12	04:27 22:50
23	09:03 16:34	78 11:31 (29) 07:52 14:48 (25) 17:50	2 09:39 (16) 06:33 09:41 (16) 18:56	06:05 21:07	04:54 22:14	04:27 22:51
24	09:02 16:37	77 11:32 (29) 07:49 14:48 (25) 17:53	06:30 18:58	06:02 21:10	04:52 22:16	04:27 22:51
25	09:00 16:39	75 11:32 (29) 07:46 14:47 (25) 17:55	06:27 19:01	05:59 21:12	04:51 22:18	04:28 22:51
26	08:58 16:41	73 11:33 (29) 07:44 14:47 (25) 17:57	06:24 19:03	05:57 21:14	04:49 22:20	04:28 22:50
27	08:56 16:44	70 11:32 (29) 07:41 14:45 (25) 18:00	06:21 19:05	05:54 21:17	04:47 22:22	04:29 22:50
28	08:54 16:46	66 11:33 (29) 07:38 14:44 (25) 18:02	06:18 19:08	05:52 21:19	04:46 22:24	04:30 22:50
29	08:52 16:49	57 11:34 (29) 07:35 14:41 (25) 18:00	07:15 20:10	05:49 21:21	04:44 22:25	04:30 22:50
30	08:50 16:51	52 11:34 (29) 07:32 13:45 (24) 18:00	07:13 20:12	05:46 21:24	04:42 22:27	04:31 22:49
31	08:48 16:54	48 11:35 (29) 07:29 13:44 (24) 18:00	07:10 20:14	04:41 22:29	04:41 22:29	04:31 22:49
Potential sun hours	221	260	365	432	521	547
Total, worst case	1912	361				

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Calculation: Oppdatert layout - kun Moifjellet - worst case - oppdatert mottaker **Shadow receptor:** J - Buevegen 1780 (10)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

The sun is shining all the day, from sunrise to sunset

The rotor plane is always perpendicular to the line from the WTG to the sun

The WTG is always operating

	July	August	September	October	November	December	
1	04:32	05:24	06:33	07:39	07:51	09:09 (16) 09:00	11:16 (29)
	22:49	22:01	20:40	19:13	16:49	09:11 (16) 15:51	74 14:26 (25)
2	04:33	05:26	06:35	07:42	07:54	09:02	11:18 (29)
	22:48	21:59	20:37	19:10	16:46	15:50	58 14:24 (25)
3	04:34	05:28	06:37	07:44	07:56	09:03	11:19 (29)
	22:47	21:56	20:34	19:07	16:44	15:49	51 13:19 (24)
4	04:35	05:31	06:40	07:46	07:59	09:05	11:21 (29)
	22:47	21:54	20:31	19:04	16:41	15:48	46 13:18 (24)
5	04:36	05:33	06:42	07:48	08:01	11:13 (29) 09:07	11:23 (29)
	22:46	21:51	20:28	19:02	16:39	11:25 (29) 15:47	39 13:18 (24)
6	04:37	05:35	06:44	07:51	08:03	11:11 (29) 09:09	11:53 (21)
	22:45	21:49	20:25	18:59	16:37	17 11:28 (29) 15:46	32 13:17 (24)
7	04:38	05:37	06:46	07:53	08:06	11:10 (29) 09:10	11:54 (21)
	22:44	21:47	20:23	18:56	16:34	22 13:06 (24) 15:45	28 13:16 (24)
8	04:40	05:39	06:49	07:55	08:08	11:08 (29) 09:12	11:54 (21)
	22:43	21:44	20:20	18:53	16:32	34 13:10 (24) 15:45	22 13:13 (24)
9	04:41	05:42	06:51	07:57	08:11	11:07 (29) 09:13	11:55 (21)
	22:42	21:42	20:17	18:50	16:30	41 13:13 (24) 15:44	20 12:15 (21)
10	04:43	05:44	06:53	08:00	08:13	11:07 (29) 09:15	11:55 (21)
	22:41	21:39	20:14	18:47	16:28	46 13:15 (24) 15:43	20 12:15 (21)
11	04:44	05:46	06:55	08:02	08:15	11:06 (29) 09:16	11:56 (21)
	22:39	21:37	20:11	18:45	16:25	48 13:15 (24) 15:43	20 12:16 (21)
12	04:46	05:48	06:57	08:04	08:18	11:06 (29) 09:18	11:56 (21)
	22:38	21:34	20:08	18:42	16:23	52 13:17 (24) 15:43	20 12:16 (21)
13	04:47	05:51	07:00	08:07	08:20	11:06 (29) 09:19	11:57 (21)
	22:37	21:32	20:05	18:39	16:21	58 14:14 (25) 15:42	20 12:17 (21)
14	04:49	05:53	07:02	08:09	08:23	11:05 (29) 09:20	11:57 (21)
	22:35	21:29	20:02	18:36	16:19	66 14:16 (25) 15:42	20 12:17 (21)
15	04:51	05:55	07:04	08:11	08:25	11:05 (29) 09:21	11:57 (21)
	22:34	21:26	19:59	18:33	16:17	70 14:18 (25) 15:42	20 12:17 (21)
16	04:52	05:57	07:06	08:13	08:27	11:06 (29) 09:22	11:58 (21)
	22:32	21:24	19:56	18:31	16:15	73 14:20 (25) 15:42	19 12:17 (21)
17	04:54	06:00	07:08	08:16	08:30	11:06 (29) 09:23	11:58 (21)
	22:31	21:21	19:54	18:28	16:13	75 14:21 (25) 15:42	20 12:18 (21)
18	04:56	06:02	07:11	08:18	08:32	11:06 (29) 09:24	11:59 (21)
	22:29	21:18	19:51	18:25	16:11	77 14:22 (25) 15:42	19 12:18 (21)
19	04:58	06:04	07:13	08:20	08:34	11:06 (29) 09:25	11:59 (21)
	22:27	21:16	19:48	18:22	7 10:08 (16) 16:09	78 14:23 (25) 15:42	20 12:19 (21)
20	05:00	06:06	07:15	08:23	10:05 (16) 08:36	11:06 (29) 09:26	12:00 (21)
	22:25	21:13	19:45	18:20	12 10:17 (16) 16:08	79 14:23 (25) 15:43	19 12:19 (21)
21	05:01	06:08	07:17	08:25	10:04 (16) 08:39	11:07 (29) 09:26	12:00 (21)
	22:24	21:10	19:42	18:17	15 10:19 (16) 16:06	77 14:23 (25) 15:43	19 12:19 (21)
22	05:03	06:11	07:19	08:27	10:02 (16) 08:41	11:08 (29) 09:27	12:01 (21)
	22:22	21:08	19:39	18:14	17 10:19 (16) 16:04	77 14:24 (25) 15:43	19 12:20 (21)
23	05:05	06:13	07:22	08:30	10:02 (16) 08:43	11:08 (29) 09:27	12:01 (21)
	22:20	21:05	19:36	18:12	18 10:20 (16) 16:02	86 14:24 (25) 15:44	19 12:20 (21)
24	05:07	06:15	07:24	08:32	10:01 (16) 08:45	11:09 (29) 09:28	12:02 (21)
	22:18	21:02	19:33	18:09	19 10:20 (16) 16:01	87 14:25 (25) 15:44	19 12:21 (21)
25	05:09	06:17	07:26	07:35	09:01 (16) 08:47	11:09 (29) 09:28	12:03 (21)
	22:16	20:59	19:30	17:06	19 09:20 (16) 15:59	88 14:25 (25) 15:45	19 12:22 (21)
26	05:11	06:20	07:28	07:37	09:01 (16) 08:50	11:11 (29) 09:28	12:03 (21)
	22:14	20:57	19:27	17:04	19 09:20 (16) 15:58	87 14:25 (25) 15:46	19 12:22 (21)
27	05:13	06:22	07:30	07:39	09:01 (16) 08:52	11:11 (29) 09:28	12:03 (21)
	22:12	20:54	19:25	17:01	18 09:19 (16) 15:56	85 14:25 (25) 15:47	20 12:23 (21)
28	05:16	06:24	07:33	07:42	09:02 (16) 08:54	11:13 (29) 09:28	12:04 (21)
	22:10	20:51	19:22	16:59	17 09:19 (16) 15:55	85 14:26 (25) 15:48	20 12:24 (21)
29	05:18	06:26	07:35	07:44	09:02 (16) 08:56	11:14 (29) 09:28	12:04 (21)
	22:07	20:48	19:19	16:56	16 09:18 (16) 15:54	82 14:25 (25) 15:49	19 12:23 (21)
30	05:20	06:29	07:37	07:47	09:03 (16) 08:58	11:14 (29) 09:28	12:04 (21)
	22:05	20:45	19:16	16:54	14 09:17 (16) 15:52	80 14:25 (25) 15:50	20 12:24 (21)
31	05:22	06:31		07:49	09:06 (16)	09:28	12:04 (21)
	22:03	20:42		16:51	9 09:15 (16)	15:51	20 12:24 (21)
Potential sun hours	546	478	386	319	236	199	800
Total, worst case				200	1684		800

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Calculation: Oppdatert layout - kun Moifjellet - worst case - oppdatert mottaker **Shadow receptor:** K - Buevegen 1778 (11)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

The sun is shining all the day, from sunrise to sunset

The rotor plane is always perpendicular to the line from the WTG to the sun

The WTG is always operating

	January	February	March	April	May	June	July	August	September	October	November	December		
1	09:28 15:53	11:58 (21) 16:56	08:46 13:35 (24)	07:35 18:05	07:07 20:17	05:44 21:26	04:40 22:31	04:32 22:49	05:24 22:01	06:33 20:40	07:39 19:13	07:51 16:49	09:00 15:51	11:13 (29) 14:20 (25)
2	09:28 15:54	11:58 (21) 16:58	08:43 13:34 (24)	07:33 18:07	07:04 20:19	05:41 21:28	04:38 22:32	04:33 22:48	05:26 21:59	06:35 20:37	07:42 19:10	07:54 16:46	09:02 15:50	11:14 (21) 14:19 (25)
3	09:27 15:55	11:58 (21) 17:01	08:41 13:33 (24)	07:30 18:09	07:01 20:21	05:39 21:31	04:37 22:34	04:34 22:47	05:28 21:56	06:37 20:34	07:44 19:07	07:56 16:44	09:03 15:49	11:14 (21) 14:19 (25)
4	09:27 15:57	11:58 (21) 17:03	08:39 13:30 (24)	07:27 18:12	06:58 20:24	05:36 21:33	04:36 22:35	04:35 22:47	05:31 21:54	06:40 20:31	07:46 19:04	07:59 16:41	09:05 15:48	11:14 (21) 14:19 (25)
5	09:26 15:58	11:59 (21) 17:06	08:37 13:29 (24)	07:24 18:14	06:55 20:26	05:34 21:35	04:35 22:37	04:36 22:46	05:33 21:51	06:42 20:28	07:48 19:02	08:01 16:39	09:07 15:47	11:15 (21) 14:19 (25)
6	09:25 16:00	11:59 (21) 17:08	08:34 13:18 (24)	07:21 18:17	06:52 20:28	05:31 21:37	04:34 22:38	04:37 22:45	05:35 21:49	06:44 20:25	07:51 18:59	08:03 16:37	09:09 15:46	11:15 (21) 14:19 (25)
7	09:25 16:02	12:00 (21) 17:11	08:32 13:21 (24)	07:19 18:19	06:50 20:30	05:29 21:40	04:33 22:39	04:39 22:44	05:37 21:47	06:46 20:23	07:53 18:56	08:06 16:34	09:10 15:45	11:16 (21) 14:19 (25)
8	09:24 16:03	12:00 (21) 17:13	08:30 14:35 (25)	07:16 18:21	06:47 20:33	05:26 21:42	04:32 22:41	04:40 22:43	05:39 21:44	06:49 20:20	07:55 18:53	08:08 16:32	09:12 15:45	11:17 (21) 14:19 (25)
9	09:23 16:05	12:01 (21) 17:16	08:27 14:36 (25)	07:13 18:24	06:44 20:35	05:24 21:44	04:31 22:42	04:41 22:42	05:42 21:42	06:51 20:17	07:57 18:50	08:11 16:30	09:13 15:44	11:17 (21) 14:19 (25)
10	09:22 16:07	12:01 (21) 17:18	08:25 14:36 (25)	07:10 18:26	06:41 20:37	05:22 21:46	04:30 22:43	04:43 22:41	05:44 21:39	06:53 20:14	08:00 18:47	08:13 16:28	09:15 15:43	11:17 (21) 14:19 (25)
11	09:21 16:09	12:02 (21) 17:21	08:23 14:37 (25)	07:07 18:28	06:38 20:40	05:19 21:49	04:29 22:44	04:44 22:39	05:46 21:37	06:55 20:11	08:02 18:45	08:15 16:25	09:16 15:43	11:18 (21) 14:19 (25)
12	09:20 16:11	11:27 (29) 17:23	08:20 14:38 (25)	07:04 18:31	06:35 20:42	05:17 21:51	04:29 22:45	04:46 22:38	05:48 21:34	06:57 20:08	08:04 18:42	08:18 16:23	09:18 15:43	11:18 (21) 14:19 (25)
13	09:18 16:13	11:26 (29) 17:26	08:18 14:39 (25)	07:02 18:33	06:32 20:44	05:15 21:53	04:28 22:46	04:47 22:37	05:51 21:32	07:00 20:05	08:07 18:39	08:20 16:21	09:19 15:42	11:19 (21) 14:19 (25)
14	09:17 16:15	11:25 (29) 17:28	08:15 14:39 (25)	06:59 18:35	06:30 20:47	05:13 21:55	04:28 22:47	04:49 22:35	05:53 21:29	07:02 20:02	08:09 18:36	08:23 16:19	09:20 15:42	11:20 (21) 14:19 (25)
15	09:16 16:17	11:24 (29) 17:31	08:13 14:40 (25)	06:56 18:38	06:27 20:49	05:10 21:58	04:27 22:47	04:51 22:34	05:55 21:26	07:04 19:59	08:11 18:33	08:25 16:17	09:21 15:42	11:21 (21) 14:19 (25)
16	09:15 16:19	11:23 (29) 17:33	08:10 14:40 (25)	06:53 18:40	06:24 20:51	05:08 22:00	04:27 22:48	04:52 22:32	05:57 21:24	07:06 19:56	08:13 18:31	08:27 16:15	09:22 15:42	11:22 (21) 14:19 (25)
17	09:13 16:21	11:23 (29) 17:36	08:07 14:41 (25)	06:50 18:42	06:21 20:54	05:06 22:02	04:27 22:49	04:54 22:31	06:00 21:21	07:08 19:54	08:16 18:28	08:30 16:13	09:23 15:42	11:23 (21) 14:19 (25)
18	09:12 16:23	11:23 (29) 17:38	08:05 14:42 (25)	06:47 18:45	06:19 20:56	05:04 22:04	04:27 22:49	04:56 22:29	06:02 21:18	07:11 19:51	08:18 18:25	08:32 16:11	09:24 15:42	11:24 (21) 14:19 (25)
19	09:10 16:25	11:22 (29) 17:40	08:02 14:42 (25)	06:44 18:47	06:16 20:58	05:02 22:06	04:27 22:50	04:58 22:27	06:04 21:16	07:13 19:48	08:20 18:22	08:34 16:09	09:25 15:42	11:25 (21) 14:19 (25)
20	09:09 16:28	11:22 (29) 17:43	08:00 14:42 (25)	06:41 18:49	06:13 21:00	05:00 22:08	04:27 22:50	05:00 22:25	06:06 21:13	07:15 19:45	08:23 18:20	08:36 16:08	09:26 15:43	11:26 (21) 14:19 (25)
21	09:07 16:30	11:22 (29) 17:45	07:57 14:42 (25)	06:39 18:51	06:10 21:03	04:58 22:10	04:27 22:50	05:01 22:24	06:08 21:10	07:17 19:42	08:25 18:17	08:39 16:06	09:26 15:43	11:27 (21) 14:19 (25)
22	09:05 16:32	11:22 (29) 17:48	07:54 14:42 (25)	06:36 18:54	06:08 21:05	04:56 22:12	04:27 22:50	05:03 22:22	06:11 21:08	07:19 19:39	08:27 18:14	08:41 16:04	09:27 15:43	11:28 (21) 14:19 (25)
23	09:03 16:34	11:21 (29) 17:50	07:52 14:41 (25)	06:33 18:56	06:05 21:07	04:54 22:14	04:27 22:50	05:05 22:20	06:13 21:05	07:22 19:36	08:30 18:12	08:43 16:02	09:27 15:44	11:29 (21) 14:19 (25)
24	09:02 16:37	11:21 (29) 17:53	07:49 14:41 (25)	06:30 18:58	06:02 21:10	04:52 22:16	04:27 22:51	05:07 22:18	06:15 21:02	07:24 19:33	08:32 18:09	08:45 16:01	09:28 15:44	11:30 (21) 14:19 (25)
25	09:00 16:39	11:21 (29) 17:55	07:46 14:41 (25)	06:27 19:01	05:59 21:12	04:51 22:18	04:28 22:51	05:09 22:16	06:17 20:59	07:26 19:30	07:35 17:06	08:47 15:59	09:28 15:45	11:31 (21) 14:19 (25)
26	08:58 16:41	11:21 (29) 17:57	07:44 14:41 (25)	06:24 19:03	05:57 21:14	04:49 22:20	04:28 22:50	05:11 22:14	06:20 20:57	07:37 19:27	08:50 17:04	09:28 15:58	09:28 15:46	11:32 (21) 14:19 (25)
27	08:56 16:44	11:21 (29) 18:00	07:41 14:39 (25)	06:21 19:05	05:54 21:17	04:47 22:22	04:29 22:50	05:13 22:12	06:22 20:54	07:30 19:25	07:39 17:01	08:52 15:56	09:28 15:47	11:33 (21) 14:19 (25)
28	08:54 16:46	11:21 (29) 18:02	07:38 14:38 (25)	06:18 19:08	05:52 21:19	04:46 22:24	04:30 22:50	05:16 22:10	06:24 20:51	07:33 19:22	07:42 16:59	08:54 15:55	09:28 15:48	11:34 (21) 14:19 (25)
29	08:52 16:49	11:22 (29) 18:04	07:35 14:36 (25)	07:15 20:10	05:49 21:21	04:44 22:25	04:30 22:50	05:18 22:07	06:26 20:48	07:35 19:19	07:44 16:56	08:56 15:54	09:28 15:49	11:35 (21) 14:19 (25)
30	08:50 16:51	11:22 (29) 18:06	07:32 14:36 (24)	07:13 20:12	05:46 21:24	04:42 22:27	04:31 22:49	05:20 22:05	06:29 20:45	07:37 19:16	07:47 16:54	08:58 15:52	09:28 15:50	11:36 (21) 14:19 (25)
31	08:48 16:54	11:23 (29) 18:08	07:29 14:36 (24)	07:10 20:14	05:41 22:29	04:41 22:29	04:41 22:50	05:22 22:03	06:31 20:42	07:49 16:51	08:59 15:51	09:28 15:51	09:28 15:51	11:37 (21) 14:19 (25)
Potential sun hours	221	260	365	432	521	547	546	478	386	319	236	199	199	405
Total, worst case	1840	243									1756			

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Calculation: Oppdatert layout - kun Moifjellet - worst case - oppdatert mottaker **Shadow receptor:** L - Buevegen 1850 (12)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

The sun is shining all the day, from sunrise to sunset

The rotor plane is always perpendicular to the line from the WTG to the sun

The WTG is always operating

	January	February	March	April	May	June
1	09:28	11:52 (34) 08:46	13:17 (29) 07:35	08:53 (18) 07:07	05:44	04:40
	15:53	12:09 (34) 16:56	13:53 (29) 18:05	09:12 (18) 20:17	21:26	22:30
2	09:27	11:51 (34) 08:43	13:18 (29) 07:32	08:53 (18) 07:04	05:41	04:38
	15:54	12:10 (34) 16:58	15:13 (24) 18:07	09:13 (18) 20:19	21:28	22:32
3	09:27	11:51 (34) 08:41	13:17 (29) 07:30	08:52 (18) 07:01	05:39	04:37
	15:55	12:10 (34) 17:01	15:18 (24) 18:09	09:13 (18) 20:21	21:30	22:34
4	09:26	11:51 (34) 08:39	13:18 (29) 07:27	08:52 (18) 06:58	05:36	04:36
	15:57	12:11 (34) 17:03	15:20 (24) 18:12	09:12 (18) 20:24	21:33	22:35
5	09:26	11:52 (34) 08:37	13:17 (29) 07:24	08:52 (18) 06:55	05:34	04:35
	15:58	12:12 (34) 17:06	15:21 (24) 18:14	09:12 (18) 20:26	21:35	22:37
6	09:25	11:52 (34) 08:34	13:18 (29) 07:21	08:52 (18) 06:52	05:31	04:34
	16:00	12:12 (34) 17:08	15:44 (25) 18:16	09:11 (18) 20:28	21:37	22:38
7	09:24	11:52 (34) 08:32	13:17 (29) 07:19	08:53 (18) 06:49	05:29	04:33
	16:02	12:13 (34) 17:11	15:46 (25) 18:19	09:10 (18) 20:30	21:40	22:39
8	09:24	11:53 (34) 08:30	13:18 (29) 07:16	08:54 (18) 06:47	05:26	04:32
	16:03	12:14 (34) 17:13	15:51 (25) 18:21	09:08 (18) 20:33	21:42	22:40
9	09:23	11:52 (34) 08:27	13:18 (29) 07:13	08:55 (18) 06:44	05:24	04:31
	16:05	12:14 (34) 17:16	15:59 (25) 18:24	09:05 (18) 20:35	21:44	22:42
10	09:22	11:53 (34) 08:25	13:18 (29) 07:10	06:41	05:22	04:30
	16:07	12:15 (34) 17:18	16:00 (25) 18:26	20:37	21:46	22:43
11	09:21	11:54 (34) 08:23	13:20 (29) 07:07	06:38	05:19	04:29
	16:09	12:16 (34) 17:21	16:00 (25) 18:28	20:40	21:49	22:44
12	09:20	11:53 (34) 08:20	10:07 (16) 07:04	06:35	05:17	04:29
	16:11	13:22 (21) 17:23	15:59 (25) 18:31	20:42	21:51	22:45
13	09:18	11:53 (34) 08:18	10:04 (16) 07:01	06:32	05:15	04:28
	16:13	13:28 (21) 17:26	15:58 (25) 18:33	20:44	21:53	22:46
14	09:17	11:54 (34) 08:15	10:03 (16) 06:59	06:30	05:13	04:28
	16:15	13:37 (21) 17:28	15:57 (25) 18:35	20:47	21:55	22:46
15	09:16	11:55 (34) 08:13	10:02 (16) 06:56	06:27	05:10	04:27
	16:17	13:43 (21) 17:31	15:54 (25) 18:38	20:49	21:57	22:47
16	09:15	11:55 (34) 08:10	10:01 (16) 06:53	06:24	05:08	04:27
	16:19	13:44 (21) 17:33	15:24 (24) 18:40	20:51	22:00	22:48
17	09:13	11:55 (34) 08:07	10:00 (16) 06:50	06:21	05:06	04:27
	16:21	13:44 (21) 17:35	15:23 (24) 18:42	20:53	22:02	22:49
18	09:12	11:57 (34) 08:05	10:00 (16) 06:47	06:19	05:04	04:27
	16:23	13:46 (21) 17:38	15:23 (24) 18:45	20:56	22:04	22:49
19	09:10	11:57 (34) 08:02	10:00 (16) 06:44	06:16	05:02	04:27
	16:25	13:46 (21) 17:40	15:21 (24) 18:47	20:58	22:06	22:50
20	09:08	11:58 (34) 08:00	09:59 (16) 06:41	06:13	05:00	04:27
	16:28	13:46 (21) 17:43	15:19 (24) 18:49	21:00	22:08	22:50
21	09:07	11:59 (34) 07:57	09:59 (16) 06:38	06:10	04:58	04:27
	16:30	13:46 (21) 17:45	15:15 (24) 18:51	21:03	22:10	22:50
22	09:05	11:59 (34) 07:54	09:59 (16) 06:36	06:08	04:56	04:27
	16:32	13:46 (21) 17:48	10:24 (16) 18:54	21:05	22:12	22:50
23	09:03	12:01 (34) 07:52	10:00 (16) 06:33	06:05	04:54	04:27
	16:34	13:46 (21) 17:50	10:24 (16) 18:56	21:07	22:14	22:50
24	09:02	12:03 (34) 07:49	10:01 (16) 06:30	06:02	04:52	04:27
	16:37	13:46 (21) 17:53	10:23 (16) 18:58	21:10	22:16	22:51
25	09:00	12:05 (34) 07:46	09:00 (18) 06:27	05:59	04:51	04:28
	16:39	13:46 (29) 17:55	10:22 (16) 19:01	21:12	22:18	22:50
26	08:58	13:21 (29) 07:43	08:57 (18) 06:24	05:57	04:49	04:28
	16:41	13:48 (29) 17:57	10:20 (16) 19:03	21:14	22:20	22:50
27	08:56	13:20 (29) 07:41	08:55 (18) 06:21	05:54	04:47	04:29
	16:44	13:48 (29) 18:00	10:18 (16) 19:05	21:17	22:22	22:50
28	08:54	13:19 (29) 07:38	08:54 (18) 06:18	05:52	04:46	04:30
	16:46	13:50 (29) 18:02	10:14 (16) 19:07	21:19	22:24	22:50
29	08:52	13:19 (29)	07:15	05:49	04:44	04:30
	16:49	13:51 (29)	20:10	21:21	22:25	22:50
30	08:50	13:18 (29)	07:12	05:46	04:42	04:31
	16:51	13:51 (29)	20:12	21:24	22:27	22:49
31	08:48	13:18 (29)	07:10		04:41	
	16:53	13:53 (29)	20:14		22:29	
Potential sun hours	221	260	365	432	521	547
Total, worst case	948	1529	160			

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Calculation: Oppdatert layout - kun Moifjellet - worst case - oppdatert mottaker **Shadow receptor:** L - Buevegen 1850 (12)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

The sun is shining all the day, from sunrise to sunset

The rotor plane is always perpendicular to the line from the WTG to the sun

The WTG is always operating

	July	August	September	October		November		December		
1	04:32 22:49	05:24 22:01	06:33 20:40	07:39 19:13		07:51 16:49		12:48 (29) 15:30 (25)	09:00 15:51	22 11:36 (34)
2	04:33 22:48	05:26 21:58	06:35 20:37	07:42 19:10		07:54 16:46	83 76	12:48 (29) 15:28 (25)	09:02 15:50	22 11:36 (34)
3	04:34 22:47	05:28 21:56	06:37 20:34	07:44 19:07		07:56 16:44		12:48 (29) 15:20 (25)	09:03 15:49	22 11:36 (34)
4	04:35 22:47	05:31 21:54	06:40 20:31	07:46 19:04	7	09:34 (18) 09:41 (18)	71 66	12:47 (29) 15:15 (25)	09:05 15:48	22 11:37 (34)
5	04:36 22:46	05:33 21:51	06:42 20:28	07:48 19:01	12	09:32 (18) 09:44 (18)	62	12:47 (29) 15:13 (25)	09:07 15:47	21 11:37 (34)
6	04:37 22:45	05:35 21:49	06:44 20:25	07:51 18:59	15	09:30 (18) 09:45 (18)	62 58	12:48 (29) 14:52 (24)	09:09 15:46	21 11:38 (34)
7	04:38 22:44	05:37 21:47	06:46 20:22	07:53 18:56	18	09:28 (18) 09:46 (18)	55	12:47 (29) 14:50 (24)	09:10 15:45	20 11:39 (34)
8	04:40 22:43	05:39 21:44	06:48 20:20	07:55 18:53	19	09:28 (18) 09:47 (18)	50	12:48 (29) 14:48 (24)	09:12 15:45	19 11:40 (34)
9	04:41 22:42	05:42 21:42	06:51 20:17	07:57 18:50	20	09:27 (18) 09:47 (18)	42	12:48 (29) 14:43 (24)	09:13 15:44	19 12:00 (34)
10	04:43 22:40	05:44 21:39	06:53 20:14	08:00 18:47	20	09:27 (18) 09:47 (18)	35	12:49 (29) 13:24 (29)	09:15 15:43	18 11:41 (34)
11	04:44 22:39	05:46 21:37	06:55 20:11	08:02 18:45	20	09:26 (18) 09:46 (18)	34	12:49 (29) 13:23 (29)	09:16 15:43	18 12:00 (34)
12	04:46 22:38	05:48 21:34	06:57 20:08	08:04 18:42	19	09:26 (18) 09:45 (18)	33	12:50 (29) 13:23 (29)	09:18 15:43	17 11:42 (34)
13	04:47 22:37	05:51 21:31	07:00 20:05	08:06 18:39	18	09:27 (18) 09:45 (18)	32	12:51 (29) 13:23 (29)	09:19 15:42	17 12:00 (34)
14	04:49 22:35	05:53 21:29	07:02 20:02	08:09 18:36	28	09:27 (18) 10:49 (16)	31	12:51 (29) 13:22 (29)	09:20 15:42	16 12:00 (34)
15	04:51 22:34	05:55 21:26	07:04 19:59	08:11 18:33	30	09:29 (18) 10:52 (16)	28	12:53 (29) 13:21 (29)	09:21 15:42	16 12:00 (34)
16	04:52 22:32	05:57 21:24	07:06 19:56	08:13 18:31	29	09:30 (18) 10:53 (16)	27	12:54 (29) 13:21 (29)	09:22 15:42	15 12:00 (34)
17	04:54 22:30	05:59 21:21	07:08 19:54	08:16 18:28	21	10:33 (16) 10:54 (16)	32	11:38 (34) 13:19 (29)	09:23 15:42	15 12:00 (34)
18	04:56 22:29	06:02 21:18	07:10 19:51	08:18 18:25	24	10:31 (16) 10:55 (16)	34	11:37 (34) 13:20 (21)	09:24 15:42	15 12:01 (34)
19	04:58 22:27	06:04 21:16	07:13 19:48	08:20 18:22	24	10:31 (16) 10:55 (16)	36	11:36 (34) 13:21 (21)	09:25 15:42	14 12:01 (34)
20	05:00 22:25	06:06 21:13	07:15 19:45	08:23 18:20	25	10:30 (16) 10:55 (16)	39	11:34 (34) 13:21 (21)	09:26 15:42	14 12:02 (34)
21	05:01 22:24	06:08 21:10	07:17 19:42	08:25 18:17	36	10:30 (16) 15:48 (24)	40	11:34 (34) 13:21 (21)	09:26 15:43	14 12:02 (34)
22	05:03 22:22	06:11 21:08	07:19 19:39	08:27 18:14	41	10:30 (16) 15:50 (24)	43	11:34 (34) 13:22 (21)	09:27 15:43	15 12:03 (34)
23	05:05 22:20	06:13 21:05	07:22 19:36	08:30 18:12	48	10:30 (16) 15:52 (24)	44	11:33 (34) 13:22 (21)	09:27 15:44	14 12:03 (34)
24	05:07 22:18	06:15 21:02	07:24 19:34	08:32 18:09	61	10:30 (16) 15:52 (24)	44	11:34 (34) 13:23 (21)	09:28 15:44	14 12:04 (34)
25	05:09 22:16	06:17 20:59	07:26 19:30	07:35 17:06	69	10:30 (16) 14:54 (24)	44	11:33 (34) 13:22 (21)	09:28 15:45	14 12:04 (34)
26	05:11 22:14	06:20 20:56	07:28 19:27	07:37 17:04	73	09:30 (16) 14:54 (24)	44	11:34 (34) 13:23 (21)	09:28 15:46	15 12:05 (34)
27	05:13 22:12	06:22 20:54	07:30 19:24	07:39 17:01	81	09:32 (16) 15:24 (25)	44	11:34 (34) 13:23 (21)	09:28 15:47	16 12:06 (34)
28	05:16 22:10	06:24 20:51	07:33 19:22	07:42 16:59	88	09:33 (16) 15:27 (25)	38	11:35 (34) 13:18 (21)	09:28 15:48	16 12:06 (34)
29	05:18 22:07	06:26 20:48	07:35 19:19	07:44 16:56	90	09:34 (16) 15:28 (25)	29	11:35 (34) 13:09 (21)	09:28 15:49	17 12:07 (34)
30	05:20 22:05	06:29 20:45	07:37 19:16	07:47 16:54	89	09:37 (16) 15:29 (25)	23	11:35 (34) 13:03 (21)	09:28 15:50	17 12:08 (34)
31	05:22 22:03	06:31 20:42		07:49 16:51	81	12:49 (29) 15:30 (25)			09:28 15:51	17 12:08 (34)
Potential sun hours	546	478	386	319		236			199	
Total, worst case					1106		1317			531

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Calculation: Oppdatert layout - kun Moifjellet - worst case - oppdatert mottaker **Shadow receptor:** M - Buevegen 1941 (13)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

The sun is shining all the day, from sunrise to sunset

The rotor plane is always perpendicular to the line from the WTG to the sun

The WTG is always operating

	January	February	March	April	May	June
1	09:28 15:53	08:46 16:56	14:11 (34) 15:31 (21)	07:35 18:05	10:14 (18) 16:49 (24)	05:44 21:26
2	09:27 15:54	08:43 16:58	15:15 (21) 15:32 (21)	07:32 18:07	10:15 (18) 16:50 (24)	05:41 21:28
3	09:27 15:55	08:41 17:01	15:14 (21) 15:33 (21)	07:30 18:09	10:16 (18) 16:48 (24)	05:39 21:30
4	09:26 15:57	08:39 17:03	12:34 (16) 15:33 (21)	07:27 18:12	10:16 (18) 16:47 (24)	05:36 21:33
5	09:26 15:58	08:37 17:06	12:30 (16) 15:33 (21)	07:24 18:14	09:25 (13) 16:44 (24)	06:55 21:35
6	09:25 16:00	08:34 17:08	12:29 (16) 15:34 (21)	07:21 18:16	09:21 (13) 10:42 (18)	06:52 21:37
7	09:24 16:02	08:32 17:11	12:27 (16) 15:33 (21)	07:18 18:19	10:19 (18) 10:39 (18)	06:49 21:40
8	09:24 16:03	08:30 17:13	12:27 (16) 15:34 (21)	07:16 18:21	10:21 (18) 10:36 (18)	06:47 21:42
9	09:23 16:05	08:27 17:16	12:25 (16) 15:33 (21)	07:13 18:24	10:25 (18) 10:32 (18)	06:44 21:44
10	09:22 16:07	08:25 17:18	12:24 (16) 15:31 (21)	07:10 18:26	06:41 20:37	05:22 21:46
11	09:21 16:09	08:22 17:21	12:24 (16) 15:30 (21)	07:07 18:28	06:38 20:40	05:19 21:49
12	09:20 16:11	08:20 17:23	12:23 (16) 15:27 (21)	07:04 18:31	06:35 20:42	05:17 21:51
13	09:18 16:13	08:18 17:26	12:22 (16) 12:56 (16)	07:01 18:33	06:32 20:44	05:15 21:53
14	09:17 16:15	08:15 17:28	12:23 (16) 12:57 (16)	06:59 18:35	06:30 20:46	05:12 21:55
15	09:16 16:17	08:12 17:30	12:22 (16) 12:57 (16)	06:56 18:38	06:27 20:49	05:10 21:57
16	09:14 16:19	08:10 17:33	12:22 (16) 16:12 (29)	06:53 18:40	06:24 20:51	05:08 22:00
17	09:13 16:21	08:07 17:35	12:22 (16) 16:15 (29)	06:50 18:42	06:21 20:53	05:06 22:02
18	09:12 16:23	08:05 17:38	12:23 (16) 16:17 (29)	06:47 18:44	06:18 20:56	05:04 22:04
19	09:10 16:25	08:02 17:40	12:23 (16) 16:18 (29)	06:44 18:47	06:16 20:58	05:02 22:06
20	09:08 16:28	08:00 17:43	12:23 (16) 16:19 (29)	06:41 18:49	06:13 21:00	05:00 22:08
21	09:07 16:30	07:57 17:45	12:23 (16) 16:20 (29)	06:38 18:51	06:10 21:03	04:58 22:10
22	09:05 16:32	07:54 17:48	12:24 (16) 16:42 (24)	06:36 18:54	06:07 21:05	04:56 22:12
23	09:03 16:34	07:52 17:50	12:26 (16) 16:48 (24)	06:33 18:56	06:05 21:07	04:54 22:14
24	09:01 16:37	07:49 17:52	10:20 (18) 16:49 (24)	06:30 18:58	06:02 21:10	04:52 22:16
25	09:00 16:39	07:46 17:55	10:16 (18) 16:50 (24)	06:27 19:01	05:59 21:12	04:51 22:18
26	08:58 16:41	07:43 17:57	10:15 (18) 16:50 (24)	06:24 19:03	05:57 21:14	04:49 22:20
27	08:56 16:44	07:41 18:00	10:15 (18) 16:50 (24)	06:21 19:05	05:54 21:17	04:47 22:22
28	08:54 16:46	07:38 18:02	10:15 (18) 16:50 (24)	06:18 19:07	05:51 21:19	04:45 22:24
29	08:52 16:49			07:15 20:10	05:49 21:21	04:44 22:25
30	08:50 16:51	14:16 (34) 14:19 (34)		07:12 20:12	05:46 21:23	04:42 22:27
31	08:48 16:53	14:08 (34) 15:27 (21)		07:10 20:14		04:41 22:29
Potential sun hours	221	260	365	432	521	547
Total, worst case	24	1365	364			

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Calculation: Oppdatert layout - kun Moifjellet - worst case - oppdatert mottaker **Shadow receptor:** M - Buevegen 1941 (13)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

The sun is shining all the day, from sunrise to sunset

The rotor plane is always perpendicular to the line from the WTG to the sun

The WTG is always operating

	July	August	September	October		November	December
1	04:32 22:48	05:24 22:01	06:33 20:40	07:39 19:13		07:51 16:49	11:54 (16) 15:01 (21)
2	04:33 22:48	05:26 21:58	06:35 20:37	07:41 19:10		07:54 16:46	11:55 (16) 15:02 (21)
3	04:34 22:47	05:28 21:56	06:37 20:34	07:44 19:07		07:56 16:44	11:56 (16) 15:03 (21)
4	04:35 22:46	05:31 21:54	06:40 20:31	07:46 19:04		07:58 16:41	11:57 (16) 15:03 (21)
5	04:36 22:46	05:33 21:51	06:42 20:28	07:48 19:01	13	10:59 (18) 11:12 (18) 16:39	08:01 15:03 (21) 15:47
6	04:37 22:45	05:35 21:49	06:44 20:25	07:50 18:59	19	10:56 (18) 11:15 (18) 16:37	08:03 15:04 (21) 15:46
7	04:38 22:44	05:37 21:47	06:46 20:22	07:53 18:56	25	09:54 (13) 11:16 (18) 16:34	08:06 15:03 (21) 15:45
8	04:40 22:43	05:39 21:44	06:48 20:20	07:55 18:53	33	09:58 (13) 17:18 (24) 16:32	08:08 15:03 (21) 15:45
9	04:41 22:42	05:42 21:42	06:51 20:17	07:57 18:50	49	10:01 (13) 17:20 (24) 16:30	08:10 15:03 (21) 15:44
10	04:43 22:40	05:44 21:39	06:53 20:14	08:00 18:47	59	10:49 (18) 17:21 (24) 16:28	08:13 15:03 (21) 15:43
11	04:44 22:39	05:46 21:37	06:55 20:11	08:02 18:44	66	10:49 (18) 17:23 (24) 16:25	08:15 14:58 (21) 15:43
12	04:46 22:38	05:48 21:34	06:57 20:08	08:04 18:42	71	10:48 (18) 17:23 (24) 16:23	08:18 13:48 (34) 15:43
13	04:47 22:36	05:50 21:31	06:59 20:05	08:06 18:39	73	10:48 (18) 17:23 (24) 16:21	08:20 15:42 15:42
14	04:49 22:35	05:53 21:29	07:02 20:02	08:09 18:36	77	10:47 (18) 17:23 (24) 16:19	08:22 15:42 15:42
15	04:50 22:34	05:55 21:26	07:04 19:59	08:11 18:33	88	10:48 (18) 17:23 (24) 16:17	08:25 15:42 15:42
16	04:52 22:32	05:57 21:24	07:06 19:56	08:13 18:31	94	10:47 (18) 17:22 (24) 16:15	08:27 15:42 15:42
17	04:54 22:30	05:59 21:21	07:08 19:53	08:16 18:28	85	10:48 (18) 17:22 (24) 16:13	08:29 15:42 15:42
18	04:56 22:29	06:02 21:18	07:10 19:51	08:18 18:25	67	12:57 (16) 17:20 (24) 16:11	08:32 15:42 15:42
19	04:58 22:27	06:04 21:16	07:13 19:48	08:20 18:22	65	12:56 (16) 17:17 (24) 16:09	08:34 15:42 15:42
20	04:59 22:25	06:06 21:13	07:15 19:45	08:23 18:20	58	12:55 (16) 17:12 (24) 16:07	08:36 15:42 15:42
21	05:01 22:23	06:08 21:10	07:17 19:42	08:25 18:17	57	12:54 (16) 16:51 (29) 16:06	08:39 15:43 15:43
22	05:03 22:22	06:11 21:07	07:19 19:39	08:27 18:14	55	12:53 (16) 16:49 (29) 16:04	08:41 15:43 15:43
23	05:05 22:20	06:13 21:05	07:21 19:36	08:30 18:12	53	12:53 (16) 16:48 (29) 16:02	08:43 15:44 15:44
24	05:07 22:18	06:15 21:02	07:24 19:33	08:32 18:09	52	12:52 (16) 16:46 (29) 16:01	08:45 15:44 15:44
25	05:09 22:16	06:17 20:59	07:26 19:30	07:34 17:06	47	11:52 (16) 15:44 (29) 15:59	08:47 15:45 15:45
26	05:11 22:14	06:20 20:56	07:28 19:27	07:37 17:04	40	11:51 (16) 15:40 (29) 15:58	08:49 15:46 15:46
27	05:13 22:12	06:22 20:54	07:30 19:24	07:39 17:01	35	11:52 (16) 12:27 (16) 15:56	08:52 15:47 15:47
28	05:15 22:10	06:24 20:51	07:33 19:22	07:42 16:59	35	11:52 (16) 12:27 (16) 15:55	08:54 15:48 15:48
29	05:18 22:07	06:26 20:48	07:35 19:19	07:44 16:56	34	11:52 (16) 12:26 (16) 15:53	08:56 15:49 15:49
30	05:20 22:05	06:29 20:45	07:37 19:16	07:46 16:54	39	11:53 (16) 14:57 (21) 15:52	08:58 15:50 15:50
31	05:22 22:03	06:31 20:42		07:49 16:51	42	11:54 (16) 15:00 (21)	09:28 15:51 15:51
Potential sun hours	546	478	386	319		236	199
Total, worst case				1431		359	

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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Project:

Moifjellet vindkraftverk

Licensed user:

Multiconsult Norge AS

Nedre Skøyen vei 2 .

NO-0276 Oslo

+47 21 58 60 15

Martine / martine.bjugg@multiconsult.no

Calculated:

20.01.2025 16:14/4.0.540

SHADOW - Calendar

Calculation: Oppdatert layout - kun Moifjellet - worst case - oppdatert mottaker Shadow receptor: N - Buevegen 1988 (14)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

The sun is shining all the day, from sunrise to sunset

The rotor plane is always perpendicular to the line from the WTG to the sun

The WTG is always operating

	January	February	March	April	May	June	July	August	September	October	November	December				
1	09:28	08:46	11:38 (18)	07:35	07:07	05:44	04:40	04:32	05:24	06:33	07:39	07:51	09:44 (13)	09:00		
2	15:53	16:56	62 13:43 (16)	18:05	20:17	21:26	22:30	22:48	22:01	20:40	19:13	16:49	55 15:37 (29)	15:51		
3	09:27	08:41	57 11:39 (18)	07:32	07:04	05:41	04:38	04:33	05:26	06:35	07:41	07:54	51 15:37 (29)	15:50		
4	09:26	08:39	51 13:42 (16)	18:09	20:21	21:30	22:34	22:47	04:34	05:28	06:37	07:44	07:56	09:57 (13)	09:03	
5	15:57	17:03	51 15:59 (29)	18:12	20:23	21:33	22:35	22:46	21:54	20:31	19:04	16:41	58 15:35 (29)	15:48		
6	09:25	08:34	57 11:39 (18)	07:24	06:55	05:34	04:35	04:36	05:33	06:42	07:48	08:01	57 15:36 (29)	15:49		
7	16:00	17:08	57 16:05 (29)	18:16	20:28	21:37	22:38	22:45	21:49	20:25	18:59	16:37	56 15:33 (29)	15:46		
8	09:24	08:30	56 10:32 (13)	07:18	06:49	05:29	04:33	04:38	05:37	06:46	07:53	08:06	55 15:34 (29)	15:47		
9	16:03	17:13	56 16:07 (29)	18:21	20:33	21:42	22:40	22:43	21:44	20:20	18:53	16:32	50 13:13 (16)	15:45		
10	09:23	08:27	49 10:26 (13)	07:13	06:44	05:24	04:31	04:41	05:42	06:51	07:57	08:10	49 13:12 (16)	15:45		
11	16:09	17:21	55 16:08 (29)	18:28	20:40	21:49	22:44	22:39	21:37	20:11	18:44	16:25	63 13:14 (16)	15:46		
12	09:20	08:20	48 10:17 (13)	07:04	06:35	05:17	04:29	04:46	05:48	06:57	08:04	08:18	62 13:15 (16)	15:43		
13	16:11	17:23	55 16:08 (29)	18:31	20:42	21:51	22:45	22:38	21:34	20:08	18:42	16:23	65 13:15 (16)	15:43		
14	09:18	08:17	33 16:07 (29)	18:33	20:44	21:53	22:46	22:36	21:31	20:05	18:39	16:21	65 13:15 (16)	15:42		
15	16:13	17:26	28 16:08 (29)	18:35	20:46	21:55	22:46	22:35	21:29	20:02	18:36	16:19	66 13:15 (16)	15:42		
16	09:17	8 12:11 (10)	17:28	08:15	07:08 (29)	06:56	06:27	05:10	04:27	04:50	05:55	07:04	08:11	09:21		
17	16:14	10 12:12 (10)	17:30	17:40	16:07 (29)	18:37	20:49	21:57	22:47	22:34	21:26	19:59	18:33	16:17	64 13:15 (16)	15:42
18	09:16	12:02 (10)	08:10	08:10	15:51 (29)	06:53	06:24	05:08	04:27	04:52	05:57	07:06	08:13	08:27	11:14 (18)	09:22
19	16:19	11 12:13 (10)	17:33	17:35	16:05 (29)	18:40	20:51	22:00	22:48	22:32	21:24	19:56	18:31	16:15	62 13:15 (16)	15:42
20	09:15	12:02 (10)	08:07	08:07	15:52 (29)	06:50	06:21	05:06	04:27	04:54	05:59	07:08	08:16	08:29	11:15 (18)	09:23
21	16:21	18 13:29 (16)	17:35	17:35	16:04 (29)	18:42	20:53	22:02	22:48	22:30	21:21	19:53	18:28	16:13	61 13:14 (16)	15:42
22	09:14	11:58 (10)	08:02	08:02	15:56 (29)	06:47	06:18	05:04	04:27	04:56	06:02	07:10	08:18	08:32	11:17 (18)	09:24
23	16:23	29 13:33 (16)	17:38	17:38	16:02 (29)	18:44	20:56	22:04	22:49	22:29	21:18	19:51	18:25	16:11	59 13:14 (16)	15:42
24	09:10	11:58 (10)	08:02	08:02	06:44	06:16	05:02	04:26	04:58	06:04	07:13	08:20	08:34	08:34	11:19 (18)	09:25
25	16:25	32 13:35 (16)	17:40	17:40	18:47	20:58	22:06	22:49	22:27	21:16	19:48	18:22	16:09	54 13:14 (16)	15:42	
26	09:08	11:57 (10)	08:00	08:00	06:41	06:13	05:00	04:26	04:59	06:06	07:15	08:23	08:36	08:36	11:21 (18)	09:25
27	16:27	37 13:37 (16)	17:43	17:43	18:49	21:00	22:08	22:50	22:25	21:13	19:45	18:20	16:07	48 13:13 (16)	15:42	
28	09:07	11:57 (10)	07:57	07:57	06:38	06:10	04:58	04:27	05:01	06:08	07:17	08:25	08:39	11:32 (10)	09:26	
29	16:30	40 13:38 (16)	17:45	17:45	18:51	21:03	22:10	22:50	22:23	21:10	19:42	18:17	16:06	40 13:13 (16)	15:43	
30	09:05	11:46 (18)	07:54	07:54	06:36	06:07	04:56	04:27	05:03	06:11	07:19	08:27	08:41	11:33 (10)	09:27	
31	16:32	48 13:38 (16)	17:48	17:48	18:54	21:05	22:12	22:50	22:22	21:07	19:39	18:14	16:04	37 13:13 (16)	15:43	
32	09:03	11:44 (18)	07:52	07:52	06:33	06:05	04:54	04:27	05:05	06:13	07:21	08:30	08:43	11:34 (10)	09:27	
33	16:34	54 13:39 (16)	17:50	17:50	18:56	21:07	22:14	22:50	22:20	21:05	19:36	18:12	16:02	33 13:13 (16)	15:44	
34	09:01	11:43 (18)	07:49	07:49	06:30	06:02	04:52	04:27	05:07	06:15	07:24	08:32	08:45	16:24 (29)	09:28	
35	16:37	59 13:40 (16)	17:52	17:52	18:58	21:10	22:16	22:50	22:18	21:02	19:33	18:09	8 16:32 (29)	16:01	29 13:10 (16)	15:44
36	09:00	11:42 (18)	07:46	07:46	06:27	05:59	04:50	04:28	05:09	06:17	07:26	07:34	15:22 (29)	08:47	11:41 (10)	09:28
37	16:39	60 13:41 (16)	17:55	17:55	19:01	21:12	22:18	22:50	22:16	20:59	19:30	17:06	12 15:34 (29)	15:59	18 13:08 (16)	15:45
38	08:58	11:41 (18)	07:43	07:43	06:24	05:57	04:49	04:28	05:11	06:20	07:28	07:37	15:20 (29)	08:49	11:41 (10)	09:28
39	16:41	62 13:42 (16)	17:57	17:57	19:03	21:14	22:20	22:50	22:14	20:56	19:27	17:04	15 15:35 (29)	15:58	11 11:52 (10)	15:46
40	08:56	11:40 (18)	07:41	07:41	06:21	05:54	04:47	04:29	05:13	06:22	07:30	07:39	09:53 (13)	08:52	11:41 (10)	09:28
41	16:44	64 13:42 (16)	18:00	18:00	19:05	21:17	22:22	22:50	22:12	20:54	19:24	17:01	20 15:36 (29)	15:56	10 11:51 (10)	15:47
42	08:54	11:40 (18)	07:38	07:38	06:18	05:51	04:45	04:29	05:15	06:24	07:33	07:42	09:49 (13)	08:54	11:43 (10)	09:28
43	16:46	65 13:43 (16)	18:02	18:02	19:07	21:19	22:24	22:50	22:10	20:51	19:22	16:59	29 15:37 (29)	15:55	8 11:51 (10)	15:48
44	08:52	11:40 (18)			07:15	05:49	04:44	04:30	05:18	06:26	07:35	07:44	09:47 (13)	08:56		09:28
45	16:49	64 13:43 (16)			20:10	21:21	22:25	22:49	22:07	20:48	19:19	16:56	38 15:37 (29)	15:53		15:49
46	08:50	11:39 (18)			07:12	05:46	04:42	04:31	05:20	06:28	07:37	07:46	09:46 (13)	08:58		09:28
47	16:51	65 13:43 (16)			20:12	21:23	22:27	22:49	22:05	20:45	19:16	16:54	49 15:37 (29)	15:52		15:50
48	08:48	11:39 (18)			07:09		04:41		05:22	06:31		07:49	09:46 (13)			09:28
49	16:53	63 13:43 (16)			20:14		22:29		22:03	20:42		16:51	56 15:38 (29)			15:51
Potential sun hours	221	260		365	432	521	547	546	478	386	319	227	236	1347		199
Total, worst case	789	766														

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)		Last time (hh:mm) with flicker	(WTG causing flicker last time)



SHADOW - Calendar

Calculation: Oppdatert layout - kun Moifjellet - worst case - oppdatert mottaker **Shadow receptor:** O - Buevegen 2023 (15)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

The sun is shining all the day, from sunrise to sunset

The rotor plane is always perpendicular to the line from the WTG to the sun

The WTG is always operating

	January	February	March	April	May	June	July	August	September	October	November	December
1	09:28 15:53	08:46 16:56	10:50 (13) 14:26 (16)	07:35 18:04	07:07 20:17	05:44 21:26	04:39 22:30	04:32 22:48	05:24 22:01	06:33 20:40	07:39 19:13	
2	09:27 15:54	08:43 16:58	10:51 (13) 14:27 (16)	07:32 18:07	07:04 20:19	05:41 21:28	04:38 22:32	04:33 22:48	05:26 21:58	06:35 20:37	07:41 19:10	35
3	09:27 15:55	08:41 17:01	10:50 (13) 14:27 (16)	07:30 18:09	07:01 20:21	05:39 21:30	04:37 22:34	04:34 22:47	05:28 21:56	06:37 20:34	07:44 19:07	48
4	09:26 15:57	08:39 17:03	10:51 (13) 14:27 (16)	07:27 18:12	06:58 20:23	05:36 21:33	04:36 22:35	04:35 22:46	05:30 21:54	06:40 20:31	07:46 19:04	57
5	09:26 15:58	08:37 17:06	10:51 (13) 14:26 (16)	07:24 18:14	06:55 20:26	05:34 21:35	04:35 22:36	04:36 22:46	05:33 21:51	06:42 20:28	07:48 19:01	62
6	09:25 16:00	08:34 17:08	10:52 (13) 14:26 (16)	07:21 18:16	06:52 20:28	05:31 21:37	04:34 22:38	04:37 22:45	05:35 21:49	06:44 20:25	07:50 18:59	67
7	09:24 16:02	08:32 17:11	10:53 (13) 14:25 (16)	07:18 18:19	06:49 20:30	05:29 21:40	04:33 22:39	04:38 22:44	05:37 21:46	06:46 20:22	07:53 18:56	72
8	09:24 16:03	08:30 17:13	10:55 (13) 14:25 (16)	07:16 18:21	06:47 20:33	05:26 21:42	04:32 22:40	04:40 22:43	05:39 21:44	06:48 20:19	07:55 18:53	77
9	09:23 16:05	08:27 17:16	10:56 (13) 14:23 (16)	07:13 18:23	06:44 20:35	05:24 21:44	04:31 22:42	04:41 22:42	05:41 21:42	06:51 20:17	07:57 18:50	82
10	09:22 16:07	08:25 17:18	10:57 (13) 14:20 (16)	07:10 18:26	06:41 20:37	05:22 21:46	04:30 22:43	04:42 22:40	05:44 21:39	06:53 20:14	08:00 18:47	87
11	09:21 16:09	08:22 17:21	12:43 (18) 12:51 (18)	07:07 18:28	06:38 20:40	05:19 21:49	04:29 22:44	04:44 22:39	05:46 21:37	06:55 20:11	08:02 18:44	92
12	09:20 16:11	08:20 17:23		07:04 18:30	06:35 20:42	05:17 21:51	04:29 22:45	04:46 22:38	05:48 21:34	06:57 20:08	08:04 18:42	97
13	09:18 16:13	08:17 17:25		07:01 18:33	06:32 20:44	05:15 21:53	04:28 22:46	04:47 22:36	05:50 21:31	06:59 20:05	08:06 18:39	102
14	09:17 16:15	12:39 (10) 12:45 (10)	08:15 17:28	06:59 18:35	06:30 20:46	05:12 21:55	04:28 22:46	04:49 22:35	05:53 21:29	07:02 20:02	08:09 18:36	107
15	09:16 16:17	12:39 (10) 12:46 (10)	08:12 17:30	06:56 18:37	06:27 20:49	05:10 21:57	04:27 22:47	04:50 22:34	05:55 21:26	07:04 19:59	08:11 18:33	112
16	09:14 16:19	12:38 (10) 12:55 (10)	08:10 17:33	06:53 18:40	06:24 20:51	05:08 22:00	04:27 22:48	04:52 22:32	05:57 21:24	07:06 19:56	08:13 18:31	117
17	09:13 16:21	12:38 (10) 12:56 (10)	08:07 17:35	06:50 18:42	06:21 20:53	05:06 22:02	04:27 22:48	04:54 22:30	05:59 21:21	07:08 19:53	08:16 18:28	122
18	09:12 16:23	12:37 (10) 12:56 (10)	08:05 17:38	06:47 18:44	06:18 20:56	05:04 22:04	04:27 22:49	04:56 22:29	06:02 21:18	07:10 19:51	08:18 18:25	127
19	09:10 16:25	12:38 (10) 12:58 (10)	08:02 17:40	06:44 18:47	06:16 20:58	05:02 22:06	04:26 22:49	04:58 22:27	06:04 21:16	07:13 19:48	08:20 18:22	132
20	09:08 16:27	12:38 (18) 12:59 (10)	07:59 17:43	06:41 18:49	06:13 21:00	05:00 22:08	04:26 22:50	04:59 22:25	06:06 21:13	07:15 19:45	08:23 18:20	137
21	09:07 16:30	12:35 (18) 12:58 (10)	07:57 17:45	06:38 18:51	06:10 21:03	04:58 22:10	04:27 22:50	05:01 22:23	06:08 21:10	07:17 19:42	08:25 18:17	142
22	09:05 16:32	12:34 (18) 14:14 (16)	07:54 17:48	06:35 18:54	06:07 21:05	04:56 22:12	04:27 22:22	05:03 22:22	06:11 21:07	07:19 19:39	08:27 18:14	147
23	09:03 16:34	12:34 (18) 14:18 (16)	07:52 17:50	06:33 18:56	06:05 21:07	04:54 22:14	04:27 22:50	05:05 22:20	06:13 21:05	07:21 19:36	08:30 18:12	152
24	09:01 16:37	12:33 (18) 14:20 (16)	07:49 17:52	06:30 18:58	06:02 21:10	04:52 22:16	04:27 22:50	05:07 22:18	06:15 21:02	07:24 19:33	08:32 18:09	157
25	09:00 16:39	12:33 (18) 14:22 (16)	07:46 17:55	06:27 19:00	05:59 21:12	04:50 22:18	04:28 22:50	05:09 22:16	06:17 20:59	07:26 19:30	07:34 17:06	162
26	08:58 16:41	12:32 (18) 14:23 (16)	07:43 17:57	06:24 19:03	05:57 21:14	04:49 22:20	04:28 22:50	05:11 22:14	06:20 20:56	07:28 19:27	07:37 17:04	167
27	08:56 16:44	10:54 (13) 14:24 (16)	07:41 18:00	06:21 19:05	05:54 21:17	04:47 22:22	04:29 22:50	05:13 22:12	06:22 20:54	07:30 19:24	07:39 17:01	172
28	08:54 16:46	10:52 (13) 14:25 (16)	07:38 18:02	06:18 19:07	05:51 21:19	04:45 22:24	04:29 22:50	05:15 22:09	06:24 20:51	07:32 19:21	07:42 16:59	177
29	08:52 16:49	10:51 (13) 14:26 (16)		07:15 20:10	05:49 21:21	04:44 22:25	04:30 22:49	05:18 22:07	06:26 20:48	07:35 19:19	07:44 16:56	182
30	08:50 16:51	10:51 (13) 14:26 (16)		07:12 20:12	05:46 21:23	04:42 22:27	04:31 22:49	05:20 22:05	06:28 20:45	07:37 19:16	07:46 16:54	187
31	08:48 16:53	10:51 (13) 14:27 (16)		07:09 20:14		04:41 22:29		05:22 22:03	06:31 20:42	07:49 16:51	12:11 (18) 12:21 (18)	192
Potential sun hours	221	260	365	432	521	547	546	478	386	319	236	199
Total, worst case	663	630								10	1294	

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)		Last time (hh:mm) with flicker	(WTG causing flicker last time)

SHADOW - Calendar

Calculation: Oppdatert layout - kun Moifjellet - worst case - oppdatert mottaker **Shadow receptor:** P - Buevegen 2021 (16)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

The sun is shining all the day, from sunrise to sunset

The rotor plane is always perpendicular to the line from the WTG to the sun

The WTG is always operating

	January	February	March	April	May	June	July	August	September	October	November	December	
1	09:28 15:53	08:46 16:56	10:45 (13) 14:22 (16)	07:35 18:04	07:07 20:17	05:44 21:26	04:40 22:30	04:32 22:48	05:24 22:01	06:33 20:40	07:39 19:13	10:19 (13) 13:46 (16)	09:00 15:51
2	09:27 15:54	08:43 16:58	10:46 (13) 14:23 (16)	07:32 18:07	07:04 20:19	05:41 21:28	04:38 22:32	04:33 22:48	05:26 21:58	06:35 20:37	07:41 19:10	10:18 (13) 13:49 (16)	09:01 15:50
3	09:27 15:55	08:41 17:01	10:45 (13) 14:22 (16)	07:30 18:09	07:01 20:21	05:39 21:30	04:37 22:34	04:34 22:47	05:28 21:56	06:37 20:34	07:44 19:07	10:18 (13) 13:50 (16)	09:03 15:49
4	09:26 15:57	08:39 17:03	10:46 (13) 14:23 (16)	07:27 18:12	06:58 20:23	05:36 21:33	04:36 22:35	04:35 22:46	05:30 21:54	06:40 20:31	07:46 19:04	10:16 (13) 13:51 (16)	09:05 15:48
5	09:26 15:58	08:37 17:06	10:46 (13) 14:22 (16)	07:24 18:14	06:55 20:26	05:34 21:35	04:35 22:36	04:35 22:46	05:33 21:51	06:42 20:28	07:48 19:01	10:16 (13) 13:52 (16)	09:07 15:47
6	09:25 16:00	08:34 17:08	10:47 (13) 14:22 (16)	07:21 18:16	06:52 20:28	05:31 21:37	04:34 22:38	04:37 22:45	05:35 21:49	06:44 20:25	07:50 18:59	10:16 (13) 13:53 (16)	09:09 15:46
7	09:24 16:02	08:32 17:11	10:47 (13) 14:21 (16)	07:18 18:19	06:49 20:30	05:29 21:40	04:33 22:39	04:38 22:44	05:37 21:46	06:46 20:22	07:53 18:56	10:16 (13) 13:52 (16)	09:10 15:45
8	09:24 16:03	08:30 17:13	10:48 (13) 14:21 (16)	07:16 18:21	06:47 20:33	05:26 21:42	04:32 22:40	04:40 22:43	05:39 21:44	06:48 20:19	07:55 18:53	10:16 (13) 13:53 (16)	09:12 15:45
9	09:23 16:05	08:27 17:16	10:49 (13) 14:19 (16)	07:13 18:23	06:44 20:35	05:24 21:44	04:31 22:42	04:41 22:42	05:41 21:42	06:51 20:17	07:57 18:50	10:16 (13) 13:53 (16)	09:13 15:44
10	09:22 16:07	08:25 17:18	10:50 (13) 14:16 (16)	07:10 18:26	06:41 20:37	05:22 21:46	04:30 22:43	04:42 22:40	05:44 21:39	06:53 20:14	08:00 18:47	10:17 (13) 13:54 (16)	09:15 15:43
11	09:21 16:09	08:22 17:21	10:53 (13) 12:47 (18)	07:07 18:28	06:38 20:40	05:19 21:49	04:29 22:44	04:44 22:39	05:46 21:37	06:55 20:11	08:02 18:44	10:17 (13) 13:53 (16)	09:16 15:43
12	09:20 16:11	08:20 17:23	12:38 (18) 12:41 (18)	07:04 18:30	06:35 20:42	05:17 21:51	04:29 22:45	04:46 22:38	05:48 21:34	06:57 20:08	08:04 18:42	10:18 (13) 13:53 (16)	09:17 15:42
13	09:18 16:13	08:17 17:25	07:01 18:33	06:32 20:44	05:15 21:53	04:28 22:46	04:47 22:36	04:50 21:31	05:50 20:05	06:59 20:05	08:06 18:39	10:20 (13) 13:53 (16)	09:19 15:42
14	09:17 16:15	08:15 17:28	06:59 18:35	06:30 20:46	05:12 21:55	04:28 22:46	04:49 22:35	05:53 21:29	07:02 20:02	08:09 18:36	09:09 18:36	11:57 (18) 13:53 (16)	09:20 15:42
15	09:16 16:17	08:12 17:30	06:56 18:37	06:27 20:49	05:10 21:57	04:27 22:47	04:50 22:34	05:55 21:26	07:04 19:59	08:11 18:33	09:11 18:33	11:58 (18) 13:52 (16)	09:21 15:42
16	09:14 16:19	12:49 (10) 12:50 (10)	08:10 17:33	06:53 18:40	06:24 20:51	05:08 22:00	04:27 22:48	04:52 22:32	05:57 21:24	07:06 19:56	08:13 18:31	11:59 (18) 13:52 (16)	09:22 15:42
17	09:13 16:21	12:33 (10) 12:50 (10)	08:07 17:35	06:50 18:42	06:21 20:53	05:06 22:02	04:27 22:48	04:54 22:30	05:59 21:21	07:08 19:53	08:16 18:28	12:00 (18) 13:50 (16)	09:23 15:42
18	09:12 16:23	12:33 (10) 12:51 (10)	08:05 17:38	06:47 18:44	06:18 20:56	05:04 22:04	04:27 22:49	04:56 22:29	06:02 21:18	07:10 19:51	08:18 18:25	12:01 (18) 13:49 (16)	09:24 15:42
19	09:10 16:25	12:34 (10) 12:53 (10)	08:02 17:40	06:44 18:47	06:16 20:58	05:02 22:06	04:26 22:49	04:58 22:27	06:04 21:16	07:13 19:48	08:20 18:22	12:03 (18) 13:48 (16)	09:25 15:42
20	09:08 16:27	12:33 (10) 12:54 (10)	07:59 17:43	06:41 18:49	06:13 21:00	05:00 22:08	04:26 22:50	04:59 22:25	06:06 21:13	07:15 19:45	08:23 18:20	12:04 (18) 13:41 (16)	09:25 15:42
21	09:07 16:30	12:31 (18) 12:53 (10)	07:57 17:45	06:38 18:51	06:10 21:03	04:58 22:10	04:27 22:50	05:01 22:23	06:08 21:10	07:17 19:42	08:25 18:17	12:07 (18) 12:29 (10)	09:26 15:43
22	09:05 16:32	12:29 (18) 14:06 (16)	07:54 17:48	06:35 18:54	06:07 21:05	04:56 22:12	04:27 22:22	05:03 22:22	06:11 21:07	07:19 19:39	08:27 18:14	12:10 (10) 12:30 (10)	09:27 15:43
23	09:03 16:34	12:28 (18) 14:13 (16)	07:52 17:50	06:33 18:56	06:05 21:07	04:54 22:14	04:27 22:50	05:05 22:20	06:13 21:05	07:21 19:36	08:30 18:12	12:10 (10) 12:29 (10)	09:27 15:44
24	09:01 16:37	12:27 (18) 14:15 (16)	07:49 17:52	06:30 18:58	06:02 21:10	04:52 22:16	04:27 22:50	05:07 22:18	06:15 21:02	07:24 19:33	08:32 18:09	12:11 (10) 12:29 (10)	09:28 15:44
25	09:00 16:39	12:27 (18) 14:17 (16)	07:46 17:55	06:27 19:00	05:59 21:12	04:50 22:18	04:28 22:50	05:09 22:16	06:17 20:59	07:26 19:30	07:34 17:06	12:11 (10) 12:29 (10)	09:28 15:45
26	08:58 16:41	12:26 (18) 14:19 (16)	07:43 17:57	06:24 19:03	05:57 21:14	04:49 22:20	04:28 22:50	05:11 22:14	06:20 20:56	07:28 19:27	07:37 17:04	12:28 (10) 12:29 (10)	09:28 15:46
27	08:56 16:44	12:25 (18) 14:19 (16)	07:41 18:00	06:21 19:05	05:54 21:17	04:47 22:22	04:29 22:50	05:13 22:12	06:22 20:54	07:30 19:24	07:39 17:01	12:29 (10) 12:30 (10)	09:28 15:47
28	08:54 16:46	12:25 (18) 14:20 (16)	07:38 18:02	06:18 19:07	05:51 21:19	04:45 22:24	04:29 22:50	05:15 22:09	06:24 20:51	07:32 19:22	07:42 16:59	12:30 (10) 12:31 (10)	09:28 15:48
29	08:52 16:49	10:48 (13) 14:21 (16)	07:35 18:00	06:15 20:10	05:49 21:21	04:44 22:25	04:30 22:49	05:18 22:07	06:26 20:48	07:35 19:19	07:44 16:56	12:31 (10) 12:32 (10)	09:28 15:49
30	08:50 16:51	10:46 (13) 14:21 (16)	07:33 18:00	06:12 20:12	05:46 21:23	04:42 22:27	04:31 22:49	05:20 22:05	06:28 20:45	07:37 19:16	07:46 16:54	10:26 (13) 12:13 (18)	09:28 15:50
31	08:48 16:53	10:46 (13) 14:22 (16)	07:29 18:00	06:09 20:14	05:41 21:25	04:41 22:29	04:31 22:50	05:22 22:03	06:31 20:42	07:49 16:51	07:49 12:17 (18)	10:22 (13) 12:17 (18)	09:28 15:51
Potential sun hours	221	260	365	432	521	547	546	478	386	319	236	1222	199
Total, worst case	561	676								33			

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)		Last time (hh:mm) with flicker	(WTG causing flicker last time)

SHADOW - Calendar

Calculation: Oppdatert layout - kun Moifjellet - worst case - oppdatert mottaker **Shadow receptor:** Q - Buevegen 2141 (17)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

The sun is shining all the day, from sunrise to sunset

The rotor plane is always perpendicular to the line from the WTG to the sun

The WTG is always operating

	January	February	March	April	May	June
1	09:28	12:03 (27) 08:45	14:59 (18) 07:35	07:07	05:44	04:39
	15:52	20 12:23 (27) 16:56	18 15:17 (18) 18:04	20:16	21:26	22:30
2	09:27	12:03 (27) 08:43	14:59 (18) 07:32	07:04	05:41	04:38
	15:54	20 12:23 (27) 16:58	19 15:18 (18) 18:07	20:19	21:28	22:32
3	09:27	12:03 (27) 08:41	14:58 (18) 07:30	07:01	05:38	04:37
	15:55	20 12:23 (27) 17:01	19 15:17 (18) 18:09	20:21	21:30	22:33
4	09:26	12:03 (27) 08:39	14:59 (18) 07:27	06:58	05:36	04:36
	15:57	21 12:24 (27) 17:03	19 15:18 (18) 18:12	20:23	21:33	22:35
5	09:26	12:04 (27) 08:37	14:59 (18) 07:24	06:55	05:33	04:34
	15:58	25 13:33 (13) 17:06	19 15:18 (18) 18:14	20:26	21:35	22:36
6	09:25	12:04 (27) 08:34	15:00 (18) 07:21	06:52	05:31	04:33
	16:00	29 13:35 (13) 17:08	18 15:18 (18) 18:16	20:28	21:37	22:38
7	09:24	12:05 (27) 08:32	15:00 (18) 07:18	06:49	05:29	04:32
	16:01	31 13:37 (13) 17:11	17 15:17 (18) 18:19	20:30	21:39	22:39
8	09:23	12:06 (27) 08:30	15:00 (18) 07:16	06:46	05:26	04:31
	16:03	32 13:38 (13) 17:13	16 15:16 (18) 18:21	20:33	21:42	22:40
9	09:23	12:06 (27) 08:27	15:02 (18) 07:13	06:44	05:24	04:31
	16:05	33 13:39 (13) 17:15	14 15:16 (18) 18:23	20:35	21:44	22:42
10	09:22	12:07 (27) 08:25	15:03 (18) 07:10	06:41	05:21	04:30
	16:07	34 13:40 (13) 17:18	11 15:14 (18) 18:26	20:37	21:46	22:43
11	09:21	12:07 (27) 08:22	15:07 (18) 07:07	06:38	05:19	04:29
	16:09	35 13:41 (13) 17:20	5 15:12 (18) 18:28	20:39	21:49	22:44
12	09:19	12:08 (27) 08:20	07:04	06:35	05:17	04:29
	16:11	35 13:42 (13) 17:23	18:30	20:42	21:51	22:45
13	09:18	12:08 (27) 08:17	07:01	06:32	05:15	04:28
	16:12	36 13:43 (13) 17:25	18:33	20:44	21:53	22:46
14	09:17	12:10 (27) 08:15	06:58	06:29	05:12	04:28
	16:14	35 13:44 (13) 17:28	18:35	20:46	21:55	22:46
15	09:16	12:11 (27) 08:12	06:56	06:27	05:10	04:27
	16:17	34 13:45 (13) 17:30	18:37	20:49	21:57	22:47
16	09:14	12:12 (27) 08:10	06:53	06:24	05:08	04:27
	16:19	32 13:45 (13) 17:33	18:40	20:51	22:00	22:48
17	09:13	12:14 (27) 08:07	06:50	06:21	05:06	04:27
	16:21	29 13:45 (13) 17:35	18:42	20:53	22:02	22:48
18	09:11	12:16 (27) 08:05	06:47	06:18	05:04	04:26
	16:23	26 13:46 (13) 17:38	18:44	20:56	22:04	22:49
19	09:10	13:25 (13) 08:02	06:44	06:16	05:02	04:26
	16:25	21 13:46 (13) 17:40	18:47	20:58	22:06	22:49
20	09:08	13:25 (13) 07:59	06:41	06:13	05:00	04:26
	16:27	22 13:47 (13) 17:43	18:49	21:00	22:08	22:50
21	09:07	13:26 (13) 07:57	06:38	06:10	04:58	04:26
	16:30	21 13:47 (13) 17:45	18:51	21:03	22:10	22:50
22	09:05	13:26 (13) 07:54	06:35	06:07	04:56	04:27
	16:32	21 13:47 (13) 17:48	18:54	21:05	22:12	22:50
23	09:03	13:27 (13) 07:51	06:33	06:05	04:54	04:27
	16:34	20 13:47 (13) 17:50	18:56	21:07	22:14	22:50
24	09:01	13:28 (13) 07:49	06:30	06:02	04:52	04:27
	16:37	19 13:47 (13) 17:52	18:58	21:09	22:16	22:50
25	09:00	13:29 (13) 07:46	06:27	05:59	04:50	04:28
	16:39	18 13:47 (13) 17:55	19:00	21:12	22:18	22:50
26	08:58	13:30 (13) 07:43	06:24	05:57	04:49	04:28
	16:41	17 13:47 (13) 17:57	19:03	21:14	22:20	22:50
27	08:56	13:30 (13) 07:41	06:21	05:54	04:47	04:29
	16:44	21 15:09 (18) 18:00	19:05	21:16	22:22	22:50
28	08:54	13:32 (13) 07:38	06:18	05:51	04:45	04:29
	16:46	23 15:12 (18) 18:02	19:07	21:19	22:23	22:50
29	08:52	13:35 (13)	07:15	05:49	04:44	04:30
	16:48	21 15:14 (18)	20:10	21:21	22:25	22:49
30	08:50	15:00 (18)	07:12	05:46	04:42	04:31
	16:51	15 15:15 (18)	20:12	21:23	22:27	22:49
31	08:48	15:00 (18)	07:09		04:41	
	16:53	16 15:16 (18)	20:14		22:29	
Potential sun hours	221	260	365	432	521	547
Total, worst case	782	175				

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Calculation: Oppdatert layout - kun Moifjellet - worst case - oppdatert mottaker **Shadow receptor:** Q - Buevegen 2141 (17)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

The sun is shining all the day, from sunrise to sunset

The rotor plane is always perpendicular to the line from the WTG to the sun

The WTG is always operating

	July	August	September	October	November	December	
1	04:32 22:48	05:24 22:01	06:33 20:39	07:39 19:13	07:51 16:48	14:32 (18) 15:51	08:59 34
2	04:33 22:48	05:26 21:58	06:35 20:37	07:41 19:10	07:54 16:46	14:31 (18) 15:50	09:01 35
3	04:34 22:47	05:28 21:56	06:37 20:34	07:44 19:07	07:56 16:44	14:31 (18) 15:49	09:03 33
4	04:35 22:46	05:30 21:54	06:39 20:31	07:46 19:04	07:58 16:41	14:29 (18) 15:48	09:05 33
5	04:36 22:46	05:33 21:51	06:42 20:28	07:48 19:01	08:01 16:39	14:29 (18) 15:47	09:07 31
6	04:37 22:45	05:35 21:49	06:44 20:25	07:50 18:58	08:03 16:36	14:29 (18) 15:46	09:08 29
7	04:38 22:44	05:37 21:46	06:46 20:22	07:53 18:56	08:06 16:34	14:29 (18) 15:45	09:10 25
8	04:40 22:43	05:39 21:44	06:48 20:19	07:55 18:53	08:08 16:32	14:29 (18) 15:44	09:12 21
9	04:41 22:42	05:41 21:41	06:51 20:17	07:57 18:50	08:10 16:30	14:30 (18) 15:44	09:13 21
10	04:42 22:40	05:44 21:39	06:53 20:14	07:59 18:47	08:13 16:27	14:29 (18) 15:43	09:15 20
11	04:44 22:39	05:46 21:36	06:55 20:11	08:02 18:44	08:15 16:25	14:30 (18) 15:43	09:16 20
12	04:45 22:38	05:48 21:34	06:57 20:08	08:04 18:42	08:18 16:23	14:32 (18) 15:42	09:17 20
13	04:47 22:36	05:50 21:31	06:59 20:05	08:06 18:39	08:20 16:21	13:07 (13) 15:42	09:19 20
14	04:49 22:35	05:53 21:29	07:02 20:02	08:09 18:36	08:22 16:19	13:04 (13) 15:42	09:20 20
15	04:50 22:33	05:55 21:26	07:04 19:59	08:11 18:33	08:25 16:17	13:03 (13) 15:42	09:21 20
16	04:52 22:32	05:57 21:23	07:06 19:56	08:13 18:30	08:27 16:15	13:03 (13) 15:42	09:22 20
17	04:54 22:30	05:59 21:21	07:08 19:53	08:16 18:28	08:29 16:13	13:02 (13) 15:42	09:23 20
18	04:56 22:29	06:02 21:18	07:10 19:50	08:18 18:25	08:32 16:11	13:02 (13) 15:42	09:24 19
19	04:57 22:27	06:04 21:15	07:13 19:48	08:20 18:22	08:34 16:09	13:02 (13) 15:42	09:25 20
20	04:59 22:25	06:06 21:13	07:15 19:45	08:23 18:20	08:36 16:07	13:01 (13) 15:42	09:25 20
21	05:01 22:23	06:08 21:10	07:17 19:42	08:25 18:17	08:38 16:06	13:02 (13) 15:43	09:26 20
22	05:03 22:22	06:10 21:07	07:19 19:39	08:27 18:14	08:41 16:04	13:02 (13) 15:43	09:27 20
23	05:05 22:20	06:13 21:05	07:21 19:36	08:30 18:12	08:43 16:02	13:02 (13) 15:44	09:27 20
24	05:07 22:18	06:15 21:02	07:24 19:33	08:32 18:09	08:45 16:01	11:54 (27) 15:44	09:27 20
25	05:09 22:16	06:17 20:59	07:26 19:30	08:34 17:06	08:47 15:59	11:52 (27) 15:45	09:28 20
26	05:11 22:14	06:19 20:56	07:28 19:27	08:37 17:04	08:49 15:57	11:51 (27) 15:46	09:28 20
27	05:13 22:12	06:22 20:54	07:30 19:24	08:39 17:01	08:51 15:56	11:50 (27) 15:47	09:28 20
28	05:15 22:09	06:24 20:51	07:32 19:21	08:42 16:59	08:54 15:55	11:49 (27) 15:48	09:28 20
29	05:17 22:07	06:26 20:48	07:35 19:19	08:44 16:56	08:56 15:53	11:50 (27) 15:49	09:28 20
30	05:20 22:05	06:28 20:45	07:37 19:16	08:46 16:53	08:58 15:52	11:49 (27) 15:50	09:28 21
31	05:22 22:03	06:31 20:42	07:41 16:51	08:49 16:51	14:35 (18) 14:41 (18)	09:28 15:51	12:01 (27) 21
Potential sun hours	546	478	386	319	236	199	703
Total, worst case				6	656		703

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Calculation: Oppdatert layout - kun Moifjellet - worst case - oppdatert mottaker Shadow receptor: R - Buevegen 2165 (18)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

- The sun is shining all the day, from sunrise to sunset
- The rotor plane is always perpendicular to the line from the WTG to the sun
- The WTG is always operating

	January	February	March	April	May	June	July	August	September	October	November	December						
1	09:28	12:35 (27)	08:45															
	15:52	20	12:55 (27)	14:09 (13)	07:35	07:06	05:44	04:39	04:32	05:24	06:33	07:39	07:51	08:59	12:22 (27)			
2	09:27	12:36 (27)	08:43	5	14:14 (13)	18:04	20:16	21:26	22:30	22:48	22:01	20:39	19:13	16:48	15:51	19	12:41 (27)	
	15:54	21	12:57 (27)	16:58	18:07	20:19	21:28	22:32	22:48	21:58	20:37	19:10	16:46	15:50	19	12:42 (27)		
3	09:27	12:36 (27)	08:41															
	15:55	21	12:57 (27)	17:01	18:09	20:21	21:30	22:33	22:47	21:56	20:34	19:07	16:44	15:49	20	12:43 (27)		
4	09:26	12:37 (27)	08:39															
	15:57	20	12:57 (27)	17:03	18:12	20:23	21:33	22:35	22:46	21:54	20:31	19:04	16:41	15:48	20	12:43 (27)		
5	09:26	12:37 (27)	08:37															
	15:58	20	12:57 (27)	17:06	18:14	20:26	21:35	22:36	22:46	21:51	20:28	19:01	16:39	15:47	20	12:44 (27)		
6	09:25	12:38 (27)	08:34															
	16:00	20	12:58 (27)	17:08	18:16	20:28	21:37	22:38	22:45	21:49	20:25	18:58	16:36	15:46	20	12:44 (27)		
7	09:24	12:38 (27)	08:32															
	16:01	20	12:58 (27)	17:11	18:19	20:30	21:39	22:39	22:44	21:46	20:22	18:56	16:34	15:45	21	12:45 (27)		
8	09:23	12:39 (27)	08:30															
	16:03	20	12:59 (27)	17:13	18:21	20:33	21:42	22:40	22:43	21:44	20:19	18:53	16:32	15:44	20	12:45 (27)		
9	09:23	12:39 (27)	08:27															
	16:05	19	12:58 (27)	17:15	18:23	20:35	21:44	22:41	22:42	21:41	20:17	18:50	16:30	15:44	21	12:45 (27)		
10	09:22	12:40 (27)	08:25															
	16:07	19	12:59 (27)	17:18	18:26	20:37	21:46	22:43	22:40	21:39	20:14	18:47	16:27	7	13:39 (13)	09:15	12:25 (27)	
11	09:21	12:40 (27)	08:22															
	16:09	19	12:59 (27)	17:20	18:28	20:39	21:49	22:44	22:39	21:36	20:11	18:44	16:25	11	13:48 (13)	15:43	21	12:47 (27)
12	09:19	12:42 (27)	08:20															
	16:10	23	14:09 (13)	17:23	18:30	20:42	21:51	22:45	22:38	21:34	20:08	18:42	16:23	14	13:50 (13)	15:42	20	12:46 (27)
13	09:18	12:42 (27)	08:17															
	16:12	27	14:11 (13)	17:25	18:33	20:44	21:53	22:46	22:36	21:31	20:05	18:39	16:21	17	13:52 (13)	15:42	20	12:47 (27)
14	09:17	12:44 (27)	08:15															
	16:14	27	14:13 (13)	17:28	18:35	20:46	21:55	22:46	22:35	21:29	20:02	18:36	16:19	18	13:52 (13)	15:42	21	12:48 (27)
15	09:16	12:45 (27)	08:12															
	16:17	27	14:14 (13)	17:30	18:37	20:49	21:57	22:47	22:33	21:26	19:59	18:33	16:17	19	13:53 (13)	15:42	21	12:48 (27)
16	09:14	12:46 (27)	08:10															
	16:19	26	14:15 (13)	17:33	18:40	20:51	21:59	22:48	22:32	21:23	19:56	18:30	16:15	20	13:54 (13)	15:42	20	12:48 (27)
17	09:13	12:48 (27)	08:07															
	16:21	25	14:16 (13)	17:35	18:42	20:53	22:02	22:48	22:30	21:21	19:53	18:28	16:13	20	13:53 (13)	15:42	20	12:48 (27)
18	09:11	13:59 (13)	08:05															
	16:23	18	14:17 (13)	17:38	18:44	20:56	22:04	22:49	22:29	21:18	19:50	18:25	16:11	20	13:54 (13)	15:42	20	12:49 (27)
19	09:10	13:59 (13)	08:02															
	16:25	18	14:17 (13)	17:40	18:47	20:58	22:06	22:49	22:27	21:15	19:48	18:22	16:09	21	13:55 (13)	15:42	20	12:50 (27)
20	09:08	13:59 (13)	07:59															
	16:27	19	14:18 (13)	17:43	18:49	21:00	22:08	22:50	22:25	21:13	19:45	18:20	16:07	20	13:54 (13)	15:42	20	12:50 (27)
21	09:07	13:59 (13)	07:57															
	16:30	20	14:19 (13)	17:45	18:51	21:03	22:10	22:50	22:23	21:10	19:42	18:17	16:06	20	13:55 (13)	15:43	20	12:50 (27)
22	09:05	13:59 (13)	07:54															
	16:32	20	14:19 (13)	17:47	18:54	21:05	22:12	22:50	22:21	21:07	19:39	18:14	16:04	19	13:54 (13)	15:43	20	12:51 (27)
23	09:03	13:59 (13)	07:51															
	16:34	21	14:20 (13)	17:50	18:56	21:07	22:14	22:50	22:20	21:05	19:36	18:11	16:02	19	13:55 (13)	15:44	20	12:51 (27)
24	09:01	14:00 (13)	07:49															
	16:36	20	14:20 (13)	17:52	18:58	21:09	22:16	22:50	22:18	21:02	19:33	18:09	16:01	18	13:55 (13)	15:44	21	12:52 (27)
25	09:00	14:00 (13)	07:46															
	16:39	21	14:21 (13)	17:55	19:00	21:12	22:18	22:50	22:16	20:59	19:30	17:06	15:59	25	13:54 (13)	15:45	20	12:53 (27)
26	08:58	14:01 (13)	07:43															
	16:41	20	14:21 (13)	17:57	19:03	21:14	22:20	22:50	22:14	20:56	19:27	17:04	15:57	26	13:54 (13)	15:46	20	12:53 (27)
27	08:56	14:01 (13)	07:41															
	16:44	19	14:20 (13)	18:00	19:05	21:16	22:22	22:50	22:12	20:54	19:24	17:01	15:56	27	13:53 (13)	15:47	20	12:54 (27)
28	08:54	14:02 (13)	07:38															
	16:46	18	14:20 (13)	18:02	19:07	21:19	22:23	22:50	22:09	20:51	19:21	16:58	15:55	27	13:52 (13)	15:47	20	12:53 (27)
29	08:52	14:04 (13)																
	16:48	16	14:20 (13)		19:07	21:15	22:25	22:49	22:07	20:48	19:19	16:56	15:53	27	13:52 (13)	15:49	20	12:54 (27)
30	08:50	14:04 (13)																
	16:51	14	14:18 (13)		19:07	21:12	22:27	22:49	22:05	20:45	19:16	16:53	15:52	24	13:51 (13)	15:50	20	12:55 (27)
31	08:48	14:06 (13)																
	16:53	11	14:17 (13)		19:09	20:14	22:29	22:49	22:03	20:42		16:51						
Potential sun hours	221		260		365	432	521	547	546	478	386	319	236	419		199	625	
Total, worst case	629		5															

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)		Last time (hh:mm) with flicker	(WTG causing flicker last time)

SHADOW - Calendar

Calculation: Oppdatert layout - kun Moifjellet - worst case - oppdatert mottaker **Shadow receptor:** S - Vaule 176 (19)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

The sun is shining all the day, from sunrise to sunset

The rotor plane is always perpendicular to the line from the WTG to the sun

The WTG is always operating

	January	February	March	April	May	June
1	09:28 15:52	8 13:54 (27) 08:45 14:02 (27) 16:56	13 15:13 (13) 07:35 15:26 (13) 18:04	07:06 20:16	05:43 21:26	04:39 22:30
2	09:27 15:54	9 13:55 (27) 08:43 14:04 (27) 16:58	16 15:12 (13) 07:32 15:28 (13) 18:07	07:04 20:19	05:41 21:28	04:38 22:32
3	09:27 15:55	11 13:54 (27) 08:41 14:05 (27) 17:01	17 15:11 (13) 07:29 15:28 (13) 18:09	07:01 20:21	05:38 21:30	04:37 22:33
4	09:26 15:57	12 13:54 (27) 08:39 14:06 (27) 17:03	18 15:11 (13) 07:27 15:29 (13) 18:12	06:58 20:23	05:36 21:33	04:36 22:35
5	09:26 15:58	13 13:54 (27) 08:37 14:07 (27) 17:06	18 15:11 (13) 07:24 15:29 (13) 18:14	06:55 20:26	05:33 21:35	04:34 22:36
6	09:25 16:00	14 13:54 (27) 08:34 14:08 (27) 17:08	19 15:11 (13) 07:21 15:30 (13) 18:16	06:52 20:28	05:31 21:37	04:33 22:38
7	09:24 16:01	15 13:54 (27) 08:32 14:09 (27) 17:10	19 15:11 (13) 07:18 15:30 (13) 18:19	06:49 20:30	05:29 21:39	04:32 22:39
8	09:23 16:03	17 13:54 (27) 08:30 14:11 (27) 17:13	18 15:11 (13) 07:15 15:29 (13) 18:21	06:46 20:32	05:26 21:42	04:31 22:40
9	09:23 16:05	18 13:53 (27) 08:27 14:12 (27) 17:15	18 15:12 (13) 07:13 15:30 (13) 18:23	06:44 20:35	05:24 21:44	04:31 22:41
10	09:22 16:07	18 13:54 (27) 08:25 14:12 (27) 17:18	17 15:12 (13) 07:10 15:29 (13) 18:26	06:41 20:37	05:21 21:46	04:30 22:43
11	09:20 16:09	19 13:53 (27) 08:22 14:12 (27) 17:20	15 15:13 (13) 07:07 15:28 (13) 18:28	06:38 20:39	05:19 21:48	04:29 22:44
12	09:19 16:10	19 13:54 (27) 08:20 14:13 (27) 17:23	12 15:15 (13) 07:04 15:27 (13) 18:30	06:35 20:42	05:17 21:51	04:28 22:45
13	09:18 16:12	21 13:53 (27) 08:17 14:14 (27) 17:25	7 15:17 (13) 07:01 15:24 (13) 18:33	06:32 20:44	05:14 21:53	04:28 22:45
14	09:17 16:14	21 13:54 (27) 08:15 14:15 (27) 17:28	06:58 18:35	06:29 20:46	05:12 21:55	04:27 22:46
15	09:16 16:16	21 13:54 (27) 08:12 14:15 (27) 17:30	06:56 18:37	06:27 20:49	05:10 21:57	04:27 22:47
16	09:14 16:19	21 13:54 (27) 08:10 14:15 (27) 17:33	06:53 18:40	06:24 20:51	05:08 21:59	04:27 22:48
17	09:13 16:21	21 13:54 (27) 08:07 14:15 (27) 17:35	06:50 18:42	06:21 20:53	05:06 22:02	04:27 22:48
18	09:11 16:23	22 13:55 (27) 08:05 14:16 (27) 17:38	06:47 18:44	06:18 20:56	05:04 22:04	04:26 22:49
19	09:10 16:25	21 13:55 (27) 08:02 14:16 (27) 17:40	06:44 18:47	06:15 20:58	05:02 22:06	04:26 22:49
20	09:08 16:27	20 13:56 (27) 07:59 14:16 (27) 17:43	06:41 18:49	06:13 21:00	05:00 22:08	04:26 22:50
21	09:07 16:30	20 13:56 (27) 07:57 14:16 (27) 17:45	06:38 18:51	06:10 21:02	04:58 22:10	04:26 22:50
22	09:05 16:32	19 13:57 (27) 07:54 14:16 (27) 17:47	06:35 18:53	06:07 21:05	04:56 22:12	04:27 22:50
23	09:03 16:34	18 13:58 (27) 07:51 14:16 (27) 17:50	06:32 18:56	06:05 21:07	04:54 22:14	04:27 22:50
24	09:01 16:36	17 13:59 (27) 07:49 14:16 (27) 17:52	06:30 18:58	06:02 21:09	04:52 22:16	04:27 22:50
25	08:59 16:39	14 14:01 (27) 07:46 14:15 (27) 17:55	06:27 19:00	05:59 21:12	04:50 22:18	04:28 22:50
26	08:58 16:41	13 14:01 (27) 07:43 14:14 (27) 17:57	06:24 19:03	05:57 21:14	04:49 22:20	04:28 22:50
27	08:56 16:44	8 14:04 (27) 07:41 14:12 (27) 18:00	06:21 19:05	05:54 21:16	04:47 22:22	04:29 22:50
28	08:54 16:46	07:38 18:02	06:18 19:07	05:51 21:19	04:45 22:23	04:29 22:50
29	08:52 16:48	07:15 20:10	05:49 21:21	04:44 22:25	04:30 22:49	
30	08:50 16:51	6 15:16 (13) 07:12 15:22 (13) 20:12	05:46 21:23	04:42 22:27	04:31 22:49	
31	08:48 16:53	11 15:14 (13) 07:09 15:25 (13) 20:14	04:41 22:29			
Potential sun hours	221	260	365	432	521	547
Total, worst case	467	207				

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)		Last time (hh:mm) with flicker	(WTG causing flicker last time)

SHADOW - Calendar

Calculation: Oppdatert layout - kun Moifjellet - worst case - oppdatert mottaker **Shadow receptor:** S - Vaule 176 (19)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

The sun is shining all the day, from sunrise to sunset

The rotor plane is always perpendicular to the line from the WTG to the sun

The WTG is always operating

	July	August	September	October	November	December			
1	04:32	05:24	06:33	07:39	07:51	14:42 (13) 08:59	13:35 (27)		
	22:48	22:01	20:39	19:13	16:48	16	14:58 (13) 15:51	19	13:54 (27)
2	04:33	05:26	06:35	07:41	07:53	14:41 (13) 09:01	13:37 (27)		
	22:48	21:58	20:37	19:10	16:46	18	14:59 (13) 15:50	18	13:55 (27)
3	04:34	05:28	06:37	07:44	07:56	14:40 (13) 09:03	13:37 (27)		
	22:47	21:56	20:34	19:07	16:44	19	14:59 (13) 15:49	18	13:55 (27)
4	04:35	05:30	06:39	07:46	07:58	14:40 (13) 09:05	13:38 (27)		
	22:46	21:54	20:31	19:04	16:41	19	14:59 (13) 15:48	17	13:55 (27)
5	04:36	05:32	06:42	07:48	08:01	14:41 (13) 09:07	13:39 (27)		
	22:45	21:51	20:28	19:01	16:39	19	15:00 (13) 15:47	16	13:55 (27)
6	04:37	05:35	06:44	07:50	08:03	14:41 (13) 09:08	13:40 (27)		
	22:45	21:49	20:25	18:58	16:36	19	15:00 (13) 15:46	14	13:54 (27)
7	04:38	05:37	06:46	07:53	08:06	14:41 (13) 09:10	13:41 (27)		
	22:44	21:46	20:22	18:56	16:34	18	14:59 (13) 15:45	13	13:54 (27)
8	04:40	05:39	06:48	07:55	08:08	14:42 (13) 09:12	13:42 (27)		
	22:43	21:44	20:19	18:53	16:32	17	14:59 (13) 15:44	12	13:54 (27)
9	04:41	05:41	06:50	07:57	08:10	14:43 (13) 09:13	13:42 (27)		
	22:41	21:41	20:16	18:50	16:30	15	14:58 (13) 15:44	11	13:53 (27)
10	04:42	05:44	06:53	07:59	08:13	14:43 (13) 09:15	13:44 (27)		
	22:40	21:39	20:14	18:47	16:27	14	14:57 (13) 15:43	9	13:53 (27)
11	04:44	05:46	06:55	08:02	08:15	14:45 (13) 09:16	13:45 (27)		
	22:39	21:36	20:11	18:44	16:25	11	14:56 (13) 15:43	8	13:53 (27)
12	04:45	05:48	06:57	08:04	08:18	14:48 (13) 09:17	13:46 (27)		
	22:38	21:34	20:08	18:41	16:23	5	14:53 (13) 15:42	6	13:52 (27)
13	04:47	05:50	06:59	08:06	08:20	09:19	13:49 (27)		
	22:36	21:31	20:05	18:39	16:21		15:42	3	13:52 (27)
14	04:49	05:53	07:01	08:09	08:22	09:20			
	22:35	21:29	20:02	18:36	16:19		15:42		
15	04:50	05:55	07:04	08:11	08:25	13:37 (27) 09:21			
	22:33	21:26	19:59	18:33	16:17	8	13:45 (27) 15:42		
16	04:52	05:57	07:06	08:13	08:27	13:35 (27) 09:22			
	22:32	21:23	19:56	18:30	16:15	12	13:47 (27) 15:42		
17	04:54	05:59	07:08	08:16	08:29	13:33 (27) 09:23			
	22:30	21:21	19:53	18:28	16:13	15	13:48 (27) 15:42		
18	04:56	06:01	07:10	08:18	08:32	13:33 (27) 09:24			
	22:29	21:18	19:50	18:25	16:11	17	13:50 (27) 15:42		
19	04:57	06:04	07:12	08:20	08:34	13:33 (27) 09:25			
	22:27	21:15	19:47	18:22	16:09	18	13:51 (27) 15:42		
20	04:59	06:06	07:15	08:23	08:36	13:32 (27) 09:25			
	22:25	21:13	19:45	18:19	16:07	19	13:51 (27) 15:42		
21	05:01	06:08	07:17	08:25	08:38	13:32 (27) 09:26			
	22:23	21:10	19:42	18:17	16:06	20	13:52 (27) 15:43		
22	05:03	06:10	07:19	08:27	08:41	13:32 (27) 09:27			
	22:21	21:07	19:39	18:14	16:04	20	13:52 (27) 15:43		
23	05:05	06:13	07:21	08:30	08:43	13:32 (27) 09:27			
	22:20	21:05	19:36	18:11	16:02	21	13:53 (27) 15:44		
24	05:07	06:15	07:23	08:32	08:45	13:33 (27) 09:27			
	22:18	21:02	19:33	18:09	16:00	21	13:54 (27) 15:44		
25	05:09	06:17	07:26	07:34	08:47	13:32 (27) 09:28			
	22:16	20:59	19:30	17:06	15:59	22	13:54 (27) 15:45		
26	05:11	06:19	07:28	07:37	08:49	13:33 (27) 09:28			
	22:14	20:56	19:27	17:04	15:57	21	13:54 (27) 15:46		
27	05:13	06:22	07:30	07:39	08:51	13:33 (27) 09:28			
	22:11	20:53	19:24	17:01	15:56	21	13:54 (27) 15:47		
28	05:15	06:24	07:32	07:41	08:53	13:33 (27) 09:28			
	22:09	20:51	19:21	16:58	15:55	21	13:54 (27) 15:47		
29	05:17	06:26	07:35	07:44	08:55	13:35 (27) 09:28			
	22:07	20:48	19:18	16:56	8	14:54 (13) 15:53	20	13:55 (27) 15:48	
30	05:19	06:28	07:37	07:46	08:57	13:35 (27) 09:28			
	22:05	20:45	19:16	16:53	13	14:57 (13) 15:52	19	13:54 (27) 15:50	
31	05:22	06:31		07:49	14:42 (13)		09:28		13:56 (27)
	22:03	20:42		16:51	15	14:57 (13)	15:51	4	14:00 (27)
Potential sun hours	546	478	386	319	236		199		
Total, worst case				36	485		168		

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Calculation: Oppdatert layout - kun Moifjellet - worst case - oppdatert mottaker **Shadow receptor:** T - Vaule 247 (20)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

The sun is shining all the day, from sunrise to sunset

The rotor plane is always perpendicular to the line from the WTG to the sun

The WTG is always operating

	January	February	March	April	May	June		
1	09:28	08:45	10:57 (38)	07:35	16:28 (18)	07:06	05:44	04:39
	15:52	16:56	41 13:51 (27)	18:04	11 16:39 (18)	20:16	21:26	22:30
2	09:27	08:43	10:59 (38)	07:32	16:27 (18)	07:04	05:41	04:38
	15:54	16:58	37 13:51 (27)	18:07	14 16:41 (18)	20:19	21:28	22:32
3	09:27	08:41	11:02 (38)	07:30	16:27 (18)	07:01	05:38	04:37
	15:55	17:01	27 13:49 (27)	18:09	15 16:42 (18)	20:21	21:30	22:33
4	09:26	08:39	13:29 (27)	07:27	16:27 (18)	06:58	05:36	04:36
	15:57	17:03	20 13:49 (27)	18:12	18 16:45 (18)	20:23	21:33	22:35
5	09:26	08:37	13:30 (27)	07:24	16:28 (18)	06:55	05:33	04:34
	15:58	17:06	17 13:47 (27)	18:14	18 16:46 (18)	20:26	21:35	22:36
6	09:25	08:34	13:34 (27)	07:21	16:28 (18)	06:52	05:31	04:33
	16:00	17:08	11 13:45 (27)	18:16	17 16:45 (18)	20:28	21:37	22:38
7	09:24	08:32		07:18	16:29 (18)	06:49	05:29	04:32
	16:01	17:11		18:19	15 16:44 (18)	20:30	21:39	22:39
8	09:23	08:30		07:15	16:30 (18)	06:46	05:26	04:32
	16:03	17:13		18:21	12 16:42 (18)	20:32	21:42	22:40
9	09:23	08:27		07:13	16:33 (18)	06:44	05:24	04:31
	16:05	17:15		18:23	5 16:38 (18)	20:35	21:44	22:41
10	09:22	08:25		07:10		06:41	05:21	04:30
	16:07	17:18		18:26		20:37	21:46	22:43
11	09:20	08:22	14:55 (8)	07:07		06:38	05:19	04:29
	16:09	17:20	7 15:02 (8)	18:28		20:39	21:48	22:44
12	09:19	08:20	14:57 (8)	07:04		06:35	05:17	04:29
	16:11	17:23	10 15:07 (8)	18:30		20:42	21:51	22:45
13	09:18	08:17	14:59 (8)	07:01		06:32	05:15	04:28
	16:12	5 11:06 (38)	12 15:11 (13)	18:33		20:44	21:53	22:45
14	09:17	10:57 (38)	08:15	15:02 (8)	06:58	06:29	05:12	04:28
	16:14	11 11:08 (38)	12 17:28	15:15 (13)	18:35	20:46	21:55	22:46
15	09:16	10:52 (38)	08:12	15:06 (13)	06:56	06:27	05:10	04:27
	16:17	17 11:09 (38)	13 17:30	15:19 (13)	18:37	20:49	21:57	22:47
16	09:14	10:52 (38)	08:10	15:06 (13)	06:53	06:24	05:08	04:27
	16:19	18 11:10 (38)	16 17:33	15:22 (13)	18:40	20:51	21:59	22:48
17	09:13	10:51 (38)	08:07	15:05 (13)	06:50	06:21	05:06	04:27
	16:21	19 11:10 (38)	16 17:35	15:21 (13)	18:42	20:53	22:02	22:48
18	09:11	10:51 (38)	08:05	15:05 (13)	06:47	06:18	05:04	04:26
	16:23	20 11:11 (38)	15 17:38	15:20 (13)	18:44	20:56	22:04	22:49
19	09:10	10:51 (38)	08:02	15:06 (13)	06:44	06:16	05:02	04:26
	16:25	21 11:12 (38)	17 17:40	15:23 (13)	18:47	20:58	22:06	22:49
20	09:08	10:51 (38)	07:59	15:07 (13)	06:41	06:13	05:00	04:26
	16:27	22 11:13 (38)	18 17:43	15:25 (13)	18:49	21:00	22:08	22:50
21	09:07	10:51 (38)	07:57	15:07 (13)	06:38	06:10	04:58	04:26
	16:30	23 12:45 (33)	17:45	15:28 (13)	18:51	21:02	22:10	22:50
22	09:05	10:51 (38)	07:54	15:08 (13)	06:35	06:07	04:56	04:27
	16:32	35 12:57 (33)	17:47	15:28 (13)	18:53	21:05	22:12	22:50
23	09:03	10:51 (38)	07:51	15:09 (13)	06:32	06:05	04:54	04:27
	16:34	41 13:04 (33)	17:50	15:27 (13)	18:56	21:07	22:14	22:50
24	09:01	10:52 (38)	07:49	15:12 (13)	06:30	06:02	04:52	04:27
	16:37	40 13:04 (33)	17:52	15:26 (13)	18:58	21:09	22:16	22:50
25	08:59	10:52 (38)	07:46	15:16 (13)	06:27	05:59	04:50	04:28
	16:39	39 13:04 (33)	17:55	6 15:22 (13)	19:00	21:12	22:18	22:50
26	08:58	10:52 (38)	07:43		06:24	05:57	04:49	04:28
	16:41	40 13:25 (27)	17:57		19:03	21:14	22:20	22:50
27	08:56	10:53 (38)	07:41		06:21	05:54	04:47	04:29
	16:44	42 13:31 (27)	18:00		19:05	21:16	22:22	22:50
28	08:54	10:53 (38)	07:38	16:29 (18)	06:18	05:51	04:45	04:29
	16:46	46 13:41 (27)	18:02	6 16:37 (18)	19:07	21:19	22:23	22:50
29	08:52	10:54 (38)			07:15	05:49	04:44	04:30
	16:48	42 13:45 (27)			20:10	21:21	22:25	22:49
30	08:50	10:55 (38)			07:12	05:46	04:42	04:31
	16:51	43 13:48 (27)			20:12	21:23	22:27	22:49
31	08:48	10:56 (38)			07:09		04:41	
	16:53	43 13:50 (27)			20:14		22:29	
Potential sun hours	221	260	365		432	521	547	
Total, worst case	567	374	125					

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Calculation: Oppdatert layout - kun Moifjellet - worst case - oppdatert mottaker **Shadow receptor:** T - Vaule 247 (20)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

The sun is shining all the day, from sunrise to sunset

The rotor plane is always perpendicular to the line from the WTG to the sun

The WTG is always operating

	July	August	September	October		November		December
1	04:32	05:24	06:33	07:39		07:51		08:59
	22:48	22:01	20:39	19:13		16:48		15:51
2	04:33	05:26	06:35	07:41		07:54		09:01
	22:48	21:58	20:37	19:10		16:46		15:50
3	04:34	05:28	06:37	07:44		07:56		09:03
	22:47	21:56	20:34	19:07		16:44		15:49
4	04:35	05:30	06:39	07:46		07:58	13:08 (27)	09:05
	22:46	21:54	20:31	19:04		16:41	2	15:48
5	04:36	05:33	06:42	07:48		08:01	13:03 (27)	09:07
	22:45	21:51	20:28	19:01	9	17:18 (18)	12	15:47
6	04:37	05:35	06:44	07:50		08:03	13:01 (27)	09:08
	22:45	21:49	20:25	18:58	14	17:20 (18)	17	15:46
7	04:38	05:37	06:46	07:53		08:06	12:59 (27)	09:10
	22:44	21:46	20:22	18:56	16	17:20 (18)	20	15:45
8	04:40	05:39	06:48	07:55		08:08	10:32 (38)	09:12
	22:43	21:44	20:19	18:53	18	17:21 (18)	29	15:44
9	04:41	05:41	06:50	07:57		08:10	10:30 (38)	09:13
	22:41	21:41	20:16	18:50	18	17:20 (18)	37	15:44
10	04:42	05:44	06:53	07:59		08:13	10:28 (38)	09:15
	22:40	21:39	20:14	18:47	16	17:17 (18)	41	15:43
11	04:44	05:46	06:55	08:02		08:15	10:27 (38)	09:16
	22:39	21:36	20:11	18:44	15	17:16 (18)	42	15:43
12	04:45	05:48	06:57	08:04		08:18	10:27 (38)	09:17
	22:38	21:34	20:08	18:41	13	17:14 (18)	42	15:42
13	04:47	05:50	06:59	08:06		08:20	10:25 (38)	09:19
	22:36	21:31	20:05	18:39	10	17:12 (18)	43	15:42
14	04:49	05:53	07:01	08:09		08:22	10:25 (38)	09:20
	22:35	21:29	20:02	18:36	2	17:08 (18)	46	15:42
15	04:50	05:55	07:04	08:11		08:25	10:25 (38)	09:21
	22:33	21:26	19:59	18:33		16:17	43	15:42
16	04:52	05:57	07:06	08:13		08:27	10:26 (38)	09:22
	22:32	21:23	19:56	18:30		16:15	40	15:42
17	04:54	05:59	07:08	08:16		08:29	10:25 (38)	09:23
	22:30	21:21	19:53	18:28	9	15:54 (13)	39	15:42
18	04:56	06:02	07:10	08:18		08:32	10:26 (38)	09:24
	22:29	21:18	19:50	18:25	15	15:57 (13)	40	15:42
19	04:57	06:04	07:12	08:20		08:34	10:26 (38)	09:25
	22:27	21:15	19:47	18:22	18	15:58 (13)	41	15:42
20	04:59	06:06	07:15	08:23		08:36	10:26 (38)	09:25
	22:25	21:13	19:45	18:20	21	16:00 (13)	35	15:42
21	05:01	06:08	07:17	08:25		08:38	10:27 (38)	09:26
	22:23	21:10	19:42	18:17	20	15:57 (13)	23	15:43
22	05:03	06:10	07:19	08:27		08:41	10:27 (38)	09:27
	22:21	21:07	19:39	18:14	17	15:54 (13)	22	15:43
23	05:05	06:13	07:21	08:30		08:43	10:28 (38)	09:27
	22:20	21:05	19:36	18:12	16	15:52 (13)	21	15:44
24	05:07	06:15	07:24	08:32		08:45	10:29 (38)	09:27
	22:18	21:02	19:33	18:09	16	15:51 (13)	20	15:44
25	05:09	06:17	07:26	07:34		08:47	10:29 (38)	09:28
	22:16	20:59	19:30	17:06	15	14:51 (13)	20	15:45
26	05:11	06:19	07:28	07:37		08:49	10:31 (38)	09:28
	22:14	20:56	19:27	17:04	16	14:51 (13)	18	15:46
27	05:13	06:22	07:30	07:39		08:51	10:32 (38)	09:28
	22:11	20:53	19:24	17:01	13	14:48 (13)	16	15:47
28	05:15	06:24	07:32	07:41		08:53	10:36 (38)	09:28
	22:09	20:51	19:21	16:58	14	14:44 (13)	11	15:48
29	05:17	06:26	07:35	07:44		08:55	10:42 (38)	09:28
	22:07	20:48	19:19	16:56	12	14:40 (13)	5	15:49
30	05:20	06:28	07:37	07:46		08:57		09:28
	22:05	20:45	19:16	16:53	10	14:36 (8)		15:50
31	05:22	06:31		07:49				09:28
	22:03	20:42		16:51				15:51
Potential sun hours	546	478	386	319		236		199
Total, worst case				343		725		

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Calculation: Oppdatert layout - kun Moifjellet - worst case - oppdatert mottaker **Shadow receptor:** U - Store Sveta, eiendom 60/5, Bjerkreim kommune (21)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

The sun is shining all the day, from sunrise to sunset

The rotor plane is always perpendicular to the line from the WTG to the sun

The WTG is always operating

	January	February	March	April	May	June				
1	09:27	08:45	15:29 (9)	07:35	15:43 (14)	07:06	05:43	18:53 (38)	04:39	
	15:52	16:56	21 15:50 (9)	18:04	38 16:21 (14)	20:16	21:25	26 19:19 (38)	22:30	
2	09:27	08:43	15:29 (9)	07:32	15:43 (14)	07:04	05:41	18:54 (38)	04:38	
	15:54	16:58	23 15:52 (9)	18:07	37 16:20 (14)	20:19	21:28	23 19:17 (38)	22:32	
3	09:27	08:41	15:29 (9)	07:29	15:43 (14)	07:01	05:38	18:56 (38)	04:37	
	15:55	17:01	23 15:52 (9)	18:09	36 16:19 (14)	20:21	21:30	19 19:15 (38)	22:33	
4	09:26	08:39	15:29 (9)	07:27	15:44 (14)	06:58	19:04 (38)	05:36	19:00 (38)	04:36
	15:57	17:03	23 15:52 (9)	18:11	34 16:18 (14)	20:23	15 19:19 (38)	21:32	12 19:12 (38)	22:35
5	09:25	08:36	15:29 (9)	07:24	15:46 (14)	06:55	19:00 (38)	05:33		04:35
	15:58	17:06	23 15:52 (9)	18:14	32 16:18 (14)	20:25	22 19:22 (38)	21:35		22:36
6	09:25	08:34	15:28 (9)	07:21	15:47 (14)	06:52	18:57 (38)	05:31		04:33
	16:00	17:08	24 15:52 (9)	18:16	29 16:16 (14)	20:28	27 19:24 (38)	21:37		22:37
7	09:24	08:32	15:29 (9)	07:18	15:48 (14)	06:49	18:55 (38)	05:29		04:32
	16:01	17:10	23 15:52 (9)	18:19	27 16:15 (14)	20:30	30 19:25 (38)	21:39		22:39
8	09:23	08:29	15:29 (9)	07:15	15:50 (14)	06:46	18:53 (38)	05:26		04:32
	16:03	17:13	23 15:52 (9)	18:21	22 16:12 (14)	20:32	33 19:26 (38)	21:42		22:40
9	09:22	08:27	15:30 (9)	07:13	15:52 (14)	06:43	18:52 (38)	05:24		04:31
	16:05	17:15	22 15:52 (9)	18:23	18 16:10 (14)	20:35	47 19:57 (27)	21:44		22:41
10	09:21	08:25	15:31 (9)	07:10	15:57 (14)	06:41	18:51 (38)	05:21		04:30
	16:07	17:18	20 15:51 (9)	18:26	8 16:05 (14)	20:37	55 19:58 (27)	21:46		22:42
11	09:20	08:22	15:31 (9)	07:07		06:38	18:49 (38)	05:19		04:29
	16:09	17:20	19 15:50 (9)	18:28		20:39	60 19:58 (27)	21:48		22:43
12	09:19	08:20	15:33 (9)	07:04		06:35	18:48 (38)	05:17		04:29
	16:11	17:23	16 15:49 (9)	18:30		20:42	61 19:58 (27)	21:50		22:44
13	09:18	08:17	15:35 (9)	07:01		06:32	18:48 (38)	05:15		04:28
	16:12	17:25	16 16:05 (14)	18:33		20:44	63 19:59 (27)	21:53		22:45
14	09:17	08:15	15:38 (9)	06:58		06:29	18:47 (38)	05:12		04:28
	16:14	17:28	21 16:10 (14)	18:35		20:46	63 19:58 (27)	21:55		22:46
15	09:15	08:12	15:52 (14)	06:55		06:27	18:46 (38)	05:10		04:27
	16:17	17:30	21 16:13 (14)	18:37		20:48	64 19:57 (27)	21:57		22:47
16	09:14	08:10	15:51 (14)	06:53	17:31 (33)	06:24	18:46 (38)	05:08		04:27
	16:19	17:33	25 16:16 (14)	18:40	6 17:37 (33)	20:51	63 19:57 (27)	21:59		22:47
17	09:13	08:07	15:49 (14)	06:50		06:21	18:45 (38)	05:06		04:27
	16:21	17:35	28 16:17 (14)	18:42	13 17:40 (33)	20:53	61 19:55 (27)	22:01		22:48
18	09:11	08:04	15:48 (14)	06:47		06:18	18:45 (38)	05:04		04:26
	16:23	17:38	30 16:18 (14)	18:44	16 17:41 (33)	20:55	58 19:54 (27)	22:04		22:49
19	09:10	08:02	15:46 (14)	06:44		06:15	18:45 (38)	05:02		04:26
	16:25	17:40	33 16:19 (14)	18:46	19 17:42 (33)	20:58	55 19:52 (27)	22:06		22:49
20	09:08	07:59	15:46 (14)	06:41		06:13	18:45 (38)	05:00		04:26
	16:27	17:43	34 16:20 (14)	18:49	20 17:42 (33)	21:00	44 19:29 (38)	22:08		22:49
21	09:06	07:57	15:45 (14)	06:38		06:10	18:45 (38)	04:58		04:26
	16:30	17:45	36 16:21 (14)	18:51	22 17:43 (33)	21:02	43 19:28 (38)	22:10		22:50
22	09:05	07:54	15:44 (14)	06:35		06:07	18:45 (38)	04:56		04:27
	16:32	17:47	37 16:21 (14)	18:53	22 17:42 (33)	21:05	43 19:28 (38)	22:12		22:50
23	09:03	07:51	15:44 (14)	06:32		06:05	18:45 (38)	04:54		04:27
	16:34	17:50	37 16:21 (14)	18:56	22 17:42 (33)	21:07	42 19:27 (38)	22:14		22:50
24	09:01	07:49	15:43 (14)	06:29		06:02	18:46 (38)	04:52		04:27
	16:36	17:52	38 16:21 (14)	18:58	22 17:42 (33)	21:09	41 19:27 (38)	22:16		22:50
25	08:59	07:46	15:44 (14)	06:27		05:59	18:46 (38)	04:50		04:28
	16:39	17:55	38 16:22 (14)	19:00	21 17:41 (33)	21:12	40 19:26 (38)	22:18		22:50
26	08:57	07:43	15:43 (14)	06:24		05:57	18:47 (38)	04:49		04:28
	16:41	17:57	39 16:22 (14)	19:03	20 17:40 (33)	21:14	38 19:25 (38)	22:20		22:50
27	08:55	15:35 (9)	07:40	15:43 (14)	06:21		05:54	18:47 (38)	04:47	04:29
	16:44	8 15:43 (9)	18:00	16:22 (14)	19:05	17 17:39 (33)	21:16	37 19:24 (38)	22:21	22:50
28	08:54	15:33 (9)	07:38	15:43 (14)	06:18		05:51	18:49 (38)	04:45	04:29
	16:46	13 15:46 (9)	18:02	16:21 (14)	19:07	14 17:37 (33)	21:19	34 19:23 (38)	22:23	22:49
29	08:51	15:31 (9)		07:15		05:49	18:49 (38)	04:44		04:30
	16:48	16 15:47 (9)		20:09	10 18:35 (33)	21:21	33 19:22 (38)	22:25		22:49
30	08:49	15:31 (9)		07:12		05:46	18:51 (38)	04:42		04:31
	16:51	17 15:48 (9)		20:12		21:23	30 19:21 (38)	22:27		22:49
31	08:47	15:29 (9)		07:09				04:41		
	16:53	20 15:49 (9)		20:14				22:28		
Potential sun hours	221	260	365	432	525	1202	521	80	547	
Total, worst case	74	770	525	1202	80	547				

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Calculation: Oppdatert layout - kun Moifjellet - worst case - oppdatert mottaker **Shadow receptor:** U - Store Sveta, eiendom 60/5, Bjerkreim kommune (21)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

The sun is shining all the day, from sunrise to sunset

The rotor plane is always perpendicular to the line from the WTG to the sun

The WTG is always operating

	July	August	September	October	November	December
1	04:32 22:48	05:24 22:00	06:33 20:39	18:48 (38) 19:57 (27)	07:39 19:13	07:51 16:48
2	04:33 22:47	05:26 21:58	06:35 20:36	18:49 (38) 19:56 (27)	07:41 19:10	15:00 (9) 15:00 (9)
3	04:34 22:47	05:28 21:56	06:37 20:34	18:49 (38) 19:54 (27)	07:43 19:07	14:59 (9) 15:22 (9)
4	04:35 22:46	05:30 21:53	06:39 20:31	18:51 (38) 19:54 (27)	07:46 19:04	14:59 (9) 15:22 (9)
5	04:36 22:45	05:33 21:51	06:42 20:28	18:52 (38) 19:52 (27)	07:48 19:01	14:59 (9) 15:23 (9)
6	04:37 22:44	05:35 21:49	06:44 20:25	18:53 (38) 19:50 (27)	07:50 18:58	14:58 (9) 15:22 (9)
7	04:38 22:43	05:37 21:46	06:46 20:22	18:55 (38) 19:47 (27)	07:52 18:55	14:59 (9) 15:22 (9)
8	04:40 22:42	05:39 21:44	19:13 (38) 06:48 20:19	18:58 (38) 19:13 (38)	07:55 18:53	14:59 (9) 15:22 (9)
9	04:41 22:41	05:41 21:41	19:07 (38) 06:50 20:16	18:53 (38) 18:50	07:57 18:50	14:59 (9) 15:21 (9)
10	04:42 22:40	05:44 21:39	19:05 (38) 06:53 20:13	18:53 (38) 18:47	07:59 18:47	15:00 (9) 15:21 (9)
11	04:44 22:39	05:46 21:36	19:03 (38) 06:55 20:11	18:53 (38) 18:44	08:02 18:44	15:01 (9) 15:21 (9)
12	04:45 22:37	05:48 21:34	19:01 (38) 06:57 20:08	18:53 (38) 18:41	08:04 18:41	15:03 (9) 15:20 (9)
13	04:47 22:36	05:50 21:31	18:59 (38) 06:59 20:05	18:53 (38) 18:39	08:06 18:39	15:03 (9) 15:19 (9)
14	04:49 22:35	05:53 21:28	18:57 (38) 07:01 20:02	18:16 (33) 18:24 (33)	08:08 18:36	15:05 (9) 15:17 (9)
15	04:50 22:33	05:55 21:26	18:56 (38) 07:04 19:59	18:13 (33) 18:26 (33)	08:11 18:33	15:08 (9) 15:15 (9)
16	04:52 22:32	05:57 21:23	18:55 (38) 07:06 19:56	18:11 (33) 18:27 (33)	08:13 18:30	15:17 (9) 15:42
17	04:54 22:30	05:59 21:21	18:53 (38) 07:08 19:53	18:09 (33) 18:28 (33)	08:15 18:28	15:42 16:13
18	04:56 22:28	06:01 21:18	18:52 (38) 07:10 19:50	18:08 (33) 18:28 (33)	08:18 18:25	15:42 16:11
19	04:57 22:27	06:04 21:15	18:51 (38) 07:12 19:47	18:07 (33) 18:29 (33)	08:20 18:22	15:42 16:09
20	04:59 22:25	06:06 21:13	18:51 (38) 07:15 19:44	18:07 (33) 18:29 (33)	08:22 18:19	15:42 16:07
21	05:01 22:23	06:08 21:10	18:50 (38) 07:17 19:42	18:06 (33) 18:28 (33)	08:25 18:17	15:42 16:06
22	05:03 22:21	06:10 21:07	18:49 (38) 07:19 19:39	18:06 (33) 18:27 (33)	08:27 18:14	15:43 16:04
23	05:05 22:19	06:13 21:04	18:49 (38) 07:21 19:36	18:06 (33) 18:26 (33)	08:29 18:11	15:43 16:02
24	05:07 22:17	06:15 21:02	18:48 (38) 07:23 19:33	18:07 (33) 18:26 (33)	08:32 18:09	15:44 16:01
25	05:09 22:15	06:17 20:59	18:49 (38) 07:26 19:30	18:07 (33) 18:24 (33)	07:34 17:06	15:45 15:59
26	05:11 22:13	06:19 20:56	18:48 (38) 07:28 19:27	18:08 (33) 18:22 (33)	07:37 17:04	15:45 15:57
27	05:13 22:11	06:22 20:53	18:48 (38) 07:30 19:24	18:10 (33) 18:19 (33)	07:39 17:01	15:46 15:56
28	05:15 22:09	06:24 20:51	18:48 (38) 07:32 19:21	18:09 (33) 16:58	07:41 16:58	15:48 15:55
29	05:17 22:07	06:26 20:48	18:48 (38) 07:34 19:18	18:09 (33) 16:56	07:44 16:56	15:48 15:53
30	05:20 22:05	06:28 20:45	18:48 (38) 07:37 19:16	18:09 (33) 16:53	07:46 16:53	15:49 15:52
31	05:22 22:03	06:30 20:42	18:48 (38) 19:58 (27)	18:09 (33) 16:51	07:49 16:51	15:49 15:20 (9)
Potential sun hours	545	478	386	319	236	200
Total, worst case		1011	532	832	297	

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Calculation: Oppdatert layout - kun Moifjellet - worst case - oppdatert mottaker Shadow receptor: V - Osland 45 (22)
Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:
The sun is shining all the day, from sunrise to sunset
The rotor plane is always perpendicular to the line from the WTG to the sun
The WTG is always operating

Table with 13 columns for months (January to December) and 13 columns for days of the month. It contains shadow calculation data including start/end times and potential sun hours for each day.

Table layout: For each day in each month the following matrix apply

Matrix with 4 columns: Day in month, Sun rise (hh:mm) / Sun set (hh:mm), Minutes with flicker, First time (hh:mm) with flicker / Last time (hh:mm) with flicker, and (WTG causing flicker first time) / (WTG causing flicker last time).

SHADOW - Calendar

Calculation: Oppdatert layout - kun Moifjellet - worst case - oppdatert mottaker **Shadow receptor:** W - Osland 85 (23)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

The sun is shining all the day, from sunrise to sunset

The rotor plane is always perpendicular to the line from the WTG to the sun

The WTG is always operating

	January	February	March	April	May	June	July	August	September	October	November	December				
1	09:28	12:21 (25)	08:46	10:00 (29)	07:35	07:07	05:44	04:40	04:32	05:24	06:33	07:39	07:51	09:35 (29)	09:00	10:51 (24)
2	09:28	12:21 (25)	08:44	10:00 (29)	07:33	07:04	05:41	04:38	04:33	05:26	06:35	07:42	07:54	09:33 (29)	09:02	10:51 (24)
3	09:27	12:22 (25)	08:41	10:00 (29)	07:30	07:01	05:39	04:37	04:34	05:28	06:38	07:44	07:56	09:32 (29)	09:04	10:52 (24)
4	09:27	12:22 (25)	08:39	10:00 (29)	07:27	06:58	05:36	04:36	04:35	05:31	06:40	07:46	07:59	09:31 (29)	09:05	10:53 (24)
5	09:26	12:22 (25)	08:37	10:01 (29)	07:24	06:55	05:34	04:35	04:36	05:33	06:42	07:48	08:01	09:30 (29)	09:07	10:55 (24)
6	09:25	12:22 (25)	08:35	10:01 (29)	07:21	06:52	05:31	04:34	04:37	05:35	06:44	07:51	08:03	09:30 (29)	09:09	10:56 (24)
7	09:25	12:42 (25)	08:32	10:19 (29)	07:18	06:50	05:29	04:33	04:39	05:37	06:46	07:53	08:06	09:30 (29)	09:10	10:58 (24)
8	09:24	12:42 (25)	08:30	10:19 (29)	07:16	06:47	05:26	04:32	04:40	05:39	06:49	07:55	08:08	09:29 (29)	09:12	10:58 (24)
9	09:23	12:42 (25)	08:27	10:19 (29)	07:13	06:44	05:24	04:31	04:41	05:42	06:51	07:57	08:11	09:30 (29)	09:13	10:58 (24)
10	09:22	12:42 (25)	08:25	10:17 (29)	07:10	06:41	05:22	04:30	04:43	05:44	06:53	08:00	08:13	09:30 (29)	09:15	10:58 (24)
11	09:21	12:42 (25)	08:23	10:17 (29)	07:07	06:38	05:19	04:29	04:44	05:46	06:55	08:02	08:15	09:30 (29)	09:16	10:58 (24)
12	09:20	12:42 (25)	08:20	10:16 (29)	07:04	06:35	05:17	04:29	04:46	05:48	06:57	08:04	08:18	09:31 (29)	09:18	10:58 (24)
13	09:19	12:42 (25)	08:18	10:16 (29)	07:02	06:33	05:15	04:28	04:47	05:51	07:00	08:07	08:20	09:32 (29)	09:19	10:58 (24)
14	09:17	12:42 (25)	08:15	10:16 (29)	06:59	06:30	05:13	04:28	04:49	05:53	07:02	08:09	08:23	09:33 (29)	09:20	10:58 (24)
15	09:16	12:42 (25)	08:13	10:16 (29)	06:56	06:27	05:10	04:27	04:51	05:55	07:04	08:11	08:25	09:34 (29)	09:21	10:58 (24)
16	09:15	12:42 (25)	08:10	10:16 (29)	06:53	06:24	05:08	04:27	04:52	05:57	07:06	08:14	08:27	09:35 (29)	09:22	10:58 (24)
17	09:13	12:42 (25)	08:08	10:16 (29)	06:50	06:21	05:06	04:27	04:54	06:00	07:08	08:16	08:30	09:36 (29)	09:23	10:58 (24)
18	09:12	12:42 (25)	08:05	10:16 (29)	06:47	06:19	05:04	04:27	04:56	06:02	07:11	08:18	08:32	09:37 (29)	09:24	10:58 (24)
19	09:10	12:42 (25)	08:02	10:16 (29)	06:44	06:16	05:02	04:27	04:58	06:04	07:13	08:21	08:34	09:38 (29)	09:25	10:58 (24)
20	09:09	12:42 (25)	08:00	10:16 (29)	06:41	06:13	05:00	04:27	05:00	06:06	07:15	08:23	08:36	09:39 (29)	09:26	10:58 (24)
21	09:07	12:42 (25)	07:57	10:16 (29)	06:39	06:10	04:58	04:27	05:02	06:09	07:17	08:25	08:39	09:40 (29)	09:27	10:58 (24)
22	09:05	12:42 (25)	07:54	10:16 (29)	06:36	06:08	04:56	04:27	05:03	06:11	07:19	08:28	08:41	09:41 (29)	09:28	10:58 (24)
23	09:03	12:42 (25)	07:52	10:16 (29)	06:33	06:05	04:54	04:27	05:05	06:13	07:22	08:30	08:43	09:42 (29)	09:29	10:58 (24)
24	09:02	12:42 (25)	07:49	10:16 (29)	06:30	06:02	04:52	04:27	05:07	06:15	07:24	08:32	08:45	09:43 (29)	09:30	10:58 (24)
25	09:00	12:42 (25)	07:46	10:16 (29)	06:27	06:00	04:51	04:28	05:09	06:17	07:26	08:34	08:47	09:44 (29)	09:31	10:58 (24)
26	08:58	12:42 (25)	07:44	10:16 (29)	06:24	05:57	04:49	04:28	05:11	06:20	07:28	08:36	08:49	09:45 (29)	09:32	10:58 (24)
27	08:56	12:42 (25)	07:41	10:16 (29)	06:21	05:54	04:47	04:29	05:14	06:22	07:30	08:38	08:51	09:46 (29)	09:33	10:58 (24)
28	08:54	12:42 (25)	07:38	10:16 (29)	06:18	05:52	04:46	04:30	05:16	06:24	07:33	08:41	08:54	09:47 (29)	09:34	10:58 (24)
29	08:52	12:42 (25)	07:35	10:16 (29)	06:15	05:49	04:44	04:30	05:18	06:26	07:35	08:43	08:56	09:48 (29)	09:35	10:58 (24)
30	08:50	12:42 (25)	07:32	10:16 (29)	06:12	05:46	04:43	04:31	05:20	06:29	07:37	08:45	08:58	09:49 (29)	09:36	10:58 (24)
31	08:48	12:42 (25)	07:29	10:16 (29)	06:09	05:43	04:42	04:32	05:22	06:31	07:40	08:48	09:01	09:50 (29)	09:37	10:58 (24)
Potential sun hours	221	260	365	432	521	547	546	478	386	319	236	663	199	20	12:21 (25)	12:41 (25)
Total, worst case	770	166														

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)		Last time (hh:mm) with flicker	(WTG causing flicker last time)

SHADOW - Calendar

Calculation: Oppdatert layout - kun Moifjellet - worst case - oppdatert mottaker **Shadow receptor:** Y - Brusalivegen 215 (25)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

The sun is shining all the day, from sunrise to sunset

The rotor plane is always perpendicular to the line from the WTG to the sun

The WTG is always operating

	January	February	March	April	May	June	July	August	September	October	November	December		
1	09:28 15:53	08:46 16:56	07:35 18:05	07:07 20:17	05:44 21:26	04:40 22:30	06:16 (1) 06:45 (1)	04:32 22:48	06:18 (1) 06:51 (1)	05:24 22:01	06:33 20:40	07:39 19:13	07:51 16:49	09:00 15:52
2	09:27 15:54	08:43 16:59	07:33 18:07	07:04 20:19	05:42 21:28	04:39 22:32	06:15 (1) 06:46 (1)	04:33 22:48	06:18 (1) 06:51 (1)	05:27 21:58	06:35 20:37	07:42 19:10	07:54 16:47	09:01 15:50
3	09:27 15:56	08:41 17:01	07:30 18:10	07:01 20:21	05:39 21:31	04:38 22:33	06:14 (1) 06:46 (1)	04:34 22:47	06:17 (1) 06:51 (1)	05:29 21:56	06:38 20:34	07:44 19:07	07:56 16:44	09:03 15:49
4	09:26 15:57	08:39 17:04	07:27 18:12	06:58 20:24	05:37 21:33	04:36 22:35	06:14 (1) 06:46 (1)	04:35 22:46	06:18 (1) 06:51 (1)	05:31 21:54	06:40 20:31	07:46 19:05	07:59 16:42	09:05 15:48
5	09:26 15:59	08:37 17:06	07:24 18:14	06:55 20:26	05:34 21:35	04:35 22:36	06:14 (1) 06:46 (1)	04:37 22:46	06:18 (1) 06:51 (1)	05:33 21:51	06:42 20:28	07:48 19:02	08:01 16:39	09:07 15:47
6	09:25 16:00	08:34 17:09	07:21 18:17	06:53 20:28	05:32 21:37	04:34 22:38	06:13 (1) 06:46 (1)	04:38 22:45	06:19 (1) 06:53 (1)	05:35 21:49	06:44 20:25	07:51 18:59	08:03 16:37	09:09 15:47
7	09:24 16:02	08:32 17:11	07:19 18:24	06:50 20:31	05:29 21:40	04:33 22:39	06:12 (1) 06:46 (1)	04:39 22:44	06:20 (1) 06:53 (1)	05:38 21:47	06:47 20:23	07:53 18:56	08:06 16:35	09:10 15:46
8	09:24 16:04	08:30 17:14	07:16 18:21	06:47 20:33	05:27 21:42	04:32 22:40	06:12 (1) 06:46 (1)	04:40 22:43	06:21 (1) 06:53 (1)	05:40 21:44	06:49 20:20	07:55 18:53	08:08 16:32	09:12 15:45
9	09:23 16:06	08:27 17:16	07:13 18:24	06:44 20:35	05:24 21:44	04:31 22:41	06:13 (1) 06:47 (1)	04:42 22:42	06:21 (1) 06:53 (1)	05:42 21:42	06:51 20:17	07:57 18:50	08:11 16:30	09:13 15:44
10	09:22 16:07	08:25 17:19	07:10 18:26	06:41 20:37	05:22 21:46	04:31 22:43	06:13 (1) 06:46 (1)	04:43 22:40	06:22 (1) 06:53 (1)	05:44 21:39	06:53 20:14	08:00 18:48	08:13 16:28	09:15 15:44
11	09:21 16:09	08:23 17:21	07:07 18:28	06:38 20:40	05:20 21:49	04:30 22:44	06:14 (1) 06:47 (1)	04:45 22:39	06:24 (1) 06:54 (1)	05:46 21:37	06:55 20:11	08:02 18:45	08:15 16:26	09:16 15:43
12	09:20 16:11	08:20 17:23	07:04 18:31	06:36 20:42	05:17 21:51	04:29 22:45	06:13 (1) 06:46 (1)	04:46 22:38	06:25 (1) 06:54 (1)	05:49 21:34	06:58 20:08	08:04 18:42	08:18 16:24	09:17 15:43
13	09:18 16:13	08:18 17:26	07:02 18:33	06:33 20:44	05:15 21:53	04:29 22:46	06:14 (1) 06:15 (1)	04:48 22:36	06:26 (1) 06:54 (1)	05:51 21:32	07:00 20:05	08:07 18:39	08:20 16:22	09:19 15:43
14	09:17 16:15	08:15 17:28	06:59 18:35	06:30 20:47	05:13 21:55	04:28 22:46	06:15 (1) 06:14 (1)	04:49 22:35	06:28 (1) 06:54 (1)	05:53 21:29	07:02 20:02	08:09 18:36	08:22 16:19	09:20 15:43
15	09:16 16:17	08:13 17:31	06:56 18:38	06:27 20:49	05:11 21:57	04:28 22:47	06:14 (1) 06:46 (1)	04:51 22:34	06:28 (1) 06:54 (1)	05:55 21:26	07:04 19:59	08:11 18:34	08:25 16:17	09:21 15:42
16	09:14 16:19	08:10 17:33	06:53 18:40	06:24 20:51	05:09 22:00	04:28 22:48	06:15 (1) 06:47 (1)	04:53 22:32	06:30 (1) 06:54 (1)	05:58 21:24	07:06 19:57	08:14 18:31	08:27 16:15	09:22 15:42
17	09:13 16:21	08:07 17:36	06:50 18:42	06:22 20:54	05:06 22:02	04:27 22:48	06:15 (1) 06:47 (1)	04:54 22:30	06:31 (1) 06:54 (1)	06:00 21:21	07:09 19:54	08:16 18:28	08:29 16:14	09:23 15:42
18	09:12 16:24	08:05 17:38	06:47 18:45	06:19 20:56	05:04 22:04	04:27 22:49	06:15 (1) 06:47 (1)	04:56 22:29	06:33 (1) 06:54 (1)	06:02 21:18	07:11 19:51	08:18 18:25	08:32 16:12	09:24 15:42
19	09:10 16:26	08:02 17:41	06:44 18:47	06:16 20:58	05:02 22:06	04:27 22:50	06:16 (1) 06:47 (1)	04:58 22:27	06:35 (1) 06:55 (1)	06:04 21:16	07:13 19:48	08:21 18:23	08:34 16:10	09:25 15:43
20	09:08 16:28	08:00 17:43	06:42 18:49	06:13 21:00	05:00 22:08	04:27 22:51	06:16 (1) 06:47 (1)	05:00 22:25	06:35 (1) 06:54 (1)	06:07 21:13	07:15 19:45	08:23 18:20	08:36 16:08	09:25 15:43
21	09:07 16:30	07:57 17:46	06:39 18:52	06:11 21:03	04:58 22:10	04:27 22:50	06:16 (1) 06:47 (1)	05:02 22:23	06:37 (1) 06:54 (1)	06:09 21:10	07:17 19:42	08:25 18:17	08:39 16:06	09:26 15:43
22	09:05 16:32	07:54 17:48	06:36 18:54	06:08 21:05	04:56 22:12	04:27 22:50	06:17 (1) 06:48 (1)	05:04 22:22	06:39 (1) 06:54 (1)	06:11 21:08	07:20 19:39	08:28 18:15	08:41 16:04	09:27 15:44
23	09:03 16:35	07:52 17:50	06:33 18:56	06:05 21:07	04:55 22:14	04:28 22:50	06:17 (1) 06:48 (1)	05:06 22:20	06:40 (1) 06:53 (1)	06:13 21:05	07:22 19:36	08:30 18:12	08:43 16:03	09:27 15:44
24	09:02 16:37	07:49 17:53	06:30 18:58	06:02 21:10	04:53 22:16	04:28 22:50	06:16 (1) 06:48 (1)	05:08 22:18	06:42 (1) 06:53 (1)	06:15 21:02	07:24 19:33	08:32 18:09	08:45 16:01	09:28 15:45
25	09:00 16:39	07:46 17:55	06:27 19:01	06:00 21:12	04:51 22:18	04:28 22:50	06:17 (1) 06:49 (1)	05:10 22:16	06:43 (1) 06:53 (1)	06:18 20:59	07:26 19:30	07:35 17:07	08:47 16:00	09:28 15:46
26	08:58 16:42	07:44 17:58	06:24 19:03	05:57 21:14	04:49 22:20	04:29 22:50	06:17 (1) 06:49 (1)	05:12 22:14	06:45 (1) 06:52 (1)	06:20 20:57	07:28 19:28	07:37 17:04	08:49 15:58	09:28 15:46
27	08:56 16:44	07:41 18:00	06:21 19:05	05:54 21:17	04:48 22:22	04:29 22:50	06:17 (1) 06:49 (1)	05:14 22:12	06:47 (1) 06:51 (1)	06:22 20:54	07:31 19:25	07:39 17:02	08:52 15:57	09:28 15:47
28	08:54 16:47	07:38 18:02	06:18 19:08	05:52 21:19	04:46 22:24	04:30 22:50	06:17 (1) 06:49 (1)	05:16 22:10	06:49 (1) 06:51 (1)	06:24 20:51	07:33 19:22	07:42 16:59	08:54 15:55	09:28 15:48
29	08:52 16:49	07:36 18:02	06:16 19:08	05:50 21:19	04:44 22:25	04:31 22:49	06:17 (1) 06:49 (1)	05:18 22:07	06:49 (1) 06:50 (1)	06:27 20:48	07:35 19:19	07:44 16:56	08:56 15:54	09:28 15:49
30	08:50 16:51	07:33 18:02	06:13 19:08	05:47 21:24	04:43 22:27	04:32 22:49	06:18 (1) 06:50 (1)	05:20 22:05	06:50 (1) 06:50 (1)	06:29 20:45	07:37 19:16	07:47 16:54	08:58 15:53	09:28 15:50
31	08:48 16:54	07:30 18:02	06:10 19:08	05:44 21:24	04:41 22:29	04:31 22:49	06:17 (1) 06:45 (1)	05:22 22:03	06:31 20:43	06:31 20:43	07:49 16:51	08:00 16:51	09:28 15:51	09:28 15:51
Potential sun hours	221	260	365	432	521	547	545	478	386	319	236	200		
Total, worst case					284	963	655							

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)		Last time (hh:mm) with flicker	(WTG causing flicker last time)

SHADOW - Calendar

Calculation: Oppdatert layout - kun Moifjellet - worst case - oppdatert mottaker **Shadow receptor:** AA - Buevegen 1463 (27)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

The sun is shining all the day, from sunrise to sunset

The rotor plane is always perpendicular to the line from the WTG to the sun

The WTG is always operating

	January	February	March	April	May	June
1	09:28	08:46	07:35	08:22 (23)	07:07	05:44
	15:53	16:56	18:05	22 08:44 (23)	20:17	21:26
2	09:28	08:44	07:33	08:21 (23)	07:04	05:41
	15:54	16:59	18:07	24 08:45 (23)	20:19	21:28
3	09:27	08:41	07:30	08:20 (23)	07:01	05:39
	15:56	17:01	18:10	25 08:45 (23)	20:21	21:31
4	09:27	08:39	07:27	08:20 (23)	06:58	05:36
	15:57	17:04	18:12	24 08:44 (23)	20:24	21:33
5	09:26	08:37	07:24	08:20 (23)	06:55	05:34
	15:59	17:06	18:14	24 08:44 (23)	20:26	21:35
6	09:25	08:35	07:22	08:20 (23)	06:53	05:31
	16:00	17:09	18:17	23 08:43 (23)	20:28	21:38
7	09:25	08:32	07:19	08:20 (23)	06:50	05:29
	16:02	17:11	18:19	22 08:42 (23)	20:31	21:40
8	09:24	08:30	07:16	08:20 (23)	06:47	05:27
	16:04	17:13	18:21	21 08:41 (23)	20:33	21:42
9	09:23	08:28	09:21 (3)	07:13	08:22 (23)	06:44
	16:05	17:16	1 09:22 (3)	18:24	19 08:41 (23)	20:35
10	09:22	08:25	09:18 (3)	07:10	08:23 (23)	06:41
	16:07	17:18	9 09:27 (3)	18:26	16 08:39 (23)	20:38
11	09:21	08:23	09:15 (3)	07:07	08:25 (23)	06:38
	16:09	17:21	14 09:29 (3)	18:28	11 08:36 (23)	20:40
12	09:20	08:20	09:14 (3)	07:05		06:36
	16:11	17:23	16 09:30 (3)	18:31		20:42
13	09:19	08:18	09:13 (3)	07:02		06:33
	16:13	17:26	17 09:30 (3)	18:33		20:44
14	09:17	08:15	09:13 (3)	06:59	07:38 (25)	06:30
	16:15	17:28	18 09:31 (3)	18:35	1 07:39 (25)	20:47
15	09:16	08:13	09:12 (3)	06:56	07:33 (25)	06:27
	16:17	17:31	19 09:31 (3)	18:38	11 07:44 (25)	20:49
16	09:15	08:10	09:12 (3)	06:53	07:31 (25)	06:24
	16:19	17:33	19 09:31 (3)	18:40	14 07:45 (25)	20:51
17	09:13	08:08	09:13 (3)	06:50	07:29 (25)	06:22
	16:21	17:36	19 09:32 (3)	18:42	17 07:46 (25)	20:54
18	09:12	08:05	09:13 (3)	06:47	07:28 (25)	06:19
	16:23	17:38	18 09:31 (3)	18:45	18 07:46 (25)	20:56
19	09:10	08:02	09:13 (3)	06:44	07:28 (25)	06:16
	16:26	17:41	17 09:30 (3)	18:47	18 07:46 (25)	20:58
20	09:09	08:00	09:14 (3)	06:42	07:27 (25)	06:13
	16:28	17:43	15 09:29 (3)	18:49	19 07:46 (25)	21:01
21	09:07	07:57	09:15 (3)	06:39	07:28 (25)	06:11
	16:30	17:46	12 09:27 (3)	18:52	19 07:47 (25)	21:03
22	09:05	07:54	09:18 (3)	06:36	07:28 (25)	06:08
	16:32	17:48	8 09:26 (3)	18:54	18 07:46 (25)	21:05
23	09:04	07:52		06:33	07:28 (25)	06:05
	16:35	17:50		18:56	17 07:45 (25)	21:08
24	09:02	07:49		06:30	07:29 (25)	06:02
	16:37	17:53		18:59	14 07:43 (25)	21:10
25	09:00	07:46	08:28 (23)	06:27	07:30 (25)	06:00
	16:39	17:55	11 08:39 (23)	19:01	11 07:41 (25)	21:12
26	08:58	07:44	08:25 (23)	06:24	07:34 (25)	05:57
	16:42	17:58	16 08:41 (23)	19:03	2 07:36 (25)	21:14
27	08:56	07:41	08:23 (23)	06:21		05:54
	16:44	18:00	19 08:42 (23)	19:05		21:17
28	08:54	07:38	08:23 (23)	06:18		05:52
	16:46	18:02	21 08:44 (23)	19:08		21:19
29	08:52			07:16		05:49
	16:49			20:10		21:21
30	08:50			07:13		05:47
	16:51			20:12		21:24
31	08:48			07:10		04:41
	16:54			20:15		22:29
Potential sun hours	221	260	365	410	432	521
Total, worst case		269		410		547

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)		Last time (hh:mm) with flicker	(WTG causing flicker last time)

SHADOW - Calendar

Calculation: Oppdatert layout - kun Moifjellet - worst case - oppdatert mottaker **Shadow receptor:** AA - Buevegen 1463 (27)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

The sun is shining all the day, from sunrise to sunset

The rotor plane is always perpendicular to the line from the WTG to the sun

The WTG is always operating

	July	August	September	October	November	December
1	04:32 22:49	05:24 22:01	06:33 20:40	07:40 19:13	07:52 16:49	08:47 (3) 15:51
2	04:33 22:48	05:26 21:59	06:35 20:37	07:42 19:10	09:05 (23) 07:54	8 08:55 (3) 09:02
3	04:34 22:47	05:29 21:56	06:38 20:34	07:44 19:07	09:01 (23) 07:56	09:04 15:49
4	04:35 22:47	05:31 21:54	06:40 20:31	07:46 19:05	09:00 (23) 07:59	09:05 15:48
5	04:36 22:46	05:33 21:52	06:42 20:28	07:48 19:02	08:58 (23) 08:01	09:07 15:47
6	04:38 22:45	05:35 21:49	06:44 20:26	07:51 18:59	08:56 (23) 08:04	09:09 15:46
7	04:39 22:44	05:37 21:47	06:47 20:23	07:53 18:56	08:56 (23) 08:06	09:10 15:46
8	04:40 22:43	05:40 21:44	06:49 20:20	07:55 18:53	08:55 (23) 08:08	09:12 15:45
9	04:41 22:42	05:42 21:42	06:51 20:17	07:58 18:50	08:54 (23) 08:11	09:14 15:44
10	04:43 22:41	05:44 21:39	06:53 20:14	08:00 18:48	08:55 (23) 08:13	09:15 15:44
11	04:44 22:39	05:46 21:37	06:55 20:11	08:02 18:45	08:54 (23) 08:16	09:16 15:43
12	04:46 22:38	05:49 21:34	06:58 20:08	08:04 18:42	08:55 (23) 08:18	09:18 15:43
13	04:48 22:37	05:51 21:32	07:00 20:05	08:07 18:39	08:55 (23) 08:20	09:19 15:43
14	04:49 22:35	05:53 21:29	07:02 20:02	08:09 18:36	08:55 (23) 08:23	09:20 15:42
15	04:51 22:34	05:55 21:26	07:04 20:00	08:11 18:34	08:57 (23) 08:25	09:21 15:42
16	04:53 22:32	05:58 21:24	07:06 19:57	08:14 18:31	08:58 (23) 08:27	09:22 15:42
17	04:54 22:31	06:00 21:21	07:09 19:54	08:16 18:28	09:01 (23) 08:30	09:23 15:42
18	04:56 22:29	06:02 21:19	07:11 19:51	08:18 (25) 08:18	09:10 (23) 16:13	09:24 15:42
19	04:58 22:27	06:04 21:16	07:13 19:48	08:20 (25) 08:21	08:32 16:10	09:25 15:43
20	05:00 22:25	06:06 21:13	07:15 19:45	08:22 (25) 08:23	09:47 (3) 08:37	09:26 15:43
21	05:02 22:24	06:09 21:10	07:17 19:42	08:25 (25) 08:25	09:57 (3) 16:08	09:26 15:43
22	05:04 22:22	06:11 21:08	07:20 19:39	08:28 (25) 08:28	09:46 (3) 08:39	09:27 15:44
23	05:06 22:20	06:13 21:05	07:22 19:36	08:31 (25) 08:30	10:00 (3) 16:04	09:27 15:44
24	05:08 22:18	06:15 21:02	07:24 19:33	08:33 (25) 08:32	10:01 (3) 16:03	09:28 15:45
25	05:10 22:16	06:18 20:59	07:26 19:31	08:35 (25) 07:35	09:42 (3) 08:45	09:28 15:45
26	05:12 22:14	06:20 20:57	07:28 19:28	08:37 (25) 07:37	09:01 (3) 15:59	09:28 15:45
27	05:14 22:12	06:22 20:54	07:31 19:25	08:39 (25) 07:40	09:02 (3) 15:58	09:28 15:46
28	05:16 22:10	06:24 20:51	07:33 19:22	08:42 (25) 07:42	08:42 (3) 08:52	09:28 15:47
29	05:18 22:08	06:27 20:48	07:35 19:19	08:44 (25) 07:44	08:43 (3) 08:54	09:29 15:48
30	05:20 22:05	06:29 20:45	07:37 19:16	08:46 (25) 07:47	09:01 (3) 15:55	09:29 15:48
31	05:22 22:03	06:31 20:43		08:48 (25) 07:49	08:43 (3) 08:56	09:29 15:49
Potential sun hours	545	478	386	319	236	200
Total, worst case			181	503	8	

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Calculation: Oppdatert layout - kun Moifjellet - worst case - oppdatert mottaker **Shadow receptor:** AB - Buevegen 1461 (28)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

The sun is shining all the day, from sunrise to sunset

The rotor plane is always perpendicular to the line from the WTG to the sun

The WTG is always operating

	January	February	March	April	May	June	July	August	September	October	November	December	
1	09:28 15:53	08:46 16:56	07:35 18:05	08:24 (23) 20:17	07:07 21:26	05:44 22:31	04:40 22:49	04:32 22:01	05:24 22:01	06:33 20:40	07:40 19:13	07:52 16:49	09:00 15:51
2	09:28 15:54	08:44 16:59	07:33 18:07	08:23 (23) 20:19	07:04 21:28	05:41 22:32	04:39 22:48	04:33 22:48	05:26 21:59	06:35 20:37	07:42 19:10	07:54 16:46	09:02 15:50
3	09:27 15:56	08:41 17:01	07:30 18:10	08:23 (23) 20:21	07:01 21:31	05:39 22:34	04:37 22:47	04:34 22:47	05:29 21:56	06:38 20:34	07:44 19:07	07:56 16:44	09:04 15:49
4	09:27 15:57	08:39 17:04	07:27 18:12	08:23 (23) 20:24	06:58 21:33	05:36 22:35	04:36 22:47	04:35 21:54	05:31 20:31	06:40 19:05	07:46 19:05	09:05 (23) 16:42	07:59 15:48
5	09:26 15:59	08:37 17:06	07:24 18:14	08:23 (23) 20:26	06:55 21:35	05:34 22:37	04:35 22:46	04:33 21:52	05:33 20:28	06:42 19:02	07:48 19:02	09:01 16:39	09:07 15:47
6	09:25 16:00	08:35 17:09	07:22 18:17	08:23 (23) 20:28	06:53 21:38	05:31 22:38	04:34 22:45	04:38 22:45	05:35 21:49	06:44 20:26	07:51 18:59	09:00 (23) 16:37	09:04 15:46
7	09:25 16:02	08:32 17:11	07:19 18:19	08:23 (23) 20:31	06:50 21:40	05:29 22:39	04:33 22:44	04:39 21:47	05:37 20:23	06:47 18:56	07:53 19:00	09:00 (23) 16:35	09:10 15:46
8	09:24 16:04	08:30 17:13	07:16 18:21	08:24 (23) 20:33	06:47 21:42	05:27 22:41	04:32 22:43	04:40 21:44	05:40 20:20	06:49 18:53	07:55 19:02	08:58 (23) 16:32	09:12 15:45
9	09:23 16:05	08:28 17:16	07:13 18:24	08:27 (23) 20:35	06:44 21:44	05:24 22:42	04:31 22:42	04:41 21:42	05:42 20:17	06:51 18:50	07:58 19:00	08:57 (23) 16:30	09:14 15:44
10	09:22 16:07	08:25 17:18	07:10 18:26	08:30 (23) 20:38	06:41 21:47	05:22 22:43	04:30 22:41	04:43 21:39	05:44 20:14	06:53 18:48	07:59 19:00	08:57 (23) 16:28	09:15 15:44
11	09:21 16:09	08:23 17:21	07:07 18:28	08:37 (23) 20:40	06:38 21:49	05:20 22:44	04:30 22:39	04:44 21:37	05:46 20:11	06:55 18:45	07:57 19:00	08:57 (23) 16:26	09:16 15:43
12	09:20 16:11	08:20 17:23	07:05 18:31	07:05 20:42	06:36 21:51	05:17 22:45	04:29 22:38	04:46 21:34	05:49 20:08	06:58 18:42	07:58 19:00	08:57 (23) 16:24	09:18 15:43
13	09:19 16:13	08:18 17:26	07:02 18:33	07:40 (25) 20:44	06:33 21:53	05:15 22:46	04:29 22:37	04:48 21:32	05:51 20:05	07:00 18:39	08:07 19:00	08:57 (23) 16:21	09:19 15:43
14	09:17 16:15	08:15 17:28	06:59 18:35	07:36 (25) 20:47	06:30 21:55	05:13 22:47	04:28 22:35	04:49 21:29	05:53 20:02	07:02 18:36	08:09 19:00	08:57 (23) 16:19	09:20 15:42
15	09:16 16:17	08:13 17:31	06:56 18:38	07:34 (25) 20:49	06:27 21:58	05:11 22:47	04:28 22:34	04:51 21:26	05:55 20:00	07:04 18:34	08:11 19:00	08:58 (23) 16:17	09:21 15:42
16	09:15 16:19	08:10 17:33	06:53 18:40	07:33 (25) 20:51	06:24 22:00	05:08 22:48	04:27 22:32	04:53 21:24	05:58 19:57	07:06 18:31	08:14 19:00	08:58 (23) 16:15	09:22 15:42
17	09:13 16:21	08:08 17:36	06:50 18:42	07:32 (25) 20:54	06:22 22:02	05:06 22:49	04:27 22:31	04:54 21:21	06:00 19:54	07:09 18:28	08:16 19:00	09:00 (23) 16:13	09:23 15:42
18	09:12 16:23	08:05 17:38	06:47 18:45	07:31 (25) 20:56	06:19 22:04	05:04 22:49	04:27 22:29	04:56 21:19	06:02 19:51	07:11 18:25	08:18 19:00	09:02 (23) 16:11	09:24 15:42
19	09:10 16:26	08:02 17:41	06:44 18:47	07:31 (25) 20:58	06:16 22:06	05:02 22:50	04:27 22:27	04:58 21:16	06:04 19:48	07:13 18:23	08:21 19:00	09:02 (23) 16:10	09:25 15:43
20	09:09 16:28	08:00 17:43	06:42 18:49	07:30 (25) 21:01	06:13 22:08	05:00 22:50	04:27 22:25	05:00 21:13	06:06 19:45	07:15 18:20	08:19 (25) 18:20	09:03 16:08	09:26 15:43
21	09:07 16:30	07:57 17:46	06:39 18:52	07:29 (25) 21:03	06:11 22:10	04:58 22:50	04:27 22:24	05:02 21:10	06:09 19:42	07:17 18:17	08:18 (25) 18:17	09:04 16:06	09:26 15:43
22	09:05 16:32	07:54 17:48	06:36 18:54	07:27 (25) 21:05	06:08 22:12	04:56 22:50	04:27 22:22	05:04 21:08	06:11 19:39	07:20 18:15	08:16 (25) 18:15	09:04 16:04	09:27 15:44
23	09:04 16:35	07:52 17:50	06:33 18:56	07:26 (25) 21:08	06:05 22:14	04:54 22:51	04:27 22:20	05:06 21:05	06:13 19:36	07:22 18:12	08:15 (25) 18:12	09:03 16:03	09:27 15:44
24	09:02 16:37	07:49 17:53	06:30 18:59	07:25 (25) 21:10	06:02 22:16	04:53 22:51	04:28 22:18	05:08 21:02	06:15 19:33	07:24 18:09	08:14 (25) 18:09	09:02 (23) 16:01	09:28 15:45
25	09:00 16:39	07:46 17:55	06:27 19:01	07:24 (23) 21:12	06:00 22:18	04:51 22:51	04:28 22:16	05:10 20:59	06:18 19:31	07:26 18:07	08:14 (25) 17:35	09:01 15:59	09:28 15:45
26	08:58 16:42	07:44 17:58	06:24 19:03	07:23 (23) 21:14	06:02 22:20	04:49 22:50	04:29 22:14	05:12 20:57	06:20 19:28	07:28 18:07	08:14 (25) 17:37	08:50 15:58	09:28 15:46
27	08:56 16:44	07:41 18:00	06:21 19:05	07:22 (23) 21:17	06:01 22:22	04:47 22:50	04:29 22:12	05:14 20:54	06:22 19:25	07:31 18:02	08:14 (25) 17:02	08:52 15:57	09:28 15:47
28	08:54 16:46	07:38 18:02	06:18 19:08	07:21 (23) 21:19	06:00 22:24	04:46 22:50	04:30 22:10	05:16 20:51	06:24 19:22	07:33 18:09	08:15 (25) 16:59	08:54 15:55	09:29 15:48
29	08:52 16:49	07:30 18:09	06:16 19:10	07:20 (23) 21:21	06:00 22:26	04:44 22:50	04:31 22:08	05:18 20:48	06:27 19:19	07:35 18:02	08:15 (25) 16:56	08:56 15:54	09:29 15:49
30	08:50 16:51	07:22 18:18	06:13 19:11	07:19 (23) 21:24	06:00 22:27	04:43 22:49	04:31 22:05	05:20 20:45	06:29 20:45	07:37 19:16	08:18 (25) 16:54	08:58 15:53	09:28 15:50
31	08:48 16:54	07:14 18:05	06:10 19:15	07:18 (23) 21:27	06:00 22:29	04:41 22:50	04:30 22:03	05:22 20:43	06:31 20:43	07:49 16:51	08:26 (25) 16:51	09:00 15:51	09:28 15:51
Potential sun hours	221	260	365	432	521	547	545	478	386	178	286	236	200
Total, worst case		86	369										

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)		Last time (hh:mm) with flicker	(WTG causing flicker last time)

SHADOW - Calendar

Calculation: Oppdatert layout - kun Moifjellet - worst case - oppdatert mottaker **Shadow receptor:** AC - Buevegen 1502 (29)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

The sun is shining all the day, from sunrise to sunset

The rotor plane is always perpendicular to the line from the WTG to the sun

The WTG is always operating

	January	February	March	April	May	June		
1	09:28 15:53	08:46 16:56	09:42 (23) 09:56 (23)	07:35 18:05	08:32 (25) 08:52 (25)	07:07 20:17	05:44 21:26	04:40 22:31
2	09:28 15:54	08:44 16:59	09:40 (23) 09:57 (23)	07:33 18:07	08:32 (25) 08:52 (25)	07:04 20:19	05:41 21:28	04:39 22:32
3	09:27 15:56	08:41 17:01	09:40 (23) 09:59 (23)	07:30 18:10	08:32 (25) 08:51 (25)	07:01 20:21	05:39 21:31	04:37 22:34
4	09:27 15:57	08:39 17:04	09:38 (23) 09:59 (23)	07:27 18:12	08:32 (25) 08:50 (25)	06:58 20:24	05:36 21:33	04:36 22:35
5	09:26 15:59	08:37 17:06	09:38 (23) 10:00 (23)	07:24 18:14	08:32 (25) 08:49 (25)	06:55 20:26	05:34 21:35	04:35 22:37
6	09:25 16:00	08:35 17:08	09:38 (23) 10:00 (23)	07:22 18:17	08:33 (25) 08:47 (25)	06:53 20:28	05:31 21:38	04:34 22:38
7	09:25 16:02	08:32 17:11	09:37 (23) 10:01 (23)	07:19 18:19	08:35 (25) 08:45 (25)	06:50 20:31	05:29 21:40	04:33 22:39
8	09:24 16:04	08:30 17:13	09:37 (23) 10:01 (23)	07:16 18:21		06:47 20:33	05:27 21:42	04:32 22:41
9	09:23 16:05	08:28 17:16	09:37 (23) 10:01 (23)	07:13 18:24		06:44 20:35	05:24 21:44	04:31 22:42
10	09:22 16:07	08:25 17:18	09:38 (23) 10:02 (23)	07:10 18:26		06:41 20:38	05:22 21:47	04:30 22:43
11	09:21 16:09	08:23 17:21	09:38 (23) 10:01 (23)	07:07 18:28		06:38 20:40	05:20 21:49	04:30 22:44
12	09:20 16:11	08:20 17:23	09:38 (23) 10:00 (23)	07:05 18:31		06:36 20:42	05:17 21:51	04:29 22:45
13	09:19 16:13	08:18 17:26	09:38 (23) 09:59 (23)	07:02 18:33		06:33 20:44	05:15 21:53	04:28 22:46
14	09:17 16:15	08:15 17:28	09:40 (23) 09:59 (23)	06:59 18:35		06:30 20:47	05:13 21:55	04:28 22:47
15	09:16 16:17	08:13 17:31	09:41 (23) 09:58 (23)	06:56 18:38		06:27 20:49	05:11 21:58	04:28 22:47
16	09:15 16:19	08:10 17:33	09:43 (23) 09:55 (23)	06:53 18:40		06:24 20:51	05:08 22:00	04:27 22:48
17	09:13 16:21	08:08 17:36	09:46 (23) 09:53 (23)	06:50 18:42		06:21 20:54	05:06 22:02	04:27 22:49
18	09:12 16:23	08:05 17:38	08:05 18:45	06:47 18:45		06:19 20:56	05:04 22:04	04:27 22:49
19	09:10 16:26	08:02 17:41	06:44 18:47	06:44 18:47		06:16 20:58	05:02 22:06	04:27 22:50
20	09:09 16:28	08:00 17:43	06:42 18:49	06:42 18:49		06:13 21:01	05:00 22:08	04:27 22:50
21	09:07 16:30	07:57 17:45	06:39 18:52	06:39 18:52		06:10 21:03	04:58 22:10	04:27 22:50
22	09:05 16:32	07:54 17:48	06:36 18:54	06:36 18:54		06:08 21:05	04:56 22:12	04:27 22:51
23	09:04 16:35	07:52 17:50	08:40 (25) 08:46 (25)	06:33 18:56		06:05 21:08	04:54 22:14	04:27 22:51
24	09:02 16:37	07:49 17:53	08:36 (25) 08:48 (25)	06:30 18:59		06:02 21:10	04:53 22:16	04:28 22:51
25	09:00 16:39	07:46 17:55	08:34 (25) 08:50 (25)	06:27 19:01		06:00 21:12	04:51 22:18	04:28 22:51
26	08:58 16:42	07:44 17:58	08:33 (25) 08:50 (25)	06:24 19:03		05:57 21:14	04:49 22:20	04:29 22:51
27	08:56 16:44	07:41 18:00	08:32 (25) 08:51 (25)	06:21 19:05		05:54 21:17	04:47 22:22	04:29 22:50
28	08:54 16:46	07:38 18:02	08:32 (25) 08:52 (25)	06:18 19:08		05:52 21:19	04:46 22:24	04:30 22:50
29	08:52 16:49			07:16 20:10		05:49 21:21	04:44 22:26	04:30 22:50
30	08:50 16:51			07:13 20:12		05:47 21:24	04:43 22:27	04:31 22:49
31	08:48 16:54	09:43 (23) 09:53 (23)		07:10 20:15			04:41 22:29	
Potential sun hours	221	260	365	432	521	547		
Total, worst case	10	422	118					

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Calculation: Oppdatert layout - kun Moifjellet - worst case - oppdatert mottaker **Shadow receptor:** AC - Buevegen 1502 (29)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

The sun is shining all the day, from sunrise to sunset

The rotor plane is always perpendicular to the line from the WTG to the sun

The WTG is always operating

	July	August	September	October		November	December		
1	04:32	05:24	06:33	07:39		07:51	09:06 (23)	09:00	
	22:49	22:01	20:40	19:13		16:49	24 09:30 (23)	15:51	
2	04:33	05:26	06:35	07:42		07:54	09:07 (23)	09:02	
	22:48	21:59	20:37	19:10		16:46	24 09:31 (23)	15:50	
3	04:34	05:29	06:38	07:44		07:56	09:07 (23)	09:04	
	22:47	21:56	20:34	19:07		16:44	24 09:31 (23)	15:49	
4	04:35	05:31	06:40	07:46		07:59	09:08 (23)	09:05	
	22:47	21:54	20:31	19:05		16:42	23 09:31 (23)	15:48	
5	04:36	05:33	06:42	07:48		08:01	09:07 (23)	09:07	
	22:46	21:52	20:28	19:02		16:39	23 09:30 (23)	15:47	
6	04:37	05:35	06:44	07:51		09:13 (25)	08:04	09:08 (23)	09:09
	22:45	21:49	20:26	18:59	6	09:19 (25)	16:37	22 09:30 (23)	15:46
7	04:39	05:37	06:47	07:53		09:11 (25)	08:06	09:09 (23)	09:10
	22:44	21:47	20:23	18:56	11	09:22 (25)	16:35	21 09:30 (23)	15:46
8	04:40	05:40	06:49	07:55		09:08 (25)	08:08	09:09 (23)	09:12
	22:43	21:44	20:20	18:53	16	09:24 (25)	16:32	19 09:28 (23)	15:45
9	04:41	05:42	06:51	07:58		09:07 (25)	08:11	09:11 (23)	09:14
	22:42	21:42	20:17	18:50	17	09:24 (25)	16:30	16 09:27 (23)	15:44
10	04:43	05:44	06:53	08:00		09:06 (25)	08:13	09:13 (23)	09:15
	22:41	21:39	20:14	18:48	19	09:25 (25)	16:28	13 09:26 (23)	15:44
11	04:44	05:46	06:55	08:02		09:05 (25)	08:16	09:14 (23)	09:16
	22:39	21:37	20:11	18:45	20	09:25 (25)	16:26	10 09:24 (23)	15:43
12	04:46	05:49	06:58	08:04		09:05 (25)	08:18		09:18
	22:38	21:34	20:08	18:42	20	09:25 (25)	16:24		15:43
13	04:47	05:51	07:00	08:07		09:05 (25)	08:20		09:19
	22:37	21:32	20:05	18:39	20	09:25 (25)	16:21		15:43
14	04:49	05:53	07:02	08:09		09:04 (25)	08:23		09:20
	22:35	21:29	20:02	18:36	20	09:24 (25)	16:19		15:42
15	04:51	05:55	07:04	08:11		09:05 (25)	08:25		09:21
	22:34	21:26	20:00	18:34	19	09:24 (25)	16:17		15:42
16	04:53	05:57	07:06	08:14		09:05 (25)	08:27		09:22
	22:32	21:24	19:57	18:31	17	09:22 (25)	16:15		15:42
17	04:54	06:00	07:09	08:16		09:07 (25)	08:30		09:23
	22:31	21:21	19:54	18:28	14	09:21 (25)	16:13		15:42
18	04:56	06:02	07:11	08:18		09:08 (25)	08:32		09:24
	22:29	21:19	19:51	18:25	11	09:19 (25)	16:11		15:42
19	04:58	06:04	07:13	08:21			08:34		09:25
	22:27	21:16	19:48	18:23			16:10		15:42
20	05:00	06:06	07:15	08:23			08:37		09:26
	22:25	21:13	19:45	18:20			16:08		15:43
21	05:02	06:09	07:17	08:25			08:39		09:26
	22:24	21:10	19:42	18:17			16:06		15:43
22	05:04	06:11	07:20	08:28			08:41		09:27
	22:22	21:08	19:39	18:15			16:04		15:44
23	05:06	06:13	07:22	08:30			08:43		09:27
	22:20	21:05	19:36	18:12			16:03		15:44
24	05:08	06:15	07:24	08:32			08:45		09:28
	22:18	21:02	19:33	18:09			16:01		15:45
25	05:10	06:18	07:26	07:35		09:15 (23)	08:48		09:28
	22:16	20:59	19:30	17:07	8	09:23 (23)	15:59		15:45
26	05:12	06:20	07:28	07:37		09:12 (23)	08:50		09:28
	22:14	20:57	19:28	17:04	14	09:26 (23)	15:58		15:46
27	05:14	06:22	07:31	07:40		09:10 (23)	08:52		09:28
	22:12	20:54	19:25	17:01	17	09:27 (23)	15:56		15:47
28	05:16	06:24	07:33	07:42		09:09 (23)	08:54		09:29
	22:10	20:51	19:22	16:59	20	09:29 (23)	15:55		15:48
29	05:18	06:27	07:35	07:44		09:09 (23)	08:56		09:29
	22:08	20:48	19:19	16:56	21	09:30 (23)	15:54		15:49
30	05:20	06:29	07:37	07:47		09:07 (23)	08:58		09:28
	22:05	20:45	19:16	16:54	23	09:30 (23)	15:53		15:50
31	05:22	06:31		07:49		09:07 (23)			09:28
	22:03	20:43		16:51	24	09:31 (23)			15:51
Potential sun hours	546	478	386	319		236		199	
Total, worst case				337		219			

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Calculation: Oppdatert layout - kun Moifjellet - worst case - oppdatert mottaker **Shadow receptor:** AD - Buevegen 1500 (30)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

The sun is shining all the day, from sunrise to sunset

The rotor plane is always perpendicular to the line from the WTG to the sun

The WTG is always operating

	January	February	March	April	May	June	July	August	September	October	November	December
1	09:28 15:53	08:46 16:56	09:42 (23) 18:05	07:35 18:05	08:28 (25) 20:17	07:07 21:26	05:44 22:31	04:40 22:49	04:32 22:01	05:24 20:40	06:33 19:13	07:39 19:13
2	09:28 15:54	08:44 16:59	09:37 (23) 18:07	07:33 18:07	08:27 (25) 20:19	07:04 21:28	05:41 22:32	04:39 22:48	04:33 22:59	05:26 20:37	06:35 19:10	07:42 19:10
3	09:27 15:56	08:41 17:01	09:36 (23) 18:10	07:30 18:10	08:27 (25) 20:21	07:01 21:31	05:39 22:34	04:37 22:47	04:34 21:56	05:29 20:34	06:38 19:07	07:44 19:07
4	09:27 15:57	08:39 17:04	09:34 (23) 18:12	07:27 18:12	08:27 (25) 20:24	06:58 21:33	05:36 22:35	04:36 22:47	04:35 21:54	05:31 20:31	06:40 19:05	07:46 19:05
5	09:26 15:59	08:37 17:06	09:33 (23) 18:14	07:24 18:14	08:27 (25) 20:26	06:55 21:35	05:34 22:37	04:35 22:46	04:36 21:52	05:33 20:28	06:42 19:02	07:48 19:02
6	09:25 16:00	08:35 17:08	09:32 (23) 18:17	07:22 18:17	08:28 (25) 20:28	06:53 21:38	05:31 22:38	04:34 22:45	04:37 21:49	05:35 20:26	06:44 18:59	07:51 18:59
7	09:25 16:02	08:32 17:11	09:31 (23) 18:19	07:19 18:19	08:29 (25) 20:31	06:50 21:40	05:29 22:39	04:33 22:44	04:39 21:47	05:37 20:23	06:47 18:56	07:53 18:56
8	09:24 16:04	08:30 17:13	09:32 (23) 18:21	07:16 18:21	08:31 (25) 20:33	06:47 21:42	05:27 22:41	04:32 22:43	04:40 21:44	05:40 20:20	06:49 18:53	07:55 18:53
9	09:23 16:05	08:28 17:16	09:31 (23) 18:24	07:13 18:24	08:39 (25) 20:35	06:44 21:44	05:24 22:42	04:31 22:42	04:41 21:42	05:42 20:17	06:51 18:50	07:58 18:50
10	09:22 16:07	08:25 17:18	09:32 (23) 18:26	07:10 18:26	06:41 20:38	05:22 21:47	04:30 22:43	04:43 22:41	05:44 21:39	06:53 20:14	08:00 18:48	09:00 18:48
11	09:21 16:09	08:23 17:21	09:31 (23) 18:28	07:07 18:28	06:38 20:40	05:20 21:49	04:30 22:44	04:44 22:39	05:46 21:37	06:55 20:11	08:02 18:45	09:02 18:45
12	09:20 16:11	08:20 17:23	09:31 (23) 18:31	07:05 18:31	06:36 20:42	05:17 21:51	04:29 22:45	04:46 22:38	05:49 21:34	06:58 20:08	08:04 18:42	09:04 18:42
13	09:19 16:13	08:18 17:26	09:31 (23) 18:33	07:02 18:33	06:33 20:44	05:15 21:53	04:28 22:46	04:47 22:37	05:51 21:32	07:00 20:05	08:07 18:39	09:07 18:39
14	09:17 16:15	08:15 17:28	09:33 (23) 18:35	06:59 18:35	06:30 20:47	05:13 21:55	04:28 22:47	04:49 22:35	05:53 21:29	07:02 20:02	08:09 18:36	09:09 18:36
15	09:16 16:17	08:13 17:31	09:33 (23) 18:38	06:56 18:38	06:27 20:49	05:11 21:58	04:28 22:47	04:51 22:34	05:55 21:26	07:04 20:00	08:11 18:34	09:11 18:34
16	09:15 16:19	08:10 17:33	09:34 (23) 18:40	06:53 18:40	06:24 20:51	05:08 22:00	04:27 22:48	04:53 22:32	05:57 21:24	07:06 19:57	08:14 18:31	09:14 18:31
17	09:13 16:21	08:08 17:36	09:36 (23) 18:42	06:50 18:42	06:22 20:54	05:06 22:02	04:27 22:49	04:54 22:31	06:00 21:21	07:09 19:54	08:16 18:28	09:16 18:28
18	09:12 16:23	08:05 17:38	09:39 (23) 18:45	06:47 18:45	06:19 20:56	05:04 22:04	04:27 22:49	04:56 22:29	06:02 21:19	07:11 19:51	08:18 18:25	09:18 18:25
19	09:10 16:26	08:02 17:41	09:47 (23) 18:47	06:44 18:47	06:16 20:58	05:02 22:06	04:27 22:50	04:58 22:27	06:04 21:16	07:13 19:48	08:21 18:23	09:21 18:23
20	09:09 16:28	08:00 17:43	09:47 (23) 18:49	06:42 18:49	06:13 21:01	05:00 22:08	04:27 22:50	05:00 22:25	06:06 21:13	07:15 19:45	08:23 18:20	09:23 18:20
21	09:07 16:30	07:57 17:45	09:47 (23) 18:51	06:39 18:51	06:10 21:03	04:58 22:10	04:27 22:50	05:02 22:24	06:09 21:10	07:17 19:42	08:25 18:17	09:25 18:17
22	09:05 16:32	07:54 17:48	09:33 (23) 18:54	06:36 18:54	06:08 21:05	04:56 22:12	04:27 22:51	05:04 22:22	06:11 21:08	07:20 19:39	08:28 18:15	09:28 18:15
23	09:04 16:35	07:52 17:50	09:33 (23) 18:56	06:33 18:56	06:05 21:08	04:54 22:14	04:27 22:51	05:06 22:20	06:13 21:05	07:22 19:36	08:30 18:12	09:30 18:12
24	09:02 16:37	07:49 17:53	08:36 (25) 18:59	06:30 18:59	06:02 21:10	04:53 22:16	04:28 22:51	05:08 22:18	06:15 21:02	07:24 19:33	08:32 18:09	09:32 18:09
25	09:00 16:39	07:46 17:55	08:32 (25) 19:01	06:27 19:01	06:00 21:12	04:51 22:18	04:28 22:51	05:10 22:16	06:18 20:59	07:26 19:30	08:35 17:07	09:35 17:07
26	08:58 16:42	07:44 17:58	08:30 (25) 19:03	06:24 19:03	05:57 21:14	04:49 22:20	04:29 22:51	05:12 22:14	06:20 20:57	07:28 19:28	08:37 17:04	09:37 17:04
27	08:56 16:44	07:41 18:00	08:29 (25) 19:05	06:21 19:05	05:54 21:17	04:47 22:22	04:29 22:50	05:14 22:12	06:22 20:54	07:31 19:25	08:40 17:02	09:40 17:02
28	08:54 16:46	07:38 18:02	08:29 (25) 19:08	06:18 19:08	05:52 21:19	04:46 22:24	04:30 22:50	05:16 22:10	06:24 20:51	07:33 19:22	08:42 16:59	09:42 16:59
29	08:52 16:49	07:36 18:09	08:27 (25) 19:10	06:16 19:10	05:49 21:21	04:44 22:26	04:30 22:50	05:18 22:08	06:27 20:48	07:35 19:19	08:44 16:56	09:44 16:56
30	08:50 16:51	07:34 18:12	08:25 (25) 19:12	06:14 19:12	05:47 21:24	04:43 22:27	04:31 22:49	05:20 22:05	06:29 20:45	07:37 19:16	08:47 16:54	09:47 16:54
31	08:48 16:54	07:32 18:15	08:23 (25) 19:15	06:12 19:15	05:41 21:29	04:41 22:29	04:31 22:03	05:22 20:43	06:31 20:43	07:49 19:16	08:59 16:51	09:59 16:51
Potential sun hours	221	260	365	432	521	547	546	478	386	319	236	199
Total, worst case		388	133							354	172	

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)		Last time (hh:mm) with flicker	(WTG causing flicker last time)

SHADOW - Calendar

Calculation: Oppdatert layout - kun Moifjellet - worst case - oppdatert mottaker **Shadow receptor:** AE - Buevegen 1498 (31)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

The sun is shining all the day, from sunrise to sunset

The rotor plane is always perpendicular to the line from the WTG to the sun

The WTG is always operating

	January	February	March	April	May	June	July	August	September	October	November	December	
1	09:28 15:53	08:46 16:56	07:35 18:05	07:07 20:17	05:44 21:26	04:40 22:31	04:32 22:49	05:24 22:01	06:33 20:40	07:40 19:13	07:52 16:49	08:41 (23) 08:49 (23)	09:00 15:51
2	09:28 15:54	08:44 16:59	07:33 18:07	07:04 20:19	05:41 21:28	04:39 22:32	04:33 22:48	05:26 21:59	06:35 20:37	07:42 19:10	07:54 16:46		09:02 15:50
3	09:27 15:56	08:41 17:01	07:30 18:10	07:01 20:21	05:39 21:31	04:37 22:34	04:34 22:47	05:29 21:56	06:38 20:34	07:44 19:07	07:56 16:44		09:04 15:49
4	09:27 15:57	08:39 17:04	07:27 18:12	06:58 20:24	05:36 21:33	04:36 22:35	04:35 22:47	05:31 21:54	06:40 20:31	07:46 19:05	07:59 16:42		09:05 15:48
5	09:26 15:59	08:37 17:06	07:24 18:14	06:55 20:26	05:34 21:35	04:35 22:37	04:36 22:46	05:33 21:52	06:42 20:28	07:48 19:02	08:01 16:39		09:07 15:47
6	09:25 16:00	08:35 17:09	07:22 18:17	06:53 20:28	05:31 21:38	04:34 22:38	04:37 22:45	05:35 21:49	06:44 20:26	07:51 18:59	08:04 16:37		09:09 15:46
7	09:25 16:02	08:32 17:11	07:19 18:19	06:50 20:31	05:29 21:40	04:33 22:39	04:39 22:44	05:37 21:47	06:47 20:23	07:53 18:56	08:06 16:35		09:10 15:46
8	09:24 16:04	08:30 17:13	07:16 18:21	06:47 20:33	05:27 21:42	04:32 22:41	04:40 22:43	05:40 21:44	06:49 20:20	07:55 18:53	08:08 16:32		09:12 15:45
9	09:23 16:05	08:28 17:16	07:13 18:24	06:44 20:35	05:24 21:44	04:31 22:42	04:41 22:42	05:42 21:42	06:51 20:17	07:58 18:50	08:11 16:30		09:14 15:44
10	09:22 16:07	08:25 17:18	07:11 18:26	06:41 20:38	05:22 21:47	04:30 22:43	04:43 22:41	05:44 21:39	06:53 20:14	08:00 18:48	08:13 16:28		09:15 15:44
11	09:21 16:09	08:23 17:21	07:07 18:28	06:38 20:40	05:20 21:49	04:30 22:44	04:44 22:39	05:46 21:37	06:55 20:11	08:02 18:45	08:16 16:26		09:16 15:43
12	09:20 16:11	08:20 17:23	07:05 18:31	06:36 20:42	05:17 21:51	04:29 22:45	04:46 22:38	05:49 21:34	06:58 20:08	08:04 18:42	08:18 16:24		09:18 15:43
13	09:19 16:13	08:18 17:26	07:02 18:33	06:33 20:44	05:15 21:53	04:28 22:46	04:48 22:37	05:51 21:32	07:00 20:05	08:07 18:39	08:20 16:21		09:19 15:43
14	09:17 16:15	08:15 17:28	06:59 18:35	06:30 20:47	05:13 21:56	04:28 22:47	04:49 22:35	05:53 21:29	07:02 20:02	08:09 18:36	08:23 16:19		09:20 15:42
15	09:16 16:17	08:13 17:31	06:56 18:38	06:27 20:49	05:11 21:58	04:28 22:47	04:51 22:34	05:55 21:26	07:04 20:00	08:11 18:34	08:25 16:17		09:21 15:42
16	09:15 16:19	08:10 17:33	06:53 18:40	06:24 20:51	05:08 22:00	04:27 22:48	04:53 22:32	05:58 21:24	07:06 19:57	08:14 18:31	08:27 16:15		09:22 15:42
17	09:13 16:21	08:08 17:36	06:50 18:42	06:22 20:54	05:06 22:02	04:27 22:49	04:54 22:31	06:00 21:21	07:09 19:54	08:16 18:28	08:30 16:13		09:23 15:42
18	09:12 16:23	08:05 17:38	06:47 18:45	06:19 20:56	05:04 22:04	04:27 22:49	04:56 22:29	06:02 21:19	07:11 19:51	08:18 18:25	08:32 16:11	09:42 (23)	09:24 15:42
19	09:10 16:26	08:02 17:41	06:44 18:47	06:16 20:58	05:02 22:06	04:27 22:50	04:58 22:27	06:04 21:16	07:13 19:48	08:21 18:23	08:34 16:10	09:49 (23)	09:25 15:42
20	09:09 16:28	08:00 17:43	06:42 18:49	06:13 21:01	05:00 22:08	04:27 22:50	05:00 22:26	06:06 21:13	07:15 19:45	08:23 18:20	08:37 16:08	09:52 (23)	09:26 15:43
21	09:07 16:30	07:57 17:46	06:39 18:52	06:11 21:03	04:58 22:10	04:27 22:50	05:02 22:24	06:09 21:10	07:17 19:42	08:25 18:17	08:39 16:06	09:53 (23)	09:26 15:43
22	09:05 16:32	07:54 17:48	06:36 18:54	06:08 21:05	04:56 22:12	04:27 22:51	05:04 22:22	06:11 21:08	07:20 19:39	08:28 18:15	08:41 16:04	09:55 (23)	09:27 15:44
23	09:04 16:35	07:52 17:50	06:33 18:56	06:05 21:08	04:54 22:14	04:27 22:51	05:06 22:20	06:13 21:05	07:22 19:36	08:30 18:12	08:43 16:03	09:55 (23)	09:27 15:44
24	09:02 16:37	07:49 17:53	06:30 18:59	06:02 21:10	04:53 22:16	04:28 22:51	05:08 22:18	06:15 21:02	07:24 19:33	08:32 18:09	08:45 16:01	09:55 (23)	09:28 15:45
25	09:00 16:39	07:46 17:55	06:27 19:01	06:00 21:12	04:51 22:18	04:28 22:51	05:10 22:16	06:18 20:59	07:26 19:31	08:35 18:07	08:48 16:00	09:55 (23)	09:28 15:45
26	08:58 16:42	07:44 17:58	06:24 19:03	05:57 21:15	04:49 22:20	04:29 22:51	05:12 22:14	06:20 20:57	07:28 19:28	08:37 18:04	08:50 16:00	09:55 (23)	09:28 15:46
27	08:56 16:44	07:41 18:00	06:21 19:05	05:54 21:17	04:47 22:22	04:29 22:50	05:14 22:12	06:22 20:54	07:31 19:25	08:39 18:02	08:52 16:00	09:55 (23)	09:29 15:47
28	08:54 16:46	07:38 18:02	06:18 19:08	05:52 21:19	04:46 22:24	04:30 22:50	05:16 22:10	06:24 20:51	07:33 19:22	08:42 18:09	08:54 16:00	09:55 (23)	09:29 15:48
29	08:52 16:49		07:16 20:10	05:49 21:21	04:44 22:26	04:30 22:50	05:18 22:08	06:27 20:48	07:35 19:19	08:44 18:06	08:56 16:00	09:55 (23)	09:29 15:49
30	08:50 16:51		07:13 20:12	05:47 21:24	04:43 22:27	04:31 22:49	05:20 22:05	06:29 20:45	07:37 19:16	08:47 18:04	08:58 16:00	09:55 (23)	09:28 15:50
31	08:48 16:54		07:10 20:15		04:41 22:29		05:22 22:03	06:31 20:43		07:49 18:51	08:39 (23)	09:55 (23)	09:28 15:51
Potential sun hours	221	260	365	432	521	547	546	478	386	319	241	236	199
Total, worst case		240									8		

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)		Last time (hh:mm) with flicker	(WTG causing flicker last time)

SHADOW - Calendar

Calculation: Oppdatert layout - kun Moifjellet - worst case - oppdatert mottaker **Shadow receptor:** AF - Buevegen 1496 (32)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

The sun is shining all the day, from sunrise to sunset

The rotor plane is always perpendicular to the line from the WTG to the sun

The WTG is always operating

	January	February	March	April	May	June	July	August	September	October	November	December
1	09:28 15:53	08:46 16:56	07:35 18:05	07:07 20:17	05:44 21:26	04:40 22:31	04:32 22:49	05:24 22:01	06:33 20:40	07:40 19:13	07:52 16:49	09:00 15:51
2	09:27 15:54	08:44 16:59	07:33 18:07	07:04 20:19	05:41 21:28	04:39 22:32	04:33 22:48	05:26 21:59	06:35 20:37	07:42 19:10	07:54 16:46	09:02 15:50
3	09:27 15:56	08:41 17:01	07:30 18:10	07:01 20:21	05:39 21:31	04:37 22:34	04:34 22:47	05:29 21:56	06:38 20:34	07:44 19:07	07:56 16:44	09:04 15:49
4	09:27 15:57	08:39 17:04	07:27 18:12	06:58 20:24	05:36 21:33	04:36 22:35	04:35 22:47	05:31 21:54	06:40 20:31	07:46 19:05	07:59 16:42	09:05 15:48
5	09:26 15:59	08:37 17:06	07:24 18:14	06:55 20:26	05:34 21:35	04:35 22:37	04:36 22:46	05:33 21:52	06:42 20:28	07:49 19:02	08:01 16:39	09:07 15:47
6	09:25 16:00	08:35 17:09	07:22 18:17	06:53 20:28	05:31 21:38	04:34 22:38	04:38 22:45	05:35 21:49	06:44 20:26	07:51 18:59	08:04 16:37	09:09 15:46
7	09:25 16:02	08:32 17:11	07:19 18:19	06:50 20:31	05:29 21:40	04:33 22:39	04:39 22:44	05:37 21:47	06:47 20:23	07:53 18:56	08:06 16:35	09:10 15:46
8	09:24 16:04	08:30 17:13	07:16 18:21	06:47 20:33	05:27 21:42	04:32 22:41	04:40 22:43	05:40 21:44	06:49 20:20	07:55 18:53	08:08 16:32	09:12 15:45
9	09:23 16:05	08:28 17:16	07:13 18:24	06:44 20:35	05:24 21:44	04:31 22:42	04:41 22:42	05:42 21:42	06:51 20:17	07:58 18:50	08:11 16:30	09:14 15:44
10	09:22 16:07	08:25 17:18	07:10 18:26	06:41 20:38	05:22 21:47	04:30 22:43	04:43 22:41	05:44 21:39	06:53 20:14	08:00 18:48	08:13 16:28	09:15 15:44
11	09:21 16:09	08:23 17:21	09:07 (23) 07:07	07:07 18:28	06:38 20:40	05:20 21:49	04:30 22:44	04:44 22:39	05:46 21:37	06:55 20:11	08:02 18:45	09:16 15:43
12	09:20 16:11	08:20 17:23	09:04 (23) 07:05	07:05 18:31	06:36 20:42	05:17 21:51	04:29 22:45	04:46 22:38	05:49 21:34	06:58 20:08	08:04 18:42	09:18 15:43
13	09:19 16:13	08:18 17:26	09:03 (23) 07:02	07:02 18:33	06:33 20:44	05:15 21:53	04:28 22:46	04:48 22:37	05:51 21:32	07:00 20:05	08:07 18:39	09:19 15:43
14	09:17 16:15	08:15 17:28	09:02 (23) 07:01	07:01 18:35	06:30 20:47	05:13 21:56	04:28 22:47	04:49 22:35	05:53 21:29	07:02 20:02	08:09 18:36	09:20 15:42
15	09:16 16:17	08:13 17:31	09:01 (23) 07:00	07:00 18:38	06:27 20:49	05:11 21:58	04:28 22:47	04:51 22:34	05:55 21:26	07:04 20:00	08:11 18:34	09:21 15:42
16	09:15 16:19	08:10 17:33	09:00 (23) 06:59	06:59 18:40	06:24 20:51	05:08 22:00	04:27 22:48	04:53 21:24	05:58 20:57	07:06 19:57	08:14 18:31	09:22 15:42
17	09:13 16:21	08:08 17:36	09:01 (23) 06:58	06:58 18:42	06:22 20:54	05:06 22:02	04:27 22:49	04:54 22:31	06:00 21:21	07:09 19:54	08:16 18:28	09:23 15:42
18	09:12 16:23	08:05 17:38	09:00 (23) 06:47	06:47 18:45	06:19 20:56	05:04 22:04	04:27 22:49	04:56 22:29	06:02 21:19	07:11 19:51	08:18 18:25	09:24 15:42
19	09:10 16:26	08:02 17:41	09:00 (23) 06:44	06:44 18:47	06:16 20:58	05:02 22:06	04:27 22:27	04:58 21:16	06:04 19:48	07:13 18:23	08:21 18:23	09:25 15:42
20	09:09 16:28	08:00 17:43	09:00 (23) 06:42	06:42 18:49	06:13 21:01	05:00 22:08	04:27 22:26	05:00 21:13	06:06 19:45	07:15 18:20	08:23 18:20	09:26 15:43
21	09:07 16:30	07:57 17:46	09:01 (23) 06:39	06:39 18:52	06:11 21:03	04:58 22:10	04:27 22:24	05:02 21:10	06:09 19:42	07:17 18:17	08:25 18:17	09:26 15:43
22	09:05 16:32	07:55 17:48	09:02 (23) 06:36	06:36 18:54	06:08 21:05	04:56 22:12	04:27 22:51	05:04 22:22	06:11 21:08	07:20 19:39	08:28 18:15	09:27 15:44
23	09:04 16:35	07:52 17:50	09:03 (23) 06:33	06:33 18:56	06:05 21:08	04:54 22:14	04:27 22:51	05:06 22:20	06:13 21:05	07:22 19:36	08:30 18:12	09:27 15:44
24	09:02 16:37	07:49 17:53	09:06 (23) 06:30	06:30 18:59	06:02 21:10	04:53 22:16	04:28 22:51	05:08 22:18	06:15 21:02	07:24 19:33	08:32 18:09	09:28 15:45
25	09:00 16:39	07:46 17:55	09:14 (23) 06:27	06:27 19:01	06:00 21:12	04:51 22:18	04:28 22:51	05:10 22:16	06:18 20:59	07:26 19:31	07:35 17:07	09:28 15:45
26	08:58 16:42	07:44 17:58	06:24 19:03	05:57 21:15	04:49 22:20	04:29 22:51	05:12 22:14	06:20 20:57	07:28 19:28	07:37 17:04	07:37 18:04	09:28 15:46
27	08:56 16:44	07:41 18:00	06:21 19:05	05:54 21:17	04:47 22:22	04:29 22:50	05:14 22:12	06:22 20:54	07:31 19:25	07:40 17:02	07:31 18:49	09:29 15:47
28	08:54 16:46	07:38 18:02	06:18 19:08	05:52 21:19	04:46 22:24	04:30 22:50	05:16 22:10	06:24 20:51	07:33 19:22	07:42 16:59	07:31 18:48	09:29 15:48
29	08:52 16:49	07:44 17:58	07:16 19:08	05:49 21:21	04:44 22:26	04:31 22:50	05:18 22:08	06:27 20:48	07:35 19:19	07:44 16:56	08:33 18:48	09:29 15:49
30	08:50 16:51	07:44 18:00	07:13 19:05	05:47 21:24	04:43 22:27	04:31 22:49	05:20 22:05	06:29 20:45	07:37 19:16	07:47 16:54	08:34 18:45	09:28 15:50
31	08:48 16:54	07:44 18:02	07:10 19:05	05:47 21:24	04:41 22:29	04:31 22:49	05:22 22:03	06:31 20:43	07:49 16:51	07:49 18:43	08:37 18:43	09:28 15:51
Potential sun hours	221	260	365	432	521	547	546	478	386	319	236	199
Total, worst case		223								228		

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)		Last time (hh:mm) with flicker	(WTG causing flicker last time)

SHADOW - Calendar

Calculation: Oppdatert layout - kun Moifjellet - worst case - oppdatert mottaker **Shadow receptor:** AG - Hytte, ikke ferdig bygd. Eiendom 57/3 - Bjerkeim kommune (33)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

The sun is shining all the day, from sunrise to sunset

The rotor plane is always perpendicular to the line from the WTG to the sun

The WTG is always operating

	January		February		March		April		May		June	
1	09:28		12:11 (33)	08:45	12:16 (33)	07:35	15:43 (8)	07:07	18:42 (18)	05:44	04:39	
	15:52	49	14:26 (15)	16:56	15:37 (36)	18:04	25	17:06 (10)	20:16	18	19:00 (18)	21:26
2	09:27		12:12 (33)	08:43	12:17 (33)	07:32	15:46 (8)	07:04	18:43 (18)	05:41	04:38	
	15:54	54	14:28 (15)	16:58	15:38 (36)	18:07	35	17:10 (10)	20:19	14	18:57 (18)	21:28
3	09:27		12:11 (33)	08:41	12:19 (33)	07:30	16:31 (13)	07:01	18:47 (18)	05:38	04:37	
	15:55	58	14:29 (15)	17:01	15:38 (36)	18:09	38	17:13 (10)	20:21	8	18:55 (18)	21:30
4	09:26		12:11 (33)	08:39	12:21 (33)	07:27	16:29 (13)	06:58		05:36	04:36	
	15:57	61	14:29 (15)	17:03	15:39 (36)	18:12	46	17:15 (10)	20:23		21:33	22:35
5	09:26		12:10 (33)	08:36	12:25 (33)	07:24	16:27 (13)	06:55		05:34	04:35	
	15:58	66	14:30 (15)	17:06	15:39 (36)	18:14	48	17:15 (10)	20:26		21:35	22:36
6	09:25		12:10 (33)	08:34	12:59 (27)	07:21	16:25 (13)	06:52		05:31	04:34	
	16:00	70	14:31 (15)	17:08	15:39 (36)	18:16	50	17:15 (10)	20:28		21:37	22:38
7	09:24		12:10 (33)	08:32	12:59 (27)	07:18	16:23 (13)	06:49		05:29	04:33	
	16:01	73	14:32 (15)	17:11	15:38 (36)	18:19	52	17:15 (10)	20:30		21:39	22:39
8	09:23		12:10 (33)	08:30	12:59 (27)	07:15	16:22 (13)	06:46		05:26	04:32	
	16:03	78	14:33 (15)	17:13	15:38 (36)	18:21	52	17:14 (10)	20:32		21:42	22:40
9	09:22		12:09 (33)	08:27	13:00 (27)	07:13	16:20 (13)	06:44		05:24	04:31	
	16:05	81	14:33 (15)	17:16	15:38 (36)	18:23	54	17:14 (10)	20:35		21:44	22:41
10	09:21		12:09 (33)	08:25	12:59 (27)	07:10	16:19 (13)	06:41		05:21	04:30	
	16:07	84	14:34 (15)	17:18	15:58 (8)	18:26	54	17:13 (10)	20:37		21:46	22:42
11	09:20		12:09 (33)	08:22	12:59 (27)	07:07	16:18 (13)	06:38		05:19	04:29	
	16:09	87	14:34 (15)	17:20	16:00 (8)	18:28	54	17:12 (10)	20:39		21:48	22:44
12	09:19		12:09 (33)	08:20	13:00 (27)	07:04	16:17 (13)	06:35		05:17	04:29	
	16:11	91	14:35 (15)	17:23	16:03 (8)	18:30	54	17:11 (10)	20:42		21:51	22:44
13	09:18		12:09 (33)	08:17	13:00 (27)	07:01	16:16 (13)	06:32		05:15	04:28	
	16:13	93	14:35 (15)	17:25	16:04 (8)	18:33	53	17:09 (10)	20:44		21:53	22:45
14	09:17		12:09 (33)	08:15	13:01 (27)	06:58	16:16 (13)	06:29		05:12	04:28	
	16:15	96	14:36 (15)	17:28	16:05 (8)	18:35	50	17:06 (10)	20:46		21:55	22:46
15	09:16		12:09 (33)	08:12	13:02 (27)	06:56	16:16 (13)	06:27		05:10	04:27	
	16:17	99	14:37 (15)	17:30	16:07 (8)	18:37	46	17:02 (13)	20:49		21:57	22:47
16	09:14		12:09 (33)	08:10	13:02 (27)	06:53	16:16 (13)	06:24		05:08	04:27	
	16:19	101	14:37 (15)	17:33	16:07 (8)	18:40	46	17:02 (13)	20:51		21:59	22:48
17	09:13		12:09 (33)	08:07	13:03 (27)	06:50	16:16 (13)	06:21		05:06	04:27	
	16:21	103	14:37 (15)	17:35	16:08 (8)	18:42	45	17:01 (13)	20:53		22:02	22:48
18	09:11		12:09 (33)	08:05	13:03 (27)	06:47	16:15 (13)	06:18		05:04	04:27	
	16:23	104	14:37 (15)	17:38	16:08 (8)	18:44	48	17:56 (18)	20:56		22:04	22:49
19	09:10		12:09 (33)	08:02	13:05 (27)	06:44	16:15 (13)	06:16		05:02	04:26	
	16:25	105	14:37 (15)	17:40	16:09 (8)	18:47	57	18:01 (18)	20:58		22:06	22:49
20	09:08		12:09 (33)	07:59	13:06 (27)	06:41	16:16 (13)	06:13		05:00	04:26	
	16:27	107	14:37 (15)	17:43	16:09 (8)	18:49	60	18:03 (18)	21:00		22:08	22:50
21	09:07		12:09 (33)	07:57	13:07 (27)	06:38	16:16 (13)	06:10		04:58	04:27	
	16:30	106	14:36 (15)	17:45	16:08 (8)	18:51	63	18:04 (18)	21:02		22:10	22:50
22	09:05		12:10 (33)	07:54	13:08 (27)	06:35	16:16 (13)	06:07		04:56	04:27	
	16:32	106	14:36 (15)	17:48	16:08 (8)	18:54	63	18:05 (18)	21:05		22:12	22:50
23	09:03		12:10 (33)	07:51	13:09 (27)	06:32	16:17 (13)	06:05		04:54	04:27	
	16:34	105	14:36 (15)	17:50	16:07 (8)	18:56	63	18:05 (18)	21:07		22:14	22:50
24	09:01		12:10 (33)	07:49	13:12 (27)	06:30	16:17 (13)	06:02		04:52	04:27	
	16:37	106	14:35 (15)	17:52	16:08 (8)	18:58	63	18:05 (18)	21:09		22:16	22:50
25	08:59		12:11 (33)	07:46	13:14 (27)	06:27	16:18 (13)	05:59		04:50	04:28	
	16:39	104	15:26 (36)	17:55	16:07 (8)	19:00	61	18:05 (18)	21:12		22:18	22:50
26	08:58		12:11 (33)	07:43	13:16 (27)	06:24	16:20 (13)	05:57		04:49	04:28	
	16:41	103	15:28 (36)	17:57	16:06 (8)	19:03	59	18:06 (18)	21:14		22:20	22:50
27	08:56		12:12 (33)	07:41	13:19 (27)	06:21	16:22 (13)	05:54		04:47	04:29	
	16:44	108	15:31 (36)	18:00	16:04 (8)	19:05	55	18:06 (18)	21:16		22:22	22:50
28	08:54		12:12 (33)	07:38	13:24 (27)	06:18	16:24 (13)	05:51		04:45	04:29	
	16:46	111	15:33 (36)	18:02	17:03 (10)	19:07	49	18:05 (18)	21:19		22:23	22:50
29	08:52		12:13 (33)			07:15	17:27 (13)	05:49		04:44	04:30	
	16:48	112	15:34 (36)			20:10	42	19:04 (18)	21:21		22:25	22:49
30	08:50		12:14 (33)			07:12	17:31 (13)	05:46		04:42	04:31	
	16:51	115	15:36 (36)			20:12	32	19:03 (18)	21:23		22:27	22:49
31	08:47		12:15 (33)			07:09	18:41 (18)				04:41	
	16:53	116	15:37 (36)			20:14	20	19:01 (18)			22:29	
Potential sun hours	221		260		365		432		40		521	547
Total, worst case	2852		2464		1537				40			

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Calculation: Oppdatert layout - kun Moifjellet - worst case - oppdatert mottaker **Shadow receptor:** AG - Hytte, ikke ferdig bygd. Eiendom 57/3 - Bjerkeim kommune (33)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

The sun is shining all the day, from sunrise to sunset

The rotor plane is always perpendicular to the line from the WTG to the sun

The WTG is always operating

	July	August	September	October	November	December			
1	04:32	05:24	06:33	07:39	16:56 (13)	07:51	12:29 (27)	08:59	11:51 (33)
	22:48	22:01	20:39	19:13	17:49 (10)	16:49	15:27 (8)	15:51	14:16 (15)
2	04:33	05:26	06:35	07:41	16:57 (13)	07:53	12:29 (27)	09:01	11:52 (33)
	22:48	21:58	20:37	19:10	17:51 (10)	16:46	15:07 (36)	15:50	14:16 (15)
3	04:34	05:28	06:37	07:44	16:57 (13)	07:56	12:28 (27)	09:03	11:53 (33)
	22:47	21:56	20:34	19:07	17:51 (10)	16:44	15:07 (36)	15:49	14:17 (15)
4	04:35	05:30	06:39	07:46	16:57 (13)	07:58	12:29 (27)	09:05	11:54 (33)
	22:46	21:54	20:31	19:04	17:51 (10)	16:41	15:08 (36)	15:48	14:17 (15)
5	04:36	05:33	06:42	07:48	16:58 (13)	08:01	12:29 (27)	09:07	11:55 (33)
	22:45	21:51	20:28	19:01	17:52 (10)	16:39	15:09 (36)	15:47	14:17 (15)
6	04:37	05:35	06:44	07:50	16:59 (13)	08:03	11:55 (33)	09:08	11:56 (33)
	22:45	21:49	20:25	18:58	17:51 (10)	16:37	15:09 (36)	15:46	14:17 (15)
7	04:38	05:37	06:46	07:53	16:59 (13)	08:06	11:51 (33)	09:10	11:57 (33)
	22:44	21:46	20:22	18:56	17:50 (10)	16:34	15:09 (36)	15:45	14:17 (15)
8	04:40	05:39	06:48	07:55	17:01 (13)	08:08	11:49 (33)	09:12	11:58 (33)
	22:43	21:44	20:19	18:53	17:50 (10)	16:32	15:09 (36)	15:44	14:17 (15)
9	04:41	05:41	06:51	18:41 (18)	07:57	17:02 (13)	11:48 (33)	09:13	11:59 (33)
	22:41	21:41	20:16	18:47 (18)	18:50	17:49 (10)	15:09 (36)	15:44	14:17 (15)
10	04:42	05:44	06:53	18:37 (18)	07:59	17:04 (13)	11:46 (33)	09:15	12:01 (33)
	22:40	21:39	20:14	18:50 (18)	18:47	17:48 (10)	15:08 (36)	15:43	14:17 (15)
11	04:44	05:46	06:55	18:35 (18)	08:02	16:24 (8)	11:46 (33)	09:16	12:01 (33)
	22:39	21:36	20:11	18:53 (18)	18:44	17:46 (10)	15:08 (36)	15:43	14:17 (15)
12	04:45	05:48	06:57	18:33 (18)	08:04	16:18 (8)	11:46 (33)	09:17	12:03 (33)
	22:38	21:34	20:08	18:54 (18)	18:42	17:42 (10)	15:08 (36)	15:42	14:17 (15)
13	04:47	05:50	06:59	17:24 (13)	08:06	14:04 (27)	11:44 (33)	09:19	12:04 (33)
	22:36	21:31	20:05	18:54 (18)	18:39	17:38 (10)	15:06 (36)	15:42	14:17 (15)
14	04:49	05:53	07:02	17:18 (13)	08:09	13:55 (27)	11:44 (33)	09:20	12:06 (33)
	22:35	21:29	20:02	18:54 (18)	18:36	16:36 (8)	15:05 (36)	15:42	14:17 (15)
15	04:50	05:55	07:04	17:14 (13)	08:11	13:50 (27)	11:44 (33)	09:21	12:08 (33)
	22:33	21:26	19:59	18:54 (18)	18:33	16:37 (8)	15:03 (36)	15:42	14:17 (15)
16	04:52	05:57	07:06	17:11 (13)	08:13	13:47 (27)	11:45 (33)	09:22	13:08 (27)
	22:32	21:23	19:56	18:54 (18)	18:30	16:38 (8)	15:02 (36)	15:42	14:16 (15)
17	04:54	05:59	07:08	17:08 (13)	08:16	13:44 (27)	11:44 (33)	09:23	13:09 (27)
	22:30	21:21	19:53	18:54 (18)	18:28	16:38 (8)	15:09 (36)	15:42	14:16 (15)
18	04:56	06:02	07:10	17:07 (13)	08:18	13:42 (27)	11:44 (33)	09:24	13:11 (27)
	22:29	21:18	19:50	18:54 (18)	18:25	16:39 (8)	14:09 (15)	15:42	14:15 (15)
19	04:58	06:04	07:12	17:05 (13)	08:20	13:39 (27)	11:45 (33)	09:25	13:12 (27)
	22:27	21:15	19:47	18:53 (18)	18:22	16:39 (8)	14:11 (15)	15:42	14:16 (15)
20	04:59	06:06	07:15	17:04 (13)	08:23	13:38 (27)	11:45 (33)	09:25	13:13 (27)
	22:25	21:13	19:45	18:52 (18)	18:20	16:39 (8)	14:11 (15)	15:42	14:15 (15)
21	05:01	06:08	07:17	17:02 (13)	08:25	13:36 (27)	11:45 (33)	09:26	13:15 (27)
	22:23	21:10	19:42	18:51 (18)	18:17	16:38 (8)	14:13 (15)	15:43	14:16 (15)
22	05:03	06:11	07:19	17:01 (13)	08:27	13:35 (27)	11:45 (33)	09:26	13:16 (27)
	22:21	21:07	19:39	18:49 (18)	18:14	16:39 (8)	14:13 (15)	15:43	14:17 (15)
23	05:05	06:13	07:21	16:59 (13)	08:30	13:34 (27)	11:46 (33)	09:27	13:15 (27)
	22:19	21:05	19:36	18:47 (18)	18:12	16:38 (8)	14:14 (15)	15:44	14:17 (15)
24	05:07	06:15	07:24	16:59 (13)	08:32	13:33 (27)	11:46 (33)	09:27	13:15 (27)
	22:18	21:02	19:33	18:46 (18)	18:09	16:38 (8)	14:14 (15)	15:44	14:17 (15)
25	05:09	06:17	07:26	16:58 (13)	07:34	12:33 (27)	11:47 (33)	09:28	13:14 (27)
	22:16	20:59	19:30	18:42 (18)	17:06	15:38 (8)	14:15 (15)	15:45	14:18 (15)
26	05:11	06:19	07:28	16:58 (13)	07:37	12:31 (27)	11:47 (33)	09:28	13:13 (27)
	22:14	20:56	19:27	17:43 (13)	17:04	15:36 (8)	14:15 (15)	15:46	14:19 (15)
27	05:13	06:22	07:30	16:57 (13)	07:39	12:31 (27)	11:48 (33)	09:28	13:13 (27)
	22:11	20:53	19:24	17:43 (13)	17:01	15:36 (8)	14:16 (15)	15:47	14:20 (15)
28	05:15	06:24	07:32	16:57 (13)	07:41	12:30 (27)	11:48 (33)	09:28	12:15 (33)
	22:09	20:51	19:21	17:43 (13)	16:59	15:34 (8)	14:16 (15)	15:48	14:22 (15)
29	05:17	06:26	07:35	16:57 (13)	07:44	12:30 (27)	11:50 (33)	09:28	12:13 (33)
	22:07	20:48	19:19	17:45 (10)	16:56	15:33 (8)	14:16 (15)	15:49	14:24 (15)
30	05:20	06:28	07:37	16:56 (13)	07:46	12:30 (27)	11:50 (33)	09:28	12:13 (33)
	22:05	20:45	19:16	17:48 (10)	16:53	15:32 (8)	14:16 (15)	15:50	14:25 (15)
31	05:22	06:31			07:49	12:29 (27)		09:28	12:12 (33)
	22:03	20:42			16:51	15:29 (8)		15:51	14:26 (15)
Potential sun hours	546	478	386			236		199	
Total, worst case			1011		2094		3097		1286

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Calculation: Oppdatert layout - kun Moifjellet - worst case - oppdatert mottaker **Shadow receptor:** AH - Brusalivegen 201 (34)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

The sun is shining all the day, from sunrise to sunset

The rotor plane is always perpendicular to the line from the WTG to the sun

The WTG is always operating

	January	February	March	April	May	June	July	August	September	October	November	December
1	09:28 15:53	08:46 16:56	07:35 18:05	07:07 20:17	05:44 21:26	04:40 22:30	04:32 22:48	05:24 22:01	06:33 20:40	07:39 19:13	07:51 16:49	09:00 15:52
2	09:27 15:54	08:43 16:59	07:33 18:07	07:04 20:19	05:42 21:28	04:39 22:32	04:33 22:48	05:27 21:58	06:35 20:37	07:42 19:10	07:54 16:47	09:01 15:50
3	09:27 15:56	08:41 17:01	07:30 18:10	07:01 20:21	05:39 21:30	04:38 22:33	04:34 22:47	05:29 21:56	06:38 20:34	07:44 19:07	07:56 16:44	09:03 15:49
4	09:26 15:57	08:39 17:04	07:27 18:12	06:58 20:24	05:36 21:33	04:36 22:35	04:35 22:46	05:31 21:54	06:40 20:31	07:46 19:05	07:59 16:42	09:05 15:48
5	09:26 15:59	08:37 17:06	07:24 18:14	06:55 20:26	05:34 21:35	04:35 22:36	04:37 22:45	05:33 21:51	06:42 20:28	07:48 19:02	08:01 16:39	09:07 15:47
6	09:25 16:00	08:34 17:09	07:21 18:17	06:53 20:28	05:32 21:37	04:34 22:38	04:38 22:45	05:35 21:49	06:44 20:25	07:51 18:59	08:03 16:37	09:08 15:47
7	09:24 16:02	08:32 17:11	07:19 18:19	06:50 20:30	05:29 21:40	04:33 22:39	04:39 22:44	05:38 21:47	06:47 20:23	07:53 18:56	08:06 16:35	09:10 15:46
8	09:23 16:04	08:30 17:14	07:16 18:21	06:47 20:33	05:27 21:42	04:32 22:40	04:40 22:43	05:40 21:44	06:49 20:20	07:55 18:53	08:08 16:32	09:12 15:45
9	09:23 16:06	08:27 17:16	07:13 18:24	06:44 20:35	05:24 21:44	04:31 22:41	04:42 22:41	05:42 21:42	06:51 20:17	07:57 18:50	08:11 16:30	09:13 15:44
10	09:22 16:07	08:25 17:18	07:10 18:26	06:41 20:37	05:22 21:46	04:31 22:43	04:43 22:40	05:44 21:39	06:53 20:14	08:00 18:48	08:13 16:28	09:15 15:44
11	09:21 16:09	08:23 17:21	07:07 18:28	06:38 20:40	05:20 21:49	04:30 22:44	04:45 22:39	05:46 21:37	06:55 20:11	08:02 18:45	08:15 16:26	09:16 15:43
12	09:19 16:11	08:20 17:23	07:04 18:31	06:36 20:42	05:17 21:51	04:29 22:45	04:46 22:38	05:49 21:34	06:58 20:08	08:04 18:42	08:18 16:24	09:17 15:43
13	09:18 16:13	08:18 17:26	07:02 18:33	06:33 20:44	05:15 21:53	04:29 22:45	04:48 22:36	05:51 21:31	07:00 20:05	08:07 18:39	08:20 16:22	09:19 15:43
14	09:17 16:15	08:15 17:28	06:59 18:35	06:30 20:47	05:13 21:55	04:28 22:46	04:49 22:35	05:53 21:29	07:02 20:02	08:09 18:36	08:22 16:19	09:20 15:43
15	09:16 16:17	08:13 17:31	06:56 18:38	06:27 20:49	05:11 21:57	04:28 22:47	04:51 22:33	05:55 21:26	07:04 19:59	08:11 18:34	08:25 16:17	09:21 15:42
16	09:14 16:19	08:10 17:33	06:53 18:40	06:24 20:51	05:09 22:00	04:28 22:48	04:53 22:32	05:58 21:24	07:06 19:57	08:13 18:31	08:27 16:15	09:22 15:42
17	09:13 16:21	08:07 17:36	06:50 18:42	06:22 20:53	05:06 22:02	04:27 22:48	04:54 22:30	06:00 21:21	07:08 19:54	08:16 18:28	08:29 16:13	09:23 15:42
18	09:12 16:24	08:05 17:38	06:47 18:45	06:19 20:56	05:04 22:04	04:27 22:49	04:56 22:29	06:02 21:18	07:11 19:51	08:18 18:25	08:32 16:12	09:24 15:42
19	09:10 16:26	08:02 17:41	06:44 18:47	06:16 20:58	05:02 22:06	04:27 22:49	04:58 22:27	06:04 21:16	07:13 19:48	08:20 18:23	08:34 16:10	09:25 15:43
20	09:08 16:28	08:00 17:43	06:42 18:49	06:13 21:00	05:00 22:08	04:27 22:50	05:00 22:25	06:07 21:13	07:15 19:45	08:23 18:20	08:36 16:08	09:25 15:43
21	09:07 16:30	07:57 17:46	06:39 18:52	06:11 21:03	04:58 22:10	04:27 22:50	05:02 22:23	06:09 21:10	07:17 19:42	08:25 18:17	08:39 16:06	09:26 15:43
22	09:05 16:32	07:54 17:48	06:36 18:54	06:08 21:05	04:56 22:12	04:27 22:50	05:04 22:22	06:11 21:08	07:19 19:39	08:27 18:15	08:41 16:04	09:27 15:44
23	09:03 16:35	07:52 17:50	06:33 18:56	06:05 21:07	04:55 22:14	04:28 22:50	05:06 22:20	06:13 21:05	07:22 19:36	08:30 18:12	08:43 16:03	09:27 15:44
24	09:01 16:37	07:49 17:53	06:30 18:58	06:02 21:10	04:53 22:16	04:28 22:50	05:08 22:18	06:15 21:02	07:24 19:33	08:32 18:09	08:45 16:01	09:27 15:45
25	09:00 16:39	07:46 17:55	06:27 19:01	06:00 21:12	04:51 22:18	04:28 22:50	05:10 22:16	06:18 20:59	07:26 19:30	07:35 17:07	08:47 16:00	09:28 15:46
26	08:58 16:42	07:44 17:58	06:24 19:03	05:57 21:14	04:49 22:20	04:29 22:50	05:12 22:14	06:20 20:57	07:28 19:28	07:37 17:04	08:49 15:58	09:28 15:46
27	08:56 16:44	07:41 18:00	06:21 19:05	05:54 21:17	04:48 22:22	04:29 22:50	05:14 22:12	06:22 20:54	07:31 19:25	07:39 17:02	08:52 15:57	09:28 15:47
28	08:54 16:47	07:38 18:02	06:18 19:08	05:52 21:19	04:46 22:23	04:30 22:50	05:16 22:09	06:24 20:51	07:33 19:22	07:42 16:59	08:54 15:55	09:28 15:48
29	08:52 16:49		07:16 20:10	05:49 21:21	04:44 22:25	04:31 22:49	05:18 22:07	06:27 20:48	07:35 19:19	07:44 16:56	08:56 15:54	09:28 15:49
30	08:50 16:51		07:13 20:12	05:47 21:24	04:43 22:27	04:32 22:49	05:20 22:05	06:29 20:45	07:37 19:16	07:47 16:54	08:58 15:53	09:28 15:50
31	08:48 16:54		07:10 20:14		04:41 22:29		05:22 22:03	06:31 20:43		07:49 16:51		09:28 15:51
Potential sun hours	222	260	365	432	521	547	545	478	386	319	236	200
Total, worst case												

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Calculation: Oppdatert layout - kun Moifjellet - worst case - oppdatert mottaker **Shadow receptor:** AI - Vaule 218 (35)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

The sun is shining all the day, from sunrise to sunset

The rotor plane is always perpendicular to the line from the WTG to the sun

The WTG is always operating

	January	February	March	April	May	June	July	August	September	October	November	December
1	09:28 15:52	08:45 16:56	13:54 (27) 14:12 (27)	07:35 18:04	07:06 20:16	05:44 21:26	04:39 22:30	04:32 22:48	05:24 22:01	06:33 20:39	07:39 19:13	07:51 15:51
2	09:27 15:54	08:43 16:58	13:56 (27) 14:12 (27)	07:32 18:07	07:04 20:19	05:41 21:28	04:38 22:32	04:33 22:48	05:26 21:58	06:35 20:37	07:41 19:10	07:53 15:50
3	09:27 15:55	08:41 17:01	13:58 (27) 14:09 (27)	07:29 18:09	07:01 20:21	05:38 21:30	04:37 22:33	04:34 22:47	05:28 21:56	06:37 20:34	07:44 19:07	07:56 15:49
4	09:26 15:57	08:39 17:03		07:27 18:12	06:58 20:23	05:36 21:33	04:36 22:35	04:35 22:46	05:30 21:54	06:39 20:31	07:46 19:04	07:58 15:48
5	09:26 15:58	08:37 17:06		07:24 18:14	06:55 20:26	05:33 21:35	04:34 22:36	04:36 22:45	05:33 21:51	06:42 20:28	07:48 19:01	08:01 15:47
6	09:25 16:00	08:34 17:08	15:24 (13) 15:30 (13)	07:21 18:16	06:52 20:28	05:31 21:37	04:33 22:38	04:37 22:45	05:35 21:49	06:44 20:25	07:50 18:58	08:03 15:46
7	09:24 16:01	08:32 17:11	15:21 (13) 15:33 (13)	07:18 18:19	06:49 20:30	05:29 21:39	04:32 22:39	04:38 22:44	05:37 21:46	06:46 20:22	07:53 18:56	08:06 15:44
8	09:23 16:03	08:30 17:13	15:19 (13) 15:34 (13)	07:15 18:21	06:46 20:32	05:26 21:42	04:31 22:40	04:40 22:43	05:39 21:44	06:48 20:19	07:55 18:53	08:08 15:42
9	09:23 16:05	08:27 17:15	15:18 (13) 15:36 (13)	07:13 18:23	06:44 20:35	05:24 21:44	04:31 22:41	04:41 22:41	05:41 21:41	06:50 20:16	07:57 18:50	08:10 15:40
10	09:22 16:07	08:25 17:18	15:17 (13) 15:37 (13)	07:10 18:26	06:41 20:37	05:21 21:46	04:30 22:43	04:42 22:40	05:44 21:39	06:53 20:14	07:59 18:47	08:13 15:38
11	09:20 16:09	08:22 17:20	15:16 (13) 15:37 (13)	07:07 18:28	06:38 20:39	05:19 21:48	04:29 22:44	04:44 22:39	05:46 21:36	06:55 20:11	08:02 18:44	08:15 15:36
12	09:19 16:10	08:20 17:23	15:17 (13) 15:38 (13)	07:04 18:30	06:35 20:42	05:17 21:51	04:29 22:45	04:45 22:38	05:48 21:34	06:57 20:08	08:04 18:41	08:17 15:34
13	09:18 16:12	08:17 17:25	15:16 (13) 15:38 (13)	07:01 18:33	06:32 20:44	05:15 21:53	04:28 22:45	04:47 22:36	05:50 21:31	06:59 20:05	08:06 18:39	08:19 15:32
14	09:17 16:14	08:15 17:28	15:16 (13) 15:38 (13)	06:58 18:35	06:29 20:46	05:12 21:55	04:27 22:46	04:49 22:35	05:53 21:29	07:01 20:02	08:09 18:36	08:22 15:30
15	09:16 16:17	08:12 17:30	15:17 (13) 15:38 (13)	06:56 18:37	06:27 20:49	05:10 21:57	04:27 22:47	04:50 22:33	05:55 21:26	07:04 19:59	08:11 18:33	08:25 15:28
16	09:14 16:19	08:10 17:33	15:17 (13) 15:38 (13)	06:53 18:40	06:24 20:51	05:08 21:59	04:27 22:48	04:52 22:32	05:57 21:23	07:06 19:56	08:13 18:30	08:27 15:26
17	09:13 16:21	08:07 17:35	15:17 (13) 15:37 (13)	06:50 18:42	06:21 20:53	05:06 22:02	04:27 22:48	04:54 22:30	05:59 21:21	07:08 19:53	08:16 18:28	08:29 15:24
18	09:11 16:23	08:05 17:38	15:17 (13) 15:36 (13)	06:47 18:44	06:18 20:56	05:04 22:04	04:26 22:49	04:56 22:29	06:01 21:18	07:10 19:50	08:18 18:25	08:32 15:22
19	09:10 16:25	08:02 17:40	15:19 (13) 15:36 (13)	06:44 18:47	06:16 20:58	05:02 22:06	04:26 22:49	04:57 22:27	06:04 21:15	07:12 19:47	08:20 18:22	08:34 15:20
20	09:08 16:27	07:59 17:43	15:21 (13) 15:34 (13)	06:41 18:49	06:13 21:00	05:00 22:08	04:26 22:50	04:59 22:25	06:06 21:13	07:15 19:45	08:23 18:19	08:36 15:18
21	09:07 16:30	07:57 17:45	15:24 (13) 15:30 (13)	06:38 18:51	06:10 21:02	04:58 22:10	04:26 22:50	05:01 22:23	06:08 21:10	07:17 19:42	08:25 18:17	08:38 15:16
22	09:05 16:32	07:54 17:47	06:35 18:53	06:07 21:05	04:56 22:12	04:27 22:50	05:03 22:21	06:10 21:07	07:19 19:39	08:27 18:14	08:35 16:04	08:41 15:14
23	09:03 16:34	07:51 17:50	06:32 18:56	06:05 21:07	04:54 22:14	04:27 22:50	05:05 22:20	06:13 21:05	07:21 19:36	08:30 18:11	08:43 16:02	08:43 15:12
24	09:01 16:36	07:49 17:52	06:30 18:58	06:02 21:09	04:52 22:16	04:27 22:50	05:07 22:18	06:15 21:02	07:23 19:33	08:32 18:09	08:32 16:06	08:45 15:11
25	08:59 16:39	07:46 17:55	06:27 19:00	05:59 21:12	04:50 22:18	04:28 22:50	05:09 22:16	06:17 20:59	07:26 19:30	07:34 17:06	08:47 15:59	08:51 15:45
26	08:58 16:41	07:43 17:57	06:24 19:03	05:57 21:14	04:49 22:20	04:28 22:50	05:11 22:14	06:19 20:56	07:28 19:27	07:37 17:04	08:49 15:57	08:57 15:46
27	08:56 16:44	07:41 18:00	06:21 19:05	05:54 21:16	04:47 22:22	04:29 22:50	05:13 22:11	06:22 20:53	07:30 19:24	07:39 17:01	08:51 15:56	08:59 15:42
28	08:54 16:46	07:38 18:02	06:18 19:07	05:51 21:19	04:45 22:23	04:29 22:50	05:15 22:09	06:24 20:51	07:32 19:21	07:41 16:58	08:53 15:55	09:01 15:47
29	08:52 16:48	07:37 18:12	06:15 19:10	05:49 21:21	04:44 22:25	04:30 22:49	05:17 22:07	06:26 20:48	07:35 19:18	07:44 16:56	08:55 15:53	09:03 15:49
30	08:50 16:51	07:35 18:14	06:12 20:12	05:46 21:23	04:42 22:27	04:31 22:49	05:20 22:05	06:28 20:45	07:37 19:16	07:46 16:53	08:57 15:52	09:05 15:50
31	08:48 16:53	07:27 18:14	06:09 20:09	05:41 21:29	04:41 22:29	04:29 22:50	05:22 22:03	06:31 20:42	07:49 16:51	07:49 15:06	08:57 15:48	09:28 15:51
Potential sun hours	221	260	365	432	521	547	546	478	386	319	236	199
Total, worst case	552	319							206		673	

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)		Last time (hh:mm) with flicker	(WTG causing flicker last time)

SHADOW - Calendar

Calculation: Oppdatert layout - kun Moifjellet - worst case - oppdatert mottaker **Shadow receptor:** AJ - Heiavegen 543 (36)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

The sun is shining all the day, from sunrise to sunset

The rotor plane is always perpendicular to the line from the WTG to the sun

The WTG is always operating

	January	February	March	April	May	June	July	August	September	October	November	December
1	09:27 15:53	08:45 16:56	07:35 18:04	07:06 20:16	05:44 21:25	04:40 22:30	04:32 22:48	20:43 (2) 22:00	05:24 20:39	06:33 19:13	07:39 16:49	07:51 15:51
2	09:27 15:54	08:43 16:58	07:32 18:07	07:04 20:19	05:41 21:28	04:38 22:31	04:33 22:47	20:44 (2) 21:58	05:26 20:36	06:35 19:10	07:41 16:46	07:53 15:50
3	09:26 15:55	08:41 17:01	07:29 18:09	07:01 20:21	05:39 21:30	04:37 22:33	04:34 22:47	20:44 (2) 21:56	05:28 20:33	06:37 19:07	07:43 16:44	07:56 15:49
4	09:26 15:57	08:38 17:03	07:27 18:11	06:58 20:23	05:36 21:32	04:36 22:34	04:35 22:46	1 20:45 (2)	05:30 21:53	06:39 20:31	07:46 19:04	07:58 16:41
5	09:25 15:58	08:36 17:06	07:24 18:14	06:55 20:25	05:34 21:35	04:35 22:36	04:36 22:45	1 20:45 (2)	05:33 21:51	06:42 20:28	07:48 19:01	08:00 16:39
6	09:25 16:00	08:34 17:08	07:21 18:16	06:52 20:28	05:31 21:37	04:34 22:37	04:34 22:44	1 20:45 (2)	05:35 21:48	06:44 20:25	07:50 18:58	08:03 16:37
7	09:24 16:02	08:32 17:11	07:18 18:19	06:49 20:30	05:29 21:39	04:33 22:38	04:39 22:43	1 20:45 (2)	05:37 21:46	06:46 20:22	07:52 18:56	08:05 16:34
8	09:23 16:03	08:29 17:13	07:15 18:21	06:46 20:32	05:26 21:41	04:32 22:40	04:40 22:42	1 20:45 (2)	05:39 21:44	06:48 20:19	07:55 18:53	08:08 16:32
9	09:22 16:05	08:27 17:16	07:12 18:23	06:44 20:35	05:24 21:44	04:31 22:41	04:41 22:41	1 20:45 (2)	05:41 21:41	06:50 20:16	07:57 18:50	08:10 16:30
10	09:21 16:07	08:24 17:18	07:10 18:26	06:41 20:37	05:22 21:46	04:30 22:42	04:43 22:40	1 20:45 (2)	05:44 21:39	06:53 20:13	07:59 18:47	08:12 16:27
11	09:20 16:09	08:22 17:20	07:07 18:28	06:38 20:39	05:19 21:48	04:29 22:43	04:44 22:39	1 20:45 (2)	05:46 21:36	06:55 20:11	08:01 18:44	08:15 16:25
12	09:19 16:11	08:20 17:23	07:04 18:30	06:35 20:41	05:17 21:50	04:29 22:44	04:46 22:37	1 20:45 (2)	05:48 21:34	06:57 20:08	08:04 18:41	08:17 16:23
13	09:18 16:13	08:17 17:25	07:01 18:33	06:32 20:44	05:15 21:53	04:28 22:45	04:47 22:36	1 20:45 (2)	05:50 21:31	06:59 20:05	08:06 18:39	08:20 16:21
14	09:17 16:15	08:15 17:28	06:58 18:35	06:29 20:46	05:12 21:55	04:28 22:46	04:49 22:34	1 20:45 (2)	05:53 21:28	07:01 20:02	08:08 18:36	08:22 16:19
15	09:15 16:17	08:12 17:30	06:55 18:37	06:27 20:48	05:10 21:57	04:27 22:47	04:51 22:33	1 20:45 (2)	05:55 21:26	07:04 19:59	08:11 18:33	08:24 16:17
16	09:14 16:19	08:10 17:33	06:53 18:40	06:24 20:51	05:08 21:59	04:27 22:47	04:52 22:31	1 20:45 (2)	05:57 21:23	07:06 19:56	08:13 18:30	08:27 16:15
17	09:12 16:21	08:07 17:35	06:50 18:42	06:21 20:53	05:06 22:01	04:27 22:48	04:54 22:30	1 20:45 (2)	05:59 21:20	07:08 19:53	08:15 18:28	08:29 16:13
18	09:11 16:23	08:04 17:38	06:47 18:44	06:18 20:55	05:04 22:03	04:27 22:48	04:56 22:28	1 20:45 (2)	06:02 21:18	07:10 19:50	08:18 18:25	08:31 16:11
19	09:09 16:25	08:02 17:40	06:44 18:46	06:16 20:58	05:02 22:05	04:27 22:49	04:58 22:26	1 20:45 (2)	06:04 21:15	07:12 19:47	08:20 18:22	08:33 16:09
20	09:08 16:27	07:59 17:43	06:41 18:49	06:13 21:00	05:00 22:07	04:27 22:49	05:00 22:25	1 20:45 (2)	06:06 21:12	07:15 19:44	08:22 18:20	08:36 16:07
21	09:06 16:30	07:56 17:45	06:38 18:51	06:10 21:02	04:58 22:10	04:27 22:49	05:01 22:23	1 20:45 (2)	06:08 21:10	07:17 19:42	08:25 18:17	08:38 16:06
22	09:05 16:32	07:54 17:47	06:35 18:53	06:07 21:05	04:56 22:12	04:27 22:50	05:03 22:21	1 20:45 (2)	06:11 21:07	07:19 19:39	08:27 18:14	08:40 16:04
23	09:03 16:34	07:51 17:50	06:32 18:56	06:05 21:07	04:54 22:14	04:27 22:50	05:05 22:19	1 20:45 (2)	06:13 21:04	07:21 19:36	08:29 18:12	08:42 16:02
24	09:01 16:37	07:48 17:52	06:29 18:58	06:02 21:09	04:52 22:15	04:27 22:50	05:07 22:17	1 20:45 (2)	06:15 21:02	07:23 19:33	08:32 18:09	08:45 16:01
25	08:59 16:39	07:46 17:55	06:27 19:00	05:59 21:11	04:51 22:17	04:28 22:50	05:09 22:15	1 20:45 (2)	06:17 20:59	07:26 19:30	07:34 17:06	08:47 15:59
26	08:57 16:41	07:43 17:57	06:24 19:03	05:57 21:14	04:49 22:19	04:28 22:50	05:11 22:13	1 20:45 (2)	06:19 20:56	07:28 19:27	07:36 17:04	08:49 15:58
27	08:55 16:44	07:40 18:00	06:21 19:05	05:54 21:16	04:47 22:21	04:29 22:49	05:13 22:11	1 20:45 (2)	06:22 20:53	07:30 19:24	07:39 17:01	08:51 15:56
28	08:53 16:46	07:38 18:02	06:18 19:07	05:51 21:18	04:46 22:23	04:30 22:49	05:15 22:09	1 20:45 (2)	06:24 20:50	07:32 19:21	07:41 16:59	08:53 15:55
29	08:51 16:49		07:15 20:09	05:49 21:21	04:44 22:25	04:30 22:49	05:18 22:07	1 20:45 (2)	06:26 20:48	07:34 19:18	07:44 16:56	08:55 15:54
30	08:49 16:51		07:12 20:12	05:46 21:23	04:42 22:26	04:31 22:48	05:20 22:05	1 20:45 (2)	06:28 20:45	07:37 19:16	07:46 16:53	08:57 15:52
31	08:47 16:53		07:09 20:14		04:41 22:28		05:22 22:02	1 20:45 (2)	06:31 20:42		07:48 16:51	09:27 15:51
Potential sun hours	222	260	365	432	521	547	545	478	386	319	236	200
Total, worst case						51	4					

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Calculation: Oppdatert layout - kun Moifjellet - worst case - oppdatert mottaker **Shadow receptor:** AK - Heiavegen 541 (37)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

The sun is shining all the day, from sunrise to sunset

The rotor plane is always perpendicular to the line from the WTG to the sun

The WTG is always operating

	January	February	March	April	May	June	July	August	September	October	November	December
1	09:27 15:53	08:45 16:56	07:35 18:04	07:06 20:16	05:44 21:25	04:40 22:30	20:27 (2) 04:32	20:32 (2) 05:24	06:33 20:39	07:39 19:13	07:51 16:49	08:59 15:51
2	09:27 15:54	08:43 16:58	07:32 18:07	07:04 20:19	05:41 21:28	04:38 22:31	20:27 (2) 04:33	20:32 (2) 05:26	06:35 20:41	07:41 19:10	07:53 16:46	09:01 15:50
3	09:26 15:55	08:41 17:01	07:29 18:09	07:01 20:21	05:39 21:30	04:37 22:33	20:27 (2) 04:34	20:33 (2) 05:28	06:37 20:33	07:43 19:07	07:56 16:44	09:03 15:49
4	09:26 15:57	08:38 17:03	07:27 18:11	06:58 20:23	05:36 21:32	04:36 22:34	20:27 (2) 04:35	20:33 (2) 05:30	06:39 20:31	07:46 19:04	07:58 16:41	09:05 15:48
5	09:25 15:58	08:36 17:06	07:24 18:14	06:55 20:25	05:34 21:35	04:35 22:36	20:27 (2) 04:36	20:33 (2) 05:33	06:42 20:28	07:48 19:01	08:00 16:39	09:06 15:47
6	09:25 16:00	08:34 17:08	07:21 18:16	06:52 20:28	05:31 21:37	04:34 22:37	20:27 (2) 04:37	20:33 (2) 05:35	06:44 20:25	07:50 18:58	08:03 16:37	09:08 15:46
7	09:24 16:02	08:32 17:11	07:18 18:23	06:49 20:30	05:29 21:39	04:33 22:38	20:28 (2) 04:39	20:33 (2) 05:37	06:46 20:22	07:52 18:56	08:05 16:34	09:10 15:45
8	09:23 16:03	08:29 17:13	07:15 18:21	06:46 20:32	05:26 21:41	04:32 22:40	20:27 (2) 04:40	20:33 (2) 05:39	06:48 20:19	07:55 18:53	08:08 16:32	09:11 15:45
9	09:22 16:05	08:27 17:16	07:12 18:23	06:44 20:35	05:24 21:44	04:31 22:41	20:27 (2) 04:41	20:34 (2) 05:41	06:50 20:16	07:57 18:50	08:10 16:30	09:13 15:44
10	09:21 16:07	08:24 17:18	07:10 18:26	06:41 20:37	05:22 21:46	04:30 22:42	20:28 (2) 04:43	20:34 (2) 05:44	06:53 20:13	07:59 18:47	08:12 16:27	09:14 15:43
11	09:20 16:09	08:22 17:20	07:07 18:28	06:38 20:39	05:19 21:48	04:29 22:43	20:28 (2) 04:44	20:34 (2) 05:46	06:55 20:11	08:01 18:44	08:15 16:25	09:16 15:43
12	09:19 16:11	08:20 17:23	07:04 18:30	06:35 20:41	05:17 21:50	04:29 22:44	20:29 (2) 04:46	20:35 (2) 05:48	06:57 20:08	08:04 18:41	08:17 16:23	09:17 15:43
13	09:18 16:13	08:17 17:25	07:01 18:33	06:32 20:44	05:15 21:53	04:28 22:45	20:28 (2) 04:47	20:35 (2) 05:50	06:59 20:05	08:06 18:39	08:20 16:21	09:18 15:42
14	09:17 16:15	08:15 17:28	06:58 18:35	06:29 20:46	05:12 21:55	04:28 22:46	20:29 (2) 04:49	20:35 (2) 05:53	07:01 20:02	08:08 18:36	08:22 16:19	09:19 15:42
15	09:15 16:17	08:12 17:30	06:55 18:37	06:27 20:48	05:10 21:57	04:27 22:47	20:29 (2) 04:51	20:37 (2) 05:55	07:04 21:26	08:11 19:59	08:24 18:33	09:20 16:17
16	09:14 16:19	08:10 17:33	06:53 18:40	06:24 20:51	05:08 21:59	04:27 22:47	20:30 (2) 04:52	20:37 (2) 05:57	07:06 21:23	08:13 19:56	08:27 18:30	09:21 16:15
17	09:12 16:21	08:07 17:35	06:50 18:42	06:21 20:53	05:06 22:01	04:27 22:48	20:30 (2) 04:54	20:37 (2) 05:59	07:08 21:20	08:15 19:53	08:29 18:28	09:22 16:13
18	09:11 16:23	08:04 17:38	06:47 18:44	06:18 20:55	05:04 22:03	04:27 22:48	20:30 (2) 04:56	20:38 (2) 05:50	07:10 21:18	08:18 19:50	08:31 18:25	09:23 16:11
19	09:09 16:25	08:02 17:40	06:44 18:46	06:16 20:58	05:02 22:05	04:27 22:49	20:30 (2) 04:58	20:39 (2) 05:00	07:12 21:15	08:20 19:47	08:34 18:22	09:24 16:09
20	09:08 16:27	07:59 17:43	06:41 18:49	06:13 21:00	05:00 22:07	04:27 22:49	20:31 (2) 05:00	20:40 (2) 05:00	07:15 21:12	08:22 19:44	08:36 18:19	09:25 16:07
21	09:06 16:30	07:56 17:45	06:38 18:51	06:10 21:02	04:58 22:10	04:27 22:49	20:31 (2) 05:01	20:41 (2) 05:01	07:17 21:10	08:25 19:42	08:38 18:17	09:25 16:06
22	09:05 16:32	07:54 17:47	06:35 18:53	06:07 21:05	04:56 22:12	04:27 22:50	20:31 (2) 05:03	20:42 (2) 05:03	07:19 21:07	08:27 19:39	08:40 18:14	09:26 16:04
23	09:03 16:34	07:51 17:50	06:32 18:56	06:05 21:07	04:54 22:14	04:27 22:50	20:30 (2) 05:05	20:43 (2) 05:05	07:21 21:04	08:29 19:36	08:42 18:11	09:27 16:02
24	09:01 16:37	07:48 17:52	06:29 18:58	06:02 21:09	04:52 22:15	04:27 22:50	20:31 (2) 05:07	20:44 (2) 05:07	07:23 21:02	08:32 19:33	08:45 18:09	09:27 16:01
25	08:59 16:39	07:46 17:55	06:27 19:00	05:59 21:11	04:51 22:17	04:28 22:50	20:31 (2) 05:09	20:45 (2) 05:09	07:26 21:07	07:34 19:30	08:47 17:06	09:27 16:01
26	08:57 16:41	07:43 17:57	06:24 19:03	05:57 21:14	04:49 22:19	04:28 22:50	20:32 (2) 05:11	20:46 (2) 05:11	07:28 21:06	07:36 19:27	08:49 17:04	09:27 16:01
27	08:55 16:44	07:40 18:00	06:21 19:05	05:54 21:16	04:47 22:21	04:29 22:49	20:31 (2) 05:13	20:47 (2) 05:13	07:30 21:05	07:39 19:24	08:51 17:01	09:28 16:01
28	08:53 16:46	07:38 18:02	06:18 19:07	05:51 21:18	04:46 22:23	04:30 22:49	20:32 (2) 05:15	20:49 (2) 05:15	07:32 21:05	07:41 19:21	08:53 16:59	09:28 15:55
29	08:51 16:49		07:15 20:09	05:49 21:21	04:44 22:25	04:30 22:49	20:32 (2) 05:18	20:50 (2) 05:18	07:34 21:08	07:44 19:18	08:55 16:56	09:28 15:53
30	08:49 16:51		07:12 20:12	05:46 21:23	04:42 22:26	04:31 22:48	20:32 (2) 05:20	20:49 (2) 05:20	07:37 21:16	07:46 19:53	08:57 16:53	09:28 15:52
31	08:47 16:53		07:09 20:14	05:41 21:28	04:41 22:28	04:31 22:48	20:32 (2) 05:22	20:49 (2) 05:22	07:48 21:02	07:48 19:53	08:57 16:51	09:27 15:51
Potential sun hours	222	260	365	432	521	547	545	478	386	319	236	200
Total, worst case					5	483	161					

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)		Last time (hh:mm) with flicker	(WTG causing flicker last time)

SHADOW - Calendar

Calculation: Oppdatert layout - kun Moifjellet - worst case - oppdatert mottaker **Shadow receptor:** AM - Eiendom 121/9 - Hå kommune (39)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

The sun is shining all the day, from sunrise to sunset

The rotor plane is always perpendicular to the line from the WTG to the sun

The WTG is always operating

	January	February	March	April		May		June			
1	09:28 15:53	08:46 16:56	07:35 18:05	07:07 20:17		05:44 21:26	32	07:30 (1) 08:02 (1)	04:40 22:30	22	06:17 (37) 06:39 (37)
2	09:27 15:54	08:43 16:59	07:33 18:07	07:04 20:19		05:42 21:28	29	07:32 (1) 08:01 (1)	04:39 22:32	24	06:16 (37) 06:40 (37)
3	09:27 15:56	08:41 17:01	07:30 18:10	07:01 20:21		05:39 21:31	27	07:32 (1) 07:59 (1)	04:37 22:34	25	06:16 (37) 06:41 (37)
4	09:26 15:57	08:39 17:04	07:27 18:12	06:58 20:24		05:36 21:33	25	07:33 (1) 07:58 (1)	04:36 22:35	25	06:16 (37) 06:41 (37)
5	09:26 15:59	08:37 17:06	07:24 18:14	06:55 20:26		05:34 21:35	21	07:35 (1) 07:56 (1)	04:35 22:36	27	06:16 (37) 06:43 (37)
6	09:25 16:00	08:34 17:09	07:21 18:17	06:53 20:28		05:32 21:37	18	07:37 (1) 07:55 (1)	04:34 22:38	27	06:16 (37) 06:43 (37)
7	09:24 16:02	08:32 17:11	07:19 18:19	06:50 20:31		05:29 21:40	12	07:39 (1) 07:51 (1)	04:33 22:39	28	06:15 (37) 06:43 (37)
8	09:24 16:04	08:30 17:14	07:16 18:21	06:47 20:33		05:27 21:42		05:24 21:44	04:32 22:40	28	06:15 (37) 06:43 (37)
9	09:23 16:06	08:27 17:16	07:13 18:24	06:44 20:35		05:24 21:44		05:22 21:46	04:31 22:42	28	06:16 (37) 06:44 (37)
10	09:22 16:07	08:25 17:18	07:10 18:26	06:41 20:37	9	07:48 (1) 07:57 (1)		05:20 21:49	04:30 22:44	29	06:16 (37) 06:45 (37)
11	09:21 16:09	08:23 17:21	07:07 18:28	06:38 20:40	15	07:46 (1) 08:01 (1)		05:17 21:51	04:29 22:45	30	06:16 (37) 06:45 (37)
12	09:20 16:11	08:20 17:23	07:04 18:31	06:36 20:42	21	07:42 (1) 08:03 (1)		05:15 21:53	04:29 22:46	30	06:16 (37) 06:46 (37)
13	09:18 16:13	08:18 17:26	07:02 18:33	06:33 20:44	26	07:38 (1) 08:04 (1)		05:11 21:55	04:28 22:46	30	06:16 (37) 06:46 (37)
14	09:17 16:15	08:15 17:28	06:59 18:35	06:30 20:47	30	07:35 (1) 08:05 (1)		05:09 21:57	04:28 22:47	31	06:16 (37) 06:46 (37)
15	09:16 16:17	08:13 17:31	06:56 18:38	06:27 20:49	32	07:34 (1) 08:06 (1)		05:07 21:59	04:28 22:48	30	06:16 (37) 06:46 (37)
16	09:14 16:19	08:10 17:33	06:53 18:40	06:24 20:51	34	07:33 (1) 08:07 (1)		05:06 22:00	04:27 22:48	30	06:16 (37) 06:46 (37)
17	09:13 16:21	08:07 17:36	06:50 18:42	06:22 20:53	35	07:32 (1) 08:07 (1)		05:04 22:02	04:27 22:48	30	06:16 (37) 06:46 (37)
18	09:12 16:24	08:05 17:38	06:47 18:45	06:19 20:56	37	07:31 (1) 08:08 (1)		05:02 22:04	04:27 22:49	31	06:16 (37) 06:47 (37)
19	09:10 16:26	08:02 17:41	06:44 18:47	06:16 20:58	38	07:30 (1) 08:08 (1)		05:00 22:06	04:27 22:49	31	06:16 (37) 06:47 (37)
20	09:08 16:28	08:00 17:43	06:42 18:49	06:13 21:00	38	07:30 (1) 08:08 (1)		04:58 22:08	04:27 22:50	31	06:16 (37) 06:47 (37)
21	09:07 16:30	07:57 17:46	06:39 18:52	06:11 21:03	39	07:29 (1) 08:08 (1)		04:56 22:10	04:27 22:50	31	06:17 (37) 06:47 (37)
22	09:05 16:32	07:54 17:48	06:36 18:54	06:08 21:05	38	07:29 (1) 08:07 (1)		04:55 22:12	04:27 22:50	31	06:17 (37) 06:48 (37)
23	09:03 16:35	07:52 17:50	06:33 18:56	06:05 21:07	39	07:29 (1) 08:08 (1)		04:53 22:14	04:28 22:50	31	06:17 (37) 06:48 (37)
24	09:02 16:37	07:49 17:53	06:30 18:58	06:02 21:10	39	07:28 (1) 08:07 (1)		04:51 22:16	04:28 22:50	31	06:17 (37) 06:48 (37)
25	09:00 16:39	07:46 17:55	06:27 19:01	06:00 21:12	38	07:29 (1) 08:07 (1)		04:49 22:18	04:28 22:50	31	06:18 (37) 06:49 (37)
26	08:58 16:42	07:44 17:58	06:24 19:03	05:57 21:14	38	07:28 (1) 08:06 (1)	6	06:25 (37) 06:31 (37)	04:29 22:50	30	06:18 (37) 06:48 (37)
27	08:56 16:44	07:41 18:00	06:21 19:05	05:54 21:17	37	07:29 (1) 08:06 (1)	11	06:22 (37) 06:33 (37)	04:29 22:50	31	06:18 (37) 06:49 (37)
28	08:54 16:47	07:38 18:02	06:18 19:08	05:52 21:19	36	07:29 (1) 08:05 (1)	15	06:20 (37) 06:35 (37)	04:30 22:50	30	06:18 (37) 06:48 (37)
29	08:52 16:49		07:16 20:10	05:49 21:21	34	07:30 (1) 08:04 (1)	17	06:20 (37) 06:37 (37)	04:31 22:49	30	06:19 (37) 06:49 (37)
30	08:50 16:51		07:13 20:12	05:47 21:24	34	07:29 (1) 08:03 (1)	19	06:19 (37) 06:38 (37)	04:31 22:49	30	06:19 (37) 06:49 (37)
31	08:48 16:54		07:10 20:14			04:41 22:29	21	06:17 (37) 06:38 (37)			
Potential sun hours	221	260	365	432		521		547			
Total, worst case				687		253		872			

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Calculation: Oppdatert layout - kun Moifjellet - worst case - oppdatert mottaker **Shadow receptor:** AM - Eiendom 121/9 - Hå kommune (39)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

The sun is shining all the day, from sunrise to sunset

The rotor plane is always perpendicular to the line from the WTG to the sun

The WTG is always operating

	July	August	September	October	November	December				
1	04:32	06:20 (37)	05:24	06:33	07:45 (1)	07:39	07:51	09:00		
	22:48	29	06:49 (37)	22:01	20:40	15	08:00 (1)	19:13	16:49	15:51
2	04:33	06:20 (37)	05:27	06:35	07:47 (1)	07:42	07:54	09:01		
	22:48	30	06:50 (37)	21:58	20:37	9	07:56 (1)	19:10	16:47	15:50
3	04:34	06:20 (37)	05:29	06:38	07:44	07:44	07:56	09:03		
	22:47	29	06:49 (37)	21:56	20:34	19:07	16:44	15:49		
4	04:35	06:20 (37)	05:31	06:40	07:46	07:46	07:59	09:05		
	22:46	29	06:49 (37)	21:54	20:31	19:05	16:42	15:48		
5	04:36	06:21 (37)	05:33	07:52 (1)	06:42	07:48	08:01	09:07		
	22:46	28	06:49 (37)	21:51	6	07:58 (1)	20:28	19:02	16:39	15:47
6	04:38	06:21 (37)	05:35	07:48 (1)	06:44	07:51	08:03	09:09		
	22:45	27	06:48 (37)	21:49	14	08:02 (1)	20:25	18:59	16:37	15:47
7	04:39	06:22 (37)	05:38	07:46 (1)	06:47	07:53	08:06	09:10		
	22:44	27	06:49 (37)	21:47	19	08:05 (1)	20:23	18:56	16:35	15:46
8	04:40	06:23 (37)	05:40	07:44 (1)	06:49	07:55	08:08	09:12		
	22:43	26	06:49 (37)	21:44	22	08:06 (1)	20:20	18:53	16:32	15:45
9	04:42	06:23 (37)	05:42	07:42 (1)	06:51	07:57	08:11	09:13		
	22:42	25	06:48 (37)	21:42	26	08:08 (1)	20:17	18:50	16:30	15:44
10	04:43	06:24 (37)	05:44	07:41 (1)	06:53	08:00	08:13	09:15		
	22:40	24	06:48 (37)	21:39	28	08:09 (1)	20:14	18:48	16:28	15:44
11	04:45	06:25 (37)	05:46	07:40 (1)	06:55	08:02	08:15	09:16		
	22:39	23	06:48 (37)	21:37	30	08:10 (1)	20:11	18:45	16:26	15:43
12	04:46	06:25 (37)	05:49	07:39 (1)	06:58	08:04	08:18	09:17		
	22:38	22	06:47 (37)	21:34	32	08:11 (1)	20:08	18:42	16:24	15:43
13	04:48	06:26 (37)	05:51	07:38 (1)	07:00	08:07	08:20	09:19		
	22:36	20	06:46 (37)	21:32	33	08:11 (1)	20:05	18:39	16:22	15:43
14	04:49	06:28 (37)	05:53	07:37 (1)	07:02	08:09	08:22	09:20		
	22:35	18	06:46 (37)	21:29	35	08:12 (1)	20:02	18:36	16:19	15:43
15	04:51	06:28 (37)	05:55	07:36 (1)	07:04	08:11	08:25	09:21		
	22:34	16	06:44 (37)	21:26	36	08:12 (1)	19:59	18:34	16:17	15:42
16	04:53	06:30 (37)	05:58	07:35 (1)	07:06	08:14	08:27	09:22		
	22:32	14	06:44 (37)	21:24	37	08:12 (1)	19:57	18:31	16:15	15:42
17	04:54	06:32 (37)	06:00	07:35 (1)	07:09	08:16	08:29	09:23		
	22:30	9	06:41 (37)	21:21	38	08:13 (1)	19:54	18:28	16:13	15:42
18	04:56	06:02	07:35 (1)	07:11	08:18	08:32	09:24			
	22:29	39	08:14 (1)	19:51	18:25	16:12	15:42			
19	04:58	06:04	07:35 (1)	07:13	08:21	08:34	09:25			
	22:27	38	08:13 (1)	19:48	18:23	16:10	15:43			
20	05:00	06:07	07:35 (1)	07:15	08:23	08:36	09:25			
	22:25	38	08:13 (1)	19:45	18:20	16:08	15:43			
21	05:02	06:09	07:34 (1)	07:17	08:25	08:39	09:26			
	22:23	39	08:13 (1)	19:42	18:17	16:06	15:43			
22	05:04	06:11	07:34 (1)	07:20	08:28	08:41	09:27			
	22:22	38	08:12 (1)	19:39	18:15	16:04	15:44			
23	05:06	06:13	07:34 (1)	07:22	08:30	08:43	09:27			
	22:20	38	08:12 (1)	19:36	18:12	16:03	15:44			
24	05:08	06:15	07:34 (1)	07:24	08:32	08:45	09:28			
	22:18	37	08:11 (1)	19:33	18:09	16:01	15:45			
25	05:10	06:18	07:34 (1)	07:26	07:35	08:47	09:28			
	22:16	36	08:10 (1)	19:30	17:07	16:00	15:46			
26	05:12	06:20	07:34 (1)	07:28	07:37	08:50	09:28			
	22:14	35	08:09 (1)	19:28	17:04	15:58	15:46			
27	05:14	06:22	07:35 (1)	07:31	07:39	08:52	09:28			
	22:12	33	08:08 (1)	19:25	17:02	15:57	15:47			
28	05:16	06:24	07:35 (1)	07:33	07:42	08:54	09:28			
	22:10	32	08:07 (1)	19:22	16:59	15:55	15:48			
29	05:18	06:27	07:36 (1)	07:35	07:44	08:56	09:28			
	22:07	30	08:06 (1)	19:19	16:56	15:54	15:49			
30	05:20	06:29	07:39 (1)	07:37	07:47	08:58	09:28			
	22:05	26	08:05 (1)	19:16	16:54	15:53	15:50			
31	05:22	06:31	07:42 (1)	07:39	07:49	09:28				
	22:03	21	08:03 (1)	19:13	16:51	15:51				
Potential sun hours	545	478	386	319	236	200				
Total, worst case	396	836	24							

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)		Last time (hh:mm) with flicker	(WTG causing flicker last time)

SHADOW - Calendar

Calculation: Oppdatert layout - kun Moifjellet - worst case - oppdatert mottaker Shadow receptor: AN - Brusallivegen 219 (40)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

The sun is shining all the day, from sunrise to sunset

The rotor plane is always perpendicular to the line from the WTG to the sun

The WTG is always operating

	January	February	March	April	May	June	July	August	September	October	November	December			
1	09:28 15:53	08:46 16:56	07:35 18:05	07:07 20:17	05:44 21:26	04:40 22:30	06:44 (1) 07:17 (1)	04:32 22:48	06:54 (1) 07:19 (1)	05:24 22:01	06:57 (1) 07:29 (1)	06:33 20:40	07:39 19:13	07:51 16:49	09:00 15:52
2	09:27 15:54	08:43 16:59	07:33 18:07	07:04 20:19	05:42 21:28	04:39 22:32	06:44 (1) 07:17 (1)	04:33 22:48	06:54 (1) 07:20 (1)	05:27 21:58	06:59 (1) 07:01 (1)	06:35 20:37	07:42 19:10	07:54 16:47	09:01 15:50
3	09:27 15:56	08:41 17:01	07:30 18:10	07:01 20:21	05:39 21:31	04:38 22:33	06:45 (1) 07:18 (1)	04:34 22:47	06:53 (1) 07:20 (1)	05:29 21:56	07:01 (1) 07:28 (1)	06:38 20:34	07:44 19:07	07:56 16:44	09:03 15:49
4	09:26 15:57	08:39 17:04	07:27 18:12	06:58 20:24	05:37 21:33	04:36 22:35	06:45 (1) 07:18 (1)	04:35 22:46	06:53 (1) 07:20 (1)	05:31 21:54	07:03 (1) 07:27 (1)	06:40 20:31	07:46 19:05	07:59 16:42	09:05 15:48
5	09:26 15:59	08:37 17:06	07:24 18:14	06:55 20:26	05:34 21:35	04:35 22:36	06:47 (1) 07:19 (1)	04:37 22:46	06:53 (1) 07:21 (1)	05:33 21:51	07:05 (1) 07:27 (1)	06:42 20:28	07:48 19:02	08:01 16:39	09:07 15:47
6	09:25 16:00	08:34 17:09	07:21 18:17	06:53 20:28	05:32 21:37	04:34 22:38	06:47 (1) 07:16 (1)	04:38 22:45	06:54 (1) 07:22 (1)	05:35 21:49	07:07 (1) 07:26 (1)	06:44 20:25	07:51 18:59	08:03 16:37	09:09 15:47
7	09:24 16:02	08:32 17:11	07:19 18:19	06:50 20:31	05:29 21:40	04:33 22:39	06:47 (1) 07:16 (1)	04:39 22:44	06:53 (1) 07:23 (1)	05:38 21:47	07:09 (1) 07:25 (1)	06:47 20:23	07:53 18:56	08:06 16:35	09:10 15:46
8	09:24 16:04	08:30 17:14	07:16 18:21	06:47 20:33	05:27 21:42	04:32 22:40	06:48 (1) 07:17 (1)	04:40 22:43	06:53 (1) 07:23 (1)	05:40 21:44	07:10 (1) 07:23 (1)	06:49 20:20	07:55 18:53	08:08 16:32	09:12 15:45
9	09:23 16:06	08:27 17:16	07:13 18:24	06:44 20:35	05:24 21:44	04:31 22:42	06:49 (1) 07:17 (1)	04:42 22:42	06:52 (1) 07:24 (1)	05:42 21:42	07:12 (1) 07:24 (1)	06:51 20:17	07:57 18:50	08:11 16:30	09:13 15:44
10	09:22 16:07	08:25 17:18	07:10 18:26	06:41 20:37	05:22 21:46	04:31 22:43	06:49 (1) 07:18 (1)	04:43 22:40	06:52 (1) 07:24 (1)	05:44 21:39	07:14 (1) 07:20 (1)	06:53 20:14	08:00 18:48	08:13 16:28	09:15 15:44
11	09:21 16:09	08:23 17:21	07:07 18:28	06:38 20:40	05:20 21:49	04:30 22:44	06:50 (1) 07:18 (1)	04:45 22:39	06:52 (1) 07:25 (1)	05:46 21:37	07:15 (1) 07:18 (1)	06:55 20:11	08:02 18:45	08:15 16:26	09:16 15:43
12	09:20 16:11	08:20 17:23	07:04 18:31	06:36 20:42	05:17 21:51	04:29 22:45	06:46 (1) 07:19 (1)	04:46 22:38	06:52 (1) 07:26 (1)	05:49 21:34	07:18 (1) 07:23 (1)	06:58 20:08	08:04 18:42	08:18 16:24	09:17 15:43
13	09:18 16:13	08:18 17:26	07:02 18:33	06:33 20:44	05:15 21:53	04:29 22:46	06:45 (1) 07:19 (1)	04:48 22:36	06:51 (1) 07:26 (1)	05:51 21:32	07:00 07:02	08:07 20:05	08:20 18:39	08:39 16:22	09:19 15:43
14	09:17 16:15	08:15 17:28	06:59 18:35	06:30 20:47	05:13 21:55	04:28 22:46	06:43 (1) 07:19 (1)	04:49 22:35	06:52 (1) 07:27 (1)	05:53 21:29	07:02 07:02	08:09 20:02	08:22 18:36	08:41 16:19	09:20 15:43
15	09:16 16:17	08:13 17:31	06:56 18:38	06:27 20:49	05:11 21:57	04:28 22:47	06:41 (1) 07:19 (1)	04:51 22:34	06:51 (1) 07:27 (1)	05:55 21:26	07:04 07:04	08:11 19:59	08:25 18:34	08:41 16:17	09:21 15:42
16	09:14 16:19	08:10 17:33	06:53 18:40	06:24 20:51	05:09 22:00	04:28 22:48	06:40 (1) 07:19 (1)	04:53 22:32	06:51 (1) 07:28 (1)	05:58 21:24	07:06 07:06	08:14 19:57	08:27 18:31	08:41 16:15	09:22 15:42
17	09:13 16:21	08:07 17:36	06:50 18:42	06:22 20:54	05:06 22:02	04:27 22:48	06:39 (1) 07:19 (1)	04:54 22:30	06:50 (1) 07:28 (1)	06:00 21:21	07:09 07:09	08:16 19:54	08:29 18:28	08:43 16:13	09:23 15:42
18	09:12 16:24	08:05 17:38	06:47 18:45	06:19 20:56	05:04 22:04	04:27 22:49	06:40 (1) 07:20 (1)	04:56 22:29	06:51 (1) 07:28 (1)	06:02 21:18	07:11 07:11	08:18 19:51	08:32 18:25	08:45 16:12	09:24 15:42
19	09:10 16:26	08:02 17:41	06:44 18:47	06:16 20:58	05:02 22:06	04:27 22:49	06:40 (1) 07:20 (1)	04:58 22:27	06:51 (1) 07:29 (1)	06:04 21:16	07:13 07:13	08:21 19:48	08:34 18:23	08:45 16:10	09:25 15:43
20	09:08 16:28	08:00 17:43	06:42 18:49	06:13 21:00	05:00 22:08	04:27 22:50	06:40 (1) 07:20 (1)	05:00 22:25	06:50 (1) 07:29 (1)	06:07 21:13	07:15 07:15	08:23 19:45	08:36 18:20	08:45 16:08	09:25 15:43
21	09:07 16:30	07:57 17:46	06:39 18:52	06:11 21:03	04:58 22:10	04:27 22:50	06:40 (1) 07:19 (1)	05:02 22:23	06:50 (1) 07:29 (1)	06:09 21:10	07:17 07:17	08:25 19:42	08:39 18:17	08:45 16:06	09:26 15:43
22	09:05 16:32	07:54 17:48	06:36 18:54	06:08 21:05	04:56 22:12	04:27 22:50	06:40 (1) 07:20 (1)	05:04 22:22	06:51 (1) 07:30 (1)	06:11 21:08	07:19 07:19	08:28 18:31	08:41 18:15	08:49 16:04	09:27 15:44
23	09:03 16:35	07:52 17:50	06:33 18:56	06:05 21:07	04:55 22:14	04:28 22:50	06:40 (1) 07:19 (1)	05:06 22:20	06:50 (1) 07:29 (1)	06:13 21:05	07:22 07:22	08:30 19:36	08:43 18:12	08:49 16:03	09:27 15:44
24	09:02 16:37	07:49 17:53	06:30 18:58	06:02 21:10	04:53 22:16	04:28 22:50	06:41 (1) 07:19 (1)	05:08 22:18	06:50 (1) 07:30 (1)	06:15 21:02	07:24 07:24	08:32 19:33	08:45 18:09	08:54 16:01	09:28 15:45
25	09:00 16:39	07:46 17:55	06:27 19:01	06:00 21:12	04:51 22:18	04:28 22:50	06:41 (1) 07:19 (1)	05:10 22:16	06:50 (1) 07:30 (1)	06:18 20:59	07:26 07:26	08:35 19:30	08:47 18:07	08:54 16:00	09:28 15:46
26	08:58 16:42	07:44 17:58	06:24 19:03	05:57 21:14	04:49 22:20	04:29 22:50	06:42 (1) 07:19 (1)	05:12 22:14	06:50 (1) 07:30 (1)	06:20 20:57	07:28 07:28	08:37 19:28	08:49 17:04	08:54 15:58	09:28 15:46
27	08:56 16:44	07:41 18:00	06:21 19:05	05:54 21:17	04:48 22:22	04:28 22:50	06:41 (1) 07:18 (1)	05:14 22:12	06:51 (1) 07:30 (1)	06:22 20:54	07:31 07:31	08:39 19:25	08:52 17:02	08:54 15:57	09:28 15:47
28	08:54 16:47	07:38 18:02	06:18 19:08	05:52 21:19	04:46 22:24	04:30 22:50	06:42 (1) 07:18 (1)	05:16 22:10	06:51 (1) 07:31 (1)	06:24 20:51	07:33 07:33	08:42 19:22	08:54 16:59	08:54 15:55	09:28 15:48
29	08:52 16:49	07:16 18:00	05:49 20:10	04:44 21:21	04:44 22:25	04:31 22:49	06:43 (1) 07:18 (1)	05:18 22:07	06:52 (1) 07:30 (1)	06:27 20:48	07:35 07:35	08:44 19:19	08:56 16:56	08:56 15:54	09:28 15:49
30	08:50 16:51	07:13 18:02	05:47 20:12	04:43 21:24	04:43 22:27	04:32 22:49	06:43 (1) 07:18 (1)	05:20 22:05	06:54 (1) 07:29 (1)	06:29 20:45	07:37 07:37	08:47 19:16	08:58 16:54	08:58 15:53	09:28 15:50
31	08:48 16:54	07:10 18:04	05:41 20:14	04:41 21:29	04:41 22:29	04:31 22:50	06:43 (1) 07:17 (1)	05:22 22:03	06:56 (1) 07:29 (1)	06:31 20:43	07:49 07:49	08:54 16:51	08:58 15:51	08:58 15:51	09:28 15:51
Potential sun hours	221	260	365	432	521	547	543	545	478	202	386	319	236	200	
Total, worst case					928		743	1069							

Table layout: For each day in each month the following matrix apply

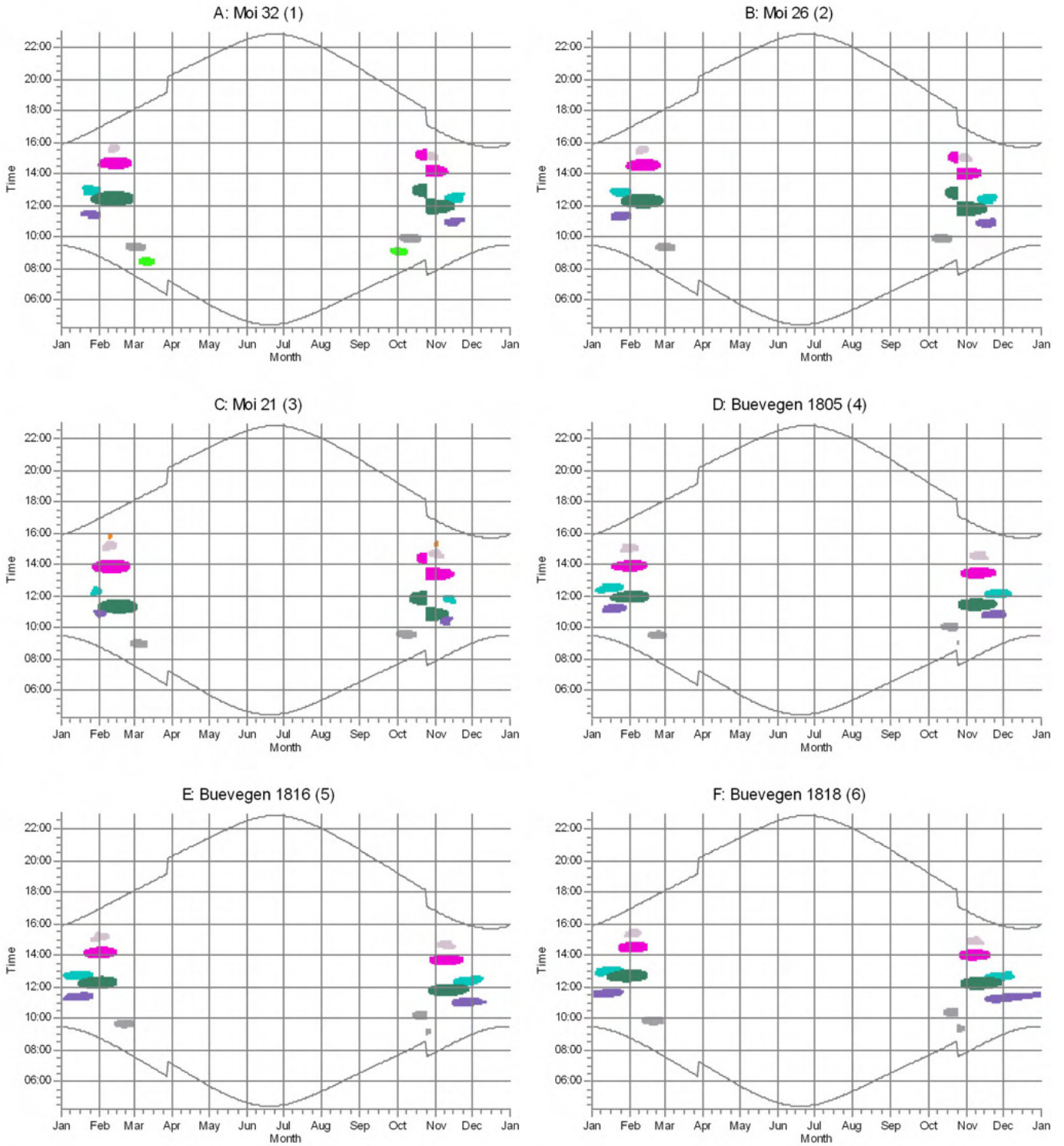
Day in month	Sun rise (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)		Last time (hh:mm) with flicker	(WTG causing flicker last time)



Vedlegg 1.2

SHADOW - Calendar, graphical

Calculation: Oppdatert layout - kun Moifjellet - worst case - oppdatert mottaker

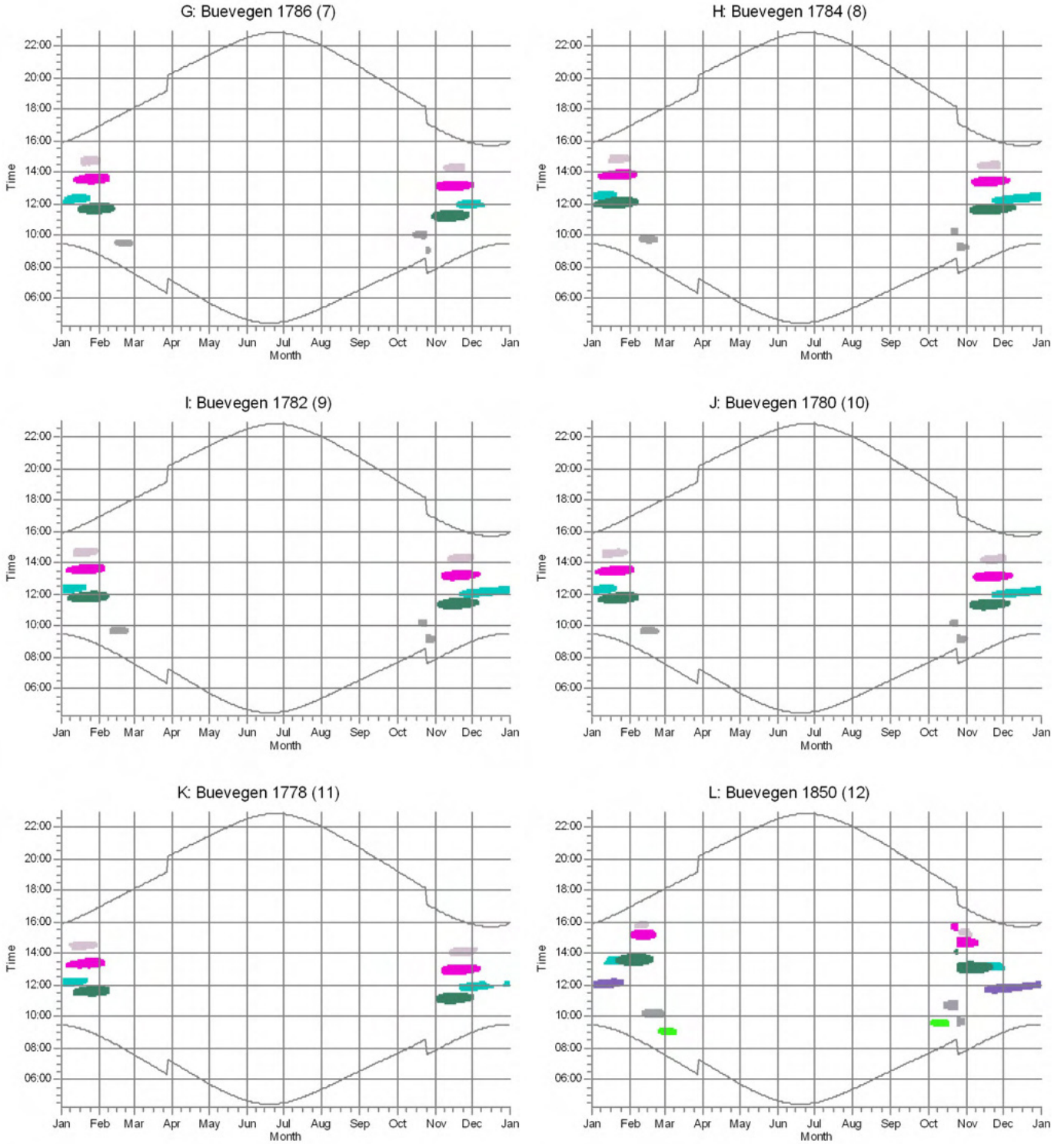


WTGs

<ul style="list-style-type: none"> 16: VESTAS V162-7.2 7200 162.0 10! hub: 119.0 m (TOT: 200.0 m) (2558) 18: VESTAS V162-7.2 7200 162.0 10! hub: 119.0 m (TOT: 200.0 m) (2560) 21: VESTAS V162-7.2 7200 162.0 10! hub: 119.0 m (TOT: 200.0 m) (2563) 	<ul style="list-style-type: none"> 23: VESTAS V162-7.2 7200 162.0 10! hub: 119.0 m (TOT: 200.0 m) (2565) 24: VESTAS V162-7.2 7200 162.0 10! hub: 119.0 m (TOT: 200.0 m) (2566) 25: VESTAS V162-7.2 7200 162.0 10! hub: 119.0 m (TOT: 200.0 m) (2567) 	<ul style="list-style-type: none"> 29: VESTAS V162-7.2 7200 162.0 10! hub: 119.0 m (TOT: 200.0 m) (2571) 34: VESTAS V162-7.2 7200 162.0 10! hub: 119.0 m (TOT: 200.0 m) (2576)
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SHADOW - Calendar, graphical

Calculation: Oppdatert layout - kun Moifjellet - worst case - oppdatert mottaker

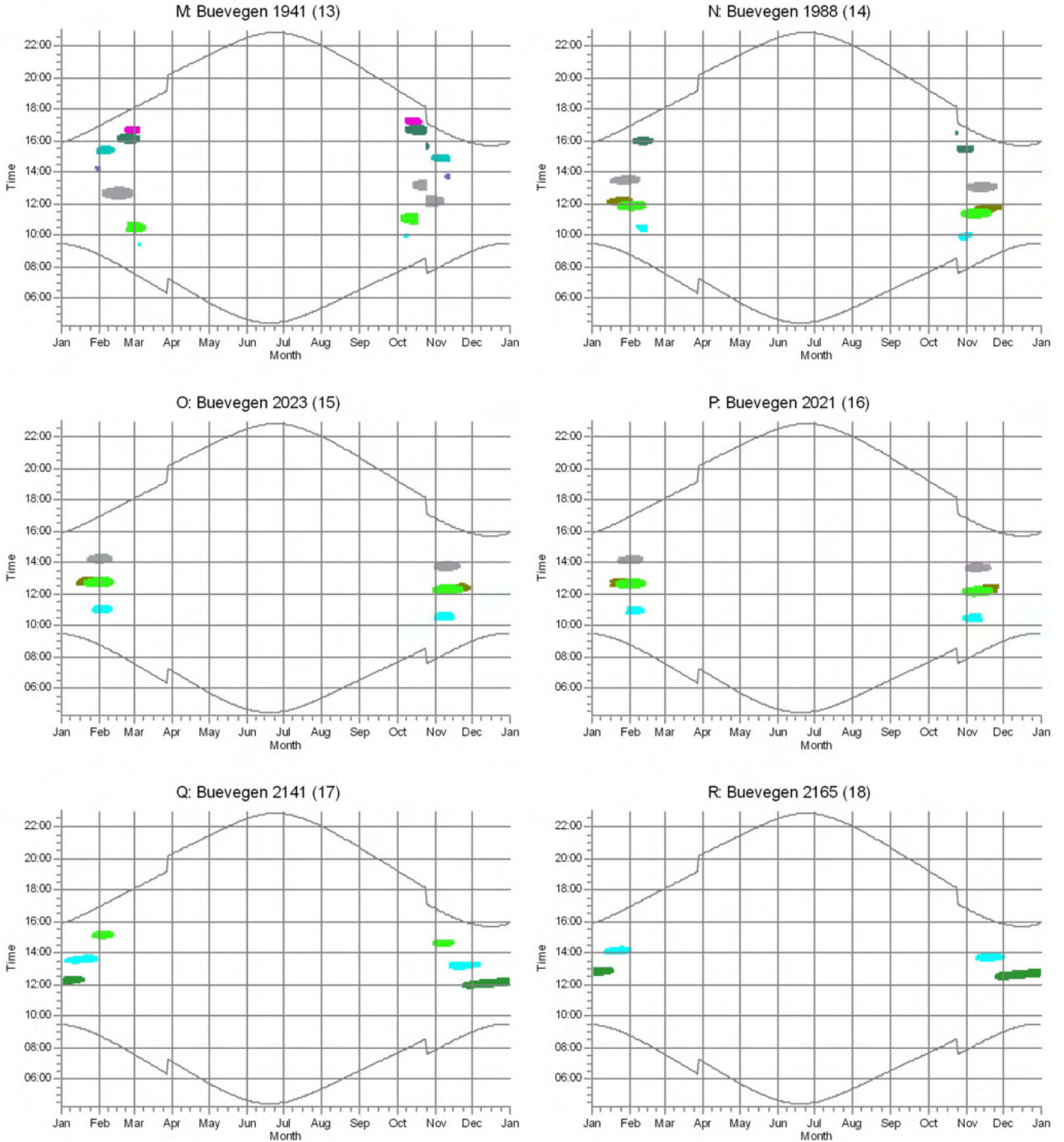


WTGs

- | | | |
|---|---|---|
| <ul style="list-style-type: none"> 16: VESTAS V162-7.2 7200 162.0 10! hub: 119.0 m (TOT: 200.0 m) (2558) 18: VESTAS V162-7.2 7200 162.0 10! hub: 119.0 m (TOT: 200.0 m) (2560) 21: VESTAS V162-7.2 7200 162.0 10! hub: 119.0 m (TOT: 200.0 m) (2563) | <ul style="list-style-type: none"> 24: VESTAS V162-7.2 7200 162.0 10! hub: 119.0 m (TOT: 200.0 m) (2566) 25: VESTAS V162-7.2 7200 162.0 10! hub: 119.0 m (TOT: 200.0 m) (2567) 29: VESTAS V162-7.2 7200 162.0 10! hub: 119.0 m (TOT: 200.0 m) (2571) | <ul style="list-style-type: none"> 34: VESTAS V162-7.2 7200 162.0 10! hub: 119.0 m (TOT: 200.0 m) (2576) |
|---|---|---|

SHADOW - Calendar, graphical

Calculation: Oppdatert layout - kun Moifjellet - worst case - oppdatert mottaker

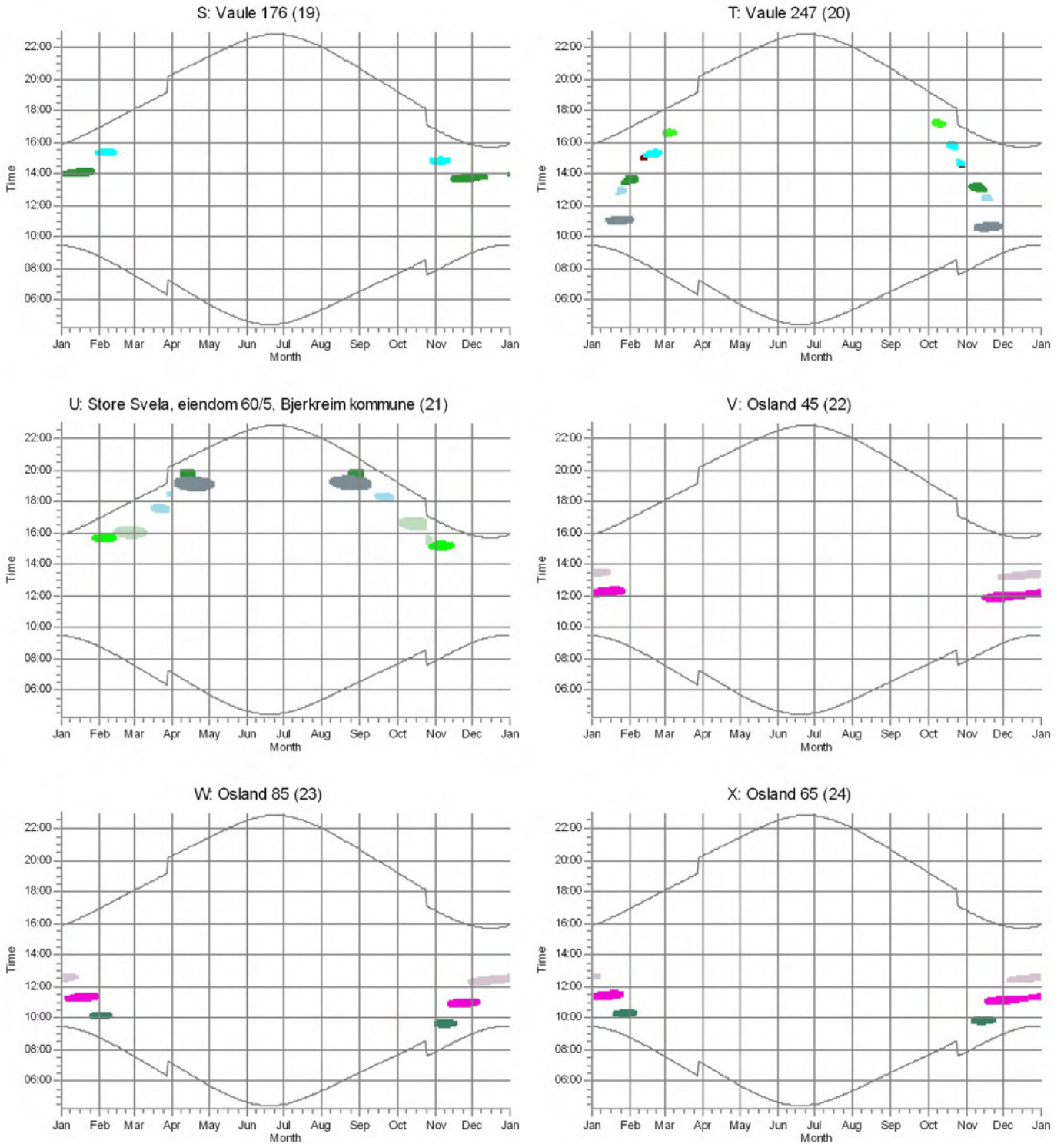


WTGs

<p>10: VESTAS V162-7.2 7200 162.0 IOI hub: 119.0 m (TOT: 200.0 m) (2552)</p> <p>13: VESTAS V162-7.2 7200 162.0 IOI hub: 119.0 m (TOT: 200.0 m) (2555)</p> <p>16: VESTAS V162-7.2 7200 162.0 IOI hub: 119.0 m (TOT: 200.0 m) (2558)</p>	<p>18: VESTAS V162-7.2 7200 162.0 IOI hub: 119.0 m (TOT: 200.0 m) (2560)</p> <p>21: VESTAS V162-7.2 7200 162.0 IOI hub: 119.0 m (TOT: 200.0 m) (2563)</p> <p>24: VESTAS V162-7.2 7200 162.0 IOI hub: 119.0 m (TOT: 200.0 m) (2566)</p>	<p>27: VESTAS V162-7.2 7200 162.0 IOI hub: 119.0 m (TOT: 200.0 m) (2569)</p> <p>29: VESTAS V162-7.2 7200 162.0 IOI hub: 119.0 m (TOT: 200.0 m) (2571)</p> <p>34: VESTAS V162-7.2 7200 162.0 IOI hub: 119.0 m (TOT: 200.0 m) (2576)</p>
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SHADOW - Calendar, graphical

Calculation: Oppdatert layout - kun Moifjellet - worst case - oppdatert mottaker

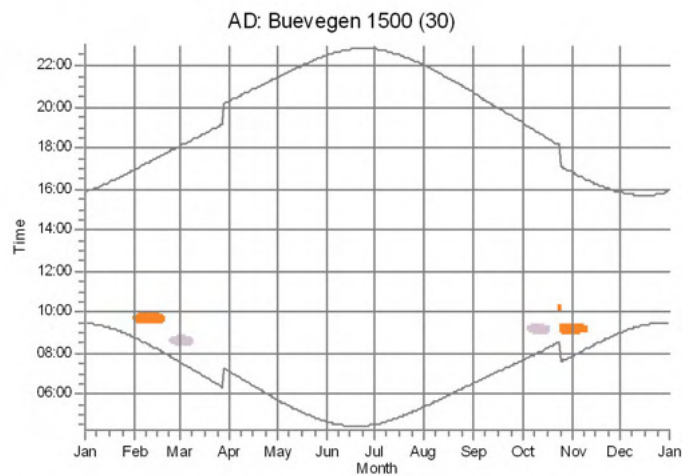
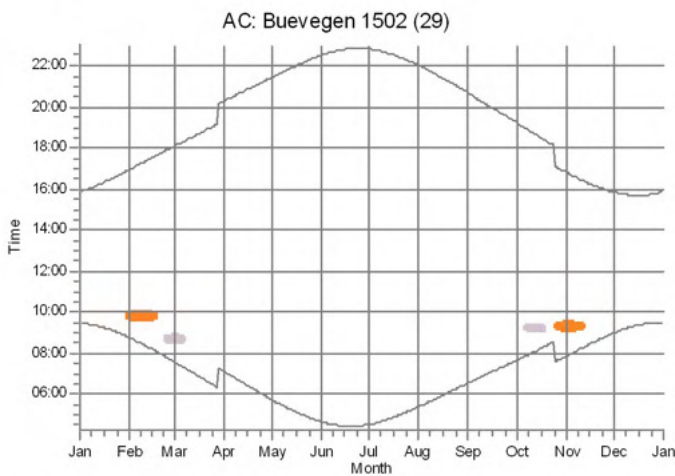
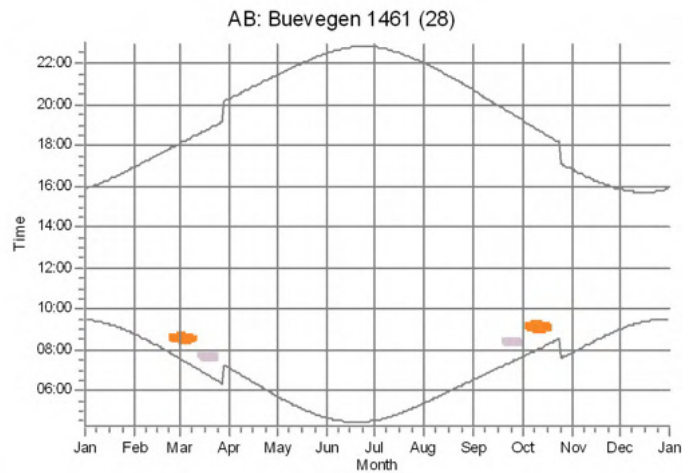
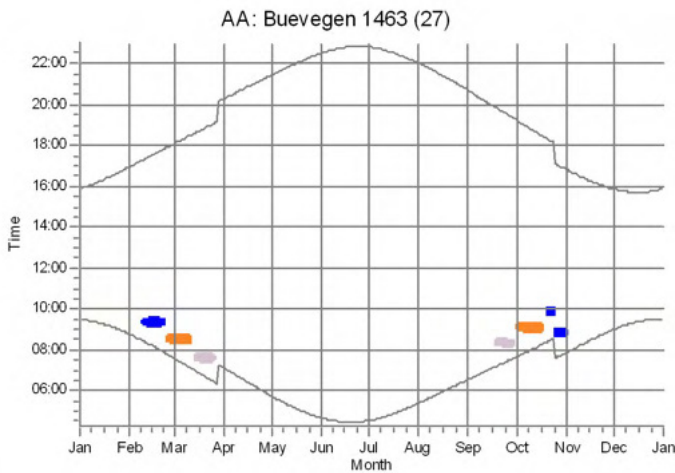
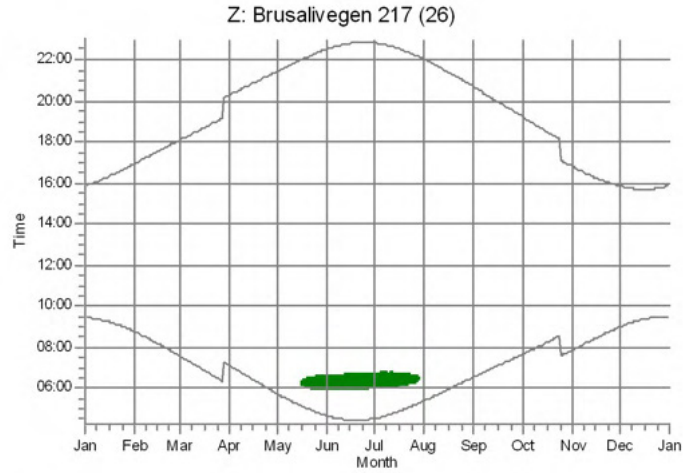
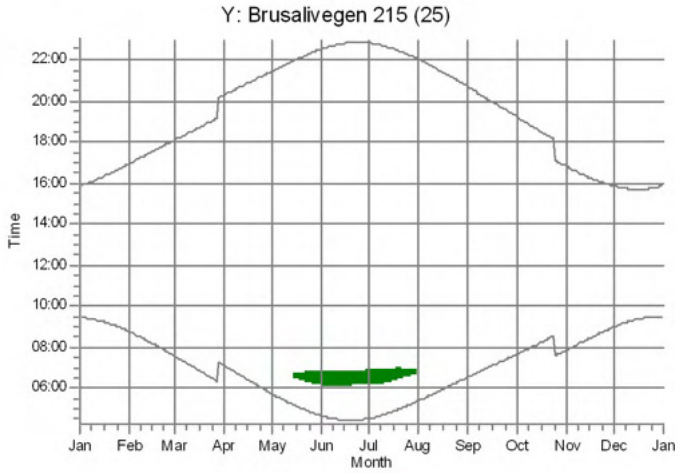


WTGs

<p>8: VESTAS V162-7.2 7200 162.0 IO! hub: 119.0 m (TOT: 200.0 m) (2550)</p> <p>9: VESTAS V162-7.2 7200 162.0 IO! hub: 119.0 m (TOT: 200.0 m) (2551)</p> <p>13: VESTAS V162-7.2 7200 162.0 IO! hub: 119.0 m (TOT: 200.0 m) (2555)</p> <p>14: VESTAS V162-7.2 7200 162.0 IO! hub: 119.0 m (TOT: 200.0 m) (2556)</p>	<p>18: VESTAS V162-7.2 7200 162.0 IO! hub: 119.0 m (TOT: 200.0 m) (2560)</p> <p>24: VESTAS V162-7.2 7200 162.0 IO! hub: 119.0 m (TOT: 200.0 m) (2566)</p> <p>25: VESTAS V162-7.2 7200 162.0 IO! hub: 119.0 m (TOT: 200.0 m) (2567)</p> <p>27: VESTAS V162-7.2 7200 162.0 IO! hub: 119.0 m (TOT: 200.0 m) (2569)</p>	<p>29: VESTAS V162-7.2 7200 162.0 IO! hub: 119.0 m (TOT: 200.0 m) (2571)</p> <p>33: VESTAS V162-7.2 7200 162.0 IO! hub: 119.0 m (TOT: 200.0 m) (2575)</p> <p>38: VESTAS V162-7.2 7200 162.0 IO! hub: 119.0 m (TOT: 200.0 m) (2580)</p>
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SHADOW - Calendar, graphical

Calculation: Oppdatert layout - kun Moifjellet - worst case - oppdatert mottaker

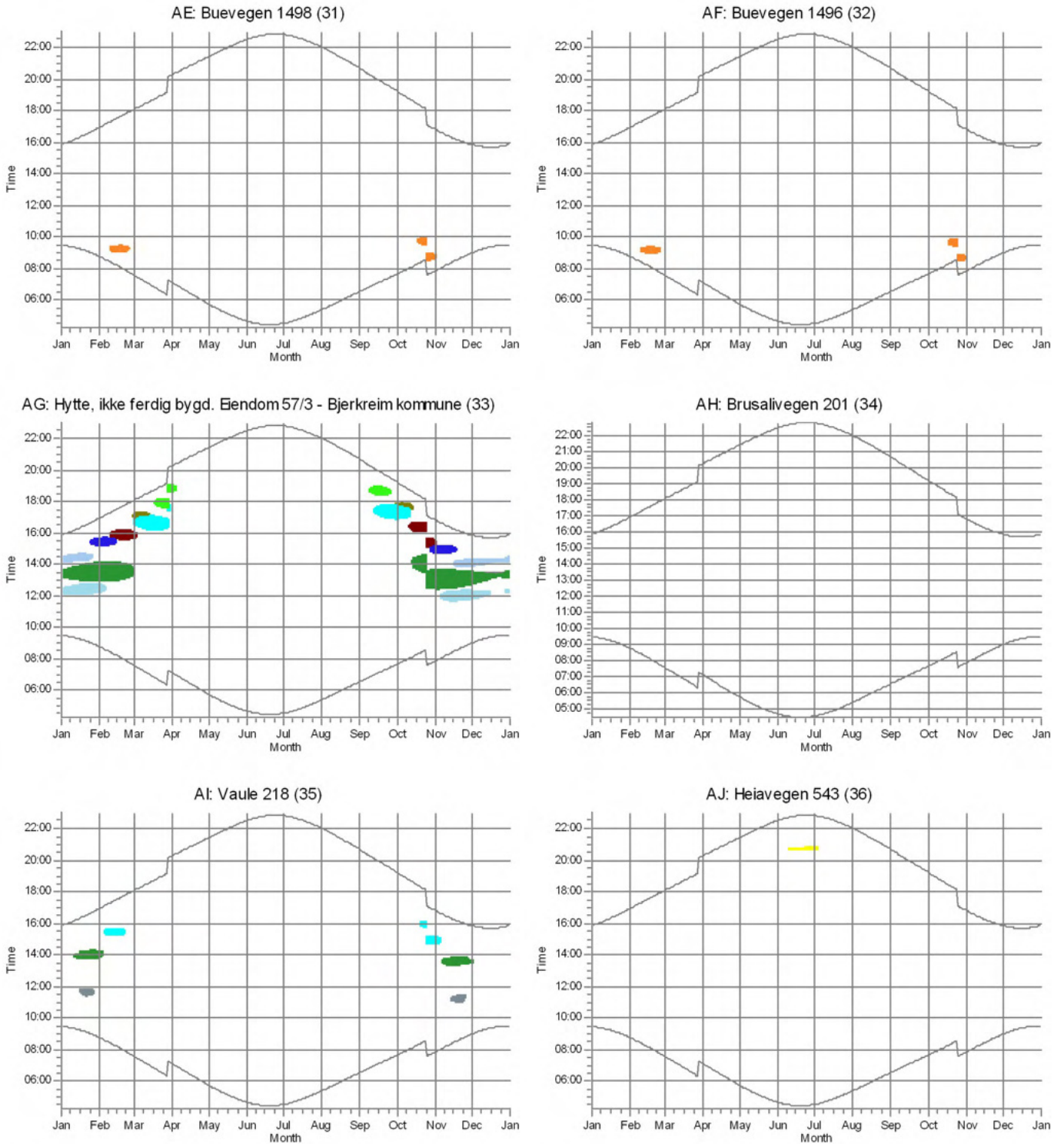


WTGs

- 1: VESTAS V162-7.2 7200 162.0 IOI hub: 119.0 m (TOT: 200.0 m) (2543)
- 23: VESTAS V162-7.2 7200 162.0 IOI hub: 119.0 m (TOT: 200.0 m) (2565)
- 3: VESTAS V162-7.2 7200 162.0 IOI hub: 119.0 m (TOT: 200.0 m) (2545)
- 25: VESTAS V162-7.2 7200 162.0 IOI hub: 119.0 m (TOT: 200.0 m) (2567)

SHADOW - Calendar, graphical

Calculation: Oppdatert layout - kun Moifjellet - worst case - oppdatert mottaker

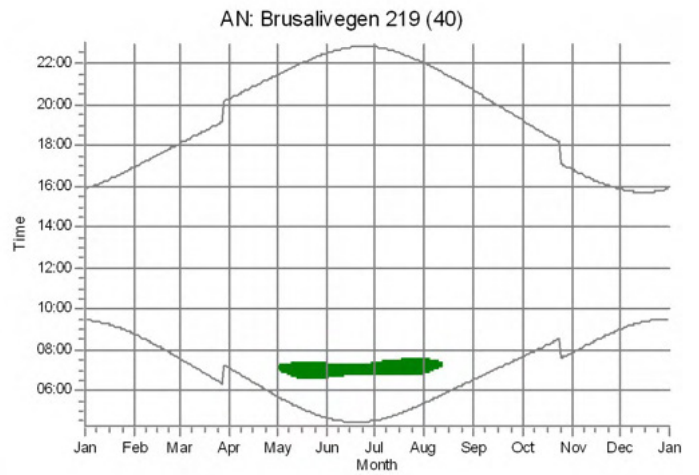
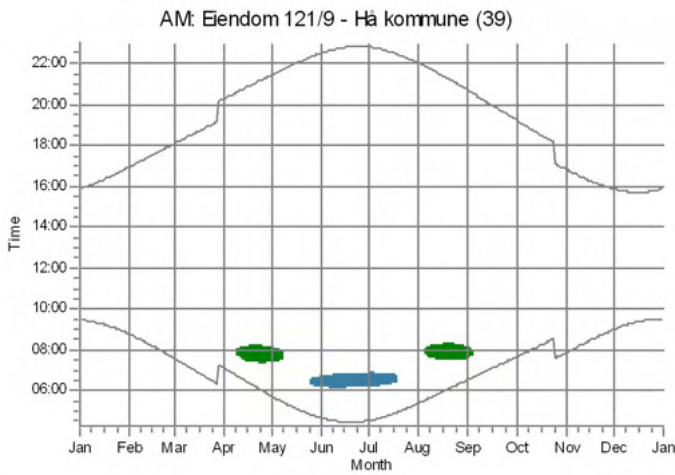
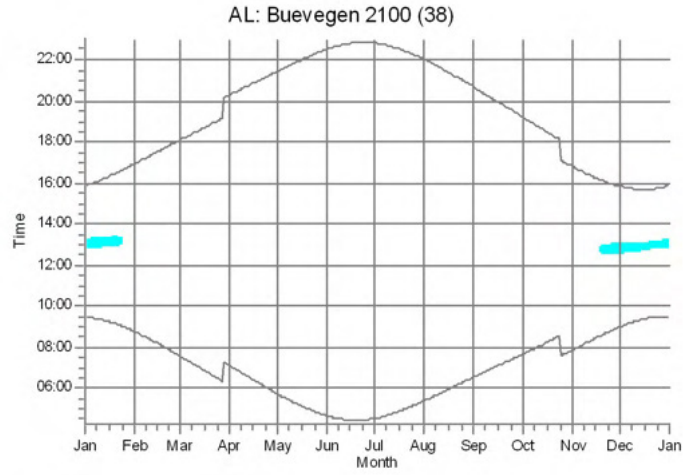
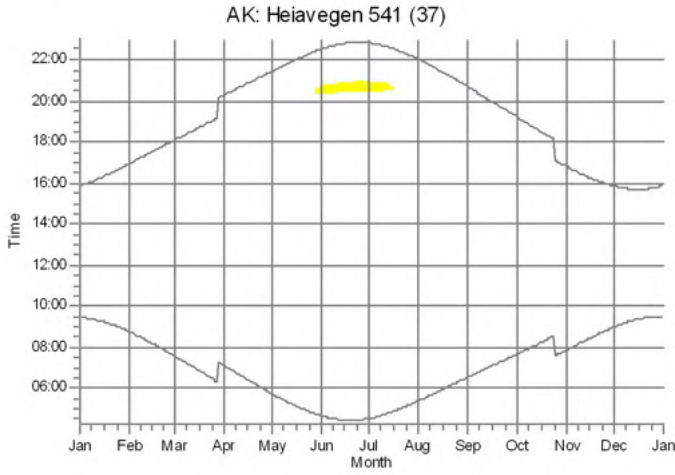


WTGs

<ul style="list-style-type: none"> 2: VESTAS V162-7.2 7200 162.0 IOI hub: 119.0 m (TOT: 200.0 m) (2544) 4: VESTAS V162-7.2 7200 162.0 IOI hub: 119.0 m (TOT: 200.0 m) (2546) 8: VESTAS V162-7.2 7200 162.0 IOI hub: 119.0 m (TOT: 200.0 m) (2550) 10: VESTAS V162-7.2 7200 162.0 IOI hub: 119.0 m (TOT: 200.0 m) (2552) 	<ul style="list-style-type: none"> 13: VESTAS V162-7.2 7200 162.0 IOI hub: 119.0 m (TOT: 200.0 m) (2555) 15: VESTAS V162-7.2 7200 162.0 IOI hub: 119.0 m (TOT: 200.0 m) (2557) 18: VESTAS V162-7.2 7200 162.0 IOI hub: 119.0 m (TOT: 200.0 m) (2560) 23: VESTAS V162-7.2 7200 162.0 IOI hub: 119.0 m (TOT: 200.0 m) (2565) 	<ul style="list-style-type: none"> 27: VESTAS V162-7.2 7200 162.0 IOI hub: 119.0 m (TOT: 200.0 m) (2569) 33: VESTAS V162-7.2 7200 162.0 IOI hub: 119.0 m (TOT: 200.0 m) (2575) 36: VESTAS V162-7.2 7200 162.0 IOI hub: 119.0 m (TOT: 200.0 m) (2578) 38: VESTAS V162-7.2 7200 162.0 IOI hub: 119.0 m (TOT: 200.0 m) (2580)
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SHADOW - Calendar, graphical

Calculation: Oppdatert layout - kun Moifjellet - worst case - oppdatert mottaker



WTGs

1: VESTAS V162-7.2 7200 162.0 IOI hub: 119.0 m (TOT: 200.0 m) (2543)
 2: VESTAS V162-7.2 7200 162.0 IOI hub: 119.0 m (TOT: 200.0 m) (2544)

13: VESTAS V162-7.2 7200 162.0 IOI hub: 119.0 m (TOT: 200.0 m) (2555)
 37: VESTAS V162-7.2 7200 162.0 IOI hub: 119.0 m (TOT: 200.0 m) (2579)



Vedlegg 2.1

SHADOW - Calendar

Calculation: Oppdatert layout - real case med vindrose - kun Moifjellet - oppdatert mottaker **Shadow receptor:** A - Moi 32 (1)
Assumptions for shadow calculations Sunshine probability S/S0 (Sun hours/Possible sun hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
 644 231 315 644 959 714 721 455 378 420 574 938 6 993

	January	February	March	April	May	June	
1 09:28		08:46	11:21 (34) 07:35	09:10 (16) 07:07	05:44	04:40	
15:53		16:56	46 14:37 (24) 18:05	24 09:34 (16) 20:17	21:26	22:30	
2 09:27		08:43	12:08 (29) 07:33	09:10 (16) 07:04	05:41	04:38	
15:54		16:58	46 14:44 (24) 18:07	24 09:34 (16) 20:19	21:28	22:32	
3 09:27		08:41	12:06 (29) 07:30	09:10 (16) 07:01	05:39	04:37	
15:55		17:01	57 14:50 (24) 18:09	24 09:34 (16) 20:21	21:30	22:34	
4 09:26		08:39	12:06 (29) 07:27	09:10 (16) 06:58	05:36	04:36	
15:57		17:03	62 14:52 (24) 18:12	23 09:33 (16) 20:24	21:33	22:35	
5 09:26		08:37	12:05 (29) 07:24	09:10 (16) 06:55	05:34	04:35	
15:58		17:06	65 14:53 (24) 18:14	22 09:32 (16) 20:26	21:35	22:37	
6 09:25		08:34	12:05 (29) 07:21	08:23 (18) 06:52	05:31	04:34	
16:00		17:08	69 14:55 (24) 18:17	29 09:31 (16) 20:28	21:37	22:38	
7 09:24		08:32	12:04 (29) 07:19	08:20 (18) 06:50	05:29	04:33	
16:02		17:11	73 14:56 (24) 18:19	33 09:30 (16) 20:30	21:40	22:39	
8 09:24		08:30	12:04 (29) 07:16	08:19 (18) 06:47	05:26	04:32	
16:03		17:13	75 14:57 (24) 18:21	31 09:28 (16) 20:33	21:42	22:40	
9 09:23		08:27	12:04 (29) 07:13	08:18 (18) 06:44	05:24	04:31	
16:05		17:16	81 15:36 (25) 18:24	27 09:25 (16) 20:35	21:44	22:42	
10 09:22		08:25	12:03 (29) 07:10	08:17 (18) 06:41	05:22	04:30	
16:07		17:18	95 15:42 (25) 18:26	18 08:35 (18) 20:37	21:46	22:43	
11 09:21		08:23	12:04 (29) 07:07	08:16 (18) 06:38	05:19	04:29	
16:09		17:21	100 15:47 (25) 18:28	19 08:35 (18) 20:40	21:49	22:44	
12 09:20		08:20	12:03 (29) 07:04	08:17 (18) 06:35	05:17	04:29	
16:11		17:23	103 15:49 (25) 18:31	19 08:36 (18) 20:42	21:51	22:45	
13 09:18		08:18	12:03 (29) 07:01	08:17 (18) 06:32	05:15	04:28	
16:13		17:26	101 15:48 (25) 18:33	18 08:35 (18) 20:44	21:53	22:46	
14 09:17		08:15	12:04 (29) 06:59	08:17 (18) 06:30	05:13	04:28	
16:15		17:28	98 15:48 (25) 18:35	17 08:34 (18) 20:47	21:55	22:47	
15 09:16		08:13	12:04 (29) 06:56	08:18 (18) 06:27	05:10	04:27	
16:17		17:31	95 15:46 (25) 18:38	14 08:32 (18) 20:49	21:58	22:47	
16 09:15		08:10	12:03 (29) 06:53	08:20 (18) 06:24	05:08	04:27	
16:19		17:33	90 15:43 (25) 18:40	10 08:30 (18) 20:51	22:00	22:48	
17 09:13		08:07	12:04 (29) 06:50		06:21	05:06	04:27
16:21		17:36	78 14:58 (24) 18:42		20:53	22:02	22:49
18 09:12		08:05	12:05 (29) 06:47		06:19	05:04	04:27
16:23	6	11:33 (34) 17:38	76 14:58 (24) 18:45		20:56	22:04	22:49
19 09:10		08:02	12:05 (29) 06:44		06:16	05:02	04:27
16:25	6	13:07 (21) 17:40	75 14:58 (24) 18:47		20:58	22:06	22:50
20 09:08		08:00	12:05 (29) 06:41		06:13	05:00	04:27
16:28	23	13:08 (21) 17:43	72 14:57 (24) 18:49		21:00	22:08	22:50
21 09:07		07:57	12:06 (29) 06:38		06:10	04:58	04:27
16:30	24	13:08 (21) 17:45	67 14:55 (24) 18:51		21:03	22:10	22:50
22 09:05		07:54	12:07 (29) 06:36		06:08	04:56	04:27
16:32	38	13:07 (21) 17:48	62 14:54 (24) 18:54		21:05	22:12	22:50
23 09:03		07:52	09:18 (16) 06:33		06:05	04:54	04:27
16:34	43	13:08 (21) 17:50	68 14:53 (24) 18:56		21:07	22:14	22:50
24 09:02		07:49	09:15 (16) 06:30		06:02	04:52	04:27
16:37	48	13:08 (21) 17:53	66 14:51 (24) 18:58		21:10	22:16	22:51
25 09:00		07:46	09:14 (16) 06:27		05:59	04:51	04:28
16:39	48	13:08 (21) 17:55	55 14:47 (24) 19:01		21:12	22:18	22:50
26 08:58		07:44	09:12 (16) 06:24		05:57	04:49	04:28
16:41	48	13:08 (21) 17:57	41 12:35 (29) 19:03		21:14	22:20	22:50
27 08:56		07:41	09:11 (16) 06:21		05:54	04:47	04:29
16:44	58	13:07 (21) 18:00	33 12:30 (29) 19:05		21:17	22:22	22:50
28 08:54		07:38	09:10 (16) 06:18		05:52	04:46	04:30
16:46	61	13:07 (21) 18:02	23 09:33 (16) 19:07		21:19	22:24	22:50
29 08:52		07:15			05:49	04:44	04:30
16:49	60	13:06 (21)			21:21	22:25	22:50
30 08:50		07:12			05:46	04:43	04:31
16:51	59	13:04 (21)			21:24	22:27	22:49
31 08:48		07:10				04:41	
16:54	55	13:03 (21)				22:29	
Potential sun hours	221	260	365	432	521	547	
Total, worst case	577	1972	352				
Sun reduction	0,50	0,50	0,50				
Oper. time red.	0,80	0,80	0,80				
Wind dir. red.	0,65	0,61	0,73				
Total reduction	0,26	0,24	0,29				
Total, real	149	479	103				

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)		Last time (hh:mm) with flicker	(WTG causing flicker last time)

SHADOW - Calendar

Calculation: Oppdatert layout - real case med vindrose - kun Moifjellet - oppdatert mottaker **Shadow receptor:** A - Moi 32 (1)

Assumptions for shadow calculations

Sunshine probability S/S0 (Sun hours/Possible sun hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
644 231 315 644 959 714 721 455 378 420 574 938 6 993

	July	August	September	October	November	December				
1	04:32	05:24	06:33	07:39	08:56 (18)	07:51	11:33 (29)	09:00		
	22:49	22:01	20:40	19:13	18	09:14 (18)	16:49	91	15:09 (25)	15:51
2	04:33	05:26	06:35	07:42	18	08:55 (18)	07:54	79	11:33 (29)	09:02
	22:48	21:58	20:37	19:10	19	09:14 (18)	16:46	79	15:05 (25)	15:50
3	04:34	05:28	06:37	07:44	18	08:55 (18)	07:56	73	11:34 (29)	09:03
	22:47	21:56	20:34	19:07	18	09:13 (18)	16:44	73	14:26 (24)	15:49
4	04:35	05:31	06:40	07:46	24	08:55 (18)	07:59	71	11:34 (29)	09:05
	22:47	21:54	20:31	19:04	24	10:00 (16)	16:41	71	14:25 (24)	15:48
5	04:36	05:33	06:42	07:48	29	08:56 (18)	08:01	68	11:35 (29)	09:07
	22:46	21:51	20:28	19:02	29	10:04 (16)	16:39	68	14:24 (24)	15:47
6	04:37	05:35	06:44	07:51	32	08:56 (18)	08:03	66	11:36 (29)	09:09
	22:45	21:49	20:25	18:59	32	10:05 (16)	16:37	66	14:24 (24)	15:46
7	04:39	05:37	06:46	07:53	32	08:57 (18)	08:06	61	11:36 (29)	09:10
	22:44	21:47	20:22	18:56	32	10:06 (16)	16:34	61	14:22 (24)	15:45
8	04:40	05:39	06:49	07:55	27	09:00 (18)	08:08	56	11:37 (29)	09:12
	22:43	21:44	20:20	18:53	27	10:07 (16)	16:32	56	14:20 (24)	15:45
9	04:41	05:42	06:51	07:57	22	09:45 (16)	08:11	46	11:38 (29)	09:13
	22:42	21:42	20:17	18:50	22	10:07 (16)	16:30	46	14:15 (24)	15:44
10	04:43	05:44	06:53	08:00	23	09:45 (16)	08:13	47	10:52 (34)	09:15
	22:40	21:39	20:14	18:47	23	10:08 (16)	16:28	47	14:09 (24)	15:44
11	04:44	05:46	06:55	08:02	24	09:44 (16)	08:15	55	10:49 (34)	09:16
	22:39	21:37	20:11	18:45	24	10:08 (16)	16:25	55	12:34 (21)	15:43
12	04:46	05:48	06:57	08:04	24	09:43 (16)	08:18	60	10:48 (34)	09:18
	22:38	21:34	20:08	18:42	24	10:07 (16)	16:23	60	12:36 (21)	15:43
13	04:47	05:51	07:00	08:07	23	09:44 (16)	08:20	60	10:47 (34)	09:19
	22:37	21:31	20:05	18:39	23	10:07 (16)	16:21	60	12:38 (21)	15:42
14	04:49	05:53	07:02	08:09	23	09:43 (16)	08:22	61	10:46 (34)	09:20
	22:35	21:29	20:02	18:36	23	10:06 (16)	16:19	61	12:39 (21)	15:42
15	04:51	05:55	07:04	08:11	37	09:44 (16)	08:25	58	10:46 (34)	09:21
	22:34	21:26	19:59	18:33	37	13:05 (29)	16:17	58	12:40 (21)	15:42
16	04:52	05:57	07:06	08:13	42	09:45 (16)	08:27	46	10:46 (34)	09:22
	22:32	21:24	19:56	18:31	42	13:08 (29)	16:15	46	12:41 (21)	15:42
17	04:54	06:00	07:08	08:16	61	09:46 (16)	08:29	48	10:45 (34)	09:23
	22:30	21:21	19:54	18:28	61	15:21 (24)	16:13	48	12:41 (21)	15:42
18	04:56	06:02	07:11	08:18	66	09:47 (16)	08:32	48	10:45 (34)	09:24
	22:29	21:18	19:51	18:25	66	15:23 (24)	16:11	48	12:42 (21)	15:42
19	04:58	06:04	07:13	08:20	68	09:50 (16)	08:34	43	10:52 (34)	09:25
	22:27	21:16	19:48	18:22	68	15:25 (24)	16:09	43	12:43 (21)	15:42
20	05:00	06:06	07:15	08:23	64	12:38 (29)	08:36	38	10:57 (34)	09:26
	22:25	21:13	19:45	18:20	64	15:25 (24)	16:08	38	12:42 (21)	15:43
21	05:01	06:08	07:17	08:25	77	12:37 (29)	08:39	6	11:01 (34)	09:26
	22:24	21:10	19:42	18:17	68	15:27 (24)	16:06	24	12:43 (21)	15:43
22	05:03	06:11	07:19	08:27	72	12:35 (29)	08:41	22	11:04 (34)	09:27
	22:22	21:08	19:39	18:14	72	15:27 (24)	16:04	22	12:44 (21)	15:43
23	05:05	06:13	07:22	08:30	75	12:35 (29)	08:43	9	11:04 (34)	09:27
	22:20	21:05	19:36	18:12	75	15:28 (24)	16:02	9	12:44 (21)	15:44
24	05:07	06:15	07:24	08:32	77	12:34 (29)	08:45	6	11:04 (34)	09:28
	22:18	21:02	19:33	18:09	77	15:28 (24)	16:01	6	11:10 (34)	15:44
25	05:09	06:17	07:26	07:35	91	11:34 (29)	08:47			09:28
	22:16	20:59	19:30	17:06	78	14:28 (24)	15:59			15:45
26	05:11	06:20	07:28	07:37	91	11:33 (29)	08:50			09:28
	22:14	20:56	19:27	17:04	91	15:13 (25)	15:58			15:46
27	05:13	06:22	07:30	07:39	97	11:33 (29)	08:52			09:28
	22:12	20:54	19:25	8	09:03 (18)	07:39	15:16 (25)	15:56		15:47
28	05:16	06:24	07:33	09:00 (18)	07:42	11:33 (29)	08:54			09:28
	22:10	20:51	19:22	12	09:12 (18)	16:59	15:17 (25)	15:55		15:48
29	05:18	06:26	07:35	08:58 (18)	07:44	11:32 (29)	08:56			09:28
	22:07	20:48	19:19	15	09:13 (18)	16:56	15:18 (25)	15:54		15:49
30	05:20	06:29	07:37	08:56 (18)	07:47	11:33 (29)	08:58			09:28
	22:05	20:45	19:16	18	09:14 (18)	16:54	15:19 (25)	15:52		15:50
31	05:22	06:31		07:49		11:33 (29)				09:28
	22:03	20:42		16:51	98	15:16 (25)				15:51
Potential sun hours	546	478	386	319		236				199
Total, worst case			53	1635		1236				
Sun reduction			0,50	0,50		0,50				
Oper. time red.			0,80	0,80		0,80				
Wind dir. red.			0,72	0,63		0,62				
Total reduction			0,29	0,25		0,25				
Total, real			15	413		308				

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Calculation: Oppdatert layout - real case med vindrose - kun Moifjellet - oppdatert mottaker **Shadow receptor:** B - Moi 26 (2)
Assumptions for shadow calculations Sunshine probability S/S0 (Sun hours/Possible sun hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
 644 231 315 644 959 714 721 455 378 420 574 938 6 993

	January	February	March	April	May	June	
1 09:28		08:46	11:18 (34) 07:35	09:09 (16) 07:07	05:44	04:40	
15:53		16:56	14:41 (24) 18:05	09:32 (16) 20:17	21:26	22:30	
2 09:27		08:43	11:58 (29) 07:33	09:09 (16) 07:04	05:41	04:38	
15:54		16:58	14:43 (24) 18:07	09:33 (16) 20:19	21:28	22:32	
3 09:27		08:41	11:57 (29) 07:30	09:09 (16) 07:01	05:39	04:37	
15:55		17:01	14:44 (24) 18:09	09:32 (16) 20:21	21:30	22:34	
4 09:26		08:39	11:57 (29) 07:27	09:09 (16) 06:58	05:36	04:36	
15:57		17:03	14:46 (24) 18:12	09:31 (16) 20:24	21:33	22:35	
5 09:26		08:37	11:56 (29) 07:24	09:10 (16) 06:55	05:34	04:35	
15:58		17:06	14:47 (24) 18:14	09:30 (16) 20:26	21:35	22:37	
6 09:25		08:34	11:56 (29) 07:21	09:10 (16) 06:52	05:31	04:34	
16:00		17:08	14:48 (24) 18:17	09:29 (16) 20:28	21:37	22:38	
7 09:24		08:32	11:55 (29) 07:19	09:11 (16) 06:50	05:29	04:33	
16:02		17:11	15:29 (25) 18:19	09:27 (16) 20:30	21:40	22:39	
8 09:24		08:30	11:56 (29) 07:16	09:13 (16) 06:47	05:26	04:32	
16:03		17:13	15:35 (25) 18:21	09:25 (16) 20:33	21:42	22:40	
9 09:23		08:27	11:55 (29) 07:13		06:44	05:24	04:31
16:05		17:16	15:40 (25) 18:24		20:35	21:44	22:42
10 09:22		08:25	11:55 (29) 07:10		06:41	05:22	04:30
16:07		17:18	15:44 (25) 18:26		20:37	21:46	22:43
11 09:21		08:23	11:55 (29) 07:07		06:38	05:19	04:29
16:09		17:21	15:44 (25) 18:28		20:40	21:49	22:44
12 09:20		08:20	11:55 (29) 07:04		06:35	05:17	04:29
16:11		17:23	15:43 (25) 18:31		20:42	21:51	22:45
13 09:18		08:18	11:55 (29) 07:01		06:32	05:15	04:28
16:13		17:26	15:41 (25) 18:33		20:44	21:53	22:46
14 09:17		08:15	11:55 (29) 06:59		06:30	05:13	04:28
16:15		17:28	15:40 (25) 18:35		20:47	21:55	22:47
15 09:16		08:13	11:55 (29) 06:56		06:27	05:10	04:27
16:17		17:31	15:37 (25) 18:38		20:49	21:58	22:47
16 09:15		08:10	11:55 (29) 06:53		06:24	05:08	04:27
16:19		17:33	14:50 (24) 18:40		20:51	22:00	22:48
17 09:13		12:54 (21) 08:07	11:56 (29) 06:50		06:21	05:06	04:27
16:21	1	12:55 (21) 17:36	14:49 (24) 18:42		20:53	22:02	22:49
18 09:12		11:10 (34) 08:05	11:57 (29) 06:47		06:19	05:04	04:27
16:23	27	13:01 (21) 17:38	14:49 (24) 18:45		20:56	22:04	22:49
19 09:10		11:10 (34) 08:02	11:57 (29) 06:44		06:16	05:02	04:27
16:25	34	13:02 (21) 17:40	14:48 (24) 18:47		20:58	22:06	22:50
20 09:08		11:10 (34) 08:00	11:58 (29) 06:41		06:13	05:00	04:27
16:28	39	13:02 (21) 17:43	14:47 (24) 18:49		21:00	22:08	22:50
21 09:07		11:09 (34) 07:57	11:59 (29) 06:38		06:10	04:58	04:27
16:30	47	13:02 (21) 17:45	14:45 (24) 18:51		21:03	22:10	22:50
22 09:05		11:07 (34) 07:54	09:19 (16) 06:36		06:08	04:56	04:27
16:32	49	13:02 (21) 17:48	14:43 (24) 18:54		21:05	22:12	22:50
23 09:03		11:07 (34) 07:52	09:16 (16) 06:33		06:05	04:54	04:27
16:34	48	13:02 (21) 17:50	14:41 (24) 18:56		21:07	22:14	22:50
24 09:02		11:08 (34) 07:49	09:14 (16) 06:30		06:02	04:52	04:27
16:37	47	13:02 (21) 17:53	14:36 (24) 18:58		21:10	22:16	22:51
25 09:00		11:08 (34) 07:46	09:12 (16) 06:27		05:59	04:51	04:28
16:39	47	13:02 (21) 17:55	12:25 (29) 19:01		21:12	22:18	22:50
26 08:58		11:09 (34) 07:44	09:11 (16) 06:24		05:57	04:49	04:28
16:41	59	13:02 (21) 17:57	12:18 (29) 19:03		21:14	22:20	22:50
27 08:56		11:09 (34) 07:41	09:10 (16) 06:21		05:54	04:47	04:29
16:44	61	13:01 (21) 18:00	09:32 (16) 19:05		21:17	22:22	22:50
28 08:54		11:10 (34) 07:38	09:09 (16) 06:18		05:52	04:46	04:30
16:46	62	13:00 (21) 18:02	09:32 (16) 19:07		21:19	22:24	22:50
29 08:52		11:12 (34)	07:15		05:49	04:44	04:30
16:49	61	13:00 (21)	20:10		21:21	22:25	22:50
30 08:50		11:13 (34)	07:12		05:46	04:43	04:31
16:51	61	14:31 (24)	20:12		21:24	22:27	22:49
31 08:48		11:15 (34)	07:10			04:41	
16:54	65	14:39 (24)	20:14			22:29	
Potential sun hours	221	260	365	432	521	547	
Total, worst case	708	1924	159				
Sun reduction	0,50	0,50	0,50				
Oper. time red.	0,80	0,80	0,80				
Wind dir. red.	0,65	0,61	0,74				
Total reduction	0,26	0,24	0,29				
Total, real	183	468	47				

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Calculation: Oppdatert layout - real case med vindrose - kun Moifjellet - oppdatert mottaker **Shadow receptor:** B - Moi 26 (2)
Assumptions for shadow calculations Sunshine probability S/S0 (Sun hours/Possible sun hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
 644 231 315 644 959 714 721 455 378 420 574 938 6 993

	July	August	September	October	November	December
1	04:32	05:24	06:33	07:39	07:51	11:24 (29) 09:00
	22:49	22:01	20:40	19:13	16:49	101 15:13 (25) 15:51
2	04:33	05:26	06:35	07:42	07:54	11:25 (29) 09:02
	22:48	21:58	20:37	19:10	16:46	96 15:09 (25) 15:50
3	04:34	05:28	06:37	07:44	07:56	11:25 (29) 09:03
	22:47	21:56	20:34	19:07	16:44	90 15:04 (25) 15:49
4	04:35	05:31	06:40	07:46	07:59	11:25 (29) 09:05
	22:47	21:54	20:31	19:04	16:41	81 14:58 (25) 15:48
5	04:36	05:33	06:42	07:48	09:52 (16) 08:01	11:26 (29) 09:07
	22:46	21:51	20:28	19:02	8 10:00 (16) 16:39	72 14:18 (24) 15:47
6	04:37	05:35	06:44	07:51	09:48 (16) 08:03	11:27 (29) 09:09
	22:45	21:49	20:25	18:59	15 10:03 (16) 16:37	69 14:17 (24) 15:46
7	04:39	05:37	06:46	07:53	09:46 (16) 08:06	11:27 (29) 09:10
	22:44	21:47	20:22	18:56	18 10:04 (16) 16:34	67 14:16 (24) 15:45
8	04:40	05:39	06:49	07:55	09:45 (16) 08:08	11:28 (29) 09:12
	22:43	21:44	20:20	18:53	20 10:05 (16) 16:32	62 14:15 (24) 15:45
9	04:41	05:42	06:51	07:57	09:44 (16) 08:11	11:29 (29) 09:13
	22:42	21:42	20:17	18:50	22 10:06 (16) 16:30	58 14:14 (24) 15:44
10	04:43	05:44	06:53	08:00	09:44 (16) 08:13	10:49 (34) 09:15
	22:40	21:39	20:14	18:47	22 10:06 (16) 16:28	59 14:13 (24) 15:44
11	04:44	05:46	06:55	08:02	09:43 (16) 08:15	10:46 (34) 09:16
	22:39	21:37	20:11	18:45	23 10:06 (16) 16:25	66 14:10 (24) 15:43
12	04:46	05:48	06:57	08:04	09:42 (16) 08:18	10:44 (34) 09:18
	22:38	21:34	20:08	18:42	24 10:06 (16) 16:23	61 14:02 (24) 15:43
13	04:47	05:51	07:00	08:07	09:42 (16) 08:20	10:44 (34) 09:19
	22:37	21:31	20:05	18:39	24 10:06 (16) 16:21	60 12:31 (21) 15:42
14	04:49	05:53	07:02	08:09	09:42 (16) 08:22	10:42 (34) 09:20
	22:35	21:29	20:02	18:36	23 10:05 (16) 16:19	62 12:32 (21) 15:42
15	04:51	05:55	07:04	08:11	09:43 (16) 08:25	10:42 (34) 09:21
	22:34	21:26	19:59	18:33	22 10:05 (16) 16:17	62 12:34 (21) 15:42
16	04:52	05:57	07:06	08:13	09:43 (16) 08:27	10:42 (34) 09:22
	22:32	21:24	19:56	18:31	32 12:54 (29) 16:15	59 12:35 (21) 15:42
17	04:54	06:00	07:08	08:16	09:44 (16) 08:29	10:41 (34) 09:23
	22:30	21:21	19:54	18:28	39 12:58 (29) 16:13	47 12:35 (21) 15:42
18	04:56	06:02	07:11	08:18	09:45 (16) 08:32	10:42 (34) 09:24
	22:29	21:18	19:51	18:25	53 15:09 (24) 16:11	47 12:36 (21) 15:42
19	04:58	06:04	07:13	08:20	09:48 (16) 08:34	10:42 (34) 09:25
	22:27	21:16	19:48	18:22	58 15:13 (24) 16:09	48 12:37 (21) 15:42
20	05:00	06:06	07:15	08:23	12:31 (29) 08:36	10:42 (34) 09:26
	22:25	21:13	19:45	18:20	55 15:15 (24) 16:08	49 12:37 (21) 15:43
21	05:01	06:08	07:17	08:25	12:30 (29) 08:39	10:44 (34) 09:26
	22:24	21:10	19:42	18:17	61 15:17 (24) 16:06	47 12:37 (21) 15:43
22	05:03	06:11	07:19	08:27	12:28 (29) 08:41	10:46 (34) 09:27
	22:22	21:08	19:39	18:14	66 15:17 (24) 16:04	39 12:38 (21) 15:43
23	05:05	06:13	07:22	08:30	12:27 (29) 08:43	10:46 (34) 09:27
	22:20	21:05	19:36	18:12	71 15:19 (24) 16:02	34 12:38 (21) 15:44
24	05:07	06:15	07:24	08:32	12:26 (29) 08:45	10:47 (34) 09:28
	22:18	21:02	19:33	18:09	73 15:19 (24) 16:01	27 12:38 (21) 15:44
25	05:09	06:17	07:26	07:35	11:26 (29) 08:47	12:32 (21) 09:28
	22:16	20:59	19:30	17:06	76 14:20 (24) 15:59	2 12:34 (21) 15:45
26	05:11	06:20	07:28	07:37	11:25 (29) 08:50	09:28
	22:14	20:56	19:27	17:04	77 14:19 (24) 15:58	15:46
27	05:13	06:22	07:30	07:39	11:25 (29) 08:52	09:28
	22:12	20:54	19:25	17:01	87 15:07 (25) 15:56	15:47
28	05:16	06:24	07:33	07:42	11:25 (29) 08:54	09:28
	22:10	20:51	19:22	16:59	93 15:10 (25) 15:55	15:48
29	05:18	06:26	07:35	07:44	11:24 (29) 08:56	09:28
	22:07	20:48	19:19	16:56	98 15:11 (25) 15:54	15:49
30	05:20	06:29	07:37	07:47	11:24 (29) 08:58	09:28
	22:05	20:45	19:16	16:54	100 15:12 (25) 15:52	15:50
31	05:22	06:31	07:49	11:25 (29)	15:52	09:28
	22:03	20:42	16:51	100 15:13 (25)	15:51	15:51
Potential sun hours	546	478	386	319	236	199
Total, worst case				1360		1465
Sun reduction				0,50		0,50
Oper. time red.				0,80		0,80
Wind dir. red.				0,63		0,62
Total reduction				0,25		0,25
Total, real				342		365

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)		Last time (hh:mm) with flicker	(WTG causing flicker last time)

SHADOW - Calendar

Calculation: Oppdatert layout - real case med vindrose - kun Moifjellet - oppdatert mottaker **Shadow receptor:** C - Moi 21 (3)
Assumptions for shadow calculations Sunshine probability S/S0 (Sun hours/Possible sun hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
 644 231 315 644 959 714 721 455 378 420 574 938 6 993

	January	February	March	April	May	June		
1	09:28	08:46	10:42 (34)	07:35	08:50 (16)	07:07	05:44	04:40
	15:53	16:56	72 14:06 (24)	18:05	39 11:29 (29)	20:17	21:26	22:30
2	09:27	08:43	10:44 (34)	07:33	08:50 (16)	07:04	05:41	04:38
	15:54	16:58	70 14:08 (24)	18:07	31 11:25 (29)	20:19	21:28	22:32
3	09:27	08:41	10:46 (34)	07:30	08:49 (16)	07:01	05:39	04:37
	15:55	17:01	72 14:10 (24)	18:09	21 09:10 (16)	20:21	21:31	22:34
4	09:26	08:39	10:47 (34)	07:27	08:48 (16)	06:58	05:36	04:36
	15:57	17:03	77 15:02 (25)	18:12	22 09:10 (16)	20:24	21:33	22:35
5	09:26	08:37	10:50 (34)	07:24	08:48 (16)	06:55	05:34	04:35
	15:58	17:06	77 15:05 (25)	18:14	21 09:09 (16)	20:26	21:35	22:37
6	09:25	08:34	11:05 (29)	07:21	08:48 (16)	06:52	05:31	04:34
	16:00	17:08	82 15:12 (25)	18:17	21 09:09 (16)	20:28	21:37	22:38
7	09:24	08:32	11:03 (29)	07:19	08:48 (16)	06:50	05:29	04:33
	16:02	17:11	92 15:18 (25)	18:19	20 09:08 (16)	20:30	21:40	22:39
8	09:24	08:30	11:03 (29)	07:16	08:48 (16)	06:47	05:26	04:32
	16:03	17:13	101 15:25 (25)	18:21	19 09:07 (16)	20:33	21:42	22:40
9	09:23	08:27	11:02 (29)	07:13	08:48 (16)	06:44	05:24	04:31
	16:05	17:16	112 15:55 (23)	18:24	18 09:06 (16)	20:35	21:44	22:42
10	09:22	08:25	11:01 (29)	07:10	08:49 (16)	06:41	05:22	04:30
	16:07	17:18	104 15:51 (23)	18:26	15 09:04 (16)	20:37	21:46	22:43
11	09:21	08:23	11:01 (29)	07:07	08:51 (16)	06:38	05:19	04:29
	16:09	17:21	101 15:23 (25)	18:28	11 09:02 (16)	20:40	21:49	22:44
12	09:20	08:20	11:00 (29)	07:04		06:35	05:17	04:29
	16:11	17:23	98 15:21 (25)	18:31		20:42	21:51	22:45
13	09:18	08:18	10:59 (29)	07:02		06:33	05:15	04:28
	16:13	17:26	94 15:18 (25)	18:33		20:44	21:53	22:46
14	09:17	08:15	11:00 (29)	06:59		06:30	05:13	04:28
	16:15	17:28	83 14:14 (24)	18:35		20:47	21:55	22:47
15	09:16	08:13	10:59 (29)	06:56		06:27	05:10	04:27
	16:17	17:31	83 14:13 (24)	18:38		20:49	21:58	22:47
16	09:15	08:10	10:59 (29)	06:53		06:24	05:08	04:27
	16:19	17:33	81 14:12 (24)	18:40		20:51	22:00	22:48
17	09:13	08:07	10:59 (29)	06:50		06:21	05:06	04:27
	16:21	17:36	81 14:12 (24)	18:42		20:53	22:02	22:49
18	09:12	08:05	10:59 (29)	06:47		06:19	05:04	04:27
	16:23	17:38	80 14:12 (24)	18:45		20:56	22:04	22:49
19	09:10	08:02	10:59 (29)	06:44		06:16	05:02	04:27
	16:25	17:40	78 14:11 (24)	18:47		20:58	22:06	22:50
20	09:08	08:00	10:59 (29)	06:41		06:13	05:00	04:27
	16:28	17:43	74 14:09 (24)	18:49		21:00	22:08	22:50
21	09:07	07:57	10:59 (29)	06:39		06:10	04:58	04:27
	16:30	17:45	71 14:08 (24)	18:51		21:03	22:10	22:50
22	09:05	07:54	11:00 (29)	06:36		06:08	04:56	04:27
	16:32	17:48	66 14:06 (24)	18:54		21:05	22:12	22:50
23	09:03	07:52	11:01 (29)	06:33		06:05	04:54	04:27
	16:34	17:50	60 14:04 (24)	18:56		21:07	22:14	22:50
24	09:02	07:49	11:01 (29)	06:30		06:02	04:52	04:27
	16:37	17:53	50 14:00 (24)	18:58		21:10	22:16	22:51
25	09:00	07:46	11:02 (29)	06:27		06:00	04:51	04:28
	16:39	17:55	36 11:38 (29)	19:01		21:12	22:18	22:50
26	08:58	12:05 (21)	07:44	11:03 (29)	06:24	05:57	04:49	04:28
	16:41	5 12:10 (21)	17:57	33 11:36 (29)	19:03	21:14	22:20	22:50
27	08:56	12:05 (21)	07:41	08:54 (16)	06:21	05:54	04:47	04:29
	16:44	19 13:53 (24)	18:00	41 11:34 (29)	19:05	21:17	22:22	22:50
28	08:54	11:00 (34)	07:38	08:52 (16)	06:18	05:52	04:46	04:30
	16:46	40 13:59 (24)	18:02	41 11:32 (29)	19:08	21:19	22:24	22:50
29	08:52	10:56 (34)		07:15		05:49	04:44	04:30
	16:49	47 14:02 (24)		20:10		21:21	22:25	22:50
30	08:50	10:50 (34)		07:13		05:46	04:43	04:31
	16:51	55 14:03 (24)		20:12		21:24	22:27	22:49
31	08:48	10:44 (34)		07:10			04:41	
	16:54	61 14:05 (24)		20:14			22:29	
Potential sun hours	221	260	365		432	521	547	
Total, worst case	227		2110		238			
Sun reduction	0,50		0,50		0,50			
Oper. time red.	0,80		0,80		0,80			
Wind dir. red.	0,62		0,63		0,73			
Total reduction	0,25		0,25		0,29			
Total, real	56		529		69			

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)		Last time (hh:mm) with flicker	(WTG causing flicker last time)

SHADOW - Calendar

Calculation: Oppdatert layout - real case med vindrose - kun Moifjellet - oppdatert mottaker **Shadow receptor:** C - Moi 21 (3)
Assumptions for shadow calculations Sunshine probability S/S0 (Sun hours/Possible sun hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
 644 231 315 644 959 714 721 455 378 420 574 938 6 993

	July	August	September	October	November	December
1	04:32	05:24	06:33	07:39	07:51	10:30 (29) 09:00
	22:49	22:01	20:40	19:13	16:49	15:21 (23) 15:51
2	04:33	05:26	06:35	07:42	09:32 (16) 07:54	10:31 (29) 09:02
	22:48	21:58	20:37	19:10	09:39 (16) 16:46	15:25 (23) 15:50
3	04:34	05:28	06:37	07:44	09:28 (16) 07:56	10:33 (29) 09:03
	22:47	21:56	20:34	19:07	09:42 (16) 16:44	14:53 (25) 15:49
4	04:35	05:31	06:40	07:46	09:26 (16) 07:59	10:33 (29) 09:05
	22:47	21:54	20:31	19:04	09:43 (16) 16:41	14:46 (25) 15:48
5	04:36	05:33	06:42	07:48	09:25 (16) 08:01	10:34 (29) 09:07
	22:46	21:51	20:28	19:02	09:44 (16) 16:39	14:41 (25) 15:47
6	04:37	05:35	06:44	07:51	09:24 (16) 08:03	10:20 (34) 09:09
	22:45	21:49	20:25	18:59	09:44 (16) 16:37	14:35 (25) 15:46
7	04:39	05:37	06:46	07:53	09:23 (16) 08:06	10:16 (34) 09:10
	22:44	21:47	20:22	18:56	09:44 (16) 16:34	14:32 (25) 15:45
8	04:40	05:39	06:49	07:55	09:23 (16) 08:08	10:15 (34) 09:12
	22:43	21:44	20:20	18:53	09:45 (16) 16:32	13:39 (24) 15:45
9	04:41	05:42	06:51	07:57	09:23 (16) 08:11	10:15 (34) 09:13
	22:42	21:42	20:17	18:50	09:44 (16) 16:30	13:39 (24) 15:44
10	04:43	05:44	06:53	08:00	09:23 (16) 08:13	10:14 (34) 09:15
	22:40	21:39	20:14	18:47	09:44 (16) 16:28	13:38 (24) 15:44
11	04:44	05:46	06:55	08:02	09:23 (16) 08:15	10:15 (34) 09:16
	22:39	21:37	20:11	18:45	09:43 (16) 16:25	13:36 (24) 15:43
12	04:46	05:48	06:57	08:04	09:23 (16) 08:18	10:24 (34) 09:18
	22:38	21:34	20:08	18:42	12:00 (29) 16:23	13:35 (24) 15:43
13	04:47	05:51	07:00	08:07	09:25 (16) 08:20	10:28 (34) 09:19
	22:37	21:31	20:05	18:39	12:04 (29) 16:21	13:33 (24) 15:42
14	04:49	05:53	07:02	08:09	09:25 (16) 08:22	10:32 (34) 09:20
	22:35	21:29	20:02	18:36	12:06 (29) 16:19	13:30 (24) 15:42
15	04:51	05:55	07:04	08:11	09:28 (16) 08:25	11:38 (21) 09:21
	22:34	21:26	19:59	18:33	12:08 (29) 16:17	13:26 (24) 15:42
16	04:52	05:57	07:06	08:13	11:35 (29) 08:27	11:38 (21) 09:22
	22:32	21:24	19:56	18:31	12:09 (29) 16:15	11:42 (21) 15:42
17	04:54	06:00	07:08	08:16	11:34 (29) 08:29	09:23
	22:30	21:21	19:54	18:28	12:10 (29) 16:13	15:42
18	04:56	06:02	07:11	08:18	11:32 (29) 08:32	09:24
	22:29	21:18	19:51	18:25	14:33 (24) 16:11	15:42
19	04:58	06:04	07:13	08:20	11:32 (29) 08:34	09:25
	22:27	21:16	19:48	18:22	14:36 (24) 16:09	15:42
20	05:00	06:06	07:15	08:23	11:31 (29) 08:36	09:26
	22:25	21:13	19:45	18:20	14:37 (24) 16:08	15:43
21	05:01	06:09	07:17	08:25	11:30 (29) 08:39	09:26
	22:24	21:10	19:42	18:17	14:39 (24) 16:06	15:43
22	05:03	06:11	07:19	08:27	11:29 (29) 08:41	09:27
	22:22	21:08	19:39	18:14	14:40 (24) 16:04	15:43
23	05:05	06:13	07:22	08:30	11:29 (29) 08:43	09:27
	22:20	21:05	19:36	18:12	14:41 (24) 16:02	15:44
24	05:07	06:15	07:24	08:32	11:29 (29) 08:45	09:28
	22:18	21:02	19:33	18:09	14:41 (24) 16:01	15:45
25	05:09	06:17	07:26	07:35	10:29 (29) 08:47	09:28
	22:16	20:59	19:30	17:07	13:42 (24) 15:59	15:45
26	05:11	06:20	07:28	07:37	10:29 (29) 08:50	09:28
	22:14	20:57	19:27	17:04	13:43 (24) 15:58	15:46
27	05:13	06:22	07:30	07:39	10:29 (29) 08:52	09:28
	22:12	20:54	19:25	17:01	13:42 (24) 15:56	15:47
28	05:16	06:24	07:33	07:42	10:29 (29) 08:54	09:28
	22:10	20:51	19:22	16:59	14:45 (25) 15:55	15:48
29	05:18	06:26	07:35	07:44	10:29 (29) 08:56	09:28
	22:07	20:48	19:19	16:56	14:48 (25) 15:54	15:49
30	05:20	06:29	07:37	07:47	10:30 (29) 08:58	09:28
	22:05	20:45	19:16	16:54	14:51 (25) 15:52	15:50
31	05:22	06:31		07:49	10:30 (29)	09:28
	22:03	20:42		16:51	14:52 (25)	15:51
Potential sun hours	546	478	386	319	236	199
Total, worst case				1520	1074	
Sun reduction				0,50	0,50	
Oper. time red.				0,80	0,80	
Wind dir. red.				0,65	0,62	
Total reduction				0,26	0,25	
Total, real				395	264	

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)		Last time (hh:mm) with flicker	(WTG causing flicker last time)

SHADOW - Calendar

Calculation: Oppdatert layout - real case med vindrose - kun Moifjellet - oppdatert mottaker **Shadow receptor:** D - Buevegen 1805 (4)

Assumptions for shadow calculations

Sunshine probability S/S0 (Sun hours/Possible sun hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
644 231 315 644 959 714 721 455 378 420 574 938 6 993

	January	February	March	April	May	June		
1	09:28	08:46	11:39 (29)	07:35	09:25 (16)	07:07	05:44	04:40
	15:53	16:56	88 15:12 (25)	18:05	9 09:34 (16)	20:17	21:26	22:31
2	09:27	08:43	11:39 (29)	07:33		07:04	05:41	04:38
	15:54	16:58	88 15:13 (25)	18:07		20:19	21:28	22:32
3	09:27	08:41	11:40 (29)	07:30		07:01	05:39	04:37
	15:55	17:01	85 15:12 (25)	18:09		20:21	21:31	22:34
4	09:27	08:39	11:39 (29)	07:27		06:58	05:36	04:36
	15:57	17:03	83 15:11 (25)	18:12		20:24	21:33	22:35
5	09:26	12:20 (21)	08:37	11:39 (29)	07:24	06:55	05:34	04:35
	15:58	1 12:21 (21)	17:06	80 15:09 (25)	18:14	20:26	21:35	22:37
6	09:25	12:19 (21)	08:34	11:40 (29)	07:21	06:52	05:31	04:34
	16:00	5 12:24 (21)	17:08	74 15:08 (25)	18:17	20:28	21:37	22:38
7	09:24	12:17 (21)	08:32	11:40 (29)	07:19	06:50	05:29	04:33
	16:02	11 12:28 (21)	17:11	62 14:11 (24)	18:19	20:30	21:40	22:39
8	09:24	12:17 (21)	08:30	11:41 (29)	07:16	06:47	05:26	04:32
	16:03	13 12:30 (21)	17:13	61 14:11 (24)	18:21	20:33	21:42	22:40
9	09:23	12:18 (21)	08:27	11:42 (29)	07:13	06:44	05:24	04:31
	16:05	16 12:34 (21)	17:16	57 14:10 (24)	18:24	20:35	21:44	22:42
10	09:22	11:06 (34)	08:25	11:42 (29)	07:10	06:41	05:22	04:30
	16:07	25 12:39 (21)	17:18	54 14:09 (24)	18:26	20:37	21:46	22:43
11	09:21	11:02 (34)	08:23	11:44 (29)	07:07	06:38	05:19	04:29
	16:09	31 12:41 (21)	17:21	48 14:08 (24)	18:28	20:40	21:49	22:44
12	09:20	11:01 (34)	08:20	11:45 (29)	07:04	06:35	05:17	04:29
	16:11	40 12:41 (21)	17:23	42 14:06 (24)	18:31	20:42	21:51	22:45
13	09:18	11:02 (34)	08:18	11:46 (29)	07:02	06:32	05:15	04:28
	16:13	42 12:42 (21)	17:26	32 14:02 (24)	18:33	20:44	21:53	22:46
14	09:17	11:02 (34)	08:15	11:49 (29)	06:59	06:30	05:13	04:28
	16:15	42 12:42 (21)	17:28	18 12:07 (29)	18:35	20:47	21:55	22:47
15	09:16	11:02 (34)	08:13	11:52 (29)	06:56	06:27	05:10	04:27
	16:17	43 12:42 (21)	17:31	12 12:04 (29)	18:38	20:49	21:58	22:47
16	09:15	11:02 (34)	08:10	09:29 (16)	06:53	06:24	05:08	04:27
	16:19	43 12:42 (21)	17:33	5 09:34 (16)	18:40	20:51	22:00	22:48
17	09:13	11:02 (34)	08:07	09:26 (16)	06:50	06:21	05:06	04:27
	16:21	47 12:42 (21)	17:36	11 09:37 (16)	18:42	20:53	22:02	22:49
18	09:12	11:03 (34)	08:05	09:25 (16)	06:47	06:19	05:04	04:27
	16:23	58 13:55 (24)	17:38	14 09:39 (16)	18:45	20:56	22:04	22:49
19	09:10	11:03 (34)	08:02	09:23 (16)	06:44	06:16	05:02	04:27
	16:25	69 13:59 (24)	17:40	17 09:40 (16)	18:47	20:58	22:06	22:50
20	09:08	11:04 (34)	08:00	09:22 (16)	06:41	06:13	05:00	04:27
	16:28	75 14:01 (24)	17:43	19 09:41 (16)	18:49	21:00	22:08	22:50
21	09:07	11:04 (34)	07:57	09:21 (16)	06:39	06:10	04:58	04:27
	16:30	79 14:03 (24)	17:45	20 09:41 (16)	18:51	21:03	22:10	22:50
22	09:05	11:05 (34)	07:54	09:20 (16)	06:36	06:08	04:56	04:27
	16:32	82 14:05 (24)	17:48	21 09:41 (16)	18:54	21:05	22:12	22:50
23	09:03	11:05 (34)	07:52	09:21 (16)	06:33	06:05	04:54	04:27
	16:34	83 14:05 (24)	17:50	21 09:42 (16)	18:56	21:07	22:14	22:51
24	09:02	11:06 (34)	07:49	09:21 (16)	06:30	06:02	04:52	04:27
	16:37	84 14:07 (24)	17:53	21 09:42 (16)	18:58	21:10	22:16	22:51
25	09:00	11:07 (34)	07:46	09:21 (16)	06:27	05:59	04:51	04:28
	16:39	82 14:52 (25)	17:55	20 09:41 (16)	19:01	21:12	22:18	22:51
26	08:58	11:09 (34)	07:44	09:21 (16)	06:24	05:57	04:49	04:28
	16:41	78 14:57 (25)	17:57	19 09:40 (16)	19:03	21:14	22:20	22:50
27	08:56	11:10 (34)	07:41	09:22 (16)	06:21	05:54	04:47	04:29
	16:44	86 15:12 (25)	18:00	17 09:39 (16)	19:05	21:17	22:22	22:50
28	08:54	11:13 (34)	07:38	09:23 (16)	06:18	05:52	04:46	04:30
	16:46	90 15:13 (25)	18:02	14 09:37 (16)	19:08	21:19	22:24	22:50
29	08:52	11:40 (29)			07:15	05:49	04:44	04:30
	16:49	88 15:14 (25)			20:10	21:21	22:25	22:50
30	08:50	11:39 (29)			07:12	05:46	04:42	04:31
	16:51	88 15:13 (25)			20:12	21:24	22:27	22:49
31	08:48	11:39 (29)			07:10		04:41	
	16:54	88 15:13 (25)			20:14		22:29	
Potential sun hours	221	260	365		432	521	547	
Total, worst case	1489	1103		9				
Sun reduction	0,50	0,50		0,50				
Oper. time red.	0,80	0,80		0,80				
Wind dir. red.	0,62	0,63		0,73				
Total reduction	0,25	0,25		0,29				
Total, real	371	276		3				

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)		Last time (hh:mm) with flicker	(WTG causing flicker last time)

SHADOW - Calendar

Calculation: Oppdatert layout - real case med vindrose - kun Moifjellet - oppdatert mottaker **Shadow receptor:** D - Buevegen 1805 (4)
Assumptions for shadow calculations Sunshine probability S/S0 (Sun hours/Possible sun hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
 644 231 315 644 959 714 721 455 378 420 574 938 6 993

	July	August	September	October	November	December
1	04:32	05:24	06:33	07:39	07:51	11:12 (29) 09:00
	22:49	22:01	20:40	19:13	16:49	53 13:38 (24) 15:51
2	04:33	05:26	06:35	07:42	07:54	11:11 (29) 09:02
	22:48	21:58	20:37	19:10	16:46	58 13:40 (24) 15:50
3	04:34	05:28	06:37	07:44	07:56	11:11 (29) 09:03
	22:47	21:56	20:34	19:07	16:44	60 13:41 (24) 15:49
4	04:35	05:31	06:40	07:46	07:59	11:10 (29) 09:05
	22:47	21:54	20:31	19:04	16:41	63 13:41 (24) 15:48
5	04:36	05:33	06:42	07:48	08:01	11:10 (29) 09:07
	22:46	21:51	20:28	19:02	16:39	75 14:38 (25) 15:47
6	04:37	05:35	06:44	07:51	08:03	11:10 (29) 09:09
	22:45	21:49	20:25	18:59	16:37	79 14:40 (25) 15:46
7	04:39	05:37	06:46	07:53	08:06	11:09 (29) 09:10
	22:44	21:47	20:22	18:56	16:34	84 14:41 (25) 15:45
8	04:40	05:39	06:49	07:55	08:08	11:09 (29) 09:12
	22:43	21:44	20:20	18:53	16:32	87 14:42 (25) 15:45
9	04:41	05:42	06:51	07:57	08:11	11:10 (29) 09:13
	22:42	21:42	20:17	18:50	16:30	87 14:43 (25) 15:44
10	04:43	05:44	06:53	08:00	08:13	11:10 (29) 09:15
	22:41	21:39	20:14	18:47	16:28	88 14:44 (25) 15:43
11	04:44	05:46	06:55	08:02	08:15	11:10 (29) 09:16
	22:39	21:37	20:11	18:45	16:25	88 14:44 (25) 15:43
12	04:46	05:48	06:57	08:04	10:01 (16) 08:18	11:11 (29) 09:18
	22:38	21:34	20:08	18:42	4 10:05 (16) 16:23	88 14:45 (25) 15:43
13	04:47	05:51	07:00	08:07	09:58 (16) 08:20	11:11 (29) 09:19
	22:37	21:32	20:05	18:39	11 10:09 (16) 16:21	87 14:45 (25) 15:42
14	04:49	05:53	07:02	08:09	09:55 (16) 08:22	10:45 (34) 09:20
	22:35	21:29	20:02	18:36	16 10:11 (16) 16:19	89 14:45 (25) 15:42
15	04:51	05:55	07:04	08:11	09:54 (16) 08:25	10:42 (34) 09:21
	22:34	21:26	19:59	18:33	18 10:12 (16) 16:17	87 14:45 (25) 15:42
16	04:52	05:57	07:06	08:13	09:53 (16) 08:27	10:41 (34) 09:22
	22:32	21:24	19:56	18:31	19 10:12 (16) 16:15	79 14:30 (25) 15:42
17	04:54	06:00	07:08	08:16	09:53 (16) 08:30	10:41 (34) 09:23
	22:30	21:21	19:54	18:28	20 10:13 (16) 16:13	81 14:25 (25) 15:42
18	04:56	06:02	07:11	08:18	09:52 (16) 08:32	10:40 (34) 09:24
	22:29	21:18	19:51	18:25	21 10:13 (16) 16:11	84 13:41 (24) 15:42
19	04:58	06:04	07:13	08:20	09:52 (16) 08:34	10:40 (34) 09:25
	22:27	21:16	19:48	18:22	21 10:13 (16) 16:09	83 13:40 (24) 15:42
20	05:00	06:06	07:15	08:23	09:52 (16) 08:36	10:39 (34) 09:26
	22:25	21:13	19:45	18:20	20 10:12 (16) 16:08	82 13:39 (24) 15:43
21	05:01	06:08	07:17	08:25	09:52 (16) 08:39	10:39 (34) 09:26
	22:24	21:10	19:42	18:17	20 10:12 (16) 16:06	79 13:38 (24) 15:43
22	05:03	06:11	07:19	08:27	09:52 (16) 08:41	10:40 (34) 09:27
	22:22	21:08	19:39	18:14	19 10:11 (16) 16:04	75 13:37 (24) 15:43
23	05:05	06:13	07:22	08:30	09:54 (16) 08:43	10:39 (34) 09:27
	22:20	21:05	19:36	18:12	16 10:10 (16) 16:02	69 13:35 (24) 15:44
24	05:07	06:15	07:24	08:32	09:54 (16) 08:45	10:40 (34) 09:28
	22:18	21:02	19:33	18:09	14 10:08 (16) 16:01	58 13:32 (24) 15:44
25	05:09	06:17	07:26	07:35	08:57 (16) 08:47	10:40 (34) 09:28
	22:16	20:59	19:30	17:06	10 09:07 (16) 15:59	46 12:20 (21) 15:45
26	05:11	06:20	07:28	07:37	08:50	10:41 (34) 09:28
	22:14	20:57	19:27	17:04	15:58	43 12:21 (21) 15:46
27	05:13	06:22	07:30	07:39	11:20 (29) 08:52	10:41 (34) 09:28
	22:12	20:54	19:25	17:01	14 11:34 (29) 15:56	43 12:21 (21) 15:47
28	05:16	06:24	07:33	07:42	11:18 (29) 08:54	10:42 (34) 09:28
	22:10	20:51	19:22	16:59	19 11:37 (29) 15:55	42 12:22 (21) 15:48
29	05:18	06:26	07:35	07:44	11:15 (29) 08:56	10:42 (34) 09:28
	22:07	20:48	19:19	16:56	34 13:32 (24) 15:54	42 12:22 (21) 15:49
30	05:20	06:29	07:37	07:47	11:14 (29) 08:58	10:42 (34) 09:28
	22:05	20:45	19:16	16:54	42 13:35 (24) 15:52	40 12:22 (21) 15:50
31	05:22	06:31	07:49	07:49	11:13 (29)	09:28
	22:03	20:42	16:51	50 13:38 (24)	236	199
Potential sun hours	546	478	386	319		
Total, worst case				388	2119	106
Sun reduction				0,50	0,50	0,50
Oper. time red.				0,80	0,80	0,80
Wind dir. red.				0,69	0,61	0,64
Total reduction				0,27	0,25	0,25
Total, real				106	519	27

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Calculation: Oppdatert layout - real case med vindrose - kun Moifjellet - oppdatert mottaker **Shadow receptor:** E - Buevegen 1816 (5)

Assumptions for shadow calculations

Sunshine probability S/S0 (Sun hours/Possible sun hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
644 231 315 644 959 714 721 455 378 420 574 938 6 993

	January	February	March	April	May	June
1	09:28	11:12 (34) 08:46	11:58 (29) 07:35	07:07	05:44	04:40
	15:53	2 11:14 (34) 16:56	87 15:21 (25) 18:05	20:17	21:26	22:30
2	09:27	11:12 (34) 08:43	11:59 (29) 07:33	07:04	05:41	04:38
	15:54	2 11:14 (34) 16:58	85 15:21 (25) 18:07	20:19	21:28	22:32
3	09:27	11:11 (34) 08:41	12:00 (29) 07:30	07:01	05:39	04:37
	15:55	4 12:42 (21) 17:01	84 15:21 (25) 18:09	20:21	21:31	22:34
4	09:27	11:11 (34) 08:39	11:59 (29) 07:27	06:58	05:36	04:36
	15:57	12 12:45 (21) 17:03	83 15:20 (25) 18:12	20:24	21:33	22:35
5	09:26	11:11 (34) 08:37	11:59 (29) 07:24	06:55	05:34	04:35
	15:58	18 12:46 (21) 17:06	81 15:19 (25) 18:14	20:26	21:35	22:37
6	09:25	11:11 (34) 08:34	12:00 (29) 07:21	06:52	05:31	04:34
	16:00	29 12:50 (21) 17:08	76 15:18 (25) 18:17	20:28	21:37	22:38
7	09:24	11:11 (34) 08:32	12:01 (29) 07:19	06:50	05:29	04:33
	16:02	35 12:50 (21) 17:11	67 15:15 (25) 18:19	20:30	21:40	22:39
8	09:24	11:12 (34) 08:30	12:02 (29) 07:16	06:47	05:26	04:32
	16:03	38 12:51 (21) 17:13	57 14:25 (24) 18:21	20:33	21:42	22:40
9	09:23	11:12 (34) 08:27	12:03 (29) 07:13	06:44	05:24	04:31
	16:05	40 12:52 (21) 17:16	54 14:24 (24) 18:24	20:35	21:44	22:42
10	09:22	11:11 (34) 08:25	12:03 (29) 07:10	06:41	05:22	04:30
	16:07	41 12:52 (21) 17:18	51 14:23 (24) 18:26	20:37	21:46	22:43
11	09:21	11:12 (34) 08:23	12:05 (29) 07:07	06:38	05:19	04:29
	16:09	42 12:53 (21) 17:21	45 14:22 (24) 18:28	20:40	21:49	22:44
12	09:20	11:12 (34) 08:20	12:07 (29) 07:04	06:35	05:17	04:29
	16:11	43 12:53 (21) 17:23	37 14:20 (24) 18:31	20:42	21:51	22:45
13	09:18	11:12 (34) 08:18	12:09 (29) 07:02	06:32	05:15	04:28
	16:13	44 12:54 (21) 17:26	26 14:17 (24) 18:33	20:44	21:53	22:46
14	09:17	11:12 (34) 08:15	09:39 (16) 06:59	06:30	05:13	04:28
	16:15	44 12:54 (21) 17:28	12 12:21 (29) 18:35	20:47	21:55	22:47
15	09:16	11:12 (34) 08:13	09:36 (16) 06:56	06:27	05:10	04:27
	16:17	51 12:54 (21) 17:31	11 09:47 (16) 18:38	20:49	21:58	22:47
16	09:15	11:13 (34) 08:10	09:33 (16) 06:53	06:24	05:08	04:27
	16:19	54 12:54 (21) 17:33	16 09:49 (16) 18:40	20:51	22:00	22:48
17	09:13	11:13 (34) 08:07	09:32 (16) 06:50	06:21	05:06	04:27
	16:21	58 12:54 (21) 17:36	17 09:49 (16) 18:42	20:53	22:02	22:49
18	09:12	11:14 (34) 08:05	09:32 (16) 06:47	06:19	05:04	04:27
	16:23	61 12:55 (21) 17:38	19 09:51 (16) 18:45	20:56	22:04	22:49
19	09:10	11:15 (34) 08:02	09:31 (16) 06:44	06:16	05:02	04:27
	16:25	63 12:55 (21) 17:40	20 09:51 (16) 18:47	20:58	22:06	22:50
20	09:08	11:15 (34) 08:00	09:30 (16) 06:41	06:13	05:00	04:27
	16:28	73 14:13 (24) 17:43	21 09:51 (16) 18:49	21:00	22:08	22:50
21	09:07	11:16 (34) 07:57	09:30 (16) 06:38	06:10	04:58	04:27
	16:30	76 14:15 (24) 17:45	21 09:51 (16) 18:51	21:03	22:10	22:50
22	09:05	11:16 (34) 07:54	09:30 (16) 06:36	06:08	04:56	04:27
	16:32	78 14:16 (24) 17:48	21 09:51 (16) 18:54	21:05	22:12	22:50
23	09:03	11:17 (34) 07:52	09:31 (16) 06:33	06:05	04:54	04:27
	16:34	79 14:18 (24) 17:50	20 09:51 (16) 18:56	21:07	22:14	22:51
24	09:02	11:18 (34) 07:49	09:31 (16) 06:30	06:02	04:52	04:27
	16:37	79 14:20 (24) 17:53	20 09:51 (16) 18:58	21:10	22:16	22:51
25	09:00	11:20 (34) 07:46	09:31 (16) 06:27	05:59	04:51	04:28
	16:39	73 14:21 (24) 17:55	18 09:49 (16) 19:01	21:12	22:18	22:51
26	08:58	11:23 (34) 07:44	09:32 (16) 06:24	05:57	04:49	04:28
	16:41	69 15:03 (25) 17:57	16 09:48 (16) 19:03	21:14	22:20	22:50
27	08:56	11:58 (29) 07:41	09:33 (16) 06:21	05:54	04:47	04:29
	16:44	66 15:04 (25) 18:00	13 09:46 (16) 19:05	21:17	22:22	22:50
28	08:54	11:58 (29) 07:38	09:36 (16) 06:18	05:52	04:46	04:30
	16:46	74 15:10 (25) 18:02	6 09:42 (16) 19:07	21:19	22:24	22:50
29	08:52	11:59 (29)	07:15	05:49	04:44	04:30
	16:49	82 15:17 (25)	20:10	21:21	22:25	22:50
30	08:50	11:58 (29)	07:12	05:46	04:42	04:31
	16:51	86 15:21 (25)	20:12	21:24	22:27	22:49
31	08:48	11:59 (29)	07:10		04:41	
	16:54	87 15:22 (25)	20:14		22:29	
Potential sun hours	221	260	365	432	521	547
Total, worst case	1603	1084				
Sun reduction	0,50	0,50				
Oper. time red.	0,80	0,80				
Wind dir. red.	0,63	0,62				
Total reduction	0,25	0,25				
Total, real	401	270				

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)		Last time (hh:mm) with flicker	(WTG causing flicker last time)

SHADOW - Calendar

Calculation: Oppdatert layout - real case med vindrose - kun Moifjellet - oppdatert mottaker **Shadow receptor:** E - Buevegen 1816 (5)

Assumptions for shadow calculations

Sunshine probability S/S0 (Sun hours/Possible sun hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
644 231 315 644 959 714 721 455 378 420 574 938 6 993

	July	August	September	October	November	December
1	04:32	05:24	06:33	07:39	07:51	11:33 (29)
	22:49	22:01	20:40	19:13	16:49	50 13:53 (24)
2	04:33	05:26	06:35	07:42	07:54	11:32 (29)
	22:48	21:58	20:37	19:10	16:46	55 13:54 (24)
3	04:34	05:28	06:37	07:44	07:56	11:31 (29)
	22:47	21:56	20:34	19:07	16:44	59 13:55 (24)
4	04:35	05:31	06:40	07:46	07:59	11:30 (29)
	22:47	21:54	20:31	19:04	16:41	69 14:45 (25)
5	04:36	05:33	06:42	07:48	08:01	11:30 (29)
	22:46	21:51	20:28	19:02	16:39	76 14:48 (25)
6	04:37	05:35	06:44	07:51	08:03	11:30 (29)
	22:45	21:49	20:25	18:59	16:37	79 14:50 (25)
7	04:39	05:37	06:46	07:53	08:06	11:29 (29)
	22:44	21:47	20:22	18:56	16:34	83 14:50 (25)
8	04:40	05:39	06:49	07:55	08:08	11:29 (29)
	22:43	21:44	20:20	18:53	16:32	87 14:51 (25)
9	04:41	05:42	06:51	07:57	08:11	11:30 (29)
	22:42	21:42	20:17	18:50	16:30	86 14:52 (25)
10	04:43	05:44	06:53	08:00	08:13	11:30 (29)
	22:41	21:39	20:14	18:47	16:28	88 14:53 (25)
11	04:44	05:46	06:55	08:02	08:15	11:29 (29)
	22:39	21:37	20:11	18:45	16:25	87 14:52 (25)
12	04:46	05:48	06:57	08:04	08:18	11:30 (29)
	22:38	21:34	20:08	18:42	16:23	87 14:53 (25)
13	04:47	05:51	07:00	08:07	08:20	11:31 (29)
	22:37	21:31	20:05	18:39	16:21	81 14:49 (25)
14	04:49	05:53	07:02	08:09	10:08 (16)	08:22
	22:35	21:29	20:02	18:36	9 10:17 (16)	16:19
15	04:51	05:55	07:04	08:11	10:06 (16)	08:25
	22:34	21:26	19:59	18:33	14 10:20 (16)	16:17
16	04:52	05:57	07:06	08:13	10:04 (16)	08:27
	22:32	21:24	19:56	18:31	16 10:20 (16)	16:15
17	04:54	06:00	07:08	08:16	10:03 (16)	08:30
	22:30	21:21	19:54	18:28	19 10:22 (16)	16:13
18	04:56	06:02	07:11	08:18	10:02 (16)	08:32
	22:29	21:18	19:51	18:25	20 10:22 (16)	16:11
19	04:58	06:04	07:13	08:20	10:02 (16)	08:34
	22:27	21:16	19:48	18:22	21 10:23 (16)	16:09
20	05:00	06:06	07:15	08:23	10:01 (16)	08:36
	22:25	21:13	19:45	18:20	21 10:22 (16)	16:08
21	05:01	06:08	07:17	08:25	10:01 (16)	08:39
	22:24	21:10	19:42	18:17	21 10:22 (16)	16:06
22	05:03	06:11	07:19	08:27	10:01 (16)	08:41
	22:22	21:08	19:39	18:14	21 10:22 (16)	16:04
23	05:05	06:13	07:22	08:30	10:01 (16)	08:43
	22:20	21:05	19:36	18:12	20 10:21 (16)	16:02
24	05:07	06:15	07:24	08:32	10:01 (16)	08:45
	22:18	21:02	19:33	18:09	19 10:20 (16)	16:01
25	05:09	06:17	07:26	07:35	09:02 (16)	08:47
	22:16	20:59	19:30	17:06	17 09:19 (16)	15:59
26	05:11	06:20	07:28	07:37	09:03 (16)	08:50
	22:14	20:57	19:27	17:04	14 09:17 (16)	15:58
27	05:13	06:22	07:30	07:39	09:06 (16)	08:52
	22:12	20:54	19:25	17:01	10 09:16 (16)	15:56
28	05:16	06:24	07:33	07:42	11:42 (29)	08:54
	22:10	20:51	19:22	16:59	10 11:52 (29)	15:55
29	05:18	06:26	07:35	07:44	11:38 (29)	08:56
	22:07	20:48	19:19	16:56	28 13:47 (24)	15:54
30	05:20	06:29	07:37	07:47	11:36 (29)	08:58
	22:05	20:45	19:16	16:54	39 13:50 (24)	15:52
31	05:22	06:31		07:49	11:35 (29)	
	22:03	20:42		16:51	45 13:52 (24)	
Potential sun hours	546	478	386	319	236	199
Total, worst case				364	2072	268
Sun reduction				0,50	0,50	0,50
Oper. time red.				0,80	0,80	0,80
Wind dir. red.				0,69	0,61	0,65
Total reduction				0,27	0,24	0,26
Total, real				100	505	70

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Calculation: Oppdatert layout - real case med vindrose - kun Moifjellet - oppdatert mottaker **Shadow receptor:** F - Buevegen 1818 (6)
Assumptions for shadow calculations Sunshine probability S/S0 (Sun hours/Possible sun hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
 644 231 315 644 959 714 721 455 378 420 574 938 6 993

	January		February		March		April		May		June	
1	09:28		11:23 (34)	08:46	12:23 (29)	07:35	07:07	05:44	04:40			
	15:53	17	11:40 (34)	16:56	15:30 (25)	18:05	20:17	21:26	22:30			
2	09:27		11:23 (34)	08:43	12:24 (29)	07:33	07:04	05:41	04:38			
	15:54	17	11:40 (34)	16:58	15:34 (25)	18:07	20:19	21:28	22:32			
3	09:27		11:23 (34)	08:41	12:25 (29)	07:30	07:01	05:39	04:37			
	15:55	18	11:41 (34)	17:01	15:34 (25)	18:09	20:21	21:31	22:34			
4	09:26		11:23 (34)	08:39	12:25 (29)	07:27	06:58	05:36	04:36			
	15:57	23	12:52 (21)	17:03	15:34 (25)	18:12	20:24	21:33	22:35			
5	09:26		11:23 (34)	08:37	12:25 (29)	07:24	06:55	05:34	04:35			
	15:58	25	12:53 (21)	17:06	15:33 (25)	18:14	20:26	21:35	22:37			
6	09:25		11:24 (34)	08:34	12:26 (29)	07:21	06:52	05:31	04:34			
	16:00	31	13:06 (21)	17:08	15:33 (25)	18:17	20:28	21:37	22:38			
7	09:24		11:24 (34)	08:32	12:26 (29)	07:19	06:50	05:29	04:33			
	16:02	34	13:07 (21)	17:11	15:31 (25)	18:19	20:30	21:40	22:39			
8	09:24		11:24 (34)	08:30	12:28 (29)	07:16	06:47	05:26	04:32			
	16:03	41	13:07 (21)	17:13	15:30 (25)	18:21	20:33	21:42	22:40			
9	09:23		11:24 (34)	08:27	12:28 (29)	07:13	06:44	05:24	04:31			
	16:05	42	13:07 (21)	17:16	15:26 (25)	18:24	20:35	21:44	22:42			
10	09:22		11:25 (34)	08:25	12:29 (29)	07:10	06:41	05:22	04:30			
	16:07	42	13:08 (21)	17:18	14:44 (24)	18:26	20:37	21:46	22:43			
11	09:21		11:25 (34)	08:23	12:32 (29)	07:07	06:38	05:19	04:29			
	16:09	43	13:09 (21)	17:21	14:43 (24)	18:28	20:40	21:49	22:44			
12	09:20		11:25 (34)	08:20	09:50 (16)	07:04	06:35	05:17	04:29			
	16:11	44	13:09 (21)	17:23	14:42 (24)	18:31	20:42	21:51	22:45			
13	09:18		11:26 (34)	08:18	09:46 (16)	07:01	06:32	05:15	04:28			
	16:13	44	13:10 (21)	17:26	14:40 (24)	18:33	20:44	21:53	22:46			
14	09:17		11:26 (34)	08:15	09:45 (16)	06:59	06:30	05:13	04:28			
	16:15	54	13:10 (21)	17:28	14:38 (24)	18:35	20:47	21:55	22:47			
15	09:16		11:26 (34)	08:13	09:43 (16)	06:56	06:27	05:10	04:27			
	16:17	57	13:10 (21)	17:31	10:01 (16)	18:38	20:49	21:58	22:47			
16	09:15		11:27 (34)	08:10	09:42 (16)	06:53	06:24	05:08	04:27			
	16:19	60	13:10 (21)	17:33	10:02 (16)	18:40	20:51	22:00	22:48			
17	09:13		11:27 (34)	08:07	09:41 (16)	06:50	06:21	05:06	04:27			
	16:21	63	13:10 (21)	17:35	10:02 (16)	18:42	20:53	22:02	22:49			
18	09:12		11:28 (34)	08:05	09:41 (16)	06:47	06:19	05:04	04:27			
	16:23	64	13:11 (21)	17:38	10:03 (16)	18:45	20:56	22:04	22:49			
19	09:10		11:29 (34)	08:02	09:41 (16)	06:44	06:16	05:02	04:27			
	16:25	63	13:11 (21)	17:40	10:03 (16)	18:47	20:58	22:06	22:50			
20	09:08		11:30 (34)	08:00	09:40 (16)	06:41	06:13	05:00	04:27			
	16:28	63	13:11 (21)	17:43	10:03 (16)	18:49	21:00	22:08	22:50			
21	09:07		11:31 (34)	07:57	09:40 (16)	06:38	06:10	04:58	04:27			
	16:30	62	13:10 (21)	17:45	10:02 (16)	18:51	21:03	22:10	22:50			
22	09:05		11:31 (34)	07:54	09:40 (16)	06:36	06:08	04:56	04:27			
	16:32	60	13:09 (21)	17:48	10:02 (16)	18:54	21:05	22:12	22:50			
23	09:03		11:33 (34)	07:52	09:42 (16)	06:33	06:05	04:54	04:27			
	16:34	66	14:33 (24)	17:50	10:02 (16)	18:56	21:07	22:14	22:50			
24	09:02		11:35 (34)	07:49	09:42 (16)	06:30	06:02	04:52	04:27			
	16:37	67	14:36 (24)	17:53	10:01 (16)	18:58	21:10	22:16	22:51			
25	09:00		11:39 (34)	07:46	09:43 (16)	06:27	05:59	04:51	04:28			
	16:39	58	14:38 (24)	17:55	09:59 (16)	19:01	21:12	22:18	22:50			
26	08:58		12:24 (29)	07:44	09:45 (16)	06:24	05:57	04:49	04:28			
	16:41	55	14:40 (24)	17:57	09:57 (16)	19:03	21:14	22:20	22:50			
27	08:56		12:23 (29)	07:41	09:48 (16)	06:21	05:54	04:47	04:29			
	16:44	57	14:40 (24)	18:00	09:53 (16)	19:05	21:17	22:22	22:50			
28	08:54		12:23 (29)	07:38		06:18	05:52	04:46	04:30			
	16:46	61	15:15 (25)	18:02		19:07	21:19	22:24	22:50			
29	08:52		12:24 (29)			07:15	05:49	04:44	04:30			
	16:49	67	15:19 (25)			20:10	21:21	22:25	22:50			
30	08:50		12:23 (29)			07:12	05:46	04:42	04:31			
	16:51	74	15:23 (25)			20:12	21:24	22:27	22:49			
31	08:48		12:24 (29)			07:10		04:41				
	16:53	77	15:26 (25)			20:14		22:29				
Potential sun hours	221		260		365		432	521	547			
Total, worst case	1549		1147									
Sun reduction	0,50		0,50									
Oper. time red.	0,80		0,80									
Wind dir. red.	0,62		0,62									
Total reduction	0,25		0,25									
Total, real	386		283									

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Calculation: Oppdatert layout - real case med vindrose - kun Moifjellet - oppdatert mottaker **Shadow receptor:** F - Buevegen 1818 (6)

Assumptions for shadow calculations

Sunshine probability S/S0 (Sun hours/Possible sun hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
644 231 315 644 959 714 721 455 378 420 574 938 6 993

	July	August	September	October	November	December
1	04:32	05:24	06:33	07:39	07:51	11:59 (29) 09:00
	22:49	22:01	20:40	19:13	16:49	51 14:13 (24) 15:51 43 12:51 (21)
2	04:33	05:26	06:35	07:42	07:54	11:58 (29) 09:02 11:08 (34)
	22:48	21:58	20:37	19:10	16:46	61 14:57 (25) 15:50 42 12:51 (21)
3	04:34	05:28	06:37	07:44	07:56	11:57 (29) 09:03 11:08 (34)
	22:47	21:56	20:34	19:07	16:44	71 15:00 (25) 15:49 42 12:51 (21)
4	04:35	05:31	06:40	07:46	07:59	11:56 (29) 09:05 11:09 (34)
	22:47	21:54	20:31	19:04	16:41	76 15:01 (25) 15:48 41 12:52 (21)
5	04:36	05:33	06:42	07:48	08:01	11:55 (29) 09:07 11:09 (34)
	22:46	21:51	20:28	19:02	16:39	80 15:02 (25) 15:47 35 12:52 (21)
6	04:37	05:35	06:44	07:51	08:03	11:55 (29) 09:09 11:10 (34)
	22:45	21:49	20:25	18:59	16:37	82 15:03 (25) 15:46 31 12:52 (21)
7	04:38	05:37	06:46	07:53	08:06	11:54 (29) 09:10 11:11 (34)
	22:44	21:47	20:22	18:56	16:34	84 15:03 (25) 15:45 24 12:40 (21)
8	04:40	05:39	06:49	07:55	08:08	11:54 (29) 09:12 11:11 (34)
	22:43	21:44	20:20	18:53	16:32	87 15:04 (25) 15:45 24 12:41 (21)
9	04:41	05:42	06:51	07:57	08:11	11:55 (29) 09:13 11:12 (34)
	22:42	21:42	20:17	18:50	16:30	87 15:05 (25) 15:44 20 12:37 (21)
10	04:43	05:44	06:53	08:00	08:13	11:55 (29) 09:15 11:12 (34)
	22:40	21:39	20:14	18:47	16:28	81 15:01 (25) 15:43 17 11:29 (34)
11	04:44	05:46	06:55	08:02	08:15	11:54 (29) 09:16 11:14 (34)
	22:39	21:37	20:11	18:45	16:25	78 14:57 (25) 15:43 16 11:30 (34)
12	04:46	05:48	06:57	08:04	08:18	11:55 (29) 09:18 11:14 (34)
	22:38	21:34	20:08	18:42	16:23	74 14:55 (25) 15:43 15 11:29 (34)
13	04:47	05:51	07:00	08:07	08:20	11:55 (29) 09:19 11:15 (34)
	22:37	21:31	20:05	18:39	16:21	68 14:51 (25) 15:42 15 11:30 (34)
14	04:49	05:53	07:02	08:09	08:22	11:55 (29) 09:20 11:16 (34)
	22:35	21:29	20:02	18:36	16:19	62 14:47 (25) 15:42 14 11:30 (34)
15	04:51	05:55	07:04	08:11	8 10:19 (16) 08:25	11:56 (29) 09:21 11:16 (34)
	22:34	21:26	19:59	18:33	10:27 (16) 16:17	57 14:13 (24) 15:42 14 11:30 (34)
16	04:52	05:57	07:06	08:13	10:16 (16) 08:27	11:57 (29) 09:22 11:17 (34)
	22:32	21:24	19:56	18:31	14 10:30 (16) 16:15	54 14:12 (24) 15:42 12 11:29 (34)
17	04:54	06:00	07:08	08:16	10:15 (16) 08:29	11:12 (34) 09:23 11:17 (34)
	22:30	21:21	19:54	18:28	17 10:32 (16) 16:13	58 14:11 (24) 15:42 12 11:29 (34)
18	04:56	06:02	07:11	08:18	10:13 (16) 08:32	11:09 (34) 09:24 11:18 (34)
	22:29	21:18	19:51	18:25	19 10:32 (16) 16:11	67 14:10 (24) 15:42 11 11:29 (34)
19	04:58	06:04	07:13	08:20	10:12 (16) 08:34	11:08 (34) 09:25 11:19 (34)
	22:27	21:16	19:48	18:22	21 10:33 (16) 16:09	66 14:08 (24) 15:42 11 11:30 (34)
20	05:00	06:06	07:15	08:23	10:11 (16) 08:36	11:06 (34) 09:26 11:20 (34)
	22:25	21:13	19:45	18:20	22 10:33 (16) 16:08	60 12:44 (21) 15:43 10 11:30 (34)
21	05:01	06:08	07:17	08:25	10:11 (16) 08:39	11:06 (34) 09:26 11:20 (34)
	22:24	21:10	19:42	18:17	23 10:34 (16) 16:06	62 12:45 (21) 15:43 10 11:30 (34)
22	05:03	06:11	07:19	08:27	10:10 (16) 08:41	11:06 (34) 09:27 11:21 (34)
	22:22	21:08	19:39	18:14	23 10:33 (16) 16:04	63 12:47 (21) 15:43 10 11:31 (34)
23	05:05	06:13	07:22	08:30	10:11 (16) 08:43	11:05 (34) 09:27 11:21 (34)
	22:20	21:05	19:36	18:12	22 10:33 (16) 16:02	63 12:47 (21) 15:44 10 11:31 (34)
24	05:07	06:15	07:24	08:32	10:10 (16) 08:45	11:05 (34) 09:28 11:22 (34)
	22:18	21:02	19:33	18:09	22 10:32 (16) 16:01	64 12:48 (21) 15:44 10 11:32 (34)
25	05:09	06:17	07:26	07:35	09:11 (16) 08:47	11:05 (34) 09:28 11:22 (34)
	22:16	20:59	19:30	17:06	21 09:32 (16) 15:59	63 12:48 (21) 15:45 11 11:33 (34)
26	05:11	06:20	07:28	07:37	09:11 (16) 08:50	11:06 (34) 09:28 11:22 (34)
	22:14	20:56	19:27	17:04	20 09:31 (16) 15:58	60 12:49 (21) 15:46 12 11:34 (34)
27	05:13	06:22	07:30	07:39	09:13 (16) 08:52	11:05 (34) 09:28 11:23 (34)
	22:12	20:54	19:25	17:01	17 09:30 (16) 15:56	58 12:49 (21) 15:47 11 11:34 (34)
28	05:16	06:24	07:33	07:42	09:14 (16) 08:54	11:06 (34) 09:28 11:23 (34)
	22:10	20:51	19:22	16:59	28 14:08 (24) 15:55	53 12:50 (21) 15:48 13 11:36 (34)
29	05:18	06:26	07:35	07:44	09:16 (16) 08:56	11:06 (34) 09:28 11:22 (34)
	22:07	20:48	19:19	16:56	42 14:10 (24) 15:54	44 12:50 (21) 15:49 14 11:36 (34)
30	05:20	06:29	07:37	07:47	12:02 (29) 08:58	11:06 (34) 09:28 11:23 (34)
	22:05	20:45	19:16	16:54	40 14:11 (24) 15:52	43 12:50 (21) 15:50 15 11:38 (34)
31	05:22	06:31	07:49	07:49	12:01 (29) 08:58	11:06 (34) 09:28 11:23 (34)
	22:03	20:42	16:51	46 14:13 (24)	236	199 15:51 15 11:38 (34)
Potential sun hours	546	478	386	319		
Total, worst case				405	1977	580
Sun reduction				0,50	0,50	0,50
Oper. time red.				0,80	0,80	0,80
Wind dir. red.				0,68	0,61	0,65
Total reduction				0,27	0,24	0,26
Total, real				110	478	151

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Calculation: Oppdatert layout - real case med vindrose - kun Moifjellet - oppdatert mottaker **Shadow receptor:** G - Buevegen 1786 (7)

Assumptions for shadow calculations

Sunshine probability S/S0 (Sun hours/Possible sun hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
644 231 315 644 959 714 721 455 378 420 574 938 6 993

	January	February	March	April	May	June	
1	09:28 15:53	08:46 16:56	70	11:27 (29) 07:35 14:51 (25) 18:05	07:07 20:17	05:44 21:26	04:40 22:31
2	09:27 15:54	12:04 (21) 08:43 12:05 (21) 16:58	60	11:27 (29) 07:33 13:50 (24) 18:07	07:04 20:19	05:41 21:28	04:38 22:32
3	09:27 15:55	12:04 (21) 08:41 12:08 (21) 17:01	58	11:28 (29) 07:30 13:50 (24) 18:09	07:01 20:21	05:39 21:31	04:37 22:34
4	09:27 15:57	12:04 (21) 08:39 12:11 (21) 17:03	54	11:28 (29) 07:27 13:48 (24) 18:12	06:58 20:24	05:36 21:33	04:36 22:35
5	09:26 15:58	12:04 (21) 08:37 12:21 (21) 17:06	52	11:28 (29) 07:24 13:47 (24) 18:14	06:55 20:26	05:34 21:35	04:35 22:37
6	09:25 16:00	12:04 (21) 08:34 12:21 (21) 17:08	49	11:29 (29) 07:21 13:47 (24) 18:17	06:52 20:28	05:31 21:37	04:34 22:38
7	09:24 16:02	12:05 (21) 08:32 12:26 (21) 17:11	43	11:29 (29) 07:19 13:44 (24) 18:19	06:50 20:30	05:29 21:40	04:33 22:39
8	09:24 16:03	12:05 (21) 08:30 12:27 (21) 17:13	35	11:31 (29) 07:16 13:42 (24) 18:21	06:47 20:33	05:26 21:42	04:32 22:40
9	09:23 16:05	12:06 (21) 08:27 12:28 (21) 17:16	22	11:32 (29) 07:13 11:54 (29) 18:24	06:44 20:35	05:24 21:44	04:31 22:42
10	09:22 16:07	12:06 (21) 08:25 12:28 (21) 17:18	18	11:34 (29) 07:10 11:52 (29) 18:26	06:41 20:37	05:22 21:46	04:30 22:43
11	09:21 16:09	12:07 (21) 08:23 12:29 (21) 17:21	13	11:37 (29) 07:07 11:50 (29) 18:28	06:38 20:40	05:19 21:49	04:29 22:44
12	09:20 16:11	12:07 (21) 08:20 13:33 (24) 17:23	2	11:42 (29) 07:04 11:44 (29) 18:31	06:35 20:42	05:17 21:51	04:29 22:45
13	09:18 16:13	12:08 (21) 08:18 13:37 (24) 17:26		07:02 18:33	06:32 20:44	05:15 21:53	04:28 22:46
14	09:17 16:15	12:08 (21) 08:15 13:38 (24) 17:28	3	09:31 (16) 06:59 09:34 (16) 18:35	06:30 20:47	05:13 21:55	04:28 22:47
15	09:16 16:17	11:34 (29) 08:13 13:40 (24) 17:31	10	09:27 (16) 06:56 09:37 (16) 18:38	06:27 20:49	05:10 21:58	04:27 22:47
16	09:15 16:19	11:31 (29) 08:10 13:41 (24) 17:33	14	09:25 (16) 06:53 09:39 (16) 18:40	06:24 20:51	05:08 22:00	04:27 22:48
17	09:13 16:21	11:31 (29) 08:07 13:43 (24) 17:36	17	09:23 (16) 06:50 09:40 (16) 18:42	06:21 20:53	05:06 22:02	04:27 22:49
18	09:12 16:23	11:30 (29) 08:05 14:53 (25) 17:38	18	09:23 (16) 06:47 09:41 (16) 18:45	06:19 20:56	05:04 22:04	04:27 22:49
19	09:10 16:25	11:29 (29) 08:02 14:53 (25) 17:40	18	09:23 (16) 06:44 09:41 (16) 18:47	06:16 20:58	05:02 22:06	04:27 22:50
20	09:09 16:28	11:28 (29) 08:00 14:54 (25) 17:43	19	09:22 (16) 06:41 09:41 (16) 18:49	06:13 21:00	05:00 22:08	04:27 22:50
21	09:07 16:30	11:28 (29) 07:57 14:54 (25) 17:45	19	09:22 (16) 06:39 09:41 (16) 18:51	06:10 21:03	04:58 22:10	04:27 22:50
22	09:05 16:32	11:27 (29) 07:54 14:55 (25) 17:48	19	09:22 (16) 06:36 09:41 (16) 18:54	06:08 21:05	04:56 22:12	04:27 22:50
23	09:03 16:34	11:26 (29) 07:52 14:54 (25) 17:50	18	09:23 (16) 06:33 09:41 (16) 18:56	06:05 21:07	04:54 22:14	04:27 22:51
24	09:02 16:37	11:26 (29) 07:49 14:55 (25) 17:53	17	09:23 (16) 06:30 09:40 (16) 18:58	06:02 21:10	04:52 22:16	04:27 22:51
25	09:00 16:39	11:26 (29) 07:46 14:55 (25) 17:55	14	09:24 (16) 06:27 09:38 (16) 19:01	05:59 21:12	04:51 22:18	04:28 22:51
26	08:58 16:41	11:26 (29) 07:44 14:55 (25) 17:57	11	09:25 (16) 06:24 09:36 (16) 19:03	05:57 21:14	04:49 22:20	04:28 22:50
27	08:56 16:44	11:25 (29) 07:41 14:54 (25) 18:00	3	09:29 (16) 06:21 09:32 (16) 19:05	05:54 21:17	04:47 22:22	04:29 22:50
28	08:54 16:46	11:26 (29) 07:38 14:54 (25) 18:02		06:18 19:08	05:52 21:19	04:46 22:24	04:30 22:50
29	08:52 16:49	11:26 (29) 07:35 14:54 (25) 18:04		07:15 20:10	05:49 21:21	04:44 22:25	04:30 22:50
30	08:50 16:51	11:26 (29) 07:32 14:53 (25) 18:06		07:13 20:12	05:46 21:24	04:42 22:27	04:31 22:49
31	08:48 16:54	11:26 (29) 07:29 14:52 (25) 18:08		07:10 20:14	04:41 22:29	04:41 22:29	04:31 22:49
Potential sun hours	221	260	365	432	521	547	
Total, worst case	1565	676					
Sun reduction	0,50	0,50					
Oper. time red.	0,80	0,80					
Wind dir. red.	0,61	0,66					
Total reduction	0,24	0,26					
Total, real	383	178					

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)		Last time (hh:mm) with flicker	(WTG causing flicker last time)

SHADOW - Calendar

Calculation: Oppdatert layout - real case med vindrose - kun Moifjellet - oppdatert mottaker **Shadow receptor:** G - Buevegen 1786 (7)

Assumptions for shadow calculations

Sunshine probability S/S0 (Sun hours/Possible sun hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
644 231 315 644 959 714 721 455 378 420 574 938 6 993

	July	August	September	October	November	December
1	04:32	05:24	06:33	07:39	07:51	11:03 (29) 09:00 11:49 (21)
	22:49	22:01	20:40	19:13	16:49	19 11:22 (29) 15:51 22 12:11 (21)
2	04:33	05:26	06:35	07:42	07:54	11:01 (29) 09:02 11:49 (21)
	22:48	21:59	20:37	19:10	16:46	23 11:24 (29) 15:50 22 12:11 (21)
3	04:34	05:28	06:37	07:44	07:56	11:01 (29) 09:03 11:49 (21)
	22:47	21:56	20:34	19:07	16:44	36 13:12 (24) 15:49 22 12:11 (21)
4	04:35	05:31	06:40	07:46	07:59	10:59 (29) 09:05 11:50 (21)
	22:47	21:54	20:31	19:04	16:41	43 13:14 (24) 15:48 21 12:11 (21)
5	04:36	05:33	06:42	07:48	08:01	10:59 (29) 09:07 11:50 (21)
	22:46	21:51	20:28	19:02	16:39	48 13:16 (24) 15:47 21 12:11 (21)
6	04:37	05:35	06:44	07:51	08:03	10:58 (29) 09:09 11:51 (21)
	22:45	21:49	20:25	18:59	16:37	53 13:18 (24) 15:46 16 12:07 (21)
7	04:39	05:37	06:46	07:53	08:06	10:57 (29) 09:10 11:51 (21)
	22:44	21:47	20:23	18:56	16:34	55 13:18 (24) 15:45 17 12:08 (21)
8	04:40	05:39	06:49	07:55	08:08	10:57 (29) 09:12 11:52 (21)
	22:43	21:44	20:20	18:53	16:32	58 13:19 (24) 15:45 8 12:00 (21)
9	04:41	05:42	06:51	07:57	08:11	10:57 (29) 09:13 11:53 (21)
	22:42	21:42	20:17	18:50	16:30	63 14:18 (25) 15:44 4 11:57 (21)
10	04:43	05:44	06:53	08:00	08:13	10:58 (29) 09:15 11:53 (21)
	22:41	21:39	20:14	18:47	16:28	71 14:22 (25) 15:43 1 11:54 (21)
11	04:44	05:46	06:55	08:02	08:15	10:57 (29) 09:16 11:54 (21)
	22:39	21:37	20:11	18:45	16:25	76 14:23 (25) 15:43
12	04:46	05:48	06:57	08:04	08:18	10:57 (29) 09:18 11:55 (21)
	22:38	21:34	20:08	18:42	16:23	80 14:25 (25) 15:43
13	04:47	05:51	07:00	08:07	08:20	10:58 (29) 09:19 11:56 (21)
	22:37	21:32	20:05	18:39	16:21	81 14:26 (25) 15:42
14	04:49	05:53	07:02	08:09	08:22	10:58 (29) 09:20 11:57 (21)
	22:35	21:29	20:02	18:36	16:19	82 14:26 (25) 15:42
15	04:51	05:55	07:04	08:11	10:00 (16) 08:25 10:58 (29) 09:21 11:58 (21)	
	22:34	21:26	19:59	18:33	7 10:07 (16) 16:17 83 14:27 (25) 15:42	
16	04:52	05:57	07:06	08:13	09:57 (16) 08:27 10:59 (29) 09:22 11:59 (21)	
	22:32	21:24	19:56	18:31	12 10:09 (16) 16:15 83 14:28 (25) 15:42	
17	04:54	06:00	07:08	08:16	09:55 (16) 08:30 11:00 (29) 09:23 11:59 (21)	
	22:31	21:21	19:54	18:28	16 10:11 (16) 16:13 83 14:29 (25) 15:42	
18	04:56	06:02	07:11	08:18	09:54 (16) 08:32 11:00 (29) 09:24 12:00 (21)	
	22:29	21:18	19:51	18:25	17 10:11 (16) 16:11 81 14:29 (25) 15:42	
19	04:58	06:04	07:13	08:20	09:54 (16) 08:34 11:01 (29) 09:25 12:01 (21)	
	22:27	21:16	19:48	18:22	18 10:12 (16) 16:09 87 14:29 (25) 15:42	
20	05:00	06:06	07:15	08:23	09:53 (16) 08:36 11:01 (29) 09:26 12:02 (21)	
	22:25	21:13	19:45	18:20	19 10:12 (16) 16:08 89 14:29 (25) 15:43	
21	05:01	06:08	07:17	08:25	09:53 (16) 08:39 11:03 (29) 09:26 12:03 (21)	
	22:24	21:10	19:42	18:17	19 10:12 (16) 16:06 88 14:29 (25) 15:43	
22	05:03	06:11	07:19	08:27	09:52 (16) 08:41 11:04 (29) 09:27 12:04 (21)	
	22:22	21:08	19:39	18:14	20 10:12 (16) 16:04 88 14:30 (25) 15:43	
23	05:05	06:13	07:22	08:30	09:53 (16) 08:43 11:05 (29) 09:27 12:05 (21)	
	22:20	21:05	19:36	18:12	19 10:12 (16) 16:02 84 14:29 (25) 15:44	
24	05:07	06:15	07:24	08:32	09:53 (16) 08:45 11:07 (29) 09:28 12:06 (21)	
	22:18	21:02	19:33	18:09	17 10:10 (16) 16:01 72 14:30 (25) 15:44	
25	05:09	06:17	07:26	07:35	08:54 (16) 08:47 11:08 (29) 09:28 12:07 (21)	
	22:16	20:59	19:30	17:06	16 09:10 (16) 15:59 58 13:20 (24) 15:45	
26	05:11	06:20	07:28	07:37	08:56 (16) 08:50 11:10 (29) 09:28 12:08 (21)	
	22:14	20:57	19:27	17:04	13 09:09 (16) 15:58 54 13:20 (24) 15:46	
27	05:13	06:22	07:30	07:39	08:57 (16) 08:52 11:12 (29) 09:28 12:09 (21)	
	22:12	20:54	19:25	17:01	9 09:06 (16) 15:56 49 13:19 (24) 15:47	
28	05:16	06:24	07:33	07:42	08:54 11:48 (21) 09:28 12:10 (21)	
	22:10	20:51	19:22	16:59	15:55 35 13:18 (24) 15:48	
29	05:18	06:26	07:35	07:44	08:56 11:48 (21) 09:28 12:11 (21)	
	22:07	20:48	19:19	16:56	15:54 33 13:17 (24) 15:49	
30	05:20	06:29	07:37	07:47	11:09 (29) 08:58 11:48 (21) 09:28 12:12 (21)	
	22:05	20:45	19:16	16:54	7 11:16 (29) 15:52 30 13:15 (24) 15:50	
31	05:22	06:31	07:49	07:49	11:06 (29) 08:57 11:48 (21) 09:28 12:13 (21)	
	22:03	20:42	16:51	14 11:20 (29) 15:51 30 13:15 (24) 15:50		
Potential sun hours	546	478	386	319	236	199
Total, worst case				223	1885	154
Sun reduction				0,50	0,50	0,50
Oper. time red.				0,80	0,80	0,80
Wind dir. red.				0,73	0,61	0,64
Total reduction				0,29	0,25	0,25
Total, real				65	462	39

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Calculation: Oppdatert layout - real case med vindrose - kun Moifjellet - oppdatert mottaker **Shadow receptor:** H - Buevegen 1784 (8)
Assumptions for shadow calculations Sunshine probability S/S0 (Sun hours/Possible sun hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
 644 231 315 644 959 714 721 455 378 420 574 938 6 993

	January	February	March	April	May	June		
1	09:28 15:53	12:18 (21) 12:39 (21)	08:46 16:56	11:54 (29) 14:04 (24)	07:35 18:05	07:07 20:17	05:44 21:26	04:40 22:31
2	09:27 15:54	11:56 (29) 12:39 (21)	08:43 16:58	11:54 (29) 14:02 (24)	07:33 18:07	07:04 20:19	05:41 21:28	04:38 22:32
3	09:27 15:55	11:53 (29) 12:39 (21)	08:41 17:01	11:56 (29) 14:01 (24)	07:30 18:09	07:01 20:21	05:39 21:31	04:37 22:34
4	09:27 15:57	11:52 (29) 12:40 (21)	08:39 17:03	11:57 (29) 13:59 (24)	07:27 18:12	06:58 20:24	05:36 21:33	04:36 22:35
5	09:26 15:58	11:51 (29) 12:40 (21)	08:37 17:06	11:59 (29) 13:54 (24)	07:24 18:14	06:55 20:26	05:34 21:35	04:35 22:37
6	09:25 16:00	11:50 (29) 12:40 (21)	08:34 17:08	12:05 (29) 12:08 (29)	07:21 18:17	06:52 20:28	05:31 21:37	04:34 22:38
7	09:24 16:02	11:50 (29) 13:47 (24)	08:32 17:11	07:19 18:19	06:50 20:30	05:29 21:40	04:33 22:39	
8	09:24 16:03	11:50 (29) 13:50 (24)	08:30 17:13	07:16 18:21	06:47 20:33	05:26 21:42	04:32 22:40	
9	09:23 16:05	11:50 (29) 13:52 (24)	08:27 17:16	09:43 (16) 09:49 (16)	07:13 18:24	06:44 20:35	05:24 21:44	04:31 22:42
10	09:22 16:07	11:49 (29) 13:53 (24)	08:25 17:18	09:40 (16) 09:51 (16)	07:10 18:26	06:41 20:37	05:22 21:46	04:30 22:43
11	09:21 16:09	11:49 (29) 13:55 (24)	08:23 17:21	09:39 (16) 09:54 (16)	07:07 18:28	06:38 20:40	05:19 21:49	04:29 22:44
12	09:20 16:11	11:48 (29) 13:55 (24)	08:20 17:23	09:38 (16) 09:54 (16)	07:04 18:31	06:35 20:42	05:17 21:51	04:29 22:45
13	09:18 16:13	11:49 (29) 13:57 (24)	08:18 17:26	09:37 (16) 09:55 (16)	07:02 18:33	06:32 20:44	05:15 21:53	04:28 22:46
14	09:17 16:15	11:48 (29) 13:58 (24)	08:15 17:28	09:37 (16) 09:56 (16)	06:59 18:35	06:30 20:47	05:13 21:55	04:28 22:47
15	09:16 16:17	11:48 (29) 14:47 (25)	08:13 17:31	09:36 (16) 09:56 (16)	06:56 18:38	06:27 20:49	05:10 21:58	04:27 22:47
16	09:15 16:19	11:47 (29) 14:59 (25)	08:10 17:33	09:36 (16) 09:56 (16)	06:53 18:40	06:24 20:51	05:08 22:00	04:27 22:48
17	09:13 16:21	11:48 (29) 15:01 (25)	08:07 17:36	09:36 (16) 09:55 (16)	06:50 18:42	06:21 20:53	05:06 22:02	04:27 22:49
18	09:12 16:23	11:48 (29) 15:01 (25)	08:05 17:38	09:37 (16) 09:56 (16)	06:47 18:45	06:19 20:56	05:04 22:04	04:27 22:49
19	09:10 16:25	11:48 (29) 15:02 (25)	08:02 17:40	09:37 (16) 09:55 (16)	06:44 18:47	06:16 20:58	05:02 22:06	04:27 22:50
20	09:08 16:28	11:48 (29) 15:02 (25)	08:00 17:43	09:38 (16) 09:54 (16)	06:41 18:49	06:13 21:00	05:00 22:08	04:27 22:50
21	09:07 16:30	11:48 (29) 15:02 (25)	07:57 17:45	09:39 (16) 09:52 (16)	06:39 18:51	06:10 21:03	04:58 22:10	04:27 22:50
22	09:05 16:32	11:48 (29) 15:03 (25)	07:54 17:48	09:41 (16) 09:49 (16)	06:36 18:54	06:08 21:05	04:56 22:12	04:27 22:50
23	09:03 16:34	11:48 (29) 15:02 (25)	07:52 17:50	06:33 18:56	06:05 21:07	04:54 22:14	04:27 22:51	
24	09:02 16:37	11:48 (29) 15:02 (25)	07:49 17:53	06:30 18:58	06:02 21:10	04:52 22:16	04:27 22:51	
25	09:00 16:39	11:49 (29) 15:02 (25)	07:46 17:55	06:27 19:01	05:59 21:12	04:51 22:18	04:28 22:51	
26	08:58 16:41	11:49 (29) 15:02 (25)	07:44 17:57	06:24 19:03	05:57 21:14	04:49 22:20	04:28 22:50	
27	08:56 16:44	11:49 (29) 15:01 (25)	07:41 18:00	06:21 19:05	05:54 21:17	04:47 22:22	04:29 22:50	
28	08:54 16:46	11:50 (29) 15:01 (25)	07:38 18:02	06:18 19:08	05:52 21:19	04:46 22:24	04:30 22:50	
29	08:52 16:49	11:51 (29) 15:00 (25)	07:35 18:00	07:15 20:10	05:49 21:21	04:44 22:25	04:30 22:50	
30	08:50 16:51	11:51 (29) 14:58 (25)	07:32 18:00	07:12 20:12	05:46 21:24	04:42 22:27	04:31 22:49	
31	08:48 16:54	11:52 (29) 14:55 (25)	07:29 18:00	07:10 20:14	05:44 21:26	04:41 22:29	04:30 22:50	
Potential sun hours	221	260	365	432	521	547		
Total, worst case	1936	399						
Sun reduction	0,50	0,50						
Oper. time red.	0,80	0,80						
Wind dir. red.	0,60	0,67						
Total reduction	0,24	0,27						
Total, real	466	107						

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Calculation: Oppdatert layout - real case med vindrose - kun Moifjellet - oppdatert mottaker **Shadow receptor:** H - Buevegen 1784 (8)

Assumptions for shadow calculations

Sunshine probability S/S0 (Sun hours/Possible sun hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
644 231 315 644 959 714 721 455 378 420 574 938 6 993

	July	August	September	October	November	December
1	04:32	05:24	06:33	07:39	07:51	09:10 (16) 09:00
	22:49	22:01	20:40	19:13	16:49	11 09:21 (16) 15:51
2	04:33	05:26	06:35	07:42	07:54	09:13 (16) 09:02
	22:48	21:59	20:37	19:10	16:46	5 09:18 (16) 15:50
3	04:34	05:28	06:37	07:44	07:56	09:03
	22:47	21:56	20:34	19:07	16:44	53 13:35 (24)
4	04:35	05:31	06:40	07:46	07:59	09:05
	22:47	21:54	20:31	19:04	16:41	49 13:34 (24)
5	04:36	05:33	06:42	07:48	08:01	11:33 (29) 09:07
	22:46	21:51	20:28	19:02	16:39	6 11:39 (29) 15:47
6	04:37	05:35	06:44	07:51	08:03	11:30 (29) 09:09
	22:45	21:49	20:25	18:59	16:37	20 13:26 (24) 15:46
7	04:38	05:37	06:46	07:53	08:06	11:27 (29) 09:10
	22:44	21:47	20:22	18:56	16:34	31 13:29 (24) 15:45
8	04:40	05:39	06:49	07:55	08:08	11:26 (29) 09:12
	22:43	21:44	20:20	18:53	16:32	38 13:31 (24) 15:45
9	04:41	05:42	06:51	07:57	08:11	11:25 (29) 09:13
	22:42	21:42	20:17	18:50	16:30	44 13:33 (24) 15:44
10	04:43	05:44	06:53	08:00	08:13	11:24 (29) 09:15
	22:41	21:39	20:14	18:47	16:28	48 13:34 (24) 15:43
11	04:44	05:46	06:55	08:02	08:15	11:23 (29) 09:16
	22:39	21:37	20:11	18:45	16:25	55 14:27 (25) 15:43
12	04:46	05:48	06:57	08:04	08:18	11:23 (29) 09:18
	22:38	21:34	20:08	18:42	16:23	63 14:30 (25) 15:43
13	04:47	05:51	07:00	08:07	08:20	11:23 (29) 09:19
	22:37	21:32	20:05	18:39	16:21	69 14:32 (25) 15:42
14	04:49	05:53	07:02	08:09	08:22	11:22 (29) 09:20
	22:35	21:29	20:02	18:36	16:19	73 14:33 (25) 15:42
15	04:51	05:55	07:04	08:11	08:25	11:22 (29) 09:21
	22:34	21:26	19:59	18:33	16:17	76 14:34 (25) 15:42
16	04:52	05:57	07:06	08:13	08:27	11:22 (29) 09:22
	22:32	21:24	19:56	18:31	16:15	79 14:35 (25) 15:42
17	04:54	06:00	07:08	08:16	08:30	11:23 (29) 09:23
	22:31	21:21	19:54	18:28	16:13	80 14:36 (25) 15:42
18	04:56	06:02	07:11	08:18	08:32	11:22 (29) 09:24
	22:29	21:18	19:51	18:25	16:11	80 14:36 (25) 15:42
19	04:58	06:04	07:13	08:20	08:34	11:23 (29) 09:25
	22:27	21:16	19:48	18:22	16:09	80 14:37 (25) 15:42
20	05:00	06:06	07:15	08:23	10:11 (16) 08:36	11:22 (29) 09:26
	22:25	21:13	19:45	18:20	10 10:21 (16) 16:08	82 14:37 (25) 15:43
21	05:01	06:08	07:17	08:25	10:09 (16) 08:39	11:23 (29) 09:26
	22:24	21:10	19:42	18:17	15 10:24 (16) 16:06	80 14:37 (25) 15:43
22	05:03	06:11	07:19	08:27	10:08 (16) 08:41	11:24 (29) 09:27
	22:22	21:08	19:39	18:14	16 10:24 (16) 16:04	79 14:38 (25) 15:43
23	05:05	06:13	07:22	08:30	10:07 (16) 08:43	11:24 (29) 09:27
	22:20	21:05	19:36	18:12	18 10:25 (16) 16:02	83 14:38 (25) 15:44
24	05:07	06:15	07:24	08:32	10:06 (16) 08:45	11:25 (29) 09:28
	22:18	21:02	19:33	18:09	19 10:25 (16) 16:01	87 14:38 (25) 15:44
25	05:09	06:17	07:26	07:35	09:06 (16) 08:47	11:25 (29) 09:28
	22:16	20:59	19:30	17:06	20 09:26 (16) 15:59	87 14:38 (25) 15:45
26	05:11	06:20	07:28	07:37	09:06 (16) 08:50	11:26 (29) 09:28
	22:14	20:57	19:27	17:04	20 09:26 (16) 15:58	83 14:38 (25) 15:46
27	05:13	06:22	07:30	07:39	09:06 (16) 08:52	11:27 (29) 09:28
	22:12	20:54	19:25	17:01	19 09:25 (16) 15:56	75 14:34 (25) 15:47
28	05:16	06:24	07:33	07:42	09:06 (16) 08:54	11:28 (29) 09:28
	22:10	20:51	19:22	16:59	19 09:25 (16) 15:55	65 13:38 (24) 15:48
29	05:18	06:26	07:35	07:44	09:06 (16) 08:56	11:29 (29) 09:28
	22:07	20:48	19:19	16:56	18 09:24 (16) 15:54	64 13:37 (24) 15:49
30	05:20	06:29	07:37	07:47	09:07 (16) 08:58	11:29 (29) 09:28
	22:05	20:45	19:16	16:54	17 09:24 (16) 15:52	62 13:37 (24) 15:50
31	05:22	06:31	07:49	07:49	09:09 (16)	09:28
	22:03	20:42	16:51	14 09:23 (16)	15:51	21 12:37 (21)
Potential sun hours	546	478	386	319	236	199
Total, worst case				205	1705	847
Sun reduction				0,50	0,50	0,50
Oper. time red.				0,80	0,80	0,80
Wind dir. red.				0,73	0,60	0,63
Total reduction				0,29	0,24	0,25
Total, real				60	408	212

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)		Last time (hh:mm) with flicker	(WTG causing flicker last time)

SHADOW - Calendar

Calculation: Oppdatert layout - real case med vindrose - kun Moifjellet - oppdatert mottaker **Shadow receptor:** I - Buevegen 1782 (9)
Assumptions for shadow calculations Sunshine probability S/S0 (Sun hours/Possible sun hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
 644 231 315 644 959 714 721 455 378 420 574 938 6 993

	January	February	March	April	May	June
1	09:28	12:08 (21) 08:46	11:39 (29) 07:35	07:07	05:44	04:40
	15:53	21 12:29 (21) 16:56	48 13:50 (24) 18:05	20:17	21:26	22:31
2	09:27	12:08 (21) 08:43	11:40 (29) 07:33	07:04	05:41	04:38
	15:54	21 12:29 (21) 16:58	44 13:48 (24) 18:07	20:19	21:28	22:32
3	09:27	12:09 (21) 08:41	11:41 (29) 07:30	07:01	05:39	04:37
	15:55	20 12:29 (21) 17:01	39 13:47 (24) 18:09	20:21	21:31	22:34
4	09:27	12:09 (21) 08:39	11:42 (29) 07:27	06:58	05:36	04:36
	15:57	21 12:30 (21) 17:03	31 13:44 (24) 18:12	20:24	21:33	22:35
5	09:26	12:09 (21) 08:37	11:43 (29) 07:24	06:55	05:34	04:35
	15:58	21 12:30 (21) 17:06	18 12:01 (29) 18:14	20:26	21:35	22:37
6	09:25	12:10 (21) 08:34	11:46 (29) 07:21	06:52	05:31	04:34
	16:00	26 13:33 (24) 17:08	14 12:00 (29) 18:17	20:28	21:37	22:38
7	09:24	11:42 (29) 08:32	11:51 (29) 07:19	06:50	05:29	04:33
	16:02	37 13:36 (24) 17:11	3 11:54 (29) 18:19	20:30	21:40	22:39
8	09:24	11:40 (29) 08:30	07:16	06:47	05:26	04:32
	16:03	45 13:38 (24) 17:13	18:21	20:33	21:42	22:41
9	09:23	11:39 (29) 08:27	07:13	06:44	05:24	04:31
	16:05	50 13:40 (24) 17:16	18:24	20:35	21:44	22:42
10	09:22	11:38 (29) 08:25	09:40 (16) 07:10	06:41	05:22	04:30
	16:07	52 13:40 (24) 17:18	2 09:42 (16) 18:26	20:37	21:46	22:43
11	09:21	11:38 (29) 08:23	09:36 (16) 07:07	06:38	05:19	04:29
	16:09	56 13:42 (24) 17:21	10 09:46 (16) 18:28	20:40	21:49	22:44
12	09:20	11:37 (29) 08:20	09:34 (16) 07:04	06:35	05:17	04:29
	16:11	63 14:47 (25) 17:23	14 09:48 (16) 18:31	20:42	21:51	22:45
13	09:18	11:37 (29) 08:18	09:33 (16) 07:02	06:32	05:15	04:28
	16:13	74 14:49 (25) 17:26	16 09:49 (16) 18:33	20:44	21:53	22:46
14	09:17	11:36 (29) 08:15	09:33 (16) 06:59	06:30	05:13	04:28
	16:15	82 14:49 (25) 17:28	17 09:50 (16) 18:35	20:47	21:55	22:47
15	09:16	11:36 (29) 08:13	09:32 (16) 06:56	06:27	05:10	04:27
	16:17	87 14:50 (25) 17:31	18 09:50 (16) 18:38	20:49	21:58	22:47
16	09:15	11:35 (29) 08:10	09:31 (16) 06:53	06:24	05:08	04:27
	16:19	87 14:50 (25) 17:33	19 09:50 (16) 18:40	20:51	22:00	22:48
17	09:13	11:36 (29) 08:07	09:31 (16) 06:50	06:21	05:06	04:27
	16:21	87 14:52 (25) 17:36	19 09:50 (16) 18:42	20:53	22:02	22:49
18	09:12	11:36 (29) 08:05	09:32 (16) 06:47	06:19	05:04	04:27
	16:23	89 14:52 (25) 17:38	19 09:51 (16) 18:45	20:56	22:04	22:49
19	09:10	11:35 (29) 08:02	09:32 (16) 06:44	06:16	05:02	04:27
	16:25	86 14:52 (25) 17:40	18 09:50 (16) 18:47	20:58	22:06	22:50
20	09:09	11:35 (29) 08:00	09:32 (16) 06:41	06:13	05:00	04:27
	16:28	83 14:53 (25) 17:43	17 09:49 (16) 18:49	21:00	22:08	22:50
21	09:07	11:35 (29) 07:57	09:33 (16) 06:39	06:10	04:58	04:27
	16:30	79 14:53 (25) 17:45	15 09:48 (16) 18:51	21:03	22:10	22:50
22	09:05	11:35 (29) 07:54	09:34 (16) 06:36	06:08	04:56	04:27
	16:32	80 14:53 (25) 17:48	12 09:46 (16) 18:54	21:05	22:12	22:50
23	09:03	11:35 (29) 07:52	09:37 (16) 06:33	06:05	04:54	04:27
	16:34	79 14:52 (25) 17:50	7 09:44 (16) 18:56	21:07	22:14	22:51
24	09:02	11:35 (29) 07:49	06:30	06:02	04:52	04:27
	16:37	79 14:52 (25) 17:53	18:58	21:10	22:16	22:51
25	09:00	11:35 (29) 07:46	06:27	05:59	04:51	04:28
	16:39	78 14:52 (25) 17:55	19:01	21:12	22:18	22:51
26	08:58	11:36 (29) 07:44	06:24	05:57	04:49	04:28
	16:41	77 14:52 (25) 17:57	19:03	21:14	22:20	22:50
27	08:56	11:36 (29) 07:41	06:21	05:54	04:47	04:29
	16:44	73 14:51 (25) 18:00	19:05	21:17	22:22	22:50
28	08:54	11:36 (29) 07:38	06:18	05:52	04:46	04:30
	16:46	71 14:50 (25) 18:02	19:08	21:19	22:24	22:50
29	08:52	11:37 (29)	07:15	05:49	04:44	04:30
	16:49	66 14:49 (25)	20:10	21:21	22:25	22:50
30	08:50	11:37 (29)	07:13	05:46	04:42	04:31
	16:51	54 14:44 (25)	20:12	21:24	22:27	22:49
31	08:48	11:38 (29)	07:10		04:41	
	16:54	51 13:50 (24)	20:14		22:29	
Potential sun hours	221	260	365	432	521	547
Total, worst case	1895	400				
Sun reduction	0,50	0,50				
Oper. time red.	0,80	0,80				
Wind dir. red.	0,61	0,68				
Total reduction	0,24	0,27				
Total, real	460	108				

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Calculation: Oppdatert layout - real case med vindrose - kun Moifjellet - oppdatert mottaker **Shadow receptor:** I - Buevegen 1782 (9)

Assumptions for shadow calculations

Sunshine probability S/S0 (Sun hours/Possible sun hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
644 231 315 644 959 714 721 455 378 420 574 938 6 993

	July	August	September	October	November	December
1	04:32	05:24	06:33	07:39	07:51	09:00
	22:49	22:01	20:40	19:13	16:49	15:51
2	04:33	05:26	06:35	07:42	07:54	09:02
	22:48	21:59	20:37	19:10	16:46	15:50
3	04:34	05:28	06:37	07:44	07:56	09:03
	22:47	21:56	20:34	19:07	16:44	15:49
4	04:35	05:31	06:40	07:46	07:59	09:05
	22:47	21:54	20:31	19:04	16:41	15:48
5	04:36	05:33	06:42	07:48	08:01	09:07
	22:46	21:51	20:28	19:02	16:39	15:47
6	04:37	05:35	06:44	07:51	08:03	09:09
	22:45	21:49	20:25	18:59	16:37	15:46
7	04:38	05:37	06:46	07:53	08:06	09:10
	22:44	21:47	20:23	18:56	16:34	15:45
8	04:40	05:39	06:49	07:55	08:08	09:12
	22:43	21:44	20:20	18:53	16:32	15:45
9	04:41	05:42	06:51	07:57	08:11	09:13
	22:42	21:42	20:17	18:50	16:30	15:44
10	04:43	05:44	06:53	08:00	08:13	09:15
	22:41	21:39	20:14	18:47	16:28	15:43
11	04:44	05:46	06:55	08:02	08:15	09:16
	22:39	21:37	20:11	18:45	16:25	15:43
12	04:46	05:48	06:57	08:04	08:18	09:18
	22:38	21:34	20:08	18:42	16:23	15:43
13	04:47	05:51	07:00	08:07	08:20	09:19
	22:37	21:32	20:05	18:39	16:21	15:42
14	04:49	05:53	07:02	08:09	08:23	09:20
	22:35	21:29	20:02	18:36	16:19	15:42
15	04:51	05:55	07:04	08:11	08:25	09:21
	22:34	21:26	19:59	18:33	16:17	15:42
16	04:52	05:57	07:06	08:13	08:27	09:22
	22:32	21:24	19:56	18:31	16:15	15:42
17	04:54	06:00	07:08	08:16	08:30	09:23
	22:31	21:21	19:54	18:28	16:13	15:42
18	04:56	06:02	07:11	08:18	08:32	09:24
	22:29	21:18	19:51	18:25	16:11	15:42
19	04:58	06:04	07:13	08:20	08:34	09:25
	22:27	21:16	19:48	18:22	16:09	15:42
20	05:00	06:06	07:15	08:23	08:36	09:26
	22:25	21:13	19:45	18:20	16:08	15:43
21	05:01	06:08	07:17	08:25	08:39	09:26
	22:24	21:10	19:42	18:17	16:06	15:43
22	05:03	06:11	07:19	08:27	08:41	09:27
	22:22	21:08	19:39	18:14	16:04	15:43
23	05:05	06:13	07:22	08:30	08:43	09:27
	22:20	21:05	19:36	18:12	16:02	15:44
24	05:07	06:15	07:24	08:32	08:45	09:28
	22:18	21:02	19:33	18:09	16:01	15:44
25	05:09	06:17	07:26	07:35	09:01	09:28
	22:16	20:59	19:30	17:06	16:00	15:45
26	05:11	06:20	07:28	07:37	09:02	09:28
	22:14	20:57	19:27	17:04	16:00	15:46
27	05:13	06:22	07:30	07:39	09:01	09:28
	22:12	20:54	19:25	17:01	16:00	15:47
28	05:16	06:24	07:33	07:42	09:02	09:28
	22:10	20:51	19:22	16:59	16:00	15:48
29	05:18	06:26	07:35	07:44	09:02	09:28
	22:07	20:48	19:19	16:56	16:00	15:49
30	05:20	06:29	07:37	07:47	09:04	09:28
	22:05	20:45	19:16	16:54	16:00	15:50
31	05:22	06:31		07:49	09:06	09:28
	22:03	20:42		16:51	09:15	15:51
Potential sun hours	546	478	386	319	236	199
Total, worst case				204	1733	766
Sun reduction				0,50	0,50	0,50
Oper. time red.				0,80	0,80	0,80
Wind dir. red.				0,73	0,61	0,63
Total reduction				0,29	0,24	0,25
Total, real				59	420	193

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Calculation: Oppdatert layout - real case med vindrose - kun Moifjellet - oppdatert mottaker **Shadow receptor:** J - Buevegen 1780 (10)
Assumptions for shadow calculations Sunshine probability S/S0 (Sun hours/Possible sun hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
 644 231 315 644 959 714 721 455 378 420 574 938 6 993

	January	February	March	April	May	June		
1	09:28	12:05 (21)	08:46	11:36 (29)	07:35	07:07	05:44	04:40
	15:53	21 12:26 (21)	16:56	45 13:44 (24)	18:05	20:17	21:26	22:31
2	09:27	12:06 (21)	08:43	11:37 (29)	07:33	07:04	05:41	04:38
	15:54	20 12:26 (21)	16:58	40 13:42 (24)	18:07	20:19	21:28	22:32
3	09:27	12:06 (21)	08:41	11:38 (29)	07:30	07:01	05:39	04:37
	15:55	20 12:26 (21)	17:01	34 13:40 (24)	18:09	20:21	21:31	22:34
4	09:27	12:06 (21)	08:39	11:39 (29)	07:27	06:58	05:36	04:36
	15:57	21 12:27 (21)	17:03	20 11:59 (29)	18:12	20:24	21:33	22:35
5	09:26	12:06 (21)	08:37	11:41 (29)	07:24	06:55	05:34	04:35
	15:58	28 13:28 (24)	17:06	16 11:57 (29)	18:14	20:26	21:35	22:37
6	09:25	12:07 (21)	08:34	11:44 (29)	07:21	06:52	05:31	04:34
	16:00	31 13:30 (24)	17:08	10 11:54 (29)	18:17	20:28	21:37	22:38
7	09:24	11:38 (29)	08:32	07:19	06:50	05:29	04:33	
	16:02	39 13:32 (24)	17:11	18:19	20:30	21:40	22:39	
8	09:24	11:37 (29)	08:30	07:16	06:47	05:26	04:32	
	16:03	46 13:34 (24)	17:13	18:21	20:33	21:42	22:41	
9	09:23	11:36 (29)	08:27	07:13	06:44	05:24	04:31	
	16:05	50 13:36 (24)	17:16	18:24	20:35	21:44	22:42	
10	09:22	11:35 (29)	08:25	09:38 (16)	07:10	06:41	05:22	04:30
	16:07	58 14:41 (25)	17:18	5 09:43 (16)	18:26	20:37	21:46	22:43
11	09:21	11:34 (29)	08:23	09:36 (16)	07:07	06:38	05:19	04:29
	16:09	71 14:43 (25)	17:21	10 09:46 (16)	18:28	20:40	21:49	22:44
12	09:20	11:33 (29)	08:20	09:34 (16)	07:04	06:35	05:17	04:29
	16:11	79 14:44 (25)	17:23	14 09:48 (16)	18:31	20:42	21:51	22:45
13	09:18	11:34 (29)	08:18	09:32 (16)	07:02	06:32	05:15	04:28
	16:13	81 14:45 (25)	17:26	16 09:48 (16)	18:33	20:44	21:53	22:46
14	09:17	11:33 (29)	08:15	09:32 (16)	06:59	06:30	05:13	04:28
	16:15	84 14:45 (25)	17:28	18 09:50 (16)	18:35	20:47	21:55	22:47
15	09:16	11:32 (29)	08:13	09:32 (16)	06:56	06:27	05:10	04:27
	16:17	86 14:46 (25)	17:31	18 09:50 (16)	18:38	20:49	21:58	22:47
16	09:15	11:32 (29)	08:10	09:31 (16)	06:53	06:24	05:08	04:27
	16:19	87 14:46 (25)	17:33	19 09:50 (16)	18:40	20:51	22:00	22:48
17	09:13	11:32 (29)	08:07	09:31 (16)	06:50	06:21	05:06	04:27
	16:21	87 14:47 (25)	17:36	19 09:50 (16)	18:42	20:53	22:02	22:49
18	09:12	11:32 (29)	08:05	09:32 (16)	06:47	06:19	05:04	04:27
	16:23	88 14:48 (25)	17:38	18 09:50 (16)	18:45	20:56	22:04	22:49
19	09:10	11:32 (29)	08:02	09:32 (16)	06:44	06:16	05:02	04:27
	16:25	86 14:48 (25)	17:40	17 09:49 (16)	18:47	20:58	22:06	22:50
20	09:09	11:32 (29)	08:00	09:32 (16)	06:41	06:13	05:00	04:27
	16:28	77 14:48 (25)	17:43	16 09:48 (16)	18:49	21:00	22:08	22:50
21	09:07	11:32 (29)	07:57	09:33 (16)	06:39	06:10	04:58	04:27
	16:30	77 14:48 (25)	17:45	14 09:47 (16)	18:51	21:03	22:10	22:50
22	09:05	11:32 (29)	07:54	09:35 (16)	06:36	06:08	04:56	04:27
	16:32	79 14:49 (25)	17:48	10 09:45 (16)	18:54	21:05	22:12	22:50
23	09:03	11:31 (29)	07:52	09:39 (16)	06:33	06:05	04:54	04:27
	16:34	78 14:48 (25)	17:50	2 09:41 (16)	18:56	21:07	22:14	22:51
24	09:02	11:32 (29)	07:49	06:30	06:02	04:52	04:27	
	16:37	77 14:48 (25)	17:53	18:58	21:10	22:16	22:51	
25	09:00	11:32 (29)	07:46	06:27	05:59	04:51	04:28	
	16:39	75 14:47 (25)	17:55	19:01	21:12	22:18	22:51	
26	08:58	11:33 (29)	07:44	06:24	05:57	04:49	04:28	
	16:41	73 14:47 (25)	17:57	19:03	21:14	22:20	22:50	
27	08:56	11:32 (29)	07:41	06:21	05:54	04:47	04:29	
	16:44	70 14:45 (25)	18:00	19:05	21:17	22:22	22:50	
28	08:54	11:33 (29)	07:38	06:18	05:52	04:46	04:30	
	16:46	66 14:44 (25)	18:02	19:08	21:19	22:24	22:50	
29	08:52	11:34 (29)		07:15	05:49	04:44	04:30	
	16:49	57 14:41 (25)		20:10	21:21	22:25	22:50	
30	08:50	11:34 (29)		07:13	05:46	04:42	04:31	
	16:51	52 13:45 (24)		20:12	21:24	22:27	22:49	
31	08:48	11:35 (29)		07:10		04:41		
	16:54	48 13:44 (24)		20:14		22:29		
Potential sun hours	221	260	365	432	521	547		
Total, worst case	1912	361						
Sun reduction	0,50	0,50						
Oper. time red.	0,80	0,80						
Wind dir. red.	0,61	0,69						
Total reduction	0,24	0,27						
Total, real	466	99						

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)		Last time (hh:mm) with flicker	(WTG causing flicker last time)

SHADOW - Calendar

Calculation: Oppdatert layout - real case med vindrose - kun Moifjellet - oppdatert mottaker **Shadow receptor:** J - Buevegen 1780 (10)

Assumptions for shadow calculations

Sunshine probability S/S0 (Sun hours/Possible sun hours)

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
644 231 315 644 959 714 721 455 378 420 574 938 6 993

	July	August	September	October	November	December	
1	04:32	05:24	06:33	07:39	07:51	09:09 (16) 09:00	11:16 (29)
	22:49	22:01	20:40	19:13	16:49	2 09:11 (16) 15:51	74 14:26 (25)
2	04:33	05:26	06:35	07:42	07:54		09:02 11:18 (29)
	22:48	21:59	20:37	19:10	16:46		15:50 58 14:24 (25)
3	04:34	05:28	06:37	07:44	07:56		09:03 11:19 (29)
	22:47	21:56	20:34	19:07	16:44		15:49 51 13:19 (24)
4	04:35	05:31	06:40	07:46	07:59		09:05 11:21 (29)
	22:47	21:54	20:31	19:04	16:41		15:48 46 13:18 (24)
5	04:36	05:33	06:42	07:48	08:01		11:13 (29) 09:07 11:23 (29)
	22:46	21:51	20:28	19:02	16:39	12	11:25 (29) 15:47 39 13:18 (24)
6	04:37	05:35	06:44	07:51	08:03		11:11 (29) 09:09 11:53 (21)
	22:45	21:49	20:25	18:59	16:37	17	11:28 (29) 15:46 32 13:17 (24)
7	04:38	05:37	06:46	07:53	08:06		11:10 (29) 09:10 11:54 (21)
	22:44	21:47	20:23	18:56	16:34	22	13:06 (24) 15:45 28 13:16 (24)
8	04:40	05:39	06:49	07:55	08:08		11:08 (29) 09:12 11:54 (21)
	22:43	21:44	20:20	18:53	16:32	34	13:10 (24) 15:45 22 13:13 (24)
9	04:41	05:42	06:51	07:57	08:11		11:07 (29) 09:13 11:55 (21)
	22:42	21:42	20:17	18:50	16:30	41	13:13 (24) 15:44 20 12:15 (21)
10	04:43	05:44	06:53	08:00	08:13		11:07 (29) 09:15 11:55 (21)
	22:41	21:39	20:14	18:47	16:28	46	13:15 (24) 15:43 20 12:15 (21)
11	04:44	05:46	06:55	08:02	08:15		11:06 (29) 09:16 11:56 (21)
	22:39	21:37	20:11	18:45	16:25	48	13:15 (24) 15:43 20 12:16 (21)
12	04:46	05:48	06:57	08:04	08:18		11:06 (29) 09:18 11:56 (21)
	22:38	21:34	20:08	18:42	16:23	52	13:17 (24) 15:43 20 12:16 (21)
13	04:47	05:51	07:00	08:07	08:20		11:06 (29) 09:19 11:57 (21)
	22:37	21:32	20:05	18:39	16:21	58	14:14 (25) 15:42 20 12:17 (21)
14	04:49	05:53	07:02	08:09	08:23		11:05 (29) 09:20 11:57 (21)
	22:35	21:29	20:02	18:36	16:19	66	14:16 (25) 15:42 20 12:17 (21)
15	04:51	05:55	07:04	08:11	08:25		11:05 (29) 09:21 11:57 (21)
	22:34	21:26	19:59	18:33	16:17	70	14:18 (25) 15:42 20 12:17 (21)
16	04:52	05:57	07:06	08:13	08:27		11:06 (29) 09:22 11:58 (21)
	22:32	21:24	19:56	18:31	16:15	73	14:20 (25) 15:42 19 12:17 (21)
17	04:54	06:00	07:08	08:16	08:30		11:06 (29) 09:23 11:58 (21)
	22:31	21:21	19:54	18:28	16:13	75	14:21 (25) 15:42 20 12:18 (21)
18	04:56	06:02	07:11	08:18	08:32		11:06 (29) 09:24 11:59 (21)
	22:29	21:18	19:51	18:25	16:11	77	14:22 (25) 15:42 19 12:18 (21)
19	04:58	06:04	07:13	08:20	10:08 (16) 08:34		11:06 (29) 09:25 11:59 (21)
	22:27	21:16	19:48	18:22	7 10:15 (16) 16:09	78	14:23 (25) 15:42 20 12:19 (21)
20	05:00	06:06	07:15	08:23	10:05 (16) 08:36		11:06 (29) 09:26 12:00 (21)
	22:25	21:13	19:45	18:20	12 10:17 (16) 16:08	79	14:23 (25) 15:43 19 12:19 (21)
21	05:01	06:08	07:17	08:25	10:04 (16) 08:39		11:07 (29) 09:26 12:00 (21)
	22:24	21:10	19:42	18:17	15 10:19 (16) 16:06	77	14:23 (25) 15:43 19 12:19 (21)
22	05:03	06:11	07:19	08:27	10:02 (16) 08:41		11:08 (29) 09:27 12:01 (21)
	22:22	21:08	19:39	18:14	17 10:19 (16) 16:04	77	14:24 (25) 15:43 19 12:20 (21)
23	05:05	06:13	07:22	08:30	10:02 (16) 08:43		11:08 (29) 09:27 12:01 (21)
	22:20	21:05	19:36	18:12	18 10:20 (16) 16:02	86	14:24 (25) 15:44 19 12:20 (21)
24	05:07	06:15	07:24	08:32	10:01 (16) 08:45		11:09 (29) 09:28 12:02 (21)
	22:18	21:02	19:33	18:09	19 10:20 (16) 16:01	87	14:25 (25) 15:44 19 12:21 (21)
25	05:09	06:17	07:26	07:35	09:01 (16) 08:47		11:09 (29) 09:28 12:03 (21)
	22:16	20:59	19:30	17:06	19 09:20 (16) 15:59	88	14:25 (25) 15:45 19 12:22 (21)
26	05:11	06:20	07:28	07:37	09:01 (16) 08:50		11:11 (29) 09:28 12:03 (21)
	22:14	20:57	19:27	17:04	19 09:20 (16) 15:58	87	14:25 (25) 15:46 19 12:22 (21)
27	05:13	06:22	07:30	07:39	09:01 (16) 08:52		11:11 (29) 09:28 12:03 (21)
	22:12	20:54	19:25	17:01	18 09:19 (16) 15:56	85	14:25 (25) 15:47 20 12:23 (21)
28	05:16	06:24	07:33	07:42	09:02 (16) 08:54		11:13 (29) 09:28 12:04 (21)
	22:10	20:51	19:22	16:59	17 09:19 (16) 15:55	85	14:26 (25) 15:48 20 12:24 (21)
29	05:18	06:26	07:35	07:44	09:02 (16) 08:56		11:14 (29) 09:28 12:04 (21)
	22:07	20:48	19:19	16:56	16 09:18 (16) 15:54	82	14:25 (25) 15:49 19 12:23 (21)
30	05:20	06:29	07:37	07:47	09:03 (16) 08:58		11:14 (29) 09:28 12:04 (21)
	22:05	20:45	19:16	16:54	14 09:17 (16) 15:52	80	14:25 (25) 15:50 20 12:24 (21)
31	05:22	06:31		07:49	09:06 (16)		09:28 12:04 (21)
	22:03	20:42		16:51	9 09:15 (16)		15:51 20 12:24 (21)
Potential sun hours	546	478	386	319	236		199
Total, worst case				200	1684		800
Sun reduction				0,50	0,50		0,50
Oper. time red.				0,80	0,80		0,80
Wind dir. red.				0,73	0,61		0,63
Total reduction				0,29	0,24		0,25
Total, real				58	410		201

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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Project:

Moifjellet vindkraftverk

Licensed user:

Multiconsult Norge AS

Nedre Skøyen vei 2 .

NO-0276 Oslo

+47 21 58 60 15

Martine / martine.bjugg@multiconsult.no

Calculated:

20.01.2025 16:28/4.0.540

SHADOW - Calendar

Calculation: Oppdatert layout - real case med vindrose - kun Moifjellet - oppdatert mottaker Shadow receptor: K - Buevegen 1778 (11)
Sunshine probability S/S0 (Sun hours/Possible sun hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
644 231 315 644 959 714 721 455 378 420 574 938 6 993

Table with columns for months (January to December) and rows for time slots (09:28 to 16:54). Includes summary rows for Potential sun hours, Total, worst case, Sun reduction, Oper. time red., Wind dir. red., Total reduction, and Total, real.

Table layout: For each day in each month the following matrix apply

Day in month Sun rise (hh:mm) Sun set (hh:mm) Minutes with flicker First time (hh:mm) with flicker Last time (hh:mm) with flicker (WTG causing flicker first time) (WTG causing flicker last time)



SHADOW - Calendar

Calculation: Oppdatert layout - real case med vindrose - kun Moifjellet - oppdatert mottaker **Shadow receptor:** L - Buevegen 1850 (12)

Assumptions for shadow calculations

Sunshine probability S/S0 (Sun hours/Possible sun hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
644 231 315 644 959 714 721 455 378 420 574 938 6 993

	January		February		March		April		May		June	
1	09:28	11:52 (34)	08:46	13:17 (29)	07:35	08:53 (18)	07:07	05:44	04:40			
	15:53	17	12:09 (34)	16:56	36	13:53 (29)	18:05	19	09:12 (18)	20:17	21:26	22:30
2	09:27	11:51 (34)	08:43	13:18 (29)	07:32	08:53 (18)	07:04	05:41	04:38			
	15:54	19	12:10 (34)	16:58	43	15:13 (24)	18:07	20	09:13 (18)	20:19	21:28	22:32
3	09:27	11:51 (34)	08:41	13:17 (29)	07:30	08:52 (18)	07:01	05:39	04:37			
	15:55	19	12:10 (34)	17:01	52	15:18 (24)	18:09	21	09:13 (18)	20:21	21:30	22:34
4	09:26	11:51 (34)	08:39	13:18 (29)	07:27	08:52 (18)	06:58	05:36	04:36			
	15:57	20	12:11 (34)	17:03	54	15:20 (24)	18:12	20	09:12 (18)	20:24	21:33	22:35
5	09:26	11:52 (34)	08:37	13:17 (29)	07:24	08:52 (18)	06:55	05:34	04:35			
	15:58	20	12:12 (34)	17:06	58	15:21 (24)	18:14	20	09:12 (18)	20:26	21:35	22:37
6	09:25	11:52 (34)	08:34	13:18 (29)	07:21	08:52 (18)	06:52	05:31	04:34			
	16:00	20	12:12 (34)	17:08	63	15:44 (25)	18:16	19	09:11 (18)	20:28	21:37	22:38
7	09:24	11:52 (34)	08:32	13:17 (29)	07:19	08:53 (18)	06:49	05:29	04:33			
	16:02	21	12:13 (34)	17:11	68	15:46 (25)	18:19	17	09:10 (18)	20:30	21:40	22:39
8	09:24	11:53 (34)	08:30	13:18 (29)	07:16	08:54 (18)	06:47	05:26	04:32			
	16:03	21	12:14 (34)	17:13	73	15:51 (25)	18:21	14	09:08 (18)	20:33	21:42	22:40
9	09:23	11:52 (34)	08:27	13:18 (29)	07:13	08:55 (18)	06:44	05:24	04:31			
	16:05	22	12:14 (34)	17:16	79	15:59 (25)	18:24	10	09:05 (18)	20:35	21:44	22:42
10	09:22	11:53 (34)	08:25	13:18 (29)	07:10		06:41	05:22	04:30			
	16:07	22	12:15 (34)	17:18	82	16:00 (25)	18:26		20:37	21:46	22:43	
11	09:21	11:54 (34)	08:23	13:20 (29)	07:07		06:38	05:19	04:29			
	16:09	22	12:16 (34)	17:21	80	16:00 (25)	18:28		20:40	21:49	22:44	
12	09:20	11:53 (34)	08:20	10:07 (16)	07:04		06:35	05:17	04:29			
	16:11	24	13:22 (21)	17:23	88	15:59 (25)	18:31		20:42	21:51	22:45	
13	09:18	11:53 (34)	08:18	10:04 (16)	07:01		06:32	05:15	04:28			
	16:13	30	13:28 (21)	17:26	90	15:58 (25)	18:33		20:44	21:53	22:46	
14	09:17	11:54 (34)	08:15	10:03 (16)	06:59		06:30	05:13	04:28			
	16:15	38	13:37 (21)	17:28	87	15:57 (25)	18:35		20:47	21:55	22:46	
15	09:16	11:55 (34)	08:13	10:02 (16)	06:56		06:27	05:10	04:27			
	16:17	44	13:43 (21)	17:31	80	15:54 (25)	18:38		20:49	21:57	22:47	
16	09:15	11:55 (34)	08:10	10:01 (16)	06:53		06:24	05:08	04:27			
	16:19	45	13:44 (21)	17:33	72	15:24 (24)	18:40		20:51	22:00	22:48	
17	09:13	11:55 (34)	08:07	10:00 (16)	06:50		06:21	05:06	04:27			
	16:21	45	13:44 (21)	17:35	66	15:23 (24)	18:42		20:53	22:02	22:49	
18	09:12	11:57 (34)	08:05	10:00 (16)	06:47		06:19	05:04	04:27			
	16:23	44	13:46 (21)	17:38	60	15:23 (24)	18:45		20:56	22:04	22:49	
19	09:10	11:57 (34)	08:02	10:00 (16)	06:44		06:16	05:02	04:27			
	16:25	44	13:46 (21)	17:40	43	15:21 (24)	18:47		20:58	22:06	22:50	
20	09:08	11:58 (34)	08:00	09:59 (16)	06:41		06:13	05:00	04:27			
	16:28	43	13:46 (21)	17:43	41	15:19 (24)	18:49		21:00	22:08	22:50	
21	09:07	11:59 (34)	07:57	09:59 (16)	06:38		06:10	04:58	04:27			
	16:30	40	13:46 (21)	17:45	33	15:15 (24)	18:51		21:03	22:10	22:50	
22	09:05	11:59 (34)	07:54	09:59 (16)	06:36		06:08	04:56	04:27			
	16:32	40	13:46 (21)	17:48	25	10:24 (16)	18:54		21:05	22:12	22:50	
23	09:03	12:01 (34)	07:52	10:00 (16)	06:33		06:05	04:54	04:27			
	16:34	36	13:46 (21)	17:50	24	10:24 (16)	18:56		21:07	22:14	22:50	
24	09:02	12:03 (34)	07:49	10:01 (16)	06:30		06:02	04:52	04:27			
	16:37	34	13:46 (21)	17:53	22	10:23 (16)	18:58		21:10	22:16	22:51	
25	09:00	12:05 (34)	07:46	09:00 (18)	06:27		05:59	04:51	04:28			
	16:39	32	13:46 (29)	17:55	27	10:22 (16)	19:01		21:12	22:18	22:50	
26	08:58	13:21 (29)	07:43	08:57 (18)	06:24		05:57	04:49	04:28			
	16:41	27	13:48 (29)	17:57	30	10:20 (16)	19:03		21:14	22:20	22:50	
27	08:56	13:20 (29)	07:41	08:55 (18)	06:21		05:54	04:47	04:29			
	16:44	28	13:48 (29)	18:00	29	10:18 (16)	19:05		21:17	22:22	22:50	
28	08:54	13:19 (29)	07:38	08:54 (18)	06:18		05:52	04:46	04:30			
	16:46	31	13:50 (29)	18:02	24	10:14 (16)	19:07		21:19	22:24	22:50	
29	08:52	13:19 (29)			07:15		05:49	04:44	04:30			
	16:49	32	13:51 (29)		20:10		21:21	22:25	22:50			
30	08:50	13:18 (29)			07:12		05:46	04:42	04:31			
	16:51	33	13:51 (29)		20:12		21:24	22:27	22:49			
31	08:48	13:18 (29)			07:10			04:41				
	16:53	35	13:53 (29)		20:14			22:29				
Potential sun hours	221		260		365		432		521		547	
Total, worst case	948		1529		160							
Sun reduction	0,50		0,50		0,50							
Oper. time red.	0,80		0,80		0,80							
Wind dir. red.	0,61		0,61		0,74							
Total reduction	0,24		0,24		0,29							
Total, real	231		369		47							

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)		Last time (hh:mm) with flicker	(WTG causing flicker last time)

SHADOW - Calendar

Calculation: Oppdatert layout - real case med vindrose - kun Moifjellet - oppdatert mottaker **Shadow receptor:** L - Buevegen 1850 (12)

Assumptions for shadow calculations

Sunshine probability S/S0 (Sun hours/Possible sun hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
644 231 315 644 959 714 721 455 378 420 574 938 6 993

	July	August	September	October	November	December	
1	04:32	05:24	06:33	07:39	07:51	12:48 (29) 09:00	
	22:49	22:01	20:40	19:13	16:49	83 15:30 (25) 15:51	
2	04:33	05:26	06:35	07:42	07:54	12:48 (29) 09:02	
	22:48	21:58	20:37	19:10	16:46	76 15:28 (25) 15:50	
3	04:34	05:28	06:37	07:44	07:56	12:48 (29) 09:03	
	22:47	21:56	20:34	19:07	16:44	71 15:20 (25) 15:49	
4	04:35	05:31	06:40	07:46	09:34 (18) 07:59	12:47 (29) 09:05	
	22:47	21:54	20:31	19:04	7 09:41 (18) 16:41	66 15:15 (25) 15:48	
5	04:36	05:33	06:42	07:48	09:32 (18) 08:01	12:47 (29) 09:07	
	22:46	21:51	20:28	19:01	12 09:44 (18) 16:39	62 15:13 (25) 15:47	
6	04:37	05:35	06:44	07:51	09:30 (18) 08:03	12:48 (29) 09:09	
	22:45	21:49	20:25	18:59	15 09:45 (18) 16:37	58 14:52 (24) 15:46	
7	04:38	05:37	06:46	07:53	09:28 (18) 08:06	12:47 (29) 09:10	
	22:44	21:47	20:22	18:56	18 09:46 (18) 16:34	55 14:50 (24) 15:45	
8	04:40	05:39	06:48	07:55	09:28 (18) 08:08	12:48 (29) 09:12	
	22:43	21:44	20:20	18:53	19 09:47 (18) 16:32	50 14:48 (24) 15:45	
9	04:41	05:42	06:51	07:57	09:27 (18) 08:11	12:48 (29) 09:13	
	22:42	21:42	20:17	18:50	20 09:47 (18) 16:30	42 14:43 (24) 15:44	
10	04:43	05:44	06:53	08:00	09:27 (18) 08:13	12:49 (29) 09:15	
	22:40	21:39	20:14	18:47	20 09:47 (18) 16:28	35 13:24 (29) 15:43	
11	04:44	05:46	06:55	08:02	09:26 (18) 08:15	12:49 (29) 09:16	
	22:39	21:37	20:11	18:45	20 09:46 (18) 16:25	34 13:23 (29) 15:43	
12	04:46	05:48	06:57	08:04	09:26 (18) 08:18	12:50 (29) 09:18	
	22:38	21:34	20:08	18:42	19 09:45 (18) 16:23	33 13:23 (29) 15:43	
13	04:47	05:51	07:00	08:06	09:27 (18) 08:20	12:51 (29) 09:19	
	22:37	21:31	20:05	18:39	18 09:45 (18) 16:21	32 13:23 (29) 15:42	
14	04:49	05:53	07:02	08:09	09:27 (18) 08:22	12:51 (29) 09:20	
	22:35	21:29	20:02	18:36	28 10:49 (16) 16:19	31 13:22 (29) 15:42	
15	04:51	05:55	07:04	08:11	09:29 (18) 08:25	12:53 (29) 09:21	
	22:34	21:26	19:59	18:33	30 10:52 (16) 16:17	28 13:21 (29) 15:42	
16	04:52	05:57	07:06	08:13	09:30 (18) 08:27	12:54 (29) 09:22	
	22:32	21:24	19:56	18:31	29 10:53 (16) 16:15	27 13:21 (29) 15:42	
17	04:54	05:59	07:08	08:16	10:33 (16) 08:29	11:38 (34) 09:23	
	22:30	21:21	19:54	18:28	21 10:54 (16) 16:13	32 13:19 (29) 15:42	
18	04:56	06:02	07:10	08:18	10:31 (16) 08:32	11:37 (34) 09:24	
	22:29	21:18	19:51	18:25	24 10:55 (16) 16:11	34 13:20 (21) 15:42	
19	04:58	06:04	07:13	08:20	10:31 (16) 08:34	11:36 (34) 09:25	
	22:27	21:16	19:48	18:22	24 10:55 (16) 16:09	36 13:21 (21) 15:42	
20	05:00	06:06	07:15	08:23	10:30 (16) 08:36	11:34 (34) 09:26	
	22:25	21:13	19:45	18:20	25 10:55 (16) 16:08	39 13:21 (21) 15:42	
21	05:01	06:08	07:17	08:25	10:30 (16) 08:39	11:34 (34) 09:26	
	22:24	21:10	19:42	18:17	36 15:48 (24) 16:06	40 13:21 (21) 15:43	
22	05:03	06:11	07:19	08:27	10:30 (16) 08:41	11:34 (34) 09:27	
	22:22	21:08	19:39	18:14	41 15:50 (24) 16:04	43 13:22 (21) 15:43	
23	05:05	06:13	07:22	08:30	10:30 (16) 08:43	11:33 (34) 09:27	
	22:20	21:05	19:36	18:12	48 15:52 (24) 16:02	44 13:22 (21) 15:44	
24	05:07	06:15	07:24	08:32	10:30 (16) 08:45	11:34 (34) 09:28	
	22:18	21:02	19:33	18:09	61 15:52 (24) 16:01	44 13:23 (21) 15:44	
25	05:09	06:17	07:26	07:35	09:30 (16) 08:47	11:33 (34) 09:28	
	22:16	20:59	19:30	17:06	69 14:54 (24) 15:59	44 13:22 (21) 15:45	
26	05:11	06:20	07:28	07:37	09:30 (16) 08:50	11:34 (34) 09:28	
	22:14	20:56	19:27	17:04	73 14:54 (24) 15:58	44 13:23 (21) 15:46	
27	05:13	06:22	07:30	07:39	09:32 (16) 08:52	11:34 (34) 09:28	
	22:12	20:54	19:24	17:01	81 15:24 (25) 15:56	44 13:23 (21) 15:47	
28	05:16	06:24	07:33	07:42	09:33 (16) 08:54	11:35 (34) 09:28	
	22:10	20:51	19:22	16:59	88 15:27 (25) 15:55	38 13:18 (21) 15:48	
29	05:18	06:26	07:35	07:44	09:34 (16) 08:56	11:35 (34) 09:28	
	22:07	20:48	19:19	16:56	90 15:28 (25) 15:54	29 13:09 (21) 15:49	
30	05:20	06:29	07:37	07:47	09:37 (16) 08:58	11:35 (34) 09:28	
	22:05	20:45	19:16	16:54	89 15:29 (25) 15:52	23 13:03 (21) 15:50	
31	05:22	06:31	07:40	07:49	12:49 (29)	09:28	11:51 (34)
	22:03	20:42	16:51	15:30 (25)	15:51	17	12:08 (34)
Potential sun hours	546	478	386	319	236	199	
Total, worst case				1106	1317	531	
Sun reduction				0,50	0,50	0,50	
Oper. time red.				0,80	0,80	0,80	
Wind dir. red.				0,64	0,59	0,64	
Total reduction				0,26	0,23	0,26	
Total, real				285	308	136	

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Calculation: Oppdatert layout - real case med vindrose - kun Moifjellet - oppdatert mottaker **Shadow receptor:** M - Buevegen 1941 (13)

Assumptions for shadow calculations

Sunshine probability S/S0 (Sun hours/Possible sun hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
644 231 315 644 959 714 721 455 378 420 574 938 6 993

	January	February	March	April	May	June				
1	09:28	08:46	14:11 (34)	07:35	10:14 (18)	07:07	05:44	04:40		
	15:53	16:56	18	15:31 (21)	18:05	73	16:49 (24)	20:17	21:26	22:30
2	09:27	08:43	15:15 (21)	07:32	10:15 (18)	07:04	05:41	04:38		
	15:54	16:58	17	15:32 (21)	18:07	70	16:50 (24)	20:19	21:28	22:32
3	09:27	08:41	15:14 (21)	07:30	10:16 (18)	07:01	05:39	04:37		
	15:55	17:01	19	15:33 (21)	18:09	62	16:48 (24)	20:21	21:30	22:34
4	09:26	08:39	12:34 (16)	07:27	10:16 (18)	06:58	05:36	04:36		
	15:57	17:03	30	15:33 (21)	18:12	54	16:47 (24)	20:23	21:33	22:35
5	09:26	08:37	12:30 (16)	07:24	09:25 (13)	06:55	05:34	04:35		
	15:58	17:06	36	15:33 (21)	18:14	36	16:44 (24)	20:26	21:35	22:36
6	09:25	08:34	12:29 (16)	07:21	09:21 (13)	06:52	05:31	04:34		
	16:00	17:08	40	15:34 (21)	18:16	27	10:42 (18)	20:28	21:37	22:38
7	09:24	08:32	12:27 (16)	07:18	10:19 (18)	06:49	05:29	04:33		
	16:02	17:11	42	15:33 (21)	18:19	20	10:39 (18)	20:30	21:40	22:39
8	09:24	08:30	12:27 (16)	07:16	10:21 (18)	06:47	05:26	04:32		
	16:03	17:13	44	15:34 (21)	18:21	15	10:36 (18)	20:33	21:42	22:40
9	09:23	08:27	12:25 (16)	07:13	10:25 (18)	06:44	05:24	04:31		
	16:05	17:16	46	15:33 (21)	18:24	7	10:32 (18)	20:35	21:44	22:42
10	09:22	08:25	12:24 (16)	07:10		06:41	05:22	04:30		
	16:07	17:18	45	15:31 (21)	18:26		20:37	21:46	22:43	
11	09:21	08:22	12:24 (16)	07:07		06:38	05:19	04:29		
	16:09	17:21	43	15:30 (21)	18:28		20:40	21:49	22:44	
12	09:20	08:20	12:23 (16)	07:04		06:35	05:17	04:29		
	16:11	17:23	38	15:27 (21)	18:31		20:42	21:51	22:45	
13	09:18	08:18	12:22 (16)	07:01		06:32	05:15	04:28		
	16:13	17:26	34	12:56 (16)	18:33		20:44	21:53	22:46	
14	09:17	08:15	12:23 (16)	06:59		06:30	05:12	04:28		
	16:15	17:28	34	12:57 (16)	18:35		20:46	21:55	22:46	
15	09:16	08:12	12:22 (16)	06:56		06:27	05:10	04:27		
	16:17	17:30	35	12:57 (16)	18:38		20:49	21:57	22:47	
16	09:14	08:10	12:22 (16)	06:53		06:24	05:08	04:27		
	16:19	17:33	43	16:12 (29)	18:40		20:51	22:00	22:48	
17	09:13	08:07	12:22 (16)	06:50		06:21	05:06	04:27		
	16:21	17:35	49	16:15 (29)	18:42		20:53	22:02	22:48	
18	09:12	08:05	12:23 (16)	06:47		06:18	05:04	04:27		
	16:23	17:38	51	16:17 (29)	18:44		20:56	22:04	22:49	
19	09:10	08:02	12:23 (16)	06:44		06:16	05:02	04:27		
	16:25	17:40	54	16:18 (29)	18:47		20:58	22:06	22:49	
20	09:08	08:00	12:23 (16)	06:41		06:13	05:00	04:27		
	16:28	17:43	55	16:19 (29)	18:49		21:00	22:08	22:50	
21	09:07	07:57	12:23 (16)	06:38		06:10	04:58	04:27		
	16:30	17:45	56	16:20 (29)	18:51		21:03	22:10	22:50	
22	09:05	07:54	12:24 (16)	06:36		06:07	04:56	04:27		
	16:32	17:48	61	16:42 (24)	18:54		21:05	22:12	22:50	
23	09:03	07:52	12:26 (16)	06:33		06:05	04:54	04:27		
	16:34	17:50	67	16:48 (24)	18:56		21:07	22:14	22:50	
24	09:01	07:49	10:20 (18)	06:30		06:02	04:52	04:27		
	16:37	17:52	68	16:49 (24)	18:58		21:10	22:16	22:50	
25	09:00	07:46	10:16 (18)	06:27		05:59	04:51	04:28		
	16:39	17:55	91	16:50 (24)	19:01		21:12	22:18	22:50	
26	08:58	07:43	10:15 (18)	06:24		05:57	04:49	04:28		
	16:41	17:57	92	16:50 (24)	19:03		21:14	22:20	22:50	
27	08:56	07:41	10:15 (18)	06:21		05:54	04:47	04:29		
	16:44	18:00	82	16:50 (24)	19:05		21:17	22:22	22:50	
28	08:54	07:38	10:15 (18)	06:18		05:51	04:45	04:29		
	16:46	18:02	75	16:50 (24)	19:07		21:19	22:24	22:50	
29	08:52			07:15		05:49	04:44	04:30		
	16:49			20:10		21:21	22:25	22:49		
30	08:50	14:16 (34)		07:12		05:46	04:42	04:31		
	16:51	3	14:19 (34)	20:12		21:23	22:27	22:49		
31	08:48	14:08 (34)		07:10			04:41			
	16:53	21	15:27 (21)	20:14			22:29			
Potential sun hours	221	260	365		432	521	547			
Total, worst case	24	1365	364							
Sun reduction	0,50	0,50	0,50							
Oper. time red.	0,80	0,80	0,80							
Wind dir. red.	0,55	0,60	0,65							
Total reduction	0,22	0,24	0,26							
Total, real	5	328	95							

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Calculation: Oppdatert layout - real case med vindrose - kun Moifjellet - oppdatert mottaker **Shadow receptor:** M - Buevegen 1941 (13)

Assumptions for shadow calculations

Sunshine probability S/S0 (Sun hours/Possible sun hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
644 231 315 644 959 714 721 455 378 420 574 938 6 993

	July	August	September	October	November	December
1	04:32	05:24	06:33	07:39	07:51	11:54 (16) 09:00
	22:48	22:01	20:40	19:13	16:49	45 15:01 (21) 15:51
2	04:33	05:26	06:35	07:41	07:54	11:55 (16) 09:01
	22:48	21:58	20:37	19:10	16:46	44 15:02 (21) 15:50
3	04:34	05:28	06:37	07:44	07:56	11:56 (16) 09:03
	22:47	21:56	20:34	19:07	16:44	45 15:03 (21) 15:49
4	04:35	05:31	06:40	07:46	07:58	11:57 (16) 09:05
	22:46	21:54	20:31	19:04	16:41	43 15:03 (21) 15:48
5	04:36	05:33	06:42	07:48	10:59 (18) 08:01	11:59 (16) 09:07
	22:46	21:51	20:28	19:01	11:12 (18) 16:39	39 15:03 (21) 15:47
6	04:37	05:35	06:44	07:50	10:56 (18) 08:03	12:01 (16) 09:09
	22:45	21:49	20:25	18:59	11:15 (18) 16:37	36 15:04 (21) 15:46
7	04:38	05:37	06:46	07:53	09:54 (13) 08:06	12:04 (16) 09:10
	22:44	21:47	20:22	18:56	25 11:16 (18) 16:34	29 15:03 (21) 15:45
8	04:40	05:39	06:48	07:55	09:58 (13) 08:08	14:45 (21) 09:12
	22:43	21:44	20:20	18:53	33 17:18 (24) 16:32	18 15:03 (21) 15:45
9	04:41	05:42	06:51	07:57	10:01 (13) 08:10	14:46 (21) 09:13
	22:42	21:42	20:17	18:50	49 17:20 (24) 16:30	17 15:03 (21) 15:44
10	04:43	05:44	06:53	08:00	10:49 (18) 08:13	13:42 (34) 09:15
	22:40	21:39	20:14	18:47	59 17:21 (24) 16:28	20 15:03 (21) 15:43
11	04:44	05:46	06:55	08:02	10:49 (18) 08:15	13:39 (34) 09:16
	22:39	21:37	20:11	18:44	66 17:23 (24) 16:25	20 14:58 (21) 15:43
12	04:46	05:48	06:57	08:04	10:48 (18) 08:18	13:48 (34) 09:17
	22:38	21:34	20:08	18:42	71 17:23 (24) 16:23	3 13:51 (34) 15:43
13	04:47	05:50	06:59	08:06	10:48 (18) 08:20	13:48 (34) 09:19
	22:36	21:31	20:05	18:39	73 17:23 (24) 16:21	15:42
14	04:49	05:53	07:02	08:09	10:47 (18) 08:22	13:48 (34) 09:20
	22:35	21:29	20:02	18:36	77 17:23 (24) 16:19	15:42
15	04:50	05:55	07:04	08:11	10:48 (18) 08:25	13:48 (34) 09:21
	22:34	21:26	19:59	18:33	88 17:23 (24) 16:17	15:42
16	04:52	05:57	07:06	08:13	10:47 (18) 08:27	13:48 (34) 09:22
	22:32	21:24	19:56	18:31	94 17:22 (24) 16:15	15:42
17	04:54	05:59	07:08	08:16	10:48 (18) 08:29	13:48 (34) 09:23
	22:30	21:21	19:53	18:28	85 17:22 (24) 16:13	15:42
18	04:56	06:02	07:10	08:18	12:57 (16) 08:32	13:48 (34) 09:24
	22:29	21:18	19:51	18:25	67 17:20 (24) 16:11	15:42
19	04:58	06:04	07:13	08:20	12:56 (16) 08:34	13:48 (34) 09:25
	22:27	21:16	19:48	18:22	65 17:17 (24) 16:09	15:42
20	04:59	06:06	07:15	08:23	12:55 (16) 08:36	13:48 (34) 09:25
	22:25	21:13	19:45	18:20	58 17:12 (24) 16:07	15:42
21	05:01	06:08	07:17	08:25	12:54 (16) 08:39	13:48 (34) 09:26
	22:23	21:10	19:42	18:17	57 16:51 (29) 16:06	15:43
22	05:03	06:11	07:19	08:27	12:53 (16) 08:41	13:48 (34) 09:27
	22:22	21:07	19:39	18:14	55 16:49 (29) 16:04	15:43
23	05:05	06:13	07:21	08:30	12:53 (16) 08:43	13:48 (34) 09:27
	22:20	21:05	19:36	18:12	53 16:48 (29) 16:02	15:44
24	05:07	06:15	07:24	08:32	12:52 (16) 08:45	13:48 (34) 09:28
	22:18	21:02	19:33	18:09	52 16:46 (29) 16:01	15:44
25	05:09	06:17	07:26	07:34	11:52 (16) 08:47	13:48 (34) 09:28
	22:16	20:59	19:30	17:06	47 15:44 (29) 15:59	15:45
26	05:11	06:20	07:28	07:37	11:51 (16) 08:49	13:48 (34) 09:28
	22:14	20:56	19:27	17:04	40 15:40 (29) 15:58	15:46
27	05:13	06:22	07:30	07:39	11:52 (16) 08:52	13:48 (34) 09:28
	22:12	20:54	19:24	17:01	35 12:27 (16) 15:56	15:47
28	05:15	06:24	07:33	07:42	11:52 (16) 08:54	13:48 (34) 09:28
	22:10	20:51	19:22	16:59	35 12:27 (16) 15:55	15:48
29	05:18	06:26	07:35	07:44	11:52 (16) 08:56	13:48 (34) 09:28
	22:07	20:48	19:19	16:56	34 12:26 (16) 15:53	15:49
30	05:20	06:29	07:37	07:46	11:53 (16) 08:58	13:48 (34) 09:28
	22:05	20:45	19:16	16:54	39 14:57 (21) 15:52	15:50
31	05:22	06:31	07:45	07:49	11:54 (16) 08:59	13:48 (34) 09:28
	22:03	20:42	19:15	16:51	42 15:00 (21) 15:51	15:51
Potential sun hours	546	478	386	319	236	199
Total, worst case				1431	359	
Sun reduction				0,50	0,50	
Oper. time red.				0,80	0,80	
Wind dir. red.				0,62	0,58	
Total reduction				0,25	0,23	
Total, real				354	84	

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)		Last time (hh:mm) with flicker	(WTG causing flicker last time)

Project:

Moifjellet vindkraftverk

Licensed user:

Multiconsult Norge AS
Nedre Skøyen vei 2 .
NO-0276 Oslo
+47 21 58 60 15
Martine / martine.bjugg@multiconsult.no
Calculated: 20.01.2025 16:28/4.0.540

SHADOW - Calendar

Calculation: Oppdatert layout - real case med vindrose - kun Moifjellet - oppdatert mottaker Shadow receptor: N - Buevegen 1988 (14)
Sunshine probability S/S0 (Sun hours/Possible sun hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
644 231 315 644 959 714 721 455 378 420 574 938 6 993

Table with 12 columns (Jan to Dec) and multiple rows showing sunrise/sunset times, shadow reduction percentages, and operational hours for each day.

Table layout: For each day in each month the following matrix apply

Summary table with 3 columns: Day in month, Sun rise/set (hh:mm), First/Last time with flicker (hh:mm), and (WTG causing flicker first/last time).

Project:

Moifjellet vindkraftverk

Licensed user:

Multiconsult Norge AS

Nedre Skøyen vei 2 .

NO-0276 Oslo

+47 21 58 60 15

Martine / martine.bjugg@multiconsult.no

Calculated:

20.01.2025 16:28/4.0.540

SHADOW - Calendar

Calculation: Oppdatert layout - real case med vindrose - kun Moifjellet - oppdatert mottaker Shadow receptor: O - Buevegen 2023 (15)
Assumptions for shadow calculations

Sunshine probability S/S0 (Sun hours/Possible sun hours) []
Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
644 231 315 644 959 714 721 455 378 420 574 938 6 993

Table with columns for months (January to December) and rows for specific times (09:28 to 16:53). Includes summary rows for Potential sun hours, Total, worst case, Sun reduction, Oper. time red., Wind dir. red., Total reduction, and Total, real.

Table layout: For each day in each month the following matrix apply

Day in month Sun rise (hh:mm) Sun set (hh:mm) Minutes with flicker First time (hh:mm) with flicker Last time (hh:mm) with flicker (WTG causing flicker first time) (WTG causing flicker last time)



Project:

Moifjellet vindkraftverk

Licensed user:

Multiconsult Norge AS

Nedre Skøyen vei 2 .

NO-0276 Oslo

+47 21 58 60 15

Martine / martine.bjugg@multiconsult.no

Calculated:

20.01.2025 16:28/4.0.540

SHADOW - Calendar

Calculation: Oppdatert layout - real case med vindrose - kun Moifjellet - oppdatert mottaker Shadow receptor: P - Buevegen 2021 (16)
Assumptions for shadow calculations

Sunshine probability S/S0 (Sun hours/Possible sun hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
644 231 315 644 959 714 721 455 378 420 574 938 6 993

Table with columns for months (January to December) and rows for time slots (09:28 to 16:53). Includes summary rows for Potential sun hours, Total, worst case, Sun reduction, Oper. time red., Wind dir. red., Total reduction, and Total, real.

Table layout: For each day in each month the following matrix apply

Day in month Sun rise (hh:mm) Sun set (hh:mm) Minutes with flicker First time (hh:mm) with flicker Last time (hh:mm) with flicker (WTG causing flicker first time) (WTG causing flicker last time)



SHADOW - Calendar

Calculation: Oppdatert layout - real case med vindrose - kun Moifjellet - oppdatert mottaker **Shadow receptor:** Q - Buevegen 2141 (17)

Assumptions for shadow calculations

Sunshine probability S/S0 (Sun hours/Possible sun hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
644 231 315 644 959 714 721 455 378 420 574 938 6 993

	January	February	March	April	May	June
1 09:28	12:03 (27)	08:45	14:59 (18)	07:35	07:07	05:44
15:52	20 12:23 (27)	16:56	18:04	20:16	21:26	22:30
2 09:27	12:03 (27)	08:43	14:59 (18)	07:32	07:04	05:41
15:54	20 12:23 (27)	16:58	18:07	20:19	21:28	22:32
3 09:27	12:03 (27)	08:41	14:58 (18)	07:30	07:01	05:38
15:55	20 12:23 (27)	17:01	18:09	20:21	21:30	22:33
4 09:26	12:03 (27)	08:39	14:59 (18)	07:27	06:58	05:36
15:57	21 12:24 (27)	17:03	18:12	20:23	21:33	22:35
5 09:26	12:04 (27)	08:37	14:59 (18)	07:24	06:55	05:33
15:58	25 13:33 (13)	17:06	18:14	20:26	21:35	22:36
6 09:25	12:04 (27)	08:34	15:00 (18)	07:21	06:52	05:31
16:00	29 13:35 (13)	17:08	18:16	20:28	21:37	22:38
7 09:24	12:05 (27)	08:32	15:00 (18)	07:18	06:49	05:29
16:01	31 13:37 (13)	17:11	18:19	20:30	21:39	22:39
8 09:23	12:06 (27)	08:30	15:00 (18)	07:16	06:46	05:26
16:03	32 13:38 (13)	17:13	18:21	20:33	21:42	22:40
9 09:23	12:06 (27)	08:27	15:02 (18)	07:13	06:44	05:24
16:05	33 13:39 (13)	17:15	18:23	20:35	21:44	22:42
10 09:22	12:07 (27)	08:25	15:03 (18)	07:10	06:41	05:21
16:07	34 13:40 (13)	17:18	18:26	20:37	21:46	22:43
11 09:21	12:07 (27)	08:22	15:07 (18)	07:07	06:38	05:19
16:09	35 13:41 (13)	17:20	18:28	20:39	21:49	22:44
12 09:19	12:08 (27)	08:20	15:12 (18)	07:04	06:35	05:17
16:11	35 13:42 (13)	17:23	18:30	20:42	21:51	22:45
13 09:18	12:08 (27)	08:17	15:14 (18)	07:01	06:32	05:15
16:12	36 13:43 (13)	17:25	18:33	20:44	21:53	22:46
14 09:17	12:10 (27)	08:15	15:16 (18)	06:58	06:29	05:12
16:14	35 13:44 (13)	17:28	18:35	20:46	21:55	22:46
15 09:16	12:11 (27)	08:12	15:18 (18)	06:56	06:27	05:10
16:17	34 13:45 (13)	17:30	18:37	20:49	21:57	22:47
16 09:14	12:12 (27)	08:10	15:20 (18)	06:53	06:24	05:08
16:19	32 13:45 (13)	17:33	18:40	20:51	22:00	22:48
17 09:13	12:14 (27)	08:07	15:22 (18)	06:50	06:21	05:06
16:21	29 13:45 (13)	17:35	18:42	20:53	22:02	22:48
18 09:11	12:16 (27)	08:05	15:24 (18)	06:47	06:18	05:04
16:23	26 13:46 (13)	17:38	18:44	20:56	22:04	22:49
19 09:10	13:25 (13)	08:02	15:26 (18)	06:44	06:16	05:02
16:25	21 13:46 (13)	17:40	18:47	20:58	22:06	22:49
20 09:08	13:25 (13)	07:59	15:28 (18)	06:41	06:13	05:00
16:27	22 13:47 (13)	17:43	18:49	21:00	22:08	22:50
21 09:07	13:26 (13)	07:57	15:30 (18)	06:38	06:10	04:58
16:30	21 13:47 (13)	17:45	18:51	21:03	22:10	22:50
22 09:05	13:26 (13)	07:54	15:32 (18)	06:35	06:07	04:56
16:32	21 13:47 (13)	17:48	18:54	21:05	22:12	22:50
23 09:03	13:27 (13)	07:51	15:34 (18)	06:33	06:05	04:54
16:34	20 13:47 (13)	17:50	18:56	21:07	22:14	22:50
24 09:01	13:28 (13)	07:49	15:36 (18)	06:30	06:02	04:52
16:37	19 13:47 (13)	17:52	18:58	21:09	22:16	22:50
25 09:00	13:29 (13)	07:46	15:38 (18)	06:27	05:59	04:50
16:39	18 13:47 (13)	17:55	19:00	21:12	22:18	22:50
26 08:58	13:30 (13)	07:43	15:40 (18)	06:24	05:57	04:49
16:41	17 13:47 (13)	17:57	19:03	21:14	22:20	22:50
27 08:56	13:30 (13)	07:41	15:42 (18)	06:21	05:54	04:47
16:44	21 15:09 (18)	18:00	19:05	21:16	22:22	22:50
28 08:54	13:32 (13)	07:38	15:44 (18)	06:18	05:51	04:45
16:46	23 15:12 (18)	18:02	19:07	21:19	22:23	22:50
29 08:52	13:35 (13)	07:35	15:46 (18)	07:15	05:49	04:44
16:48	21 15:14 (18)	18:05	20:10	21:21	22:25	22:49
30 08:50	15:00 (18)	07:32	15:48 (18)	07:12	05:46	04:42
16:51	15 15:15 (18)	18:08	20:12	21:23	22:27	22:49
31 08:48	15:00 (18)	07:29	15:50 (18)	07:09	05:43	04:41
16:53	16 15:16 (18)	18:15	20:14	21:25	22:29	22:49
Potential sun hours	221	260	365	432	521	547
Total, worst case	782	175				
Sun reduction	0,50	0,50				
Oper. time red.	0,80	0,80				
Wind dir. red.	0,60	0,55				
Total reduction	0,24	0,22				
Total, real	187	39				

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Calculation: Oppdatert layout - real case med vindrose - kun Moifjellet - oppdatert mottaker **Shadow receptor:** Q - Buevegen 2141 (17)

Assumptions for shadow calculations

Sunshine probability S/S0 (Sun hours/Possible sun hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
644 231 315 644 959 714 721 455 378 420 574 938 6 993

	July	August	September	October	November	December	
1	04:32	05:24	06:33	07:39	07:51	14:32 (18) 08:59	
	22:48	22:01	20:39	19:13	16:48	12 14:44 (18) 15:51	
2	04:33	05:26	06:35	07:41	07:54	14:31 (18) 09:01	
	22:48	21:58	20:37	19:10	16:46	15 14:46 (18) 15:50	
3	04:34	05:28	06:37	07:44	07:56	14:31 (18) 09:03	
	22:47	21:56	20:34	19:07	16:44	16 14:47 (18) 15:49	
4	04:35	05:30	06:39	07:46	07:58	14:29 (18) 09:05	
	22:46	21:54	20:31	19:04	16:41	18 14:47 (18) 15:48	
5	04:36	05:33	06:42	07:48	08:01	14:29 (18) 09:07	
	22:46	21:51	20:28	19:01	16:39	19 14:48 (18) 15:47	
6	04:37	05:35	06:44	07:50	08:03	14:29 (18) 09:08	
	22:45	21:49	20:25	18:58	16:36	19 14:48 (18) 15:46	
7	04:38	05:37	06:46	07:53	08:06	14:29 (18) 09:10	
	22:44	21:46	20:22	18:56	16:34	19 14:48 (18) 15:45	
8	04:40	05:39	06:48	07:55	08:08	14:29 (18) 09:12	
	22:43	21:44	20:19	18:53	16:32	19 14:48 (18) 15:44	
9	04:41	05:41	06:51	07:57	08:10	14:30 (18) 09:13	
	22:42	21:41	20:17	18:50	16:30	18 14:48 (18) 15:44	
10	04:42	05:44	06:53	07:59	08:13	14:29 (18) 09:15	
	22:40	21:39	20:14	18:47	16:27	18 14:47 (18) 15:43	
11	04:44	05:46	06:55	08:02	08:15	14:30 (18) 09:16	
	22:39	21:36	20:11	18:44	16:25	17 14:47 (18) 15:43	
12	04:45	05:48	06:57	08:04	08:18	14:32 (18) 09:17	
	22:38	21:34	20:08	18:42	16:23	15 14:47 (18) 15:42	
13	04:47	05:50	06:59	08:06	08:20	13:07 (13) 09:19	
	22:36	21:31	20:05	18:39	16:21	21 14:46 (18) 15:42	
14	04:49	05:53	07:02	08:09	08:22	13:04 (13) 09:20	
	22:35	21:29	20:02	18:36	16:19	23 14:44 (18) 15:42	
15	04:50	05:55	07:04	08:11	08:25	13:03 (13) 09:21	
	22:33	21:26	19:59	18:33	16:17	21 14:42 (18) 15:42	
16	04:52	05:57	07:06	08:13	08:27	13:03 (13) 09:22	
	22:32	21:23	19:56	18:30	16:15	17 13:20 (13) 15:42	
17	04:54	05:59	07:08	08:16	08:29	13:02 (13) 09:23	
	22:30	21:21	19:53	18:28	16:13	18 13:20 (13) 15:42	
18	04:56	06:02	07:10	08:18	08:32	13:02 (13) 09:24	
	22:29	21:18	19:50	18:25	16:11	19 13:21 (13) 15:42	
19	04:57	06:04	07:13	08:20	08:34	13:02 (13) 09:25	
	22:27	21:15	19:48	18:22	16:09	20 13:22 (13) 15:42	
20	04:59	06:06	07:15	08:23	08:36	13:01 (13) 09:25	
	22:25	21:13	19:45	18:20	16:07	21 13:22 (13) 15:42	
21	05:01	06:08	07:17	08:25	08:38	13:02 (13) 09:26	
	22:23	21:10	19:42	18:17	16:06	21 13:23 (13) 15:43	
22	05:03	06:10	07:19	08:27	08:41	13:02 (13) 09:27	
	22:22	21:07	19:39	18:14	16:04	22 13:24 (13) 15:43	
23	05:05	06:13	07:21	08:30	08:43	13:02 (13) 09:27	
	22:20	21:05	19:36	18:12	16:02	21 13:23 (13) 15:44	
24	05:07	06:15	07:24	08:32	08:45	11:54 (27) 09:27	
	22:18	21:02	19:33	18:09	16:01	26 13:24 (13) 15:44	
25	05:09	06:17	07:26	07:34	08:47	11:52 (27) 09:28	
	22:16	20:59	19:30	17:06	15:59	30 13:24 (13) 15:45	
26	05:11	06:19	07:28	07:37	08:49	11:51 (27) 09:28	
	22:14	20:56	19:27	17:04	15:57	32 13:24 (13) 15:46	
27	05:13	06:22	07:30	07:39	08:51	11:50 (27) 09:28	
	22:12	20:54	19:24	17:01	15:56	34 13:24 (13) 15:47	
28	05:15	06:24	07:32	07:42	08:54	11:49 (27) 09:28	
	22:09	20:51	19:21	16:59	15:55	35 13:23 (13) 15:48	
29	05:17	06:26	07:35	07:44	08:56	11:50 (27) 09:28	
	22:07	20:48	19:19	16:56	15:53	35 13:24 (13) 15:49	
30	05:20	06:28	07:37	07:46	08:58	11:49 (27) 09:28	
	22:05	20:45	19:16	16:53	15:52	35 13:23 (13) 15:50	
31	05:22	06:31		07:49			09:28
	22:03	20:42		16:51	6 14:35 (18)		15:51
					6 14:41 (18)		12:01 (27)
Potential sun hours	546	478	386	319	236		199
Total, worst case					656		703
Sun reduction					0,50		0,50
Oper. time red.					0,80		0,80
Wind dir. red.					0,55		0,63
Total reduction					0,22		0,25
Total, real					151		177

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Calculation: Oppdatert layout - real case med vindrose - kun Moifjellet - oppdatert mottaker **Shadow receptor:** R - Buevegen 2165 (18)
Assumptions for shadow calculations Sunshine probability S/S0 (Sun hours/Possible sun hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
644 231 315 644 959 714 721 455 378 420 574 938 6 993

	January	February	March	April	May	June	July	August	September	October	November	December	
1 09:28	12:35 (27) 08:45		14:09 (13) 07:35	07:06	05:44	04:39	04:32	05:24	06:33	07:39	07:51	08:59	12:22 (27)
1 15:52	20 12:55 (27) 16:56	5 14:14 (13)	18:04	20:16	21:26	22:30	22:48	22:01	20:39	19:13	16:48	15:51	19 12:41 (27)
2 09:27	12:36 (27) 08:43		07:32	07:04	05:41	04:38	04:33	05:26	06:35	07:41	07:54	09:01	12:23 (27)
2 15:54	21 12:57 (27) 16:58		18:07	20:19	21:28	22:32	22:48	21:58	20:37	19:10	16:46	15:50	19 12:42 (27)
3 09:27	12:36 (27) 08:41		07:30	07:01	05:38	04:37	04:34	05:28	06:37	07:44	07:56	09:03	12:23 (27)
3 15:55	21 12:57 (27) 17:01		18:09	20:21	21:30	22:33	22:47	21:56	20:34	19:07	16:44	15:49	20 12:43 (27)
4 09:26	12:37 (27) 08:39		07:27	06:58	05:36	04:36	04:35	05:30	06:39	07:46	07:58	09:05	12:23 (27)
4 15:57	20 12:57 (27) 17:03		18:12	20:23	21:33	22:35	22:46	21:54	20:31	19:04	16:41	15:48	20 12:43 (27)
5 09:26	12:37 (27) 08:37		07:24	06:55	05:33	04:34	04:36	05:33	06:42	07:48	08:01	09:07	12:24 (27)
5 15:58	20 12:57 (27) 17:06		18:14	20:26	21:35	22:36	22:46	21:51	20:28	19:01	16:39	15:47	20 12:44 (27)
6 09:25	12:38 (27) 08:34		07:21	06:52	05:31	04:33	04:37	05:35	06:44	07:50	08:03	09:08	12:24 (27)
6 16:00	20 12:58 (27) 17:08		18:16	20:28	21:37	22:38	22:45	21:49	20:25	18:58	16:36	15:46	20 12:44 (27)
7 09:24	12:38 (27) 08:32		07:18	06:49	05:29	04:32	04:38	05:37	06:46	07:53	08:06	09:10	12:24 (27)
7 16:01	20 12:58 (27) 17:11		18:19	20:30	21:39	22:39	22:44	21:46	20:22	18:56	16:34	15:45	21 12:45 (27)
8 09:23	12:39 (27) 08:30		07:16	06:46	05:26	04:31	04:40	05:39	06:48	07:55	08:08	09:12	12:25 (27)
8 16:03	20 12:59 (27) 17:13		18:21	20:33	21:42	22:40	22:43	21:44	20:19	18:53	16:32	15:44	20 12:45 (27)
9 09:23	12:39 (27) 08:27		07:13	06:44	05:24	04:31	04:41	05:41	06:50	07:57	08:10	09:13	12:24 (27)
9 16:05	19 12:58 (27) 17:15		18:23	20:35	21:44	22:41	22:42	21:41	20:17	18:50	16:30	15:44	21 12:45 (27)
10 09:22	12:40 (27) 08:25		07:10	06:41	05:21	04:30	04:42	05:44	06:53	07:59	08:13	09:15	12:25 (27)
10 16:07	19 12:59 (27) 17:18		18:26	20:37	21:46	22:43	22:40	21:39	20:14	18:47	16:27	7 13:46 (13)	15:43
11 09:21	12:40 (27) 08:22		07:07	06:38	05:19	04:29	04:44	05:46	06:55	08:02	08:15	13:37 (13)	19:16
11 16:09	19 12:59 (27) 17:20		18:28	20:39	21:49	22:44	22:39	21:36	20:11	18:44	16:25	11 13:48 (13)	15:43
12 09:19	12:42 (27) 08:20		07:04	06:35	05:17	04:29	04:45	05:48	06:57	08:04	08:18	13:36 (13)	19:17
12 16:10	23 14:09 (13) 17:23		18:30	20:42	21:51	22:45	22:38	21:34	20:08	18:42	16:23	14 13:50 (13)	15:42
13 09:18	12:42 (27) 08:17		07:01	06:32	05:15	04:28	04:47	05:50	06:59	08:06	08:20	13:35 (13)	19:19
13 16:12	27 14:11 (13) 17:25		18:33	20:44	21:53	22:46	22:36	21:31	20:05	18:39	16:21	17 13:52 (13)	15:42
14 09:17	12:44 (27) 08:15		06:58	06:29	05:12	04:27	04:49	05:53	07:01	08:09	08:22	13:34 (13)	19:20
14 16:14	27 14:13 (13) 17:28		18:35	20:46	21:55	22:46	22:35	21:29	20:02	18:36	16:19	18 13:52 (13)	15:42
15 09:16	12:45 (27) 08:12		06:56	06:27	05:10	04:27	04:50	05:55	07:04	08:11	08:25	13:34 (13)	19:21
15 16:17	27 14:14 (13) 17:30		18:37	20:49	21:57	22:47	22:33	21:26	19:59	18:33	16:17	19 13:54 (13)	15:42
16 09:14	12:46 (27) 08:10		06:53	06:24	05:08	04:27	04:52	05:57	07:06	08:13	08:27	13:34 (13)	19:22
16 16:19	26 14:15 (13) 17:33		18:40	20:51	21:59	22:48	22:32	21:23	19:56	18:30	16:15	20 13:54 (13)	15:42
17 09:13	12:48 (27) 08:07		06:50	06:21	05:06	04:27	04:54	05:59	07:08	08:16	08:29	13:33 (13)	19:23
17 16:21	25 14:16 (13) 17:35		18:42	20:53	22:02	22:48	22:30	21:21	19:53	18:28	16:13	20 13:53 (13)	15:42
18 09:11	13:59 (13) 08:05		06:47	06:18	05:04	04:26	04:56	06:02	07:10	08:18	08:32	13:34 (13)	19:24
18 16:23	18 14:17 (13) 17:38		18:44	20:56	22:04	22:49	22:29	21:18	19:50	18:25	16:11	20 13:54 (13)	15:42
19 09:10	13:59 (13) 08:02		06:44	06:16	05:02	04:26	04:57	06:04	07:12	08:20	08:34	13:34 (13)	19:25
19 16:25	18 14:17 (13) 17:40		18:47	20:58	22:06	22:49	22:27	21:15	19:48	18:22	16:09	21 13:55 (13)	15:42
20 09:08	13:59 (13) 07:59		06:41	06:13	05:00	04:26	04:59	06:06	07:15	08:23	08:36	13:34 (13)	19:25
20 16:27	19 14:18 (13) 17:43		18:49	21:00	22:08	22:50	22:25	21:13	19:45	18:20	16:07	20 13:54 (13)	15:42
21 09:07	13:59 (13) 07:57		06:38	06:10	04:58	04:26	05:01	06:08	07:17	08:25	08:38	13:35 (13)	19:26
21 16:30	20 14:19 (13) 17:45		18:51	21:03	22:10	22:50	22:23	21:10	19:42	18:17	16:06	20 13:55 (13)	15:43
22 09:05	13:59 (13) 07:54		06:35	06:07	04:56	04:27	05:03	06:10	07:19	08:27	08:41	13:35 (13)	19:27
22 16:32	20 14:19 (13) 17:47		18:54	21:05	22:12	22:50	22:21	21:07	19:39	18:14	16:04	19 13:54 (13)	15:43
23 09:03	13:59 (13) 07:51		06:32	06:05	04:54	04:27	05:05	06:13	07:21	08:30	08:43	13:36 (13)	19:27
23 16:34	21 14:20 (13) 17:50		18:56	21:07	22:14	22:50	22:20	21:05	19:36	18:11	16:02	19 13:55 (13)	15:44
24 09:01	14:00 (13) 07:49		06:30	06:02	04:52	04:27	05:07	06:15	07:24	08:32	08:45	13:37 (13)	19:27
24 16:36	20 14:20 (13) 17:52		18:58	21:09	22:16	22:50	22:18	21:02	19:33	18:09	16:01	18 13:55 (13)	15:44
25 09:00	14:00 (13) 07:46		06:27	05:59	04:50	04:28	05:09	06:17	07:26	08:34	08:47	13:38 (13)	19:28
25 16:39	21 14:21 (13) 17:55		19:00	21:12	22:18	22:50	22:16	20:59	19:30	17:06	15:59	25 13:54 (13)	15:45
26 08:58	14:01 (13) 07:43		06:24	05:57	04:49	04:28	05:11	06:19	07:28	08:37	08:49	13:39 (13)	19:28
26 16:41	20 14:21 (13) 17:57		19:03	21:14	22:20	22:50	22:14	20:56	19:27	17:04	15:57	26 13:54 (13)	15:46
27 08:56	14:01 (13) 07:41		06:21	05:54	04:47	04:29	05:13	06:22	07:30	08:39	08:51	13:39 (13)	19:28
27 16:44	19 14:20 (13) 18:00		19:05	21:16	22:22	22:50	22:12	20:54	19:24	17:01	15:56	27 13:53 (13)	15:47
28 08:54	14:02 (13) 07:38		06:18	05:51	04:45	04:29	05:15	06:24	07:32	08:42	08:54	13:42 (13)	19:28
28 16:46	18 14:20 (13) 18:02		19:07	21:19	22:23	22:50	22:09	20:51	19:21	16:58	15:55	27 13:52 (13)	15:47
29 08:52	14:04 (13)		07:15	05:49	04:44	04:30	05:17	06:26	07:35	08:44	08:56	13:43 (13)	19:28
29 16:48	16 14:20 (13)		20:10	21:21	22:25	22:49	22:07	20:48	19:19	16:56	15:53	27 13:52 (13)	15:49
30 08:50	14:04 (13)		07:12	05:46	04:42	04:31	05:20	06:28	07:37	08:46	08:58	13:43 (13)	19:28
30 16:51	14 14:18 (13)		20:12	21:23	22:27	22:49	22:05	20:45	19:16	16:53	15:52	24 13:51 (13)	15:50
31 08:48	14:06 (13)		07:09	07:09	04:41		05:22	06:31		07:49		09:28	12:35 (27)
31 16:53	11 14:17 (13)		20:14		22:29		22:03	20:42		16:51		15:51	20 12:55 (27)
Potential sun hours	221	260	365	432	521	547	546	478	386	319	236	199	
Total, worst case	629				5						419		625
Sun reduction	0,50				0,50						0,50		0,50
Oper. time red.	0,80				0,80						0,80		0,80
Wind dir. red.	0,58				0,55						0,56		0,62
Total reduction	0,												

SHADOW - Calendar

Calculation: Oppdatert layout - real case med vindrose - kun Moifjellet - oppdatert mottaker **Shadow receptor:** S - Vaule 176 (19)

Assumptions for shadow calculations

Sunshine probability S/S0 (Sun hours/Possible sun hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
644 231 315 644 959 714 721 455 378 420 574 938 6 993

	January	February	March	April	May	June		
1	09:28	13:54 (27)	08:45	15:13 (13)	07:35	07:06	05:43	04:39
	15:52	8 14:02 (27)	16:56	13 15:26 (13)	18:04	20:16	21:26	22:30
2	09:27	13:55 (27)	08:43	15:12 (13)	07:32	07:04	05:41	04:38
	15:54	9 14:04 (27)	16:58	16 15:28 (13)	18:07	20:19	21:28	22:32
3	09:27	13:54 (27)	08:41	15:11 (13)	07:29	07:01	05:38	04:37
	15:55	11 14:05 (27)	17:01	17 15:28 (13)	18:09	20:21	21:30	22:33
4	09:26	13:54 (27)	08:39	15:11 (13)	07:27	06:58	05:36	04:36
	15:57	12 14:06 (27)	17:03	18 15:29 (13)	18:12	20:23	21:33	22:35
5	09:26	13:54 (27)	08:37	15:11 (13)	07:24	06:55	05:33	04:34
	15:58	13 14:07 (27)	17:06	18 15:29 (13)	18:14	20:26	21:35	22:36
6	09:25	13:54 (27)	08:34	15:11 (13)	07:21	06:52	05:31	04:33
	16:00	14 14:08 (27)	17:08	19 15:30 (13)	18:16	20:28	21:37	22:38
7	09:24	13:54 (27)	08:32	15:11 (13)	07:18	06:49	05:29	04:32
	16:01	15 14:09 (27)	17:10	19 15:30 (13)	18:19	20:30	21:39	22:39
8	09:23	13:54 (27)	08:30	15:11 (13)	07:15	06:46	05:26	04:31
	16:03	17 14:11 (27)	17:13	18 15:29 (13)	18:21	20:32	21:42	22:40
9	09:23	13:53 (27)	08:27	15:12 (13)	07:13	06:44	05:24	04:31
	16:05	18 14:11 (27)	17:15	18 15:30 (13)	18:23	20:35	21:44	22:41
10	09:22	13:54 (27)	08:25	15:12 (13)	07:10	06:41	05:21	04:30
	16:07	18 14:12 (27)	17:18	17 15:29 (13)	18:26	20:37	21:46	22:43
11	09:20	13:53 (27)	08:22	15:13 (13)	07:07	06:38	05:19	04:29
	16:09	19 14:12 (27)	17:20	15 15:28 (13)	18:28	20:39	21:48	22:44
12	09:19	13:54 (27)	08:20	15:15 (13)	07:04	06:35	05:17	04:28
	16:10	19 14:13 (27)	17:23	12 15:27 (13)	18:30	20:42	21:51	22:45
13	09:18	13:53 (27)	08:17	15:17 (13)	07:01	06:32	05:14	04:28
	16:12	21 14:14 (27)	17:25	7 15:24 (13)	18:33	20:44	21:53	22:45
14	09:17	13:54 (27)	08:15		06:58	06:29	05:12	04:27
	16:14	21 14:15 (27)	17:28		18:35	20:46	21:55	22:46
15	09:16	13:54 (27)	08:12		06:56	06:27	05:10	04:27
	16:16	21 14:15 (27)	17:30		18:37	20:49	21:57	22:47
16	09:14	13:54 (27)	08:10		06:53	06:24	05:08	04:27
	16:19	21 14:15 (27)	17:33		18:40	20:51	21:59	22:48
17	09:13	13:54 (27)	08:07		06:50	06:21	05:06	04:27
	16:21	22 14:16 (27)	17:35		18:42	20:53	22:02	22:48
18	09:11	13:55 (27)	08:05		06:47	06:18	05:04	04:26
	16:23	21 14:16 (27)	17:38		18:44	20:56	22:04	22:49
19	09:10	13:55 (27)	08:02		06:44	06:15	05:02	04:26
	16:25	21 14:16 (27)	17:40		18:47	20:58	22:06	22:49
20	09:08	13:56 (27)	07:59		06:41	06:13	05:00	04:26
	16:27	20 14:16 (27)	17:43		18:49	21:00	22:08	22:50
21	09:07	13:56 (27)	07:57		06:38	06:10	04:58	04:26
	16:30	20 14:16 (27)	17:45		18:51	21:02	22:10	22:50
22	09:05	13:57 (27)	07:54		06:35	06:07	04:56	04:27
	16:32	19 14:16 (27)	17:47		18:53	21:05	22:12	22:50
23	09:03	13:58 (27)	07:51		06:32	06:05	04:54	04:27
	16:34	18 14:16 (27)	17:50		18:56	21:07	22:14	22:50
24	09:01	13:59 (27)	07:49		06:30	06:02	04:52	04:27
	16:36	17 14:16 (27)	17:52		18:58	21:09	22:16	22:50
25	08:59	14:01 (27)	07:46		06:27	05:59	04:50	04:28
	16:39	14 14:15 (27)	17:55		19:00	21:12	22:18	22:50
26	08:58	14:01 (27)	07:43		06:24	05:57	04:49	04:28
	16:41	13 14:14 (27)	17:57		19:03	21:14	22:20	22:50
27	08:56	14:04 (27)	07:41		06:21	05:54	04:47	04:29
	16:44	8 14:12 (27)	18:00		19:05	21:16	22:22	22:50
28	08:54		07:38		06:18	05:51	04:45	04:29
	16:46		18:02		19:07	21:19	22:23	22:50
29	08:52				07:15	05:49	04:44	04:30
	16:48				20:10	21:21	22:25	22:49
30	08:50	15:16 (13)			07:12	05:46	04:42	04:31
	16:51	6 15:22 (13)			20:12	21:23	22:27	22:49
31	08:48	15:14 (13)			07:09		04:41	
	16:53	11 15:25 (13)			20:14		22:29	
Potential sun hours	221	260	365	432	521	547		
Total, worst case	467	207						
Sun reduction	0,50	0,50						
Oper. time red.	0,80	0,80						
Wind dir. red.	0,55	0,55						
Total reduction	0,22	0,22						
Total, real	102	45						

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Calculation: Oppdatert layout - real case med vindrose - kun Moifjellet - oppdatert mottaker **Shadow receptor:** S - Vaule 176 (19)

Assumptions for shadow calculations

Sunshine probability S/S0 (Sun hours/Possible sun hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
644 231 315 644 959 714 721 455 378 420 574 938 6 993

	July	August	September	October	November	December			
1	04:32	05:24	06:33	07:39	07:51	14:42 (13) 08:59	13:35 (27)		
	22:48	22:01	20:39	19:13	16:48	16	14:58 (13) 15:51	19	13:54 (27)
2	04:33	05:26	06:35	07:41	07:53	14:41 (13) 09:01	13:37 (27)		
	22:48	21:58	20:37	19:10	16:46	18	14:59 (13) 15:50	18	13:55 (27)
3	04:34	05:28	06:37	07:44	07:56	14:40 (13) 09:03	13:37 (27)		
	22:47	21:56	20:34	19:07	16:44	19	14:59 (13) 15:49	18	13:55 (27)
4	04:35	05:30	06:39	07:46	07:58	14:40 (13) 09:05	13:38 (27)		
	22:46	21:54	20:31	19:04	16:41	19	14:59 (13) 15:48	17	13:55 (27)
5	04:36	05:32	06:42	07:48	08:01	14:41 (13) 09:07	13:39 (27)		
	22:45	21:51	20:28	19:01	16:39	19	15:00 (13) 15:47	16	13:55 (27)
6	04:37	05:35	06:44	07:50	08:03	14:41 (13) 09:08	13:40 (27)		
	22:45	21:49	20:25	18:58	16:36	19	15:00 (13) 15:46	14	13:54 (27)
7	04:38	05:37	06:46	07:53	08:06	14:41 (13) 09:10	13:41 (27)		
	22:44	21:46	20:22	18:56	16:34	18	14:59 (13) 15:45	13	13:54 (27)
8	04:40	05:39	06:48	07:55	08:08	14:42 (13) 09:12	13:42 (27)		
	22:43	21:44	20:19	18:53	16:32	17	14:59 (13) 15:44	12	13:54 (27)
9	04:41	05:41	06:50	07:57	08:10	14:43 (13) 09:13	13:42 (27)		
	22:41	21:41	20:16	18:50	16:30	15	14:58 (13) 15:44	11	13:53 (27)
10	04:42	05:44	06:53	07:59	08:13	14:43 (13) 09:15	13:44 (27)		
	22:40	21:39	20:14	18:47	16:27	14	14:57 (13) 15:43	9	13:53 (27)
11	04:44	05:46	06:55	08:02	08:15	14:45 (13) 09:16	13:45 (27)		
	22:39	21:36	20:11	18:44	16:25	11	14:56 (13) 15:43	8	13:53 (27)
12	04:45	05:48	06:57	08:04	08:18	14:48 (13) 09:17	13:46 (27)		
	22:38	21:34	20:08	18:41	16:23	5	14:53 (13) 15:42	6	13:52 (27)
13	04:47	05:50	06:59	08:06	08:20	14:49 (13) 09:19	13:49 (27)		
	22:36	21:31	20:05	18:39	16:21		15:42	3	13:52 (27)
14	04:49	05:53	07:01	08:09	08:22	14:50 (13) 09:20	13:50 (27)		
	22:35	21:29	20:02	18:36	16:19		15:42		
15	04:50	05:55	07:04	08:11	08:25	13:37 (27) 09:21	13:47 (27)		
	22:33	21:26	19:59	18:33	16:17	8	13:45 (27) 15:42		
16	04:52	05:57	07:06	08:13	08:27	13:35 (27) 09:22	13:49 (27)		
	22:32	21:23	19:56	18:30	16:15	12	13:47 (27) 15:42		
17	04:54	05:59	07:08	08:16	08:29	13:33 (27) 09:23	13:53 (27)		
	22:30	21:21	19:53	18:28	16:13	15	13:48 (27) 15:42		
18	04:56	06:01	07:10	08:18	08:32	13:33 (27) 09:24	13:59 (27)		
	22:29	21:18	19:50	18:25	16:11	17	13:50 (27) 15:42		
19	04:57	06:04	07:12	08:20	08:34	13:33 (27) 09:25	14:05 (27)		
	22:27	21:15	19:47	18:22	16:09	18	13:51 (27) 15:42		
20	04:59	06:06	07:15	08:23	08:36	13:32 (27) 09:25	14:11 (27)		
	22:25	21:13	19:45	18:19	16:07	19	13:51 (27) 15:42		
21	05:01	06:08	07:17	08:25	08:38	13:32 (27) 09:26	14:17 (27)		
	22:23	21:10	19:42	18:17	16:06	20	13:52 (27) 15:43		
22	05:03	06:10	07:19	08:27	08:41	13:32 (27) 09:27	14:23 (27)		
	22:21	21:07	19:39	18:14	16:04	20	13:52 (27) 15:43		
23	05:05	06:13	07:21	08:30	08:43	13:32 (27) 09:27	14:29 (27)		
	22:20	21:05	19:36	18:11	16:02	21	13:53 (27) 15:44		
24	05:07	06:15	07:23	08:32	08:45	13:33 (27) 09:27	14:35 (27)		
	22:18	21:02	19:33	18:09	16:00	21	13:54 (27) 15:44		
25	05:09	06:17	07:26	07:34	08:47	13:32 (27) 09:28	14:41 (27)		
	22:16	20:59	19:30	17:06	15:59	22	13:54 (27) 15:45		
26	05:11	06:19	07:28	07:37	08:49	13:33 (27) 09:28	14:47 (27)		
	22:14	20:56	19:27	17:04	15:57	21	13:54 (27) 15:46		
27	05:13	06:22	07:30	07:39	08:51	13:33 (27) 09:28	14:53 (27)		
	22:11	20:53	19:24	17:01	15:56	21	13:54 (27) 15:47		
28	05:15	06:24	07:32	07:41	08:53	13:33 (27) 09:28	15:00 (27)		
	22:09	20:51	19:21	16:58	15:55	21	13:54 (27) 15:47		
29	05:17	06:26	07:35	07:44	08:55	13:35 (27) 09:28	15:06 (27)		
	22:07	20:48	19:18	16:56	15:53	20	13:55 (27) 15:48		
30	05:19	06:28	07:37	07:46	08:57	13:35 (27) 09:28	15:12 (27)		
	22:05	20:45	19:16	16:53	15:52	19	13:54 (27) 15:50		
31	05:22	06:31	07:49	07:49	14:42 (13) 09:28		13:56 (27)		
	22:03	20:42	16:51	15	14:57 (13) 15:51	4	14:00 (27)		
Potential sun hours	546	478	386	319	236		199		
Total, worst case					36		168		
Sun reduction					0,50		0,50		
Oper. time red.					0,80		0,80		
Wind dir. red.					0,55		0,55		
Total reduction					0,22		0,22		
Total, real					8		106		

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)		Last time (hh:mm) with flicker	(WTG causing flicker last time)

SHADOW - Calendar

Calculation: Oppdatert layout - real case med vindrose - kun Moifjellet - oppdatert mottaker **Shadow receptor:** T - Vaule 247 (20)

Assumptions for shadow calculations

Sunshine probability S/S0 (Sun hours/Possible sun hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
644 231 315 644 959 714 721 455 378 420 574 938 6 993

	January	February	March	April	May	June
1	09:28	08:45	10:57 (38)	07:35	16:28 (18)	07:06
	15:52	16:56	41 13:51 (27)	18:04	11 16:39 (18)	20:16
2	09:27	08:43	10:59 (38)	07:32	16:27 (18)	07:04
	15:54	16:58	37 13:51 (27)	18:07	14 16:41 (18)	20:19
3	09:27	08:41	11:02 (38)	07:30	16:27 (18)	07:01
	15:55	17:01	27 13:49 (27)	18:09	15 16:42 (18)	20:21
4	09:26	08:39	13:29 (27)	07:27	16:27 (18)	06:58
	15:57	17:03	20 13:49 (27)	18:12	18 16:45 (18)	20:23
5	09:26	08:37	13:30 (27)	07:24	16:28 (18)	06:55
	15:58	17:06	17 13:47 (27)	18:14	18 16:46 (18)	20:26
6	09:25	08:34	13:34 (27)	07:21	16:28 (18)	06:52
	16:00	17:08	11 13:45 (27)	18:16	17 16:45 (18)	20:28
7	09:24	08:32		07:18	16:29 (18)	06:49
	16:01	17:11		18:19	15 16:44 (18)	20:30
8	09:23	08:30		07:15	16:30 (18)	06:46
	16:03	17:13		18:21	12 16:42 (18)	20:32
9	09:23	08:27		07:13	16:33 (18)	06:44
	16:05	17:15		18:23	5 16:38 (18)	20:35
10	09:22	08:25		07:10		06:41
	16:07	17:18		18:26		20:37
11	09:20	08:22	14:55 (8)	07:07		06:38
	16:09	17:20	7 15:02 (8)	18:28		20:39
12	09:19	08:20	14:57 (8)	07:04		06:35
	16:11	17:23	10 15:07 (8)	18:30		20:42
13	09:18	11:01 (38)	08:17	14:59 (8)	07:01	06:32
	16:12	5 11:06 (38)	17:25	15:11 (13)	18:33	20:44
14	09:17	10:57 (38)	08:15	15:02 (8)	06:58	06:29
	16:14	11 11:08 (38)	17:28	15:15 (13)	18:35	20:46
15	09:16	10:52 (38)	08:12	15:06 (13)	06:56	06:27
	16:17	17 11:09 (38)	17:30	15:19 (13)	18:37	20:49
16	09:14	10:52 (38)	08:10	15:06 (13)	06:53	06:24
	16:19	18 11:10 (38)	17:33	15:22 (13)	18:40	20:51
17	09:13	10:51 (38)	08:07	15:05 (13)	06:50	06:21
	16:21	19 11:10 (38)	17:35	15:21 (13)	18:42	20:53
18	09:11	10:51 (38)	08:05	15:05 (13)	06:47	06:18
	16:23	20 11:11 (38)	17:38	15:20 (13)	18:44	20:56
19	09:10	10:51 (38)	08:02	15:06 (13)	06:44	06:16
	16:25	21 11:12 (38)	17:40	15:23 (13)	18:47	20:58
20	09:08	10:51 (38)	07:59	15:07 (13)	06:41	06:13
	16:27	22 11:13 (38)	17:43	15:25 (13)	18:49	21:00
21	09:07	10:51 (38)	07:57	15:07 (13)	06:38	06:10
	16:30	23 12:45 (33)	17:45	15:28 (13)	18:51	21:02
22	09:05	10:51 (38)	07:54	15:08 (13)	06:35	06:07
	16:32	35 12:57 (33)	17:47	15:28 (13)	18:53	21:05
23	09:03	10:51 (38)	07:51	15:09 (13)	06:32	06:05
	16:34	41 13:04 (33)	17:50	15:27 (13)	18:56	21:07
24	09:01	10:52 (38)	07:49	15:12 (13)	06:30	06:02
	16:37	40 13:04 (33)	17:52	15:26 (13)	18:58	21:09
25	08:59	10:52 (38)	07:46	15:16 (13)	06:27	05:59
	16:39	39 13:04 (33)	17:55	15:22 (13)	19:00	21:12
26	08:58	10:52 (38)	07:43		06:24	05:57
	16:41	40 13:25 (27)	17:57		19:03	21:14
27	08:56	10:53 (38)	07:41		06:21	05:54
	16:44	42 13:31 (27)	18:00		19:05	21:16
28	08:54	10:53 (38)	07:38	16:29 (18)	06:18	05:51
	16:46	46 13:41 (27)	18:02	6 16:37 (18)	19:07	21:19
29	08:52	10:54 (38)			07:15	05:49
	16:48	42 13:45 (27)			20:10	21:21
30	08:50	10:55 (38)			07:12	05:46
	16:51	43 13:48 (27)			20:12	21:23
31	08:48	10:56 (38)			07:09	
	16:53	43 13:50 (27)			20:14	
Potential sun hours	221	260		365	432	521
Total, worst case	567	374		125		
Sun reduction	0,50	0,50		0,50		
Oper. time red.	0,80	0,80		0,80		
Wind dir. red.	0,66	0,57		0,57		
Total reduction	0,26	0,23		0,23		
Total, real	150	85		28		

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Calculation: Oppdatert layout - real case med vindrose - kun Moifjellet - oppdatert mottaker **Shadow receptor:** T - Vaule 247 (20)

Assumptions for shadow calculations

Sunshine probability S/S0 (Sun hours/Possible sun hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
644 231 315 644 959 714 721 455 378 420 574 938 6 993

	July	August	September	October	November	December
1	04:32	05:24	06:33	07:39	07:51	08:59
	22:48	22:01	20:39	19:13	16:48	15:51
2	04:33	05:26	06:35	07:41	07:54	09:01
	22:48	21:58	20:37	19:10	16:46	15:50
3	04:34	05:28	06:37	07:44	07:56	09:03
	22:47	21:56	20:34	19:07	16:44	15:49
4	04:35	05:30	06:39	07:46	07:58	13:08 (27) 09:05
	22:46	21:54	20:31	19:04	16:41	2 13:10 (27) 15:48
5	04:36	05:33	06:42	07:48	17:09 (18) 08:01	13:03 (27) 09:07
	22:45	21:51	20:28	19:01	9 17:18 (18) 16:39	12 13:15 (27) 15:47
6	04:37	05:35	06:44	07:50	17:06 (18) 08:03	13:01 (27) 09:08
	22:45	21:49	20:25	18:58	14 17:20 (18) 16:36	17 13:18 (27) 15:46
7	04:38	05:37	06:46	07:53	17:04 (18) 08:06	12:59 (27) 09:10
	22:44	21:46	20:22	18:56	16 17:20 (18) 16:34	20 13:19 (27) 15:45
8	04:40	05:39	06:48	07:55	17:03 (18) 08:08	10:32 (38) 09:12
	22:43	21:44	20:19	18:53	18 17:21 (18) 16:32	29 13:20 (27) 15:44
9	04:41	05:41	06:50	07:57	17:02 (18) 08:10	10:30 (38) 09:13
	22:41	21:41	20:16	18:50	18 17:20 (18) 16:30	37 13:22 (27) 15:44
10	04:42	05:44	06:53	07:59	17:01 (18) 08:13	10:28 (38) 09:15
	22:40	21:39	20:14	18:47	16 17:17 (18) 16:27	41 13:22 (27) 15:43
11	04:44	05:46	06:55	08:02	17:01 (18) 08:15	10:27 (38) 09:16
	22:39	21:36	20:11	18:44	15 17:16 (18) 16:25	42 13:20 (27) 15:43
12	04:45	05:48	06:57	08:04	17:01 (18) 08:18	10:27 (38) 09:17
	22:38	21:34	20:08	18:41	13 17:14 (18) 16:23	42 13:19 (27) 15:42
13	04:47	05:50	06:59	08:06	17:02 (18) 08:20	10:25 (38) 09:19
	22:36	21:31	20:05	18:39	10 17:12 (18) 16:21	43 13:17 (27) 15:42
14	04:49	05:53	07:01	08:09	17:06 (18) 08:22	10:25 (38) 09:20
	22:35	21:29	20:02	18:36	2 17:08 (18) 16:19	46 13:12 (27) 15:42
15	04:50	05:55	07:04	08:11	08:25	10:25 (38) 09:21
	22:33	21:26	19:59	18:33	16:17	43 13:04 (27) 15:42
16	04:52	05:57	07:06	08:13	08:27	10:26 (38) 09:22
	22:32	21:23	19:56	18:30	16:15	40 12:59 (27) 15:42
17	04:54	05:59	07:08	08:16	15:45 (13) 08:29	10:25 (38) 09:23
	22:30	21:21	19:53	18:28	9 15:54 (13) 16:13	39 12:37 (33) 15:42
18	04:56	06:02	07:10	08:18	15:42 (13) 08:32	10:26 (38) 09:24
	22:29	21:18	19:50	18:25	15 15:57 (13) 16:11	40 12:38 (33) 15:42
19	04:57	06:04	07:12	08:20	15:40 (13) 08:34	10:26 (38) 09:25
	22:27	21:15	19:47	18:22	18 15:58 (13) 16:09	41 12:39 (33) 15:42
20	04:59	06:06	07:15	08:23	15:39 (13) 08:36	10:26 (38) 09:25
	22:25	21:13	19:45	18:20	21 16:00 (13) 16:07	35 12:32 (33) 15:42
21	05:01	06:08	07:17	08:25	15:37 (13) 08:38	10:27 (38) 09:26
	22:23	21:10	19:42	18:17	20 15:57 (13) 16:06	23 12:21 (33) 15:43
22	05:03	06:10	07:19	08:27	15:37 (13) 08:41	10:27 (38) 09:27
	22:21	21:07	19:39	18:14	17 15:54 (13) 16:04	22 10:49 (38) 15:43
23	05:05	06:13	07:21	08:30	15:36 (13) 08:43	10:28 (38) 09:27
	22:20	21:05	19:36	18:12	16 15:52 (13) 16:02	21 10:49 (38) 15:44
24	05:07	06:15	07:24	08:32	15:35 (13) 08:45	10:29 (38) 09:27
	22:18	21:02	19:33	18:09	16 15:51 (13) 16:01	20 10:49 (38) 15:44
25	05:09	06:17	07:26	07:34	14:36 (13) 08:47	10:29 (38) 09:28
	22:16	20:59	19:30	17:06	15 14:51 (13) 15:59	20 10:49 (38) 15:45
26	05:11	06:19	07:28	07:37	14:35 (13) 08:49	10:31 (38) 09:28
	22:14	20:56	19:27	17:04	16 14:51 (13) 15:57	18 10:49 (38) 15:46
27	05:13	06:22	07:30	07:39	14:35 (13) 08:51	10:32 (38) 09:28
	22:11	20:53	19:24	17:01	13 14:48 (13) 15:56	16 10:48 (38) 15:47
28	05:15	06:24	07:32	07:41	14:30 (8) 08:53	10:36 (38) 09:28
	22:09	20:51	19:21	16:58	14 14:44 (13) 15:55	11 10:47 (38) 15:48
29	05:17	06:26	07:35	07:44	14:28 (8) 08:55	10:42 (38) 09:28
	22:07	20:48	19:19	16:56	12 14:40 (13) 15:53	5 10:47 (38) 15:49
30	05:20	06:28	07:37	07:46	14:26 (8) 08:57	09:28
	22:05	20:45	19:16	16:53	10 14:36 (8) 15:52	15:50
31	05:22	06:31	07:40	07:49		09:28
	22:03	20:42	16:51			15:51
Potential sun hours	546	478	386	319	236	199
Total, worst case				343	725	
Sun reduction				0,50	0,50	
Oper. time red.				0,80	0,80	
Wind dir. red.				0,56	0,65	
Total reduction				0,22	0,26	
Total, real				76	188	

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)		Last time (hh:mm) with flicker	(WTG causing flicker last time)

SHADOW - Calendar

Calculation: Oppdatert layout - real case med vindrose - kun Moifjellet - oppdatert mottaker **Shadow receptor:** U - Store Svela, eiendom 60/5, Bjerkeim kommune (21)

Assumptions for shadow calculations

Sunshine probability S/S0 (Sun hours/Possible sun hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
644 231 315 644 959 714 721 455 378 420 574 938 6 993

	January	February	March	April	May	June	
1	09:27	08:45	15:29 (9) 07:35	15:43 (14) 07:06	05:43	18:53 (38) 04:39	
	15:52	16:56 21	15:50 (9) 18:04	16:21 (14) 20:16	21:25	26 19:19 (38) 22:30	
2	09:27	08:43	15:29 (9) 07:32	15:43 (14) 07:04	05:41	18:54 (38) 04:38	
	15:54	16:58 23	15:52 (9) 18:07	16:20 (14) 20:19	21:28	23 19:17 (38) 22:32	
3	09:27	08:41	15:29 (9) 07:29	15:43 (14) 07:01	05:38	18:56 (38) 04:37	
	15:55	17:01 23	15:52 (9) 18:09	16:19 (14) 20:21	21:30	19 19:15 (38) 22:33	
4	09:26	08:39	15:29 (9) 07:27	15:44 (14) 06:58	19:04 (38) 05:36	19:00 (38) 04:36	
	15:57	17:03 23	15:52 (9) 18:11	16:18 (14) 20:23	15 19:19 (38) 21:32	12 19:12 (38) 22:35	
5	09:25	08:36	15:29 (9) 07:24	15:46 (14) 06:55	19:00 (38) 05:33	04:35	
	15:58	17:06 23	15:52 (9) 18:14	16:18 (14) 20:25	22 19:22 (38) 21:35	22:36	
6	09:25	08:34	15:28 (9) 07:21	15:47 (14) 06:52	18:57 (38) 05:31	04:33	
	16:00	17:08 24	15:52 (9) 18:16	16:16 (14) 20:28	27 19:24 (38) 21:37	22:37	
7	09:24	08:32	15:29 (9) 07:18	15:48 (14) 06:49	18:55 (38) 05:29	04:32	
	16:01	17:10 23	15:52 (9) 18:19	16:15 (14) 20:30	30 19:25 (38) 21:39	22:39	
8	09:23	08:29	15:29 (9) 07:15	15:50 (14) 06:46	18:53 (38) 05:26	04:32	
	16:03	17:13 23	15:52 (9) 18:21	16:12 (14) 20:32	33 19:26 (38) 21:42	22:40	
9	09:22	08:27	15:30 (9) 07:13	15:52 (14) 06:43	18:52 (38) 05:24	04:31	
	16:05	17:15 22	15:52 (9) 18:23	16:10 (14) 20:35	47 19:57 (27) 21:44	22:41	
10	09:21	08:25	15:31 (9) 07:10	15:57 (14) 06:41	18:51 (38) 05:21	04:30	
	16:07	17:18 20	15:51 (9) 18:26	8 16:05 (14) 20:37	55 19:58 (27) 21:46	22:42	
11	09:20	08:22	15:31 (9) 07:07	06:38	18:49 (38) 05:19	04:29	
	16:09	17:20 19	15:50 (9) 18:28	20:39	60 19:58 (27) 21:48	22:43	
12	09:19	08:20	15:33 (9) 07:04	06:35	18:48 (38) 05:17	04:29	
	16:11	17:23 16	15:49 (9) 18:30	20:42	61 19:58 (27) 21:50	22:44	
13	09:18	08:17	15:35 (9) 07:01	06:32	18:48 (38) 05:15	04:28	
	16:12	17:25 16	16:05 (14) 18:33	20:44	63 19:59 (27) 21:53	22:45	
14	09:17	08:15	15:38 (9) 06:58	06:29	18:47 (38) 05:12	04:28	
	16:14	17:28 21	16:10 (14) 18:35	20:46	63 19:58 (27) 21:55	22:46	
15	09:15	08:12	15:52 (14) 06:55	06:27	18:46 (38) 05:10	04:27	
	16:17	17:30 21	16:13 (14) 18:37	20:48	64 19:57 (27) 21:57	22:47	
16	09:14	08:10	15:51 (14) 06:53	17:31 (33) 06:24	18:46 (38) 05:08	04:27	
	16:19	17:33 25	16:16 (14) 18:40	6 17:37 (33) 20:51	63 19:57 (27) 21:59	22:47	
17	09:13	08:07	15:49 (14) 06:50	17:27 (33) 06:21	18:45 (38) 05:06	04:27	
	16:21	17:35 28	16:17 (14) 18:42	13 17:40 (33) 20:53	61 19:55 (27) 22:01	22:48	
18	09:11	08:04	15:48 (14) 06:47	17:25 (33) 06:18	18:45 (38) 05:04	04:26	
	16:23	17:38 30	16:18 (14) 18:44	16 17:41 (33) 20:55	58 19:54 (27) 22:04	22:49	
19	09:10	08:02	15:46 (14) 06:44	17:23 (33) 06:15	18:45 (38) 05:02	04:26	
	16:25	17:40 33	16:19 (14) 18:46	19 17:42 (33) 20:58	55 19:52 (27) 22:06	22:49	
20	09:08	07:59	15:46 (14) 06:41	17:22 (33) 06:13	18:45 (38) 05:00	04:26	
	16:27	17:43 34	16:20 (14) 18:49	20 17:42 (33) 21:00	44 19:29 (38) 22:08	22:49	
21	09:06	07:57	15:45 (14) 06:38	17:21 (33) 06:10	18:45 (38) 04:58	04:26	
	16:30	17:45 36	16:21 (14) 18:51	22 17:43 (33) 21:02	43 19:28 (38) 22:10	22:50	
22	09:05	07:54	15:44 (14) 06:35	17:20 (33) 06:07	18:45 (38) 04:56	04:27	
	16:32	17:47 37	16:21 (14) 18:53	22 17:42 (33) 21:05	43 19:28 (38) 22:12	22:50	
23	09:03	07:51	15:44 (14) 06:32	17:20 (33) 06:05	18:45 (38) 04:54	04:27	
	16:34	17:50 37	16:21 (14) 18:56	22 17:42 (33) 21:07	42 19:27 (38) 22:14	22:50	
24	09:01	07:49	15:43 (14) 06:29	17:20 (33) 06:02	18:46 (38) 04:52	04:27	
	16:36	17:52 38	16:21 (14) 18:58	22 17:42 (33) 21:09	41 19:27 (38) 22:16	22:50	
25	08:59	07:46	15:44 (14) 06:27	17:20 (33) 05:59	18:46 (38) 04:50	04:28	
	16:39	17:55 38	16:22 (14) 19:00	21 17:41 (33) 21:12	40 19:26 (38) 22:18	22:50	
26	08:57	07:43	15:43 (14) 06:24	17:20 (33) 05:57	18:47 (38) 04:49	04:28	
	16:41	17:57 39	16:22 (14) 19:03	20 17:40 (33) 21:14	38 19:25 (38) 22:20	22:50	
27	08:55	15:35 (9) 07:40	15:43 (14) 06:21	17:22 (33) 05:54	18:47 (38) 04:47	04:29	
	16:44	8 15:43 (9) 18:00	39 16:22 (14) 19:05	17 17:39 (33) 21:16	37 19:24 (38) 22:21	22:50	
28	08:54	15:33 (9) 07:38	15:43 (14) 06:18	17:23 (33) 05:51	18:49 (38) 04:45	04:29	
	16:46	13 15:46 (9) 18:02	38 16:21 (14) 19:07	14 17:37 (33) 21:19	34 19:23 (38) 22:23	22:49	
29	08:51	15:31 (9) 07:15	07:15	18:25 (33) 05:49	18:49 (38) 04:44	04:30	
	16:48	16 15:47 (9) 20:09	10 18:35 (33) 21:21	33 19:22 (38) 22:25	22:49	04:31	
30	08:49	15:31 (9) 07:12	07:12	05:46	18:51 (38) 04:42	22:49	04:31
	16:51	17 15:48 (9) 20:12	30 19:21 (38) 22:27	04:41	22:28	22:49	04:31
31	08:47	15:29 (9) 07:09	07:09	04:41	22:28	22:49	04:31
	16:53	20 15:49 (9) 20:14	04:41	22:28	22:49	04:31	04:31
Potential sun hours	221	260	365	432	521	547	
Total, worst case	74	770	525	1202	80		
Sun reduction	0,50	0,50	0,50	0,50	0,50		
Oper. time red.	0,80	0,80	0,80	0,80	0,80		
Wind dir. red.	0,53	0,54	0,58	0,68	0,68		
Total reduction	0,21	0,22	0,23	0,27	0,27		
Total, real	16	167	122	327	22		

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)		Last time (hh:mm) with flicker	(WTG causing flicker last time)

SHADOW - Calendar

Calculation: Oppdatert layout - real case med vindrose - kun Moifjellet - oppdatert mottaker **Shadow receptor:** U - Store Sveta, eiendom 60/5, Bjerkreim kommune (21)

Assumptions for shadow calculations

Sunshine probability S/S0 (Sun hours/Possible sun hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
644 231 315 644 959 714 721 455 378 420 574 938 6 993

	July		August		September		October		November		December	
1	04:32	05:24			06:33	18:48 (38)	07:39		07:51	15:00 (9)	08:59	
	22:48	22:00			20:39	19:57 (27)	19:13		16:48	21	15:21 (9)	15:51
2	04:33	05:26			06:35	18:49 (38)	07:41		07:53	15:00 (9)	09:01	
	22:47	21:58			20:36	19:56 (27)	19:10		16:46	22	15:22 (9)	15:50
3	04:34	05:28			06:37	18:49 (38)	07:43		07:56	14:59 (9)	09:03	
	22:47	21:56			20:34	19:54 (27)	19:07		16:44	22	15:21 (9)	15:49
4	04:35	05:30			06:39	18:51 (38)	07:46		16:31 (14)	07:58	14:59 (9)	09:05
	22:46	21:53			20:31	19:24 (38)	19:04	14	16:45 (14)	16:41	15:22 (9)	15:48
5	04:36	05:33			06:42	18:52 (38)	07:48		16:27 (14)	08:01	14:59 (9)	09:07
	22:45	21:51			20:28	19:22 (38)	19:01	21	16:48 (14)	16:39	15:23 (9)	15:47
6	04:37	05:35			06:44	18:53 (38)	07:50		16:25 (14)	08:03	14:58 (9)	09:08
	22:44	21:49			20:25	19:20 (38)	18:58	25	16:50 (14)	16:36	15:22 (9)	15:46
7	04:38	05:37			06:46	18:55 (38)	07:52		16:23 (14)	08:05	14:59 (9)	09:10
	22:43	21:46			20:22	19:17 (38)	18:55	28	16:51 (14)	16:34	15:22 (9)	15:45
8	04:40	05:39		19:13 (38)	06:48	18:58 (38)	07:55		16:21 (14)	08:08	14:59 (9)	09:11
	22:42	21:44	3	19:16 (38)	20:19	19:13 (38)	18:53	31	16:52 (14)	16:32	15:22 (9)	15:44
9	04:41	05:41		19:07 (38)	06:50		07:57		16:20 (14)	08:10	14:59 (9)	09:13
	22:41	21:41	15	19:22 (38)	20:16		18:50	33	16:53 (14)	16:30	15:21 (9)	15:44
10	04:42	05:44		19:05 (38)	06:53		07:59		16:18 (14)	08:13	15:00 (9)	09:14
	22:40	21:39	20	19:25 (38)	20:13		18:47	35	16:53 (14)	16:27	15:21 (9)	15:43
11	04:44	05:46		19:03 (38)	06:55		08:02		16:18 (14)	08:15	15:01 (9)	09:16
	22:39	21:36	24	19:27 (38)	20:11		18:44	36	16:54 (14)	16:25	15:21 (9)	15:43
12	04:45	05:48		19:01 (38)	06:57		08:04		16:17 (14)	08:17	15:03 (9)	09:17
	22:37	21:34	27	19:28 (38)	20:08		18:41	37	16:54 (14)	16:23	15:20 (9)	15:42
13	04:47	05:50		18:59 (38)	06:59		08:06		16:16 (14)	08:20	15:03 (9)	09:18
	22:36	21:31	30	19:29 (38)	20:05		18:39	38	16:54 (14)	16:21	15:19 (9)	15:42
14	04:49	05:53		18:57 (38)	07:01		08:08		16:16 (14)	08:22	15:05 (9)	09:20
	22:35	21:28	33	19:30 (38)	20:02	8	18:24 (33)	38	16:54 (14)	16:19	15:17 (9)	15:42
15	04:50	05:55		18:56 (38)	07:04		08:11		16:15 (14)	08:24	15:08 (9)	09:21
	22:33	21:26	35	19:31 (38)	19:59	13	18:26 (33)	39	16:54 (14)	16:17	15:15 (9)	15:42
16	04:52	05:57		18:55 (38)	07:06		08:13		16:15 (14)	08:27		09:22
	22:32	21:23	37	19:32 (38)	19:56	16	18:27 (33)	39	16:54 (14)	16:15		15:42
17	04:54	05:59		18:53 (38)	07:08		08:15		16:15 (14)	08:29		09:23
	22:30	21:21	39	19:32 (38)	19:53	19	18:28 (33)	38	16:53 (14)	16:13		15:42
18	04:56	06:01		18:52 (38)	07:10		08:18		16:15 (14)	08:31		09:24
	22:28	21:18	40	19:32 (38)	19:50	20	18:28 (33)	38	16:53 (14)	16:11		15:42
19	04:57	06:04		18:51 (38)	07:12		08:20		16:15 (14)	08:34		09:24
	22:27	21:15	42	19:33 (38)	19:47	22	18:29 (33)	37	16:52 (14)	16:09		15:42
20	04:59	06:06		18:51 (38)	07:15		08:22		16:16 (14)	08:36		09:25
	22:25	21:13	42	19:33 (38)	19:44	22	18:29 (33)	36	16:52 (14)	16:07		15:42
21	05:01	06:08		18:50 (38)	07:17		08:25		16:16 (14)	08:38		09:26
	22:23	21:10	43	19:33 (38)	19:42	22	18:28 (33)	35	16:51 (14)	16:06		15:43
22	05:03	06:10		18:49 (38)	07:19		08:27		16:17 (14)	08:40		09:26
	22:21	21:07	44	19:33 (38)	19:39	21	18:27 (33)	33	16:50 (14)	16:04		15:43
23	05:05	06:13		18:49 (38)	07:21		08:29		16:17 (14)	08:43		09:27
	22:19	21:04	48	19:52 (27)	19:36	20	18:26 (33)	32	16:49 (14)	16:02		15:44
24	05:07	06:15		18:48 (38)	07:23		08:32		16:18 (14)	08:45		09:27
	22:17	21:02	55	19:55 (27)	19:33	19	18:26 (33)	30	16:48 (14)	16:01		15:44
25	05:09	06:17		18:49 (38)	07:26		07:34		15:19 (14)	08:47		09:28
	22:15	20:59	58	19:57 (27)	19:30	17	18:24 (33)	27	15:46 (14)	15:59		15:45
26	05:11	06:19		18:48 (38)	07:28		07:37		15:21 (14)	08:49		09:28
	22:13	20:56	62	19:58 (27)	19:27	14	18:22 (33)	23	15:44 (14)	15:57		15:46
27	05:13	06:22		18:48 (38)	07:30		07:39		15:23 (14)	08:51		09:28
	22:11	20:53	63	19:59 (27)	19:24	9	18:19 (33)	20	15:43 (14)	15:56		15:47
28	05:15	06:24		18:48 (38)	07:32		07:41		15:07 (9)	08:53		09:28
	22:09	20:51	63	19:59 (27)	19:21		16:58	21	15:39 (14)	15:55		15:48
29	05:17	06:26		18:48 (38)	07:34		07:44		15:04 (9)	08:55		09:28
	22:07	20:48	64	19:59 (27)	19:18		16:56	13	15:17 (9)	15:53		15:49
30	05:20	06:28		18:48 (38)	07:37		07:46		15:03 (9)	08:57		09:28
	22:05	20:45	63	19:59 (27)	19:16		16:53	16	15:19 (9)	15:52		15:50
31	05:22	06:30		18:48 (38)			07:49		15:01 (9)			09:28
	22:03	20:42	61	19:58 (27)			16:51	19	15:20 (9)			15:51
Potential sun hours	545	478			386			319		236		200
Total, worst case			1011		532			832		297		
Sun reduction			0,50		0,50			0,50		0,50		
Oper. time red.			0,80		0,80			0,80		0,80		
Wind dir. red.			0,68		0,65			0,55		0,53		
Total reduction			0,27		0,26			0,22		0,21		
Total, real			275		138			183		62		

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)		Last time (hh:mm) with flicker	(WTG causing flicker last time)

SHADOW - Calendar

Calculation: Oppdatert layout - real case med vindrose - kun Moifjellet - oppdatert mottaker Shadow receptor: W - Osland 85 (23)
Assumptions for shadow calculations

Sunshine probability S/S0 (Sun hours/Possible sun hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
644 231 315 644 959 714 721 455 378 420 574 938 6 993

Table with columns for months (January to December) and rows for specific times (e.g., 09:28, 10:00, etc.), showing sunrise and sunset times. Includes summary rows for 'Potential sun hours', 'Total, worst case', and 'Total, real'.

Table layout: For each day in each month the following matrix apply

Day in month Sun rise (hh:mm) Sun set (hh:mm) Minutes with flicker First time (hh:mm) with flicker Last time (hh:mm) with flicker (WTG causing flicker first time) (WTG causing flicker last time)



SHADOW - Calendar

Calculation: Oppdatert layout - real case med vindrose - kun Moifjellet - oppdatert mottaker **Shadow receptor:** X - Osland 65 (24)
Assumptions for shadow calculations Sunshine probability S/S0 (Sun hours/Possible sun hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
 644 231 315 644 959 714 721 455 378 420 574 938 6 993

	January	February	March	April	May	June	July	August	September	October	November	December				
1 09:28		11:14 (24) 08:46		10:11 (29) 07:35	07:07	05:44	04:40	04:32	05:24	06:33	07:39	07:51	09:00	10:57 (24)		
15:53	31	12:43 (25) 16:56	18	10:29 (29) 18:05	20:17	21:26	22:31	22:49	22:01	20:40	19:13	16:49	15:51	22	11:19 (24)	
2 09:28		11:14 (24) 08:44		10:11 (29) 07:33	07:04	05:41	04:38	04:33	05:26	06:35	07:42	07:54	09:02	10:58 (24)		
15:54	30	12:43 (25) 16:58	17	10:28 (29) 18:07	20:19	21:28	22:32	22:48	21:59	20:37	19:10	16:46	15:50	21	11:19 (24)	
3 09:27		11:13 (24) 08:41		10:13 (29) 07:30	07:01	05:39	04:37	04:34	05:28	06:38	07:44	07:56	09:04	10:58 (24)		
15:55	31	12:43 (25) 17:01	14	10:27 (29) 18:09	20:21	21:31	22:34	22:47	21:56	20:34	19:07	16:44	15:49	21	11:19 (24)	
4 09:27		11:13 (24) 08:39		10:14 (29) 07:27	06:58	05:36	04:36	04:35	05:31	06:40	07:46	07:59	09:05	10:59 (24)		
15:57	31	12:43 (25) 17:03	11	10:25 (29) 18:12	20:24	21:33	22:35	22:47	21:54	20:31	19:04	16:41	15:48	20	11:19 (24)	
5 09:26		11:14 (24) 08:37		10:17 (29) 07:24	06:55	05:34	04:35	04:35	05:33	06:42	07:48	08:01	09:07	10:59 (24)		
15:58	29	12:43 (25) 17:06	6	10:23 (29) 18:14	20:26	21:35	22:37	22:46	21:52	20:28	19:02	16:39	15:47	26	12:26 (25)	
6 09:25		11:14 (24) 08:35		07:21	06:52	05:31	04:34	04:37	05:35	06:44	07:51	08:03	09:09	11:00 (24)		
16:00	28	12:42 (25) 17:08		18:17	20:28	21:37	22:38	22:45	21:49	20:25	18:59	16:37	7	09:54 (29) 15:46	28	12:28 (25)
7 09:25		11:14 (24) 08:32		07:19	06:50	05:29	04:33	04:39	05:37	06:46	07:53	08:06	09:12	11:03 (24)		
16:02	26	12:41 (25) 17:11		18:19	20:31	21:40	22:39	22:44	21:47	20:23	18:56	16:34	11	09:56 (29) 15:45	29	12:30 (25)
8 09:24		11:15 (24) 08:30		07:16	06:47	05:26	04:32	04:40	05:39	06:49	07:55	08:08	09:13	11:02 (24)		
16:03	20	11:35 (24) 17:13		18:21	20:33	21:42	22:41	22:43	21:44	20:20	18:53	16:32	14	09:57 (29) 15:45	30	12:31 (25)
9 09:23		11:15 (24) 08:27		07:13	06:44	05:24	04:31	04:41	05:42	06:51	07:57	08:11	09:16	11:03 (24)		
16:05	21	11:36 (24) 17:16		18:24	20:35	21:44	22:42	22:42	21:42	20:17	18:50	16:30	17	09:59 (29) 15:44	30	12:32 (25)
10 09:22		11:15 (24) 08:25		07:10	06:41	05:22	04:30	04:43	05:44	06:53	08:00	08:13	09:18	11:03 (24)		
16:07	21	11:36 (24) 17:18		18:26	20:37	21:47	22:43	22:41	21:39	20:14	18:47	16:28	18	10:00 (29) 15:44	30	12:32 (25)
11 09:21		11:15 (24) 08:23		07:07	06:38	05:19	04:29	04:44	05:46	06:55	08:02	08:15	09:21	11:04 (24)		
16:09	22	11:37 (24) 17:21		18:28	20:40	21:49	22:44	22:39	21:37	20:11	18:45	16:26	19	10:00 (29) 15:43	31	12:34 (25)
12 09:20		11:15 (24) 08:20		07:04	06:35	05:17	04:29	04:46	05:48	06:57	08:04	08:18	09:24	11:04 (24)		
16:11	22	11:37 (24) 17:23		18:31	20:42	21:51	22:45	22:38	21:34	20:08	18:42	16:23	19	10:00 (29) 15:43	31	12:34 (25)
13 09:19		11:16 (24) 08:18		07:02	06:33	05:15	04:28	04:47	05:51	07:00	08:07	08:20	09:26	11:05 (24)		
16:13	22	11:38 (24) 17:26		18:33	20:44	21:53	22:46	22:37	21:32	20:05	18:39	16:21	20	10:01 (29) 15:42	31	12:35 (25)
14 09:17		11:16 (24) 08:15		06:59	06:30	05:13	04:28	04:49	05:53	07:02	08:09	08:23	09:29	11:06 (24)		
16:15	22	11:38 (24) 17:28		18:35	20:47	21:55	22:47	22:35	21:29	20:02	18:36	16:19	19	10:01 (29) 15:42	30	12:35 (25)
15 09:16		11:16 (24) 08:13		06:56	06:27	05:10	04:27	04:51	05:55	07:04	08:11	08:25	09:31	11:06 (24)		
16:17	22	11:38 (24) 17:31		18:38	20:49	21:58	22:47	22:34	21:26	19:59	18:33	16:17	20	10:01 (29) 15:42	31	12:36 (25)
16 09:15		11:16 (24) 08:10		06:53	06:24	05:08	04:27	04:52	05:57	07:06	08:14	08:27	09:32	11:08 (24)		
16:19	22	11:38 (24) 17:33		18:40	20:51	22:00	22:48	22:32	21:24	19:57	18:31	16:15	19	10:01 (29) 15:42	30	12:37 (25)
17 09:13		11:18 (24) 08:08		06:50	06:21	05:06	04:27	04:54	06:00	07:08	08:16	08:30	09:35	11:09 (24)		
16:21	21	11:39 (24) 17:36		18:42	20:54	22:02	22:49	22:31	21:21	19:54	18:28	16:13	26	11:08 (24) 15:42	30	12:38 (25)
18 09:12		11:18 (24) 08:05		06:47	06:19	05:04	04:27	04:56	06:02	07:11	08:18	08:32	09:37	11:09 (24)		
16:23	21	11:39 (24) 17:38		18:45	20:56	22:04	22:49	22:29	21:18	19:51	18:25	16:11	30	11:10 (24) 15:42	28	12:37 (25)
19 09:10		10:13 (29) 08:02		06:44	06:16	05:02	04:27	04:58	06:04	07:13	08:21	08:34	09:44	11:09 (24)		
16:25	27	11:39 (24) 17:40		18:47	20:58	22:06	22:50	22:27	21:16	19:48	18:23	16:09	31	11:12 (24) 15:42	30	12:38 (25)
20 09:09		10:12 (29) 08:00		06:41	06:13	05:00	04:27	05:00	06:06	07:15	08:23	08:36	09:45	11:10 (24)		
16:28	30	11:39 (24) 17:43		18:49	21:01	22:08	22:50	22:25	21:13	19:45	18:20	16:08	32	11:13 (24) 15:43	30	12:39 (25)
21 09:07		10:11 (29) 07:57		06:39	06:10	04:58	04:27	05:01	06:09	07:17	08:25	08:39	09:46	11:11 (24)		
16:30	32	11:39 (24) 17:45		18:52	21:03	22:10	22:50	22:24	21:10	19:42	18:17	16:06	32	11:14 (24) 15:43	29	12:40 (25)
22 09:05		10:10 (29) 07:54		06:36	06:08	04:56	04:27	05:03	06:11	07:19	08:28	08:41	09:48	11:11 (24)		
16:32	32	11:38 (24) 17:48		18:54	21:05	22:12	22:51	22:22	21:08	19:39	18:14	16:04	29	11:15 (24) 15:43	29	12:40 (25)
23 09:03		10:09 (29) 07:52		06:33	06:05	04:54	04:27	05:05	06:13	07:22	08:30	08:43	09:49	11:11 (24)		
16:34	31	11:37 (24) 17:50		18:56	21:07	22:14	22:51	22:20	21:05	19:36	18:12	16:02	27	11:15 (24) 15:44	30	12:40 (25)
24 09:02		10:09 (29) 07:49		06:30	06:02	04:52	04:27	05:07	06:15	07:24	08:32	08:45	09:52	11:12 (24)		
16:37	29	11:36 (24) 17:53		18:58	21:10	22:16	22:51	22:18	21:02	19:33	18:09	16:01	21	11:16 (24) 15:45	30	12:41 (25)
25 09:00		10:09 (29) 07:46		06:27	06:00	04:51	04:28	05:09	06:17	07:26	08:35	08:48	09:54	11:12 (24)		
16:39	26	11:34 (24) 17:55		19:01	21:12	22:18	22:51	22:16	20:59	19:30	17:07	15:59	21	11:16 (24) 15:45	29	12:41 (25)
26 08:58		10:09 (29) 07:44		06:24	05:57	04:49	04:28	05:11	06:20	07:28	08:37	08:50	09:55	11:13 (24)		
16:41	19	10:28 (29) 17:57		19:03	21:14	22:20	22:51	22:14	20:57	19:27	17:04	15:58	22	11:17 (24) 15:46	30	12:42 (25)
27 08:56		10:09 (29) 07:41		06:21	05:54	04:47	04:29	05:14	06:22	07:30	08:39	08:52	09:56	11:13 (24)		
16:44	20	10:29 (29) 18:00		19:05	21:17	22:22	22:50	22:12	20:54	19:25	17:01	15:56	22	11:17 (24) 15:47	30	12:42 (25)
28 08:54		10:09 (29) 07:38		06:18	05:52	04:46	04:30	05:16	06:24	07:33	08:42	08:54	09:57	11:13 (24)		
16:46	19	10:28 (29) 18:02		19:08	21:19	22:24	22:50	22:10	20:51	19:22	16:59	15:55	22	11:18 (24) 15:48	31	12:43 (25)
29 08:52		10:09 (29) 07:31		07:15	05:49	04:44	04:30	05:18	06:26	07:35	08:44	08:56	09:59	11:13 (24)		
16:49	20	10:29 (29) 18:05		20:10	21:21	22:26	22:50	22:08	20:48	19:19	16:56	15:54	22	11:18 (24) 15:49	31	12:42 (25)
30 08:50		10:09 (29) 07:24		07:13	05:46	04:43	04:31	05:20	06:29	07:37	08:47	08:58	09:59	11:13 (24)		
16:51	19	10:28 (29) 17:53		20:12	21:24	22:27	22:49	22:05	20:45	19:16	16:54	15:52	22	11:18 (24) 15:50	31	12:43 (25)
31 08:48		10:10 (29) 07:17		07:10	06:41	05:34	04:29	05:22	06:31	07:40	08:49	08:59	09:59	11:14 (24)		
16:54	19	10:29 (29) 17:57		20:14	22:26	23:29	23:50	22:03	20:43	19:13	16:51	15:49	15:51	30	12:43 (25)	
Potential sun hours	221	260		365	432	521	547	546	478	386	319	236		199		889

SHADOW - Calendar

Calculation: Oppdatert layout - real case med vindrose - kun Moiffjellet - oppdatert mottaker **Shadow receptor:** Y - Brusalivegen 215 (25)

Assumptions for shadow calculations

Sunshine probability S/50 (Sun hours/Possible sun hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
644 231 315 644 959 714 721 455 378 420 574 938 6 993

	January	February	March	April	May	June	July	August	September	October	November	December
1	09:28 15:53	08:46 16:56	07:35 18:05	07:07 20:17	05:44 21:26	04:40 22:30	06:16 (1) 04:32	06:18 (1) 05:24	06:33 07:39	07:51 09:00	09:00 15:52	09:00 15:52
2	09:27 15:54	08:43 16:59	07:33 18:07	07:04 20:19	05:42 21:28	04:39 22:32	06:15 (1) 04:33	06:18 (1) 05:27	06:35 07:42	09:01 16:49	09:01 15:52	09:01 15:52
3	09:27 15:56	08:41 17:01	07:30 18:10	07:01 20:21	05:39 21:31	04:38 22:33	06:14 (1) 04:34	06:17 (1) 05:29	06:38 07:44	09:03 16:47	09:03 15:50	09:03 15:50
4	09:26 15:57	08:39 17:04	07:27 18:12	06:58 20:24	05:37 21:33	04:36 22:35	06:14 (1) 04:35	06:18 (1) 05:31	06:40 07:46	09:05 16:42	09:05 15:48	09:05 15:48
5	09:26 15:59	08:37 17:06	07:24 18:14	06:55 20:26	05:34 21:35	04:35 22:36	06:14 (1) 04:37	06:18 (1) 05:33	06:42 07:48	09:06 16:39	09:06 15:47	09:06 15:47
6	09:25 16:00	08:34 17:09	07:21 18:17	06:53 20:28	05:32 21:37	04:34 22:38	06:13 (1) 04:38	06:19 (1) 05:35	06:44 07:51	09:09 16:37	09:09 15:47	09:09 15:47
7	09:24 16:02	08:32 17:11	07:19 18:19	06:50 20:31	05:29 21:40	04:33 22:39	06:12 (1) 04:39	06:20 (1) 05:38	06:47 07:53	09:10 16:35	09:10 15:46	09:10 15:46
8	09:24 16:04	08:30 17:14	07:16 18:21	06:47 20:33	05:27 21:42	04:32 22:40	06:12 (1) 04:40	06:21 (1) 05:40	06:49 07:55	09:12 16:32	09:12 15:45	09:12 15:45
9	09:23 16:06	08:27 17:16	07:13 18:24	06:44 20:35	05:24 21:44	04:31 22:41	06:13 (1) 04:42	06:21 (1) 05:42	06:51 07:57	09:13 16:30	09:13 15:44	09:13 15:44
10	09:22 16:07	08:25 17:19	07:10 18:26	06:41 20:37	05:22 21:46	04:31 22:43	06:13 (1) 04:43	06:22 (1) 05:44	06:53 08:00	09:14 16:28	09:14 15:45	09:14 15:45
11	09:21 16:09	08:23 17:21	07:07 18:28	06:38 20:40	05:20 21:49	04:30 22:44	06:14 (1) 04:45	06:24 (1) 05:46	06:55 08:02	09:15 16:26	09:15 15:43	09:15 15:43
12	09:20 16:11	08:20 17:23	07:04 18:31	06:36 20:42	05:17 21:51	04:29 22:45	06:13 (1) 04:46	06:25 (1) 05:49	06:58 08:04	09:17 16:24	09:17 15:43	09:17 15:43
13	09:18 16:13	08:18 17:26	07:02 18:33	06:33 20:44	05:15 21:53	04:29 22:46	06:14 (1) 04:48	06:26 (1) 05:51	07:00 08:07	09:19 16:22	09:19 15:43	09:19 15:43
14	09:17 16:15	08:15 17:28	06:59 18:35	06:30 20:47	05:13 21:55	04:28 22:46	06:15 (1) 04:49	06:28 (1) 05:53	07:02 08:09	09:20 16:21	09:20 15:43	09:20 15:43
15	09:16 16:17	08:13 17:31	06:56 18:38	06:27 20:49	05:11 21:57	04:28 22:47	06:14 (1) 04:51	06:28 (1) 05:55	07:04 08:11	09:21 16:17	09:21 15:42	09:21 15:42
16	09:14 16:19	08:10 17:33	06:53 18:40	06:24 20:51	05:09 22:00	04:28 22:48	06:15 (1) 04:53	06:30 (1) 05:58	07:06 08:14	09:22 16:15	09:22 15:42	09:22 15:42
17	09:13 16:21	08:07 17:36	06:50 18:42	06:22 20:54	05:06 22:02	04:27 22:48	06:15 (1) 04:54	06:31 (1) 06:00	07:09 08:16	09:23 16:14	09:23 15:42	09:23 15:42
18	09:12 16:24	08:05 17:38	06:47 18:45	06:19 20:56	05:04 22:04	04:27 22:49	06:15 (1) 04:56	06:33 (1) 06:02	07:11 08:18	09:24 16:12	09:24 15:42	09:24 15:42
19	09:10 16:26	08:02 17:41	06:44 18:47	06:16 20:58	05:02 22:06	04:27 22:49	06:16 (1) 04:58	06:35 (1) 06:04	07:13 08:21	09:25 16:10	09:25 15:43	09:25 15:43
20	09:08 16:28	08:00 17:43	06:42 18:49	06:13 21:00	05:00 22:08	04:27 22:50	06:16 (1) 05:00	06:35 (1) 06:07	07:15 08:23	09:26 16:08	09:26 15:43	09:26 15:43
21	09:07 16:30	07:57 17:46	06:39 18:52	06:11 21:03	04:58 22:10	04:27 22:50	06:16 (1) 05:02	06:37 (1) 06:09	07:17 08:25	09:26 16:06	09:26 15:43	09:26 15:43
22	09:05 16:32	07:54 17:48	06:36 18:54	06:08 21:05	04:56 22:12	04:27 22:50	06:17 (1) 05:04	06:39 (1) 06:11	07:20 08:28	09:27 16:04	09:27 15:43	09:27 15:43
23	09:03 16:35	07:52 17:50	06:33 18:56	06:05 21:07	04:55 22:14	04:28 22:50	06:17 (1) 05:06	06:40 (1) 06:13	07:22 08:30	09:28 16:03	09:28 15:44	09:28 15:44
24	09:02 16:37	07:49 17:53	06:30 18:58	06:02 21:10	04:53 22:16	04:28 22:50	06:16 (1) 05:08	06:42 (1) 06:15	07:24 08:32	09:28 16:01	09:28 15:45	09:28 15:45
25	09:00 16:39	07:46 17:55	06:27 19:01	06:00 21:12	04:51 22:18	04:28 22:50	06:17 (1) 05:10	06:43 (1) 06:18	07:26 08:34	09:29 16:00	09:29 15:46	09:29 15:46
26	08:58 16:42	07:44 17:58	06:24 19:03	05:57 21:14	04:49 22:20	04:29 22:50	06:17 (1) 05:12	06:45 (1) 06:20	07:28 08:36	09:30 16:00	09:30 15:46	09:30 15:46
27	08:56 16:44	07:41 18:00	06:21 19:05	05:54 21:17	04:48 22:22	04:29 22:50	06:17 (1) 05:14	06:47 (1) 06:22	07:31 08:39	09:31 16:00	09:31 15:47	09:31 15:47
28	08:54 16:47	07:38 18:02	06:18 19:08	05:52 21:19	04:46 22:24	04:30 22:50	06:17 (1) 05:16	06:49 (1) 06:24	07:33 08:41	09:32 16:00	09:32 15:48	09:32 15:48
29	08:52 16:49	07:38 18:02	06:18 19:08	05:52 21:19	04:46 22:24	04:30 22:50	06:17 (1) 05:18	06:49 (1) 06:27	07:35 08:43	09:33 16:00	09:33 15:49	09:33 15:49
30	08:50 16:51	07:38 18:02	06:18 19:08	05:52 21:19	04:46 22:24	04:30 22:50	06:17 (1) 05:18	06:49 (1) 06:27	07:35 08:43	09:33 16:00	09:33 15:49	09:33 15:49
31	08:48 16:54	07:38 18:02	06:18 19:08	05:52 21:19	04:46 22:24	04:30 22:50	06:17 (1) 05:18	06:49 (1) 06:27	07:35 08:43	09:33 16:00	09:33 15:49	09:33 15:49
Potential sun hours	221	260	365	432	521	547	545	478	386	319	236	200
Total, worst case					284	963	655					
Sun reduction					0,50	0,50	0,50					
Oper. time red.					0,80	0,80	0,80					
Wind dir. red.					0,58	0,58	0,58					
Total reduction					0,23	0,23	0,23					
Total, real					66	225	153					

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)		Last time (hh:mm) with flicker	(WTG causing flicker last time)

SHADOW - Calendar

Calculation: Oppdatert layout - real case med vindrose - kun Moifjellet - oppdatert mottaker Shadow receptor: Z - Brusalivegen 217 (26)

Assumptions for shadow calculations

Sunshine probability S/S0 (Sun hours/Possible sun hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
644 231 315 644 959 714 721 455 378 420 574 938 6 993

Table with 12 columns for months (January to December) and rows for each day of the year (1-31), showing sun rise/set times, shadow reduction, and operational time.

Table layout: For each day in each month the following matrix apply

Day in month Sun rise (hh:mm) Sun set (hh:mm) Minutes with flicker First time (hh:mm) with flicker Last time (hh:mm) with flicker (WTG causing flicker first time) (WTG causing flicker last time)

SHADOW - Calendar

Calculation: Oppdatert layout - real case med vindrose - kun Moifjellet - oppdatert mottaker **Shadow receptor:** AA - Buevegen 1463 (27)

Assumptions for shadow calculations

Sunshine probability S/S0 (Sun hours/Possible sun hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
644 231 315 644 959 714 721 455 378 420 574 938 6 993

	January	February	March	April	May	June
1	09:28 15:53	08:46 16:56	07:35 18:05	08:22 (23) 20:17	07:07 21:26	04:40 22:31
2	09:28 15:54	08:44 16:59	07:33 18:07	08:21 (23) 20:19	07:04 21:28	04:39 22:32
3	09:27 15:56	08:41 17:01	07:30 18:10	08:20 (23) 20:21	07:01 21:31	04:37 22:34
4	09:27 15:57	08:39 17:04	07:27 18:12	08:20 (23) 20:24	06:58 21:33	04:36 22:35
5	09:26 15:59	08:37 17:06	07:24 18:14	08:20 (23) 20:26	06:55 21:35	04:34 22:37
6	09:25 16:00	08:35 17:09	07:22 18:17	08:20 (23) 20:28	06:53 21:38	04:34 22:38
7	09:25 16:02	08:32 17:11	07:19 18:19	08:20 (23) 20:31	06:50 21:40	04:33 22:39
8	09:24 16:04	08:30 17:13	07:16 18:21	08:20 (23) 20:33	06:47 21:42	04:32 22:41
9	09:23 16:05	08:28 17:16	09:21 (3) 07:13 18:24	08:22 (23) 20:35	06:44 21:44	04:31 22:42
10	09:22 16:07	08:25 17:18	09:18 (3) 07:10 18:26	08:23 (23) 20:38	06:41 21:47	04:30 22:43
11	09:21 16:09	08:23 17:21	09:15 (3) 07:07 18:28	08:25 (23) 20:40	06:38 21:49	04:30 22:44
12	09:20 16:11	08:20 17:23	09:14 (3) 07:05 18:31	09:14 (3) 20:42	06:36 21:51	04:29 22:45
13	09:19 16:13	08:18 17:26	09:13 (3) 07:02 18:33	09:13 (3) 20:44	06:33 21:53	04:29 22:46
14	09:17 16:15	08:15 17:28	09:13 (3) 06:59 18:35	07:38 (25) 20:47	06:30 21:55	04:28 22:47
15	09:16 16:17	08:13 17:31	09:12 (3) 06:56 18:38	07:33 (25) 20:49	06:27 21:58	04:28 22:47
16	09:15 16:19	08:10 17:33	09:12 (3) 06:53 18:40	07:31 (25) 20:51	06:24 22:00	04:27 22:48
17	09:13 16:21	08:08 17:36	09:13 (3) 06:50 18:42	07:29 (25) 20:54	06:22 22:02	04:27 22:49
18	09:12 16:23	08:05 17:38	09:13 (3) 06:47 18:45	07:28 (25) 20:56	06:19 22:04	04:27 22:49
19	09:10 16:26	08:02 17:41	09:13 (3) 06:44 18:47	07:28 (25) 20:58	06:16 22:06	04:27 22:50
20	09:09 16:28	08:00 17:43	09:14 (3) 06:42 18:49	07:27 (25) 21:01	06:13 22:08	04:27 22:50
21	09:07 16:30	07:57 17:46	09:15 (3) 06:39 18:52	07:28 (25) 21:03	06:11 22:10	04:27 22:50
22	09:05 16:32	07:54 17:48	09:18 (3) 06:36 18:54	07:28 (25) 21:05	06:08 22:12	04:27 22:50
23	09:04 16:35	07:52 17:50	09:26 (3) 06:33 18:56	07:28 (25) 21:08	06:05 22:14	04:27 22:51
24	09:02 16:37	07:49 17:53	06:30 18:59	07:29 (25) 21:10	06:02 22:16	04:28 22:51
25	09:00 16:39	07:46 17:55	08:28 (23) 06:27 19:01	07:30 (25) 21:12	06:00 22:18	04:51 22:51
26	08:58 16:42	07:44 17:58	08:25 (23) 06:24 19:03	07:34 (25) 21:14	05:57 22:20	04:49 22:50
27	08:56 16:44	07:41 18:00	08:23 (23) 06:21 19:05	05:54 21:17	04:47 22:22	04:29 22:50
28	08:54 16:46	07:38 18:02	08:23 (23) 06:18 19:08	05:52 21:19	04:46 22:24	04:30 22:50
29	08:52 16:49		07:16 20:10	05:49 21:21	04:44 22:26	04:31 22:50
30	08:50 16:51		07:13 20:12	05:47 21:24	04:43 22:27	04:31 22:49
31	08:48 16:54		07:10 20:15		04:41 22:29	
Potential sun hours	221	260	365	432	521	547
Total, worst case		269	410			
Sun reduction		0,50	0,50			
Oper. time red.		0,80	0,80			
Wind dir. red.		0,73	0,71			
Total reduction		0,29	0,28			
Total, real		79	117			

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Calculation: Oppdatert layout - real case med vindrose - kun Moifjellet - oppdatert mottaker **Shadow receptor:** AA - Buevegen 1463 (27)
Assumptions for shadow calculations Sunshine probability S/S0 (Sun hours/Possible sun hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
 644 231 315 644 959 714 721 455 378 420 574 938 6 993

	July	August	September	October	November	December
1	04:32	05:24	06:33	07:40	07:52	08:47 (3) 09:00
	22:49	22:01	20:40	19:13	16:49	8 08:55 (3) 15:51
2	04:33	05:26	06:35	07:42	09:05 (23) 07:54	09:02
	22:48	21:59	20:37	19:10	7 09:12 (23) 16:46	15:50
3	04:34	05:29	06:38	07:44	09:01 (23) 07:56	09:04
	22:47	21:56	20:34	19:07	14 09:15 (23) 16:44	15:49
4	04:35	05:31	06:40	07:46	09:00 (23) 07:59	09:05
	22:47	21:54	20:31	19:05	17 09:17 (23) 16:42	15:48
5	04:36	05:33	06:42	07:48	08:58 (23) 08:01	09:07
	22:46	21:52	20:28	19:02	20 09:18 (23) 16:39	15:47
6	04:38	05:35	06:44	07:51	08:56 (23) 08:04	09:09
	22:45	21:49	20:26	18:59	22 09:18 (23) 16:37	15:46
7	04:39	05:37	06:47	07:53	08:56 (23) 08:06	09:10
	22:44	21:47	20:23	18:56	23 09:19 (23) 16:35	15:46
8	04:40	05:40	06:49	07:55	08:55 (23) 08:08	09:12
	22:43	21:44	20:20	18:53	24 09:19 (23) 16:32	15:45
9	04:41	05:42	06:51	07:58	08:54 (23) 08:11	09:14
	22:42	21:42	20:17	18:50	25 09:19 (23) 16:30	15:44
10	04:43	05:44	06:53	08:00	08:55 (23) 08:13	09:15
	22:41	21:39	20:14	18:48	24 09:19 (23) 16:28	15:44
11	04:44	05:46	06:55	08:02	08:54 (23) 08:16	09:16
	22:39	21:37	20:11	18:45	24 09:18 (23) 16:26	15:43
12	04:46	05:49	06:58	08:04	08:55 (23) 08:18	09:18
	22:38	21:34	20:08	18:42	23 09:18 (23) 16:24	15:43
13	04:48	05:51	07:00	08:07	08:55 (23) 08:20	09:19
	22:37	21:32	20:05	18:39	22 09:17 (23) 16:21	15:43
14	04:49	05:53	07:02	08:09	08:55 (23) 08:23	09:20
	22:35	21:29	20:02	18:36	20 09:15 (23) 16:19	15:42
15	04:51	05:55	07:04	08:11	08:57 (23) 08:25	09:21
	22:34	21:26	20:00	18:34	18 09:15 (23) 16:17	15:42
16	04:53	05:58	07:06	08:14	08:58 (23) 08:27	09:22
	22:32	21:24	19:57	18:31	14 09:12 (23) 16:15	15:42
17	04:54	06:00	07:09	08:16	09:01 (23) 08:30	09:23
	22:31	21:21	19:54	18:28	9 09:10 (23) 16:13	15:42
18	04:56	06:02	07:11	08:18 (25) 08:18	08:32	09:24
	22:29	21:19	19:51	10 08:28 (25) 18:25	16:11	15:42
19	04:58	06:04	07:13	08:16 (25) 08:21	08:34	09:25
	22:27	21:16	19:48	13 08:29 (25) 18:23	16:10	15:43
20	05:00	06:06	07:15	08:14 (25) 08:23	09:47 (3) 08:37	09:26
	22:25	21:13	19:45	16 08:30 (25) 18:20	10 09:57 (3) 16:08	15:43
21	05:02	06:09	07:17	08:14 (25) 08:25	09:46 (3) 08:39	09:26
	22:24	21:10	19:42	17 08:31 (25) 18:17	13 09:59 (3) 16:06	15:43
22	05:04	06:11	07:20	08:13 (25) 08:28	09:44 (3) 08:41	09:27
	22:22	21:08	19:39	18 08:31 (25) 18:15	16 10:00 (3) 16:04	15:44
23	05:06	06:13	07:22	08:12 (25) 08:30	09:43 (3) 08:43	09:27
	22:20	21:05	19:36	19 08:31 (25) 18:12	18 10:01 (3) 16:03	15:44
24	05:08	06:15	07:24	08:11 (25) 08:32	09:42 (3) 08:45	09:28
	22:18	21:02	19:33	19 08:30 (25) 18:09	19 10:01 (3) 16:01	15:45
25	05:10	06:18	07:26	08:11 (25) 07:35	08:42 (3) 08:48	09:28
	22:16	20:59	19:31	18 08:29 (25) 17:07	19 09:01 (3) 15:59	15:45
26	05:12	06:20	07:28	08:12 (25) 07:37	08:42 (3) 08:50	09:28
	22:14	20:57	19:28	17 08:29 (25) 17:04	20 09:02 (3) 15:58	15:46
27	05:14	06:22	07:31	08:12 (25) 07:40	08:42 (3) 08:52	09:28
	22:12	20:54	19:25	16 08:28 (25) 17:02	19 09:01 (3) 15:57	15:47
28	05:16	06:24	07:33	08:13 (25) 07:42	08:43 (3) 08:54	09:29
	22:10	20:51	19:22	12 08:25 (25) 16:59	18 09:01 (3) 15:55	15:48
29	05:18	06:27	07:35	08:16 (25) 07:44	08:43 (3) 08:56	09:29
	22:08	20:48	19:19	6 08:22 (25) 16:56	17 09:00 (3) 15:54	15:49
30	05:20	06:29	07:37	07:47	08:44 (3) 08:58	09:28
	22:05	20:45	19:16	16:54	15 08:59 (3) 15:53	15:50
31	05:22	06:31		07:49	08:45 (3)	09:28
	22:03	20:43		16:51	13 08:58 (3)	15:51
Potential sun hours	545	478	386	319	236	200
Total, worst case			181	503		8
Sun reduction			0,50	0,50		0,50
Oper. time red.			0,80	0,80		0,80
Wind dir. red.			0,70	0,73		0,74
Total reduction			0,28	0,29		0,29
Total, real			50	147		2

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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Project:

Moifjellet vindkraftverk

Licensed user:

Multiconsult Norge AS

Nedre Skøyen vei 2 .

NO-0276 Oslo

+47 21 58 60 15

Martine / martine.bjugg@multiconsult.no

Calculated:

20.01.2025 16:28/4.0.540

SHADOW - Calendar

Calculation: Oppdatert layout - real case med vindrose - kun Moifjellet - oppdatert mottaker Shadow receptor: AB - Buevegen 1461 (28)
Sunshine probability S/50 (Sun hours/Possible sun hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
644 231 315 644 959 714 721 455 378 420 574 938 6 993

Table with columns for months (January to December) and rows for time slots (09:28 to 16:54). Includes summary rows for 'Potential sun hours', 'Total, worst case', and 'Total, real'.

Table layout: For each day in each month the following matrix apply

Day in month Sun rise (hh:mm) Sun set (hh:mm) Minutes with flicker First time (hh:mm) with flicker Last time (hh:mm) with flicker (WTG causing flicker first time) (WTG causing flicker last time)



SHADOW - Calendar

Calculation: Oppdatert layout - real case med vindrose - kun Moifjellet - oppdatert mottaker **Shadow receptor:** AC - Buevegen 1502 (29)

Assumptions for shadow calculations

Sunshine probability S/S0 (Sun hours/Possible sun hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
644 231 315 644 959 714 721 455 378 420 574 938 6 993

	January	February	March	April	May	June
1	09:28 15:53	08:46 16:56	09:42 (23) 09:56 (23)	07:35 18:05	08:32 (25) 08:52 (25)	07:07 20:17
2	09:28 15:54	08:44 16:59	09:40 (23) 09:57 (23)	07:33 18:07	08:32 (25) 08:52 (25)	07:04 20:19
3	09:27 15:56	08:41 17:01	09:40 (23) 09:59 (23)	07:30 18:10	08:32 (25) 08:51 (25)	07:01 20:21
4	09:27 15:57	08:39 17:04	09:38 (23) 09:59 (23)	07:27 18:12	08:32 (25) 08:50 (25)	06:58 20:24
5	09:26 15:59	08:37 17:06	09:38 (23) 10:00 (23)	07:24 18:14	08:32 (25) 08:49 (25)	06:55 20:26
6	09:25 16:00	08:35 17:08	09:38 (23) 10:00 (23)	07:22 18:17	08:33 (25) 08:47 (25)	06:53 20:28
7	09:25 16:02	08:32 17:11	09:37 (23) 10:01 (23)	07:19 18:19	08:35 (25) 08:45 (25)	06:50 20:31
8	09:24 16:04	08:30 17:13	09:37 (23) 10:01 (23)	07:16 18:21	09:37 (23) 10:01 (23)	06:47 20:33
9	09:23 16:05	08:28 17:16	09:37 (23) 10:01 (23)	07:13 18:24	06:44 20:35	05:24 21:44
10	09:22 16:07	08:25 17:18	09:38 (23) 10:02 (23)	07:10 18:26	06:41 20:38	05:22 21:47
11	09:21 16:09	08:23 17:21	09:38 (23) 10:01 (23)	07:07 18:28	06:38 20:40	05:20 21:49
12	09:20 16:11	08:20 17:23	09:38 (23) 10:00 (23)	07:05 18:31	06:36 20:42	05:17 21:51
13	09:19 16:13	08:18 17:26	09:38 (23) 09:59 (23)	07:02 18:33	06:33 20:44	05:15 21:53
14	09:17 16:15	08:15 17:28	09:40 (23) 09:59 (23)	06:59 18:35	06:30 20:47	05:13 21:55
15	09:16 16:17	08:13 17:31	09:41 (23) 09:58 (23)	06:56 18:38	06:27 20:49	05:11 21:58
16	09:15 16:19	08:10 17:33	09:43 (23) 09:55 (23)	06:53 18:40	06:24 20:51	05:08 22:00
17	09:13 16:21	08:08 17:36	09:46 (23) 09:53 (23)	06:50 18:42	06:21 20:54	05:06 22:02
18	09:12 16:23	08:05 17:38		06:47 18:45	06:19 20:56	05:04 22:04
19	09:10 16:26	08:02 17:41		06:44 18:47	06:16 20:58	05:02 22:06
20	09:09 16:28	08:00 17:43		06:42 18:49	06:13 21:01	05:00 22:08
21	09:07 16:30	07:57 17:45		06:39 18:52	06:10 21:03	04:58 22:10
22	09:05 16:32	07:54 17:48		06:36 18:54	06:08 21:05	04:56 22:12
23	09:04 16:35	07:52 17:50	08:40 (25) 08:46 (25)	06:33 18:56	06:05 21:08	04:54 22:14
24	09:02 16:37	07:49 17:53	08:36 (25) 08:48 (25)	06:30 18:59	06:02 21:10	04:53 22:16
25	09:00 16:39	07:46 17:55	08:34 (25) 08:50 (25)	06:27 19:01	06:00 21:12	04:51 22:18
26	08:58 16:42	07:44 17:58	08:33 (25) 08:50 (25)	06:24 19:03	05:57 21:14	04:49 22:20
27	08:56 16:44	07:41 18:00	08:32 (25) 08:51 (25)	06:21 19:05	05:54 21:17	04:47 22:22
28	08:54 16:46	07:38 18:02	08:32 (25) 08:52 (25)	06:18 19:08	05:52 21:19	04:46 22:24
29	08:52 16:49			07:16 20:10	05:49 21:21	04:44 22:26
30	08:50 16:51			07:13 20:12	05:47 21:24	04:43 22:27
31	08:48 16:54	09:43 (23) 09:53 (23)		07:10 20:15		04:41 22:29
Potential sun hours	221	10	260	365	432	521
Total, worst case	10		422	118		
Sun reduction	0,50		0,50	0,50		
Oper. time red.	0,80		0,80	0,80		
Wind dir. red.	0,72		0,73	0,73		
Total reduction	0,29		0,29	0,29		
Total, real	3		122	34		

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Calculation: Oppdatert layout - real case med vindrose - kun Moifjellet - oppdatert mottaker **Shadow receptor:** AC - Buevegen 1502 (29)

Assumptions for shadow calculations

Sunshine probability S/S0 (Sun hours/Possible sun hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
644 231 315 644 959 714 721 455 378 420 574 938 6 993

	July	August	September	October	November	December
1	04:32	05:24	06:33	07:39	07:51	09:06 (23)
	22:49	22:01	20:40	19:13	16:49	24 09:30 (23)
2	04:33	05:26	06:35	07:42	07:54	09:07 (23)
	22:48	21:59	20:37	19:10	16:46	24 09:31 (23)
3	04:34	05:29	06:38	07:44	07:56	09:07 (23)
	22:47	21:56	20:34	19:07	16:44	24 09:31 (23)
4	04:35	05:31	06:40	07:46	07:59	09:08 (23)
	22:47	21:54	20:31	19:05	16:42	23 09:31 (23)
5	04:36	05:33	06:42	07:48	08:01	09:07 (23)
	22:46	21:52	20:28	19:02	16:39	23 09:30 (23)
6	04:37	05:35	06:44	07:51	09:13 (25)	08:04 09:08 (23)
	22:45	21:49	20:26	18:59	6 09:19 (25)	16:37 22 09:30 (23)
7	04:39	05:37	06:47	07:53	09:11 (25)	08:06 09:09 (23)
	22:44	21:47	20:23	18:56	11 09:22 (25)	16:35 21 09:30 (23)
8	04:40	05:40	06:49	07:55	09:08 (25)	08:08 09:09 (23)
	22:43	21:44	20:20	18:53	16 09:24 (25)	16:32 19 09:28 (23)
9	04:41	05:42	06:51	07:58	09:07 (25)	08:11 09:11 (23)
	22:42	21:42	20:17	18:50	17 09:24 (25)	16:30 16 09:27 (23)
10	04:43	05:44	06:53	08:00	09:06 (25)	08:13 09:13 (23)
	22:41	21:39	20:14	18:48	19 09:25 (25)	16:28 13 09:26 (23)
11	04:44	05:46	06:55	08:02	09:05 (25)	08:16 09:14 (23)
	22:39	21:37	20:11	18:45	20 09:25 (25)	16:26 10 09:24 (23)
12	04:46	05:49	06:58	08:04	09:05 (25)	08:18 09:18
	22:38	21:34	20:08	18:42	20 09:25 (25)	16:24 15:43
13	04:47	05:51	07:00	08:07	09:05 (25)	08:20 09:19
	22:37	21:32	20:05	18:39	20 09:25 (25)	16:21 15:43
14	04:49	05:53	07:02	08:09	09:04 (25)	08:23 09:20
	22:35	21:29	20:02	18:36	20 09:24 (25)	16:19 15:42
15	04:51	05:55	07:04	08:11	09:05 (25)	08:25 09:21
	22:34	21:26	20:00	18:34	19 09:24 (25)	16:17 15:42
16	04:53	05:57	07:06	08:14	09:05 (25)	08:27 09:22
	22:32	21:24	19:57	18:31	17 09:22 (25)	16:15 15:42
17	04:54	06:00	07:09	08:16	09:07 (25)	08:30 09:23
	22:31	21:21	19:54	18:28	14 09:21 (25)	16:13 15:42
18	04:56	06:02	07:11	08:18	09:08 (25)	08:32 09:24
	22:29	21:19	19:51	18:25	11 09:19 (25)	16:11 15:42
19	04:58	06:04	07:13	08:21	08:34 09:25	15:42
	22:27	21:16	19:48	18:23	16:10 08:37	09:26
20	05:00	06:06	07:15	08:23	16:08 08:39	15:43
	22:25	21:13	19:45	18:20	16:06 08:39	09:26
21	05:02	06:09	07:17	08:25	16:04 08:41	15:43
	22:24	21:10	19:42	18:17	16:04 08:41	09:27
22	05:04	06:11	07:20	08:28	16:03 08:45	15:44
	22:22	21:08	19:39	18:15	16:01 08:45	09:28
23	05:06	06:13	07:22	08:30	16:01 08:48	15:45
	22:20	21:05	19:36	18:12	09:15 (23) 08:48	09:28
24	05:08	06:15	07:24	08:32	8 09:23 (23) 15:59	15:45
	22:18	21:02	19:33	18:09	09:12 (23) 08:50	09:28
25	05:10	06:18	07:26	07:35	14 09:26 (23) 15:58	15:46
	22:16	20:59	19:30	17:07	09:10 (23) 08:52	09:28
26	05:12	06:20	07:28	07:37	17 09:27 (23) 15:56	15:47
	22:14	20:57	19:28	17:04	09:09 (23) 08:54	09:29
27	05:14	06:22	07:31	07:40	20 09:29 (23) 15:55	15:48
	22:12	20:54	19:25	17:01	09:09 (23) 08:56	09:29
28	05:16	06:24	07:33	07:42	21 09:30 (23) 15:54	15:49
	22:10	20:51	19:22	16:59	09:07 (23) 08:58	09:28
29	05:18	06:27	07:35	07:44	23 09:30 (23) 15:53	15:50
	22:08	20:48	19:19	16:56	09:07 (23) 15:53	09:28
30	05:20	06:29	07:37	07:47	24 09:31 (23) 15:51	15:51
	22:05	20:45	19:16	16:54		199
31	05:22	06:31		07:49		
	22:03	20:43		16:51		
Potential sun hours	546	478	386	319	236	
Total, worst case				337	219	
Sun reduction				0,50	0,50	
Oper. time red.				0,80	0,80	
Wind dir. red.				0,73	0,72	
Total reduction				0,29	0,29	
Total, real				98	63	

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)		Last time (hh:mm) with flicker	(WTG causing flicker last time)

Project:

Moifjellet vindkraftverk

Licensed user:

Multiconsult Norge AS

Nedre Skøyen vei 2 .

NO-0276 Oslo

+47 21 58 60 15

Martine / martine.bjugg@multiconsult.no

Calculated:

20.01.2025 16:28/4.0.540

SHADOW - Calendar

Calculation: Oppdatert layout - real case med vindrose - kun Moifjellet - oppdatert mottaker Shadow receptor: AD - Buevegen 1500 (30)
Assumptions for shadow calculations

Operational time
N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
644 231 315 644 959 714 721 455 378 420 574 938 6 993

Table with columns for months (January to December) and rows for time slots (09:28 to 16:54). Includes summary rows for 'Potential sun hours', 'Total, worst case', and 'Total, real'.

Table layout: For each day in each month the following matrix apply

Day in month Sun rise (hh:mm) Sun set (hh:mm) Minutes with flicker First time (hh:mm) with flicker Last time (hh:mm) with flicker (WTG causing flicker first time) (WTG causing flicker last time)



Project:

Moifjellet vindkraftverk

Licensed user:

Multiconsult Norge AS

Nedre Skøyen vei 2 .

NO-0276 Oslo

+47 21 58 60 15

Martine / martine.bjugg@multiconsult.no

Calculated:

20.01.2025 16:28/4.0.540

SHADOW - Calendar

Calculation: Oppdatert layout - real case med vindrose - kun Moifjellet - oppdatert mottaker Shadow receptor: AE - Buevegen 1498 (31)
Assumptions for shadow calculations

Sunshine probability S/S0 (Sun hours/Possible sun hours) []
Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
644 231 315 644 959 714 721 455 378 420 574 938 6 993

Table with 12 columns for months (January to December) and rows for each day of the year (1-31), showing sun rise/set times and shadow reduction percentages. Includes summary rows for 'Potential sun hours', 'Total, worst case', 'Sun reduction', 'Oper. time red.', 'Wind dir. red.', 'Total reduction', and 'Total, real'.

Table layout: For each day in each month the following matrix apply

Day in month Sun rise (hh:mm) Sun set (hh:mm) Minutes with flicker First time (hh:mm) with flicker Last time (hh:mm) with flicker (WTG causing flicker first time) (WTG causing flicker last time)



SHADOW - Calendar

Calculation: Oppdatert layout - real case med vindrose - kun Moifjellet - oppdatert mottaker **Shadow receptor:** AF - Buevegen 1496 (32)
 Sunshine probability S/S0 (Sun hours/Possible sun hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
 644 231 315 644 959 714 721 455 378 420 574 938 6 993

	January	February	March	April	May	June	July	August	September	October	November	December
1	09:28 15:53	08:46 16:56	07:35 18:05	07:07 20:17	05:44 21:26	04:40 22:31	04:32 22:49	05:24 22:01	06:33 20:40	07:40 19:13	07:52 16:49	09:00 15:51
2	09:28 15:54	08:44 16:59	07:33 18:07	07:04 20:19	05:41 21:28	04:39 22:32	04:33 22:48	05:26 21:59	06:35 20:37	07:42 19:10	07:54 16:46	09:02 15:50
3	09:27 15:56	08:41 17:01	07:30 18:10	07:01 20:21	05:39 21:31	04:37 22:34	04:34 22:47	05:29 21:56	06:38 20:34	07:44 19:07	07:56 16:44	09:04 15:49
4	09:27 15:57	08:39 17:04	07:27 18:12	06:58 20:24	05:36 21:33	04:36 22:35	04:35 22:47	05:31 21:54	06:40 20:31	07:46 19:05	07:59 16:42	09:05 15:48
5	09:26 15:59	08:37 17:06	07:24 18:14	06:55 20:26	05:34 21:35	04:35 22:37	04:36 22:46	05:33 21:52	06:42 20:28	07:49 19:02	08:01 16:39	09:07 15:47
6	09:25 16:00	08:35 17:09	07:22 18:17	06:53 20:28	05:31 21:38	04:34 22:38	04:38 22:45	05:35 21:49	06:44 20:26	07:51 18:59	08:04 16:37	09:09 15:46
7	09:25 16:02	08:32 17:11	07:19 18:19	06:50 20:31	05:29 21:40	04:33 22:39	04:39 22:44	05:37 21:47	06:47 20:23	07:53 18:56	08:06 16:35	09:10 15:46
8	09:24 16:04	08:30 17:13	07:16 18:21	06:47 20:33	05:27 21:42	04:32 22:41	04:40 22:43	05:40 21:44	06:49 20:20	07:55 18:53	08:08 16:32	09:12 15:45
9	09:23 16:05	08:28 17:16	07:13 18:24	06:44 20:35	05:24 21:44	04:31 22:42	04:41 22:42	05:42 21:42	06:51 20:17	07:58 18:50	08:11 16:30	09:14 15:44
10	09:22 16:07	08:25 17:18	07:10 18:26	06:41 20:38	05:22 21:47	04:30 22:43	04:43 22:41	05:44 21:39	06:53 20:14	08:00 18:48	08:13 16:28	09:15 15:44
11	09:21 16:09	08:23 17:21	09:07 (23) 07:07	06:38 18:28	05:20 20:40	04:30 21:49	04:44 22:39	05:46 21:37	06:55 20:11	08:02 18:45	08:16 16:26	09:16 15:43
12	09:20 16:11	08:20 17:23	7 09:14 (23) 09:04 (23)	07:05 18:31	06:36 20:42	05:17 21:51	04:46 22:45	05:49 22:38	06:58 21:34	08:04 20:08	08:18 16:24	09:18 15:43
13	09:19 16:13	08:18 17:26	12 09:16 (23) 09:03 (23)	07:02 18:33	06:33 20:44	05:15 21:53	04:48 22:46	05:51 22:37	07:00 20:05	08:07 18:39	08:20 16:21	09:19 15:43
14	09:17 16:15	08:15 17:28	15 09:18 (23) 09:02 (23)	06:59 18:35	06:30 20:47	05:13 21:56	04:49 22:47	05:53 21:29	07:02 20:02	08:09 18:36	08:23 16:19	09:20 15:42
15	09:16 16:17	08:13 17:31	17 09:19 (23) 09:01 (23)	06:56 18:38	06:27 20:49	05:11 21:58	04:48 22:47	05:55 21:26	07:04 20:00	08:11 18:34	08:25 16:17	09:21 15:42
16	09:15 16:19	08:10 17:33	19 09:20 (23) 09:00 (23)	06:53 18:40	06:24 20:51	05:08 22:00	04:27 22:48	05:58 21:24	07:06 19:57	08:14 18:31	08:27 16:15	09:22 15:42
17	09:13 16:21	08:08 17:36	20 09:20 (23) 09:01 (23)	06:50 18:42	06:22 20:54	05:06 22:02	04:27 22:49	06:00 21:21	07:09 19:54	08:16 18:28	08:30 16:13	09:23 15:42
18	09:12 16:23	08:05 17:38	20 09:20 (23) 09:00 (23)	06:47 18:45	06:19 20:56	05:04 22:04	04:27 22:49	06:02 21:19	07:11 19:51	08:18 18:25	08:32 16:11	09:24 15:42
19	09:10 16:26	08:02 17:41	20 09:20 (23) 09:00 (23)	06:44 18:47	06:16 20:58	05:02 22:06	04:27 22:27	06:04 21:16	07:13 19:48	08:21 18:23	09:34 (23) 09:48 (23)	08:34 16:10
20	09:09 16:28	08:00 17:43	20 09:20 (23) 09:00 (23)	06:42 18:47	06:13 21:01	05:00 22:08	04:27 22:26	06:06 21:13	07:15 19:45	08:23 18:20	09:32 (23) 09:49 (23)	08:37 16:08
21	09:07 16:30	07:57 17:46	19 09:19 (23) 09:01 (23)	06:39 18:52	06:11 21:03	04:58 22:10	04:27 22:50	05:02 21:10	06:09 19:42	07:17 18:17	08:25 09:50 (23)	08:39 16:06
22	09:05 16:32	07:55 17:48	17 09:18 (23) 09:02 (23)	06:36 18:54	06:08 21:05	04:56 22:12	04:27 22:51	06:11 21:08	07:20 19:39	08:28 18:15	09:30 (23) 09:50 (23)	08:41 16:04
23	09:04 16:35	07:52 17:50	16 09:18 (23) 09:03 (23)	06:33 18:56	06:05 21:08	04:54 22:14	04:27 22:51	06:13 21:05	07:22 19:36	08:30 18:12	09:30 (23) 09:50 (23)	08:43 16:03
24	09:02 16:37	07:49 17:53	13 09:16 (23) 09:06 (23)	06:30 18:59	06:02 21:10	04:53 22:16	04:28 22:51	06:15 21:02	07:24 19:33	08:32 18:09	09:30 (23) 09:51 (23)	08:45 16:01
25	09:00 16:39	07:46 17:55	8 09:14 (23) 06:27	06:00 21:12	04:51 22:18	04:28 22:51	05:10 22:16	06:18 20:59	07:26 19:31	07:35 17:07	08:30 (23) 08:50 (23)	09:28 15:59
26	08:58 16:42	07:44 17:58	06:24 19:03	05:57 21:15	04:49 22:20	04:29 22:51	05:12 22:14	06:20 20:57	07:28 19:28	07:37 17:04	08:30 (23) 08:50 (23)	09:28 15:46
27	08:56 16:44	07:41 18:00	06:21 19:05	05:54 21:17	04:47 22:22	04:29 22:50	05:14 22:12	06:22 20:54	07:31 19:25	07:40 17:02	08:30 (23) 08:49 (23)	08:52 15:57
28	08:54 16:46	07:38 18:02	06:18 19:08	05:52 21:19	04:46 22:24	04:30 22:50	05:16 22:10	06:24 20:51	07:33 19:22	07:42 16:59	08:31 (23) 08:48 (23)	08:54 15:55
29	08:52 16:49		07:16 20:10	05:49 21:21	04:44 22:26	04:31 22:50	05:18 22:08	06:27 20:48	07:35 19:19	07:44 16:56	08:33 (23) 08:48 (23)	08:56 15:54
30	08:50 16:51		07:13 20:12	05:47 21:24	04:43 22:27	04:31 22:49	05:20 22:05	06:29 20:45	07:37 19:16	07:47 16:54	08:34 (23) 08:45 (23)	08:58 15:53
31	08:48 16:54		07:10 20:15		04:41 22:29		05:22 22:03	06:31 20:43		07:49 16:51	08:37 (23) 08:43 (23)	09:28 15:51
Potential sun hours	221	260	365	432	521	547	546	478	386	319	236	199
Total, worst case										228		
Sun reduction										0,50		
Oper. time red.										0,80		
Wind dir. red.										0,74		
Total reduction										0,29		
Total, real										67		

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)		Last time (hh:mm) with flicker	(WTG causing flicker last time)

SHADOW - Calendar

Calculation: Oppdatert layout - real case med vindrose - kun Moifjellet - oppdatert mottaker

Assumptions for shadow calculations

Shadow receptor: AG - Hytte, ikke ferdig bygd. Eiendom 57/3 - Bjerkreim kommune (33)

Sunshine probability S/S0 (Sun hours/Possible sun hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
644 231 315 644 959 714 721 455 378 420 574 938 6 993

	January		February		March		April		May		June	
1	09:28	12:11 (33)	08:45	112	12:16 (33)	07:35	25	15:43 (8)	18:42 (18)	05:44	04:39	
	15:52	49	14:26 (15)	16:56	15:37 (36)	18:04	18	17:06 (10)	19:00 (18)	21:26	22:30	
2	09:27	12:12 (33)	08:43	113	12:17 (33)	07:32	35	15:46 (8)	18:43 (18)	05:41	04:38	
	15:54	54	14:28 (15)	16:58	15:38 (36)	18:07	14	17:10 (10)	18:57 (18)	21:28	22:32	
3	09:27	12:11 (33)	08:41	110	12:19 (33)	07:30	38	16:31 (13)	18:47 (18)	05:38	04:37	
	15:55	58	14:29 (15)	17:01	15:38 (36)	18:09	8	17:13 (10)	18:55 (18)	21:30	22:33	
4	09:26	12:11 (33)	08:39	107	12:21 (33)	07:27	46	16:29 (13)		05:36	04:36	
	15:57	61	14:29 (15)	17:03	15:39 (36)	18:12	48	17:15 (10)		21:33	22:35	
5	09:26	12:10 (33)	08:36	99	12:25 (33)	07:24	50	16:27 (13)		05:34	04:35	
	15:58	66	14:30 (15)	17:06	15:39 (36)	18:14	52	17:15 (10)		21:35	22:36	
6	09:25	12:10 (33)	08:34	92	12:59 (27)	07:21	54	16:25 (13)		05:31	04:34	
	16:00	70	14:31 (15)	17:08	15:39 (36)	18:16	54	17:15 (10)		21:37	22:38	
7	09:24	12:10 (33)	08:32	91	12:59 (27)	07:18	54	16:23 (13)		05:29	04:33	
	16:01	73	14:32 (15)	17:11	15:38 (36)	18:19	54	17:15 (10)		21:39	22:39	
8	09:23	12:10 (33)	08:30	90	12:59 (27)	07:15	54	16:22 (13)		05:26	04:32	
	16:03	78	14:33 (15)	17:13	15:38 (36)	18:21	54	17:14 (10)		21:42	22:40	
9	09:22	12:09 (33)	08:27	88	13:00 (27)	07:13	54	16:20 (13)		05:24	04:31	
	16:05	81	14:33 (15)	17:16	15:38 (36)	18:23	54	17:14 (10)		21:44	22:41	
10	09:21	12:09 (33)	08:25	97	12:59 (27)	07:10	54	16:19 (13)		05:21	04:30	
	16:07	84	14:34 (15)	17:18	15:58 (8)	18:26	54	17:13 (10)		21:46	22:42	
11	09:20	12:09 (33)	08:22	99	12:59 (27)	07:07	54	16:18 (13)		05:19	04:29	
	16:09	87	14:34 (15)	17:20	16:00 (8)	18:28	54	17:12 (10)		21:48	22:44	
12	09:19	12:09 (33)	08:20	100	13:00 (27)	07:04	54	16:17 (13)		05:17	04:29	
	16:11	91	14:35 (15)	17:23	16:03 (8)	18:30	54	17:11 (10)		21:51	22:44	
13	09:18	12:09 (33)	08:17	95	13:00 (27)	07:01	53	16:16 (13)		05:15	04:28	
	16:13	93	14:35 (15)	17:25	16:04 (8)	18:33	53	17:09 (10)		21:53	22:45	
14	09:17	12:09 (33)	08:15	90	13:01 (27)	06:58	50	16:16 (13)		05:12	04:28	
	16:15	96	14:36 (15)	17:28	16:05 (8)	18:35	50	17:06 (10)		21:55	22:46	
15	09:16	12:09 (33)	08:12	91	13:02 (27)	06:56	46	16:16 (13)		05:10	04:27	
	16:17	99	14:37 (15)	17:30	16:07 (8)	18:37	46	17:02 (13)		21:57	22:47	
16	09:14	12:09 (33)	08:10	91	13:02 (27)	06:53	46	16:16 (13)		05:08	04:27	
	16:19	101	14:37 (15)	17:33	16:07 (8)	18:40	46	17:02 (13)		21:59	22:48	
17	09:13	12:09 (33)	08:07	91	13:03 (27)	06:50	45	16:16 (13)		05:06	04:27	
	16:21	103	14:37 (15)	17:35	16:08 (8)	18:42	45	17:01 (13)		22:02	22:48	
18	09:11	12:09 (33)	08:05	91	13:03 (27)	06:47	48	16:15 (13)		05:04	04:27	
	16:23	104	14:37 (15)	17:38	16:08 (8)	18:44	48	17:56 (18)		22:04	22:49	
19	09:10	12:09 (33)	08:02	89	13:05 (27)	06:44	57	16:15 (13)		05:02	04:26	
	16:25	105	14:37 (15)	17:40	16:09 (8)	18:47	57	18:01 (18)		22:06	22:49	
20	09:08	12:09 (33)	07:59	88	13:06 (27)	06:41	60	16:16 (13)		05:00	04:26	
	16:27	107	14:37 (15)	17:43	16:09 (8)	18:49	60	18:03 (18)		22:08	22:50	
21	09:07	12:09 (33)	07:57	84	13:07 (27)	06:38	63	16:16 (13)		04:58	04:27	
	16:30	106	14:36 (15)	17:45	16:08 (8)	18:51	63	18:04 (18)		22:10	22:50	
22	09:05	12:10 (33)	07:54	82	13:08 (27)	06:35	63	16:16 (13)		04:56	04:27	
	16:32	106	14:36 (15)	17:48	16:08 (8)	18:54	63	18:05 (18)		22:12	22:50	
23	09:03	12:10 (33)	07:51	78	13:09 (27)	06:32	63	16:17 (13)		04:54	04:27	
	16:34	105	14:36 (15)	17:50	16:07 (8)	18:56	63	18:05 (18)		22:14	22:50	
24	09:01	12:10 (33)	07:49	74	13:12 (27)	06:30	63	16:17 (13)		04:52	04:27	
	16:37	106	14:35 (15)	17:52	16:08 (8)	18:58	63	18:05 (18)		22:16	22:50	
25	08:59	12:11 (33)	07:46	68	13:14 (27)	06:27	61	16:18 (13)		04:50	04:28	
	16:39	104	15:26 (36)	17:55	16:07 (8)	19:00	61	18:05 (18)		22:18	22:50	
26	08:58	12:11 (33)	07:43	62	13:16 (27)	06:24	59	16:20 (13)		04:49	04:28	
	16:41	103	15:28 (36)	17:57	16:06 (8)	19:03	59	18:06 (18)		22:20	22:50	
27	08:56	12:12 (33)	07:41	52	13:19 (27)	06:21	55	16:22 (13)		04:47	04:29	
	16:44	108	15:31 (36)	18:00	16:04 (8)	19:05	55	18:06 (18)		22:22	22:50	
28	08:54	12:12 (33)	07:38	40	13:24 (27)	06:18	49	16:24 (13)		04:45	04:29	
	16:46	111	15:33 (36)	18:02	17:03 (10)	19:07	49	18:05 (18)		22:23	22:50	
29	08:52	12:13 (33)				07:15	42	17:27 (13)		04:44	04:30	
	16:48	112	15:34 (36)			20:10	42	19:04 (18)		22:25	22:49	
30	08:50	12:14 (33)				07:12	32	17:31 (13)		04:42	04:31	
	16:51	115	15:36 (36)			20:12	32	19:03 (18)		22:27	22:49	
31	08:47	12:15 (33)				07:09	20	18:41 (18)		04:41		
	16:53	116	15:37 (36)			20:14	20	19:01 (18)		22:29		
Potential sun hours	221		260		365		432		521		547	
Total, worst case	2852		2464		1537		40					
Sun reduction	0,50		0,50		0,50		0,50					
Oper. time red.	0,80		0,80		0,80		0,80					
Wind dir. red.	0,59		0,57		0,58		0,61					
Total reduction	0,24		0,23		0,23		0,25					
Total, real	672		561		358		10					

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)		Last time (hh:mm) with flicker	(WTG causing flicker last time)

SHADOW - Calendar

Calculation: Oppdatert layout - real case med vindrose - kun Moifjellet - oppdatert mottaker

Assumptions for shadow calculations

Shadow receptor: AG - Hytte, ikke ferdig bygd. Eiendom 57/3 - Bjerkreim kommune (33)
Sunshine probability S/S0 (Sun hours/Possible sun hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
644 231 315 644 959 714 721 455 378 420 574 938 6 993

	July	August	September	October	November	December								
1	04:32	05:24	06:33	07:39	16:56 (13)	07:51	12:29 (27)	08:59	11:51 (33)					
	22:48	22:01	20:39	19:13	53	17:49 (10)	16:49	96	15:27 (8)	15:51	87	14:16 (15)		
2	04:33	05:26	06:35	07:41	16:57 (13)	07:53	12:29 (27)	09:01	11:52 (33)					
	22:48	21:58	20:37	19:10	54	17:51 (10)	16:46	89	15:07 (36)	15:50	84	14:16 (15)		
3	04:34	05:28	06:37	07:44	16:57 (13)	07:56	12:28 (27)	09:03	11:53 (33)					
	22:47	21:56	20:34	19:07	54	17:51 (10)	16:44	90	15:07 (36)	15:49	82	14:17 (15)		
4	04:35	05:30	06:39	07:46	16:57 (13)	07:58	12:29 (27)	09:05	11:54 (33)					
	22:46	21:54	20:31	19:04	54	17:51 (10)	16:41	91	15:08 (36)	15:48	78	14:17 (15)		
5	04:36	05:33	06:42	07:48	16:58 (13)	08:01	12:29 (27)	09:07	11:55 (33)					
	22:45	21:51	20:28	19:01	54	17:52 (10)	16:39	92	15:09 (36)	15:47	73	14:17 (15)		
6	04:37	05:35	06:44	07:50	16:59 (13)	08:03	11:55 (33)	09:08	11:56 (33)					
	22:45	21:49	20:25	18:58	52	17:51 (10)	16:37	101	15:09 (36)	15:46	71	14:17 (15)		
7	04:38	05:37	06:46	07:53	16:59 (13)	08:06	11:51 (33)	09:10	11:57 (33)					
	22:44	21:46	20:22	18:56	51	17:50 (10)	16:34	107	15:09 (36)	15:45	66	14:17 (15)		
8	04:40	05:39	06:48	07:55	17:01 (13)	08:08	11:49 (33)	09:12	11:58 (33)					
	22:43	21:44	20:19	18:53	49	17:50 (10)	16:32	112	15:09 (36)	15:44	62	14:17 (15)		
9	04:41	05:41	06:51	18:41 (18)	07:57	17:02 (13)	08:10	11:48 (33)	09:13	11:59 (33)				
	22:41	21:41	20:16	6	18:47 (18)	18:50	47	17:49 (10)	16:30	113	15:09 (36)	15:44	58	14:17 (15)
10	04:42	05:44	06:53	18:37 (18)	07:59	17:04 (13)	08:13	11:46 (33)	09:15	12:01 (33)				
	22:40	21:39	20:14	13	18:50 (18)	18:47	43	17:48 (10)	16:27	115	15:08 (36)	15:43	54	14:17 (15)
11	04:44	05:46	06:55	18:35 (18)	08:02	16:24 (8)	08:15	11:46 (33)	09:16	12:01 (33)				
	22:39	21:36	20:11	18	18:53 (18)	18:44	37	17:46 (10)	16:25	114	15:08 (36)	15:43	50	14:17 (15)
12	04:45	05:48	06:57	18:33 (18)	08:04	16:18 (8)	08:17	11:46 (33)	09:17	12:03 (33)				
	22:38	21:34	20:08	21	18:54 (18)	18:42	26	17:42 (10)	16:23	114	15:08 (36)	15:42	46	14:17 (15)
13	04:47	05:50	06:59	17:24 (13)	08:06	14:04 (27)	08:20	11:44 (33)	09:19	12:04 (33)				
	22:36	21:31	20:05	27	18:54 (18)	18:39	30	17:38 (10)	16:21	113	15:06 (36)	15:42	41	14:17 (15)
14	04:49	05:53	07:02	17:18 (13)	08:09	13:55 (27)	08:22	11:44 (33)	09:20	12:06 (33)				
	22:35	21:29	20:02	41	18:54 (18)	18:36	44	16:36 (8)	16:19	111	15:05 (36)	15:42	37	14:17 (15)
15	04:50	05:55	07:04	17:14 (13)	08:11	13:50 (27)	08:25	11:44 (33)	09:21	12:08 (33)				
	22:33	21:26	19:59	48	18:54 (18)	18:33	57	16:37 (8)	16:17	108	15:03 (36)	15:42	31	14:17 (15)
16	04:52	05:57	07:06	17:11 (13)	08:13	13:47 (27)	08:27	11:45 (33)	09:22	13:08 (27)				
	22:32	21:23	19:56	54	18:54 (18)	18:30	64	16:38 (8)	16:15	103	15:02 (36)	15:42	23	14:16 (15)
17	04:54	05:59	07:08	17:08 (13)	08:16	13:44 (27)	08:29	11:44 (33)	09:23	13:09 (27)				
	22:30	21:21	19:53	58	18:54 (18)	18:28	70	16:38 (8)	16:13	104	14:59 (36)	15:42	21	14:16 (15)
18	04:56	06:02	07:10	17:07 (13)	08:18	13:42 (27)	08:32	11:44 (33)	09:24	13:11 (27)				
	22:29	21:18	19:50	61	18:54 (18)	18:25	76	16:39 (8)	16:11	106	14:09 (15)	15:42	19	14:15 (15)
19	04:58	06:04	07:12	17:05 (13)	08:20	13:39 (27)	08:34	11:45 (33)	09:25	13:12 (27)				
	22:27	21:15	19:47	62	18:53 (18)	18:22	81	16:39 (8)	16:09	105	14:11 (15)	15:42	18	14:16 (15)
20	04:59	06:06	07:15	17:04 (13)	08:23	13:38 (27)	08:36	11:45 (33)	09:25	13:13 (27)				
	22:25	21:13	19:45	63	18:52 (18)	18:20	83	16:39 (8)	16:07	106	14:11 (15)	15:42	16	14:15 (15)
21	05:01	06:08	07:17	17:02 (13)	08:25	13:36 (27)	08:38	11:45 (33)	09:26	13:15 (27)				
	22:23	21:10	19:42	64	18:51 (18)	18:17	86	16:38 (8)	16:06	107	14:13 (15)	15:43	14	14:16 (15)
22	05:03	06:11	07:19	17:01 (13)	08:27	13:35 (27)	08:41	11:45 (33)	09:26	13:16 (27)				
	22:21	21:07	19:39	63	18:49 (18)	18:14	89	16:39 (8)	16:04	107	14:13 (15)	15:43	14	14:17 (15)
23	05:05	06:13	07:21	16:59 (13)	08:30	13:34 (27)	08:43	11:46 (33)	09:27	13:15 (27)				
	22:19	21:05	19:36	62	18:47 (18)	18:12	89	16:38 (8)	16:02	105	14:14 (15)	15:44	15	14:17 (15)
24	05:07	06:15	07:24	16:59 (13)	08:32	13:33 (27)	08:45	11:46 (33)	09:27	13:15 (27)				
	22:18	21:02	19:33	59	18:46 (18)	18:09	92	16:38 (8)	16:01	104	14:14 (15)	15:44	16	14:17 (15)
25	05:09	06:17	07:26	16:58 (13)	07:34	12:33 (27)	08:47	11:47 (33)	09:28	13:14 (27)				
	22:16	20:59	19:30	54	18:42 (18)	17:06	92	15:38 (8)	15:59	102	14:15 (15)	15:45	18	14:18 (15)
26	05:11	06:19	07:28	16:58 (13)	07:37	12:31 (27)	08:49	11:47 (33)	09:28	13:13 (27)				
	22:14	20:56	19:27	45	17:43 (13)	17:04	92	15:36 (8)	15:58	101	14:15 (15)	15:46	21	14:19 (15)
27	05:13	06:22	07:30	16:57 (13)	07:39	12:31 (27)	08:51	11:48 (33)	09:28	13:13 (27)				
	22:11	20:53	19:24	46	17:43 (13)	17:01	91	15:36 (8)	15:56	99	14:16 (15)	15:47	22	14:20 (15)
28	05:15	06:24	07:32	16:57 (13)	07:41	12:30 (27)	08:53	11:48 (33)	09:28	12:15 (33)				
	22:09	20:51	19:21	46	17:43 (13)	16:59	90	15:34 (8)	15:55	97	14:16 (15)	15:48	27	14:22 (15)
29	05:17	06:26	07:35	16:57 (13)	07:44	12:30 (27)	08:55	11:50 (33)	09:28	12:13 (33)				
	22:07	20:48	19:19	48	17:45 (10)	16:56	96	15:33 (8)	15:53	94	14:16 (15)	15:49	36	14:24 (15)
30	05:20	06:28	07:37	16:56 (13)	07:46	12:30 (27)	08:57	11:50 (33)	09:28	12:13 (33)				
	22:05	20:45	19:16	52	17:48 (10)	16:53	99	15:32 (8)	15:52	91	14:16 (15)	15:50	41	14:25 (15)
31	05:22	06:31		07:49	12:29 (27)			09:28	12:12 (33)					
	22:03	20:42		16:51	99	15:29 (8)		15:51	45	14:26 (15)				
Potential sun hours	546	478	386	319	236	3097	1286							
Total, worst case			1011	2094	3097	1286								
Sun reduction			0,50	0,50	0,50	0,50								
Oper. time red.			0,80	0,80	0,80	0,80								
Wind dir. red.			0,59	0,57	0,59	0,59								
Total reduction			0,24	0,23	0,23	0,23								
Total, real			238	474	726	301								

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Calculation: Oppdatert layout - real case med vindrose - kun Moifjellet - oppdatert mottaker **Shadow receptor:** AH - Brusallivegen 201 (34)
Assumptions for shadow calculations Sunshine probability S/S0 (Sun hours/Possible sun hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
 644 231 315 644 959 714 721 455 378 420 574 938 6 993

	January	February	March	April	May	June	July	August	September	October	November	December
1	09:28 15:53	08:46 16:56	07:35 18:05	07:07 20:17	05:44 21:26	04:40 22:30	04:32 22:48	05:24 22:01	06:33 20:40	07:39 19:13	07:51 16:49	09:00 15:52
2	09:27 15:54	08:43 16:59	07:33 18:07	07:04 20:19	05:42 21:28	04:39 22:32	04:33 22:48	05:27 21:58	06:35 20:37	07:42 19:10	07:54 16:47	09:01 15:50
3	09:27 15:56	08:41 17:01	07:30 18:10	07:01 20:21	05:39 21:30	04:38 22:33	04:34 22:47	05:29 21:56	06:38 20:34	07:44 19:07	07:56 16:44	09:03 15:49
4	09:26 15:57	08:39 17:04	07:27 18:12	06:58 20:24	05:36 21:33	04:36 22:35	04:35 22:46	05:31 21:54	06:40 20:31	07:46 19:05	07:59 16:42	09:05 15:48
5	09:26 15:59	08:37 17:06	07:24 18:14	06:55 20:26	05:34 21:35	04:35 22:36	04:37 22:45	05:33 21:51	06:42 20:28	07:48 19:02	08:01 16:39	09:07 15:47
6	09:25 16:00	08:34 17:09	07:21 18:17	06:53 20:28	05:32 21:37	04:34 22:38	04:38 22:45	05:35 21:49	06:44 20:25	07:51 18:59	08:03 16:37	09:08 15:47
7	09:24 16:02	08:32 17:11	07:19 18:19	06:50 20:30	05:29 21:40	04:33 22:39	04:39 22:44	05:38 21:47	06:47 20:23	07:53 18:56	08:06 16:35	09:10 15:46
8	09:23 16:04	08:30 17:14	07:16 18:21	06:47 20:33	05:27 21:42	04:32 22:40	04:40 22:43	05:40 21:44	06:49 20:20	07:55 18:53	08:08 16:32	09:12 15:45
9	09:23 16:06	08:27 17:16	07:13 18:24	06:44 20:35	05:24 21:44	04:31 22:41	04:42 22:41	05:42 21:42	06:51 20:17	07:57 18:50	08:11 16:30	09:13 15:44
10	09:22 16:07	08:25 17:18	07:10 18:26	06:41 20:37	05:22 21:46	04:31 22:43	04:43 22:40	05:44 21:39	06:53 20:14	08:00 18:48	08:13 16:28	09:15 15:44
11	09:21 16:09	08:23 17:21	07:07 18:28	06:38 20:40	05:20 21:49	04:30 22:44	04:45 22:39	05:46 21:37	06:55 20:11	08:02 18:45	08:15 16:26	09:16 15:43
12	09:19 16:11	08:20 17:23	07:04 18:31	06:36 20:42	05:17 21:51	04:29 22:45	04:46 22:38	05:49 21:34	06:58 20:08	08:04 18:42	08:18 16:24	09:17 15:43
13	09:18 16:13	08:18 17:26	07:02 18:33	06:33 20:44	05:15 21:53	04:29 22:45	04:48 22:36	05:51 21:31	07:00 20:05	08:07 18:39	08:20 16:22	09:19 15:43
14	09:17 16:15	08:15 17:28	06:59 18:35	06:30 20:47	05:13 21:55	04:28 22:46	04:49 22:35	05:53 21:29	07:02 20:02	08:09 18:36	08:22 16:19	09:20 15:43
15	09:16 16:17	08:13 17:31	06:56 18:38	06:27 20:49	05:11 21:57	04:28 22:47	04:51 22:33	05:55 21:26	07:04 19:59	08:11 18:34	08:25 16:17	09:21 15:42
16	09:14 16:19	08:10 17:33	06:53 18:40	06:24 20:51	05:09 22:00	04:28 22:48	04:53 22:32	05:58 21:24	07:06 19:57	08:13 18:31	08:27 16:15	09:22 15:42
17	09:13 16:21	08:07 17:36	06:50 18:42	06:22 20:53	05:06 22:02	04:27 22:48	04:54 22:30	06:00 21:21	07:08 19:54	08:16 18:28	08:29 16:13	09:23 15:42
18	09:12 16:24	08:05 17:38	06:47 18:45	06:19 20:56	05:04 22:04	04:27 22:49	04:56 22:29	06:02 21:18	07:11 19:51	08:18 18:25	08:32 16:12	09:24 15:42
19	09:10 16:26	08:02 17:41	06:44 18:47	06:16 20:58	05:02 22:06	04:27 22:49	04:58 22:27	06:04 21:16	07:13 19:48	08:20 18:23	08:34 16:10	09:25 15:43
20	09:08 16:28	08:00 17:43	06:42 18:49	06:13 21:00	05:00 22:08	04:27 22:50	05:00 22:25	06:07 21:13	07:15 19:45	08:23 18:20	08:36 16:08	09:25 15:43
21	09:07 16:30	07:57 17:46	06:39 18:52	06:11 21:03	04:58 22:10	04:27 22:50	05:02 22:23	06:09 21:10	07:17 19:42	08:25 18:17	08:39 16:06	09:26 15:43
22	09:05 16:32	07:54 17:48	06:36 18:54	06:08 21:05	04:56 22:12	04:27 22:50	05:04 22:22	06:11 21:08	07:19 19:39	08:27 18:15	08:41 16:04	09:27 15:44
23	09:03 16:35	07:52 17:50	06:33 18:56	06:05 21:07	04:55 22:14	04:28 22:50	05:06 22:20	06:13 21:05	07:22 19:36	08:30 18:12	08:43 16:03	09:27 15:44
24	09:01 16:37	07:49 17:53	06:30 18:58	06:02 21:10	04:53 22:16	04:28 22:50	05:08 22:18	06:15 21:02	07:24 19:33	08:32 18:09	08:45 16:01	09:27 15:45
25	09:00 16:39	07:46 17:55	06:27 19:01	06:00 21:12	04:51 22:18	04:28 22:50	05:10 22:16	06:18 20:59	07:26 19:30	08:35 17:07	08:47 16:00	09:28 15:46
26	08:58 16:42	07:44 17:58	06:24 19:03	05:57 21:14	04:49 22:20	04:29 22:50	05:12 22:14	06:20 20:57	07:28 19:28	08:37 17:04	08:49 15:58	09:28 15:46
27	08:56 16:44	07:41 18:00	06:21 19:05	05:54 21:17	04:48 22:22	04:29 22:50	05:14 22:12	06:22 20:54	07:31 19:25	08:39 17:02	08:52 15:57	09:28 15:47
28	08:54 16:47	07:38 18:02	06:18 19:08	05:52 21:19	04:46 22:23	04:30 22:50	05:16 22:09	06:24 20:51	07:33 19:22	08:42 16:59	08:54 15:55	09:28 15:48
29	08:52 16:49	07:35 18:09	06:16 19:14	05:49 21:21	04:44 22:25	04:31 22:49	05:18 22:07	06:27 20:48	07:35 19:19	08:44 16:56	08:56 15:54	09:28 15:49
30	08:50 16:51	07:32 18:07	06:13 19:19	05:47 21:24	04:43 22:27	04:32 22:49	05:20 22:05	06:29 20:45	07:37 19:16	08:53 16:54	09:00 15:53	09:28 15:50
31	08:48 16:54	07:10 18:04	06:00 19:14	05:30 21:24	04:30 22:29	04:22 22:50	05:22 22:03	06:31 20:43	07:47 16:51	09:04 16:51	09:08 15:51	09:28 15:51
Potential sun hours	222	260	365	432	521	547	545	478	386	319	236	200
Total, worst case												
Sun reduction												
Oper. time red.												
Wind dir. red.												
Total reduction												
Total, real												

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)		Last time (hh:mm) with flicker	(WTG causing flicker last time)

SHADOW - Calendar

Calculation: Oppdatert layout - real case med vindrose - kun Moifjellet - oppdatert mottaker **Shadow receptor:** AI - Vaule 218 (35)
Sunshine probability S/S0 (Sun hours/Possible sun hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
0,50	0,50	0,50	0,50	0,50	0,50	0,50	0,50	0,50	0,50	0,50	0,50

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
644	231	315	644	959	714	721	455	378	420	574	938	6 993

	January	February	March	April	May	June	July	August	September	October	November	December
1 09:28		08:45	13:54 (27)	07:35	07:06	05:44	04:39	04:32	05:24	06:33	07:39	
15:52		16:56	18	14:12 (27)	18:04	20:16	21:26	22:30	22:48	22:01	20:39	19:13
2 09:27		08:43	13:56 (27)	07:32	07:04	05:41	04:38	04:33	05:26	06:35	07:41	
15:54		16:58	16	14:12 (27)	18:07	20:19	21:28	22:32	22:48	21:58	20:37	19:10
3 09:27		08:41	13:58 (27)	07:29	07:01	05:38	04:37	04:34	05:28	06:37	07:44	
15:55		17:01	11	14:09 (27)	18:09	20:21	21:30	22:33	22:47	21:56	20:34	19:07
4 09:26		08:39		07:27	06:58	05:36	04:36	04:35	05:30	06:39	07:46	
15:57		17:03		18:12	20:23	21:33	22:35	22:46	21:54	20:31	19:04	
5 09:26		08:37		07:24	06:55	05:33	04:34	04:36	05:33	06:42	07:48	
15:58		17:06		18:14	20:26	21:35	22:36	22:45	21:51	20:28	19:01	
6 09:25		08:34		15:24 (13)	07:21	06:52	05:31	04:33	04:37	05:35	06:44	07:50
16:00		17:08	6	15:30 (13)	18:16	20:28	21:37	22:38	22:45	21:49	20:25	18:58
7 09:24		08:32		15:21 (13)	07:18	06:49	05:29	04:32	04:38	05:37	06:46	07:53
16:01		17:11	12	15:33 (13)	18:19	20:30	21:39	22:39	22:44	21:46	20:22	18:56
8 09:23		08:30		15:19 (13)	07:15	06:46	05:26	04:31	04:40	05:39	06:48	07:55
16:03		17:13	15	15:34 (13)	18:21	20:32	21:42	22:40	22:43	21:44	20:19	18:53
9 09:23		08:27		15:18 (13)	07:13	06:44	05:24	04:31	04:41	05:41	06:50	07:57
16:05		17:15	18	15:36 (13)	18:23	20:35	21:44	22:41	22:41	21:41	20:16	18:50
10 09:22		08:25		15:17 (13)	07:10	06:41	05:21	04:30	04:42	05:44	06:53	07:59
16:07		17:18	20	15:37 (13)	18:26	20:37	21:46	22:43	22:40	21:39	20:14	18:47
11 09:20		08:22		15:16 (13)	07:07	06:38	05:19	04:29	04:44	05:46	06:55	08:02
16:09		17:20	21	15:37 (13)	18:28	20:39	21:48	22:44	22:39	21:36	20:11	18:44
12 09:19		13:53 (27)		15:17 (13)	07:04	06:35	05:17	04:29	04:45	05:48	06:57	08:04
16:10	2	17:23	21	15:38 (13)	18:30	20:42	21:51	22:45	22:38	21:34	20:08	18:41
13 09:18		13:53 (27)		15:16 (13)	07:01	06:32	05:15	04:28	04:47	05:50	06:59	08:06
16:12	5	17:25	22	15:38 (13)	18:33	20:44	21:53	22:45	22:36	21:31	20:05	18:39
14 09:17		13:51 (27)		15:16 (13)	06:58	06:29	05:12	04:27	04:49	05:53	07:01	08:09
16:14	8	17:28	22	15:38 (13)	18:35	20:46	21:55	22:46	22:35	21:29	20:02	18:36
15 09:16		13:50 (27)		15:17 (13)	06:56	06:27	05:10	04:27	04:50	05:55	07:04	08:11
16:17	13	17:30	21	15:38 (13)	18:37	20:49	21:57	22:47	22:33	21:26	19:59	18:33
16 09:14		13:49 (27)		15:17 (13)	06:53	06:24	05:08	04:27	04:52	05:57	07:06	08:13
16:19	19	17:33	21	15:38 (13)	18:40	20:51	21:59	22:48	22:32	21:23	19:56	18:30
17 09:13		11:39 (38)		15:17 (13)	06:50	06:21	05:06	04:27	04:54	05:59	07:08	08:16
16:21	27	17:35	20	15:37 (13)	18:42	20:53	22:02	22:48	22:30	21:21	19:53	18:28
18 09:11		11:35 (38)		15:17 (13)	06:47	06:18	05:04	04:26	04:56	06:01	07:10	08:18
16:23	33	17:38	19	15:36 (13)	18:44	20:56	22:04	22:49	22:29	21:18	19:50	18:25
19 09:10		11:32 (38)		15:19 (13)	06:44	06:16	05:02	04:26	04:57	06:04	07:12	08:20
16:25	36	17:40	17	15:36 (13)	18:47	20:58	22:06	22:49	22:27	21:15	19:47	18:22
20 09:08		11:28 (38)		15:21 (13)	06:41	06:13	05:00	04:26	04:59	06:06	07:15	08:23
16:27	43	17:43	13	15:34 (13)	18:49	21:00	22:08	22:50	22:25	21:13	19:45	18:19
21 09:07		11:27 (38)		15:24 (13)	06:38	06:10	04:58	04:26	05:01	06:08	07:17	08:25
16:30	44	17:45	6	15:30 (13)	18:51	21:02	22:10	22:50	22:23	21:10	19:42	18:17
22 09:05		11:28 (38)		06:35	06:07	04:56	04:27	05:03	06:10	07:19	08:27	
16:32	43	17:47		18:53	21:05	22:12	22:50	22:21	21:07	19:39	18:14	13
23 09:03		11:29 (38)		06:32	06:05	04:54	04:27	05:05	06:13	07:21	08:30	
16:34	43	17:50		18:56	21:07	22:14	22:50	22:20	21:05	19:36	18:11	17
24 09:01		11:30 (38)		06:30	06:02	04:52	04:27	05:07	06:15	07:23	08:32	
16:36	42	17:52		18:58	21:09	22:16	22:50	22:18	21:02	19:33	18:09	19
25 08:59		11:32 (38)		06:27	05:59	04:50	04:28	05:09	06:17	07:26	07:34	
16:39	39	17:55		19:00	21:12	22:18	22:50	22:16	20:59	19:30	17:06	20
26 08:58		11:33 (38)		06:24	05:57	04:49	04:28	05:11	06:19	07:28	07:37	
16:41	36	17:57		19:03	21:14	22:20	22:50	22:14	20:56	19:27	17:04	21
27 08:56		11:36 (38)		06:21	05:54	04:47	04:29	05:13	06:22	07:30	07:39	
16:44	30	18:00		19:05	21:16	22:22	22:50	22:11	20:53	19:24	17:01	22
28 08:54		13:51 (27)		06:18	05:51	04:45	04:29	05:15	06:24	07:32	07:41	
16:46	24	18:02		19:07	21:19	22:23	22:50	22:09	20:51	19:21	16:58	22
29 08:52		13:51 (27)		07:15	05:49	04:44	04:30	05:17	06:26	07:35	07:44	
16:48	23	18:00		20:10	21:21	22:25	22:49	22:07	20:48	19:18	16:56	22
30 08:50		13:52 (27)		07:12	05:46	04:42	04:31	05:20	06:28	07:37	07:46	
16:51	22	18:00		20:12	21:23	22:27	22:49	22:05	20:45	19:16	16:53	21
31 08:48		13:54 (27)		07:09	05:41	04:41	04:29	05:22	06:31	07:49	07:49	
16:53	20	18:00		20:14	21:22	22:29	22:50	22:03	20:42	16:51	20	
Potential sun hours	221	260		365	432	521	547	546	478	386	319	
Total, worst case			319								206	673
Sun reduction	0,50		0,50								0,50	0,50
Oper. time red.	0,80		0,80								0,80	0,80
Wind dir. red.	0,58		0,55								0,55	0,57
Total reduction	0,23		0,22								0,22	0,23
Total, real	128		69								45	154

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)		Last time (hh:mm) with flicker	(WTG causing flicker last time)

SHADOW - Calendar

Calculation: Oppdatert layout - real case med vindrose - kun Moifjellet - oppdatert mottaker **Shadow receptor:** AJ - Heiavegen 543 (36)

Assumptions for shadow calculations

Sunshine probability S/S0 (Sun hours/Possible sun hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
644 231 315 644 959 714 721 455 378 420 574 938 6 993

	January	February	March	April	May	June	July	August	September	October	November	December
1	09:27 15:53	08:45 16:56	07:35 18:04	07:06 20:16	05:44 21:25	04:40 22:30	04:32 22:48	20:43 (2) 22:00	05:24 06:33	07:39 19:13	07:51 16:49	08:59 15:51
2	09:27 15:54	08:43 16:58	07:32 18:07	07:04 20:19	05:41 21:28	04:38 22:31	04:33 22:47	20:44 (2) 21:58	05:26 06:35	07:41 19:10	07:53 16:46	09:01 15:50
3	09:26 15:55	08:41 17:01	07:29 18:09	07:01 20:21	05:39 21:30	04:37 22:33	04:34 22:47	20:44 (2) 21:56	05:28 06:37	07:43 19:07	07:56 16:44	09:03 15:49
4	09:26 15:57	08:38 17:03	07:27 18:11	06:58 20:23	05:36 21:32	04:36 22:34	04:35 22:46	20:45 (2) 21:53	05:30 06:39	07:46 19:04	07:58 16:41	09:05 15:48
5	09:25 15:58	08:36 17:06	07:24 18:14	06:55 20:25	05:34 21:35	04:35 22:36	04:36 22:45	21:51 05:35	06:42 06:28	07:48 19:01	08:00 16:39	09:06 15:47
6	09:25 16:00	08:34 17:08	07:21 18:16	06:52 20:28	05:31 21:37	04:34 22:37	04:37 22:44	21:48 05:37	06:44 06:25	07:50 18:58	08:03 16:37	09:08 15:46
7	09:24 16:02	08:32 17:11	07:18 18:19	06:49 20:30	05:29 21:39	04:33 22:38	04:39 22:43	21:46 05:39	06:46 06:48	07:52 18:56	08:05 16:34	09:10 15:45
8	09:23 16:03	08:29 17:13	07:15 18:21	06:46 20:32	05:26 21:41	04:32 22:40	04:40 22:42	21:44 05:41	06:48 06:50	07:55 18:53	08:08 16:32	09:11 15:45
9	09:22 16:05	08:27 17:16	07:12 18:23	06:44 20:35	05:24 21:44	04:31 22:41	04:41 22:41	21:41 05:41	06:50 06:50	07:57 18:50	08:10 16:30	09:13 15:44
10	09:21 16:07	08:24 17:18	07:10 18:26	06:41 20:37	05:22 21:46	04:30 22:42	04:43 22:40	21:39 05:44	06:53 06:53	07:59 18:47	08:12 16:27	09:14 15:43
11	09:20 16:09	08:22 17:20	07:07 18:28	06:38 20:39	05:19 21:48	04:29 22:43	20:39 (2) 22:39	04:44 21:36	06:55 06:11	08:01 18:44	08:15 16:25	09:16 15:43
12	09:19 16:11	08:20 17:23	07:04 18:30	06:35 20:41	05:17 21:50	04:29 22:44	20:40 (2) 22:37	04:46 20:41 (2)	05:48 21:34	08:04 20:08	08:17 16:23	09:17 15:43
13	09:18 16:13	08:17 17:25	07:01 18:33	06:32 20:44	05:15 21:53	04:28 22:45	20:39 (2) 22:36	04:47 20:41 (2)	05:50 21:31	08:06 20:05	08:20 16:21	09:18 15:42
14	09:17 16:15	08:15 17:28	06:58 18:35	06:29 20:46	05:12 21:55	04:28 22:46	20:40 (2) 22:34	04:49 21:28	05:53 20:02	08:08 18:36	08:22 16:19	09:19 15:42
15	09:15 16:17	08:12 17:30	06:55 18:37	06:27 20:48	05:10 21:57	04:27 22:47	20:40 (2) 22:33	04:51 21:26	07:04 19:59	08:11 18:33	08:24 16:17	09:20 15:42
16	09:14 16:19	08:10 17:33	06:53 18:40	06:24 20:51	05:08 21:59	04:27 22:47	20:40 (2) 22:31	04:52 21:23	07:06 19:56	08:13 18:30	08:27 16:15	09:21 15:42
17	09:12 16:21	08:07 17:35	06:50 18:42	06:21 20:53	05:06 22:01	04:27 22:48	20:40 (2) 22:50	04:54 21:20	07:08 19:53	08:15 18:28	08:29 16:13	09:22 15:42
18	09:11 16:23	08:04 17:38	06:47 18:44	06:18 20:55	05:04 22:03	04:27 22:48	20:41 (2) 22:28	04:56 21:18	07:10 19:50	08:18 18:25	08:31 16:11	09:23 15:42
19	09:09 16:25	08:02 17:40	06:44 18:46	06:16 20:58	05:02 22:05	04:27 22:49	20:41 (2) 22:26	04:58 21:15	07:12 19:47	08:20 18:22	08:33 16:09	09:24 15:42
20	09:08 16:27	07:59 17:43	06:41 18:49	06:13 21:00	05:00 22:07	04:27 22:49	20:41 (2) 22:25	05:00 21:12	07:15 19:44	08:22 18:20	08:36 16:07	09:25 15:43
21	09:06 16:30	07:56 17:45	06:38 18:51	06:10 21:02	04:58 22:10	04:27 22:49	20:41 (2) 22:23	05:01 21:10	07:17 19:42	08:25 18:17	08:38 16:06	09:25 15:43
22	09:05 16:32	07:54 17:47	06:35 18:53	06:07 21:05	04:56 22:12	04:27 22:50	20:41 (2) 22:21	05:03 21:07	07:19 19:39	08:27 18:14	08:40 16:04	09:26 15:43
23	09:03 16:34	07:51 17:50	06:32 18:56	06:05 21:07	04:54 22:14	04:27 22:50	20:42 (2) 22:19	05:05 21:04	07:21 19:36	08:29 18:12	08:42 16:02	09:27 15:44
24	09:01 16:37	07:48 17:52	06:29 18:58	06:02 21:09	04:52 22:15	04:27 22:50	20:42 (2) 22:17	05:07 21:02	07:23 19:33	08:32 18:09	08:45 16:01	09:27 15:44
25	08:59 16:39	07:46 17:55	06:27 19:00	05:59 21:11	04:51 22:17	04:28 22:50	20:42 (2) 22:15	05:09 20:59	07:26 19:30	07:34 17:06	08:47 15:59	09:27 15:45
26	08:57 16:41	07:43 17:57	06:24 19:03	05:57 21:14	04:49 22:19	04:28 22:50	20:42 (2) 22:13	05:11 20:56	07:28 19:27	07:36 17:04	08:49 15:58	09:27 15:46
27	08:55 16:44	07:40 18:00	06:21 19:05	05:54 21:16	04:47 22:21	04:29 22:49	20:42 (2) 22:11	05:13 20:53	07:30 19:24	07:39 17:01	08:51 15:56	09:28 15:47
28	08:53 16:46	07:38 18:02	06:18 19:07	05:51 21:18	04:46 22:23	04:30 22:49	20:43 (2) 22:09	05:15 20:50	07:32 19:21	07:41 16:59	08:53 15:55	09:28 15:48
29	08:51 16:49	07:15 20:09	06:15 21:21	05:49 22:25	04:44 22:49	04:30 22:49	20:43 (2) 22:07	05:18 20:48	07:34 19:18	07:44 16:56	08:55 15:54	09:28 15:49
30	08:49 16:51	07:12 20:12	06:12 21:23	05:46 22:26	04:42 22:26	04:31 22:48	20:43 (2) 22:05	05:20 20:45	07:37 19:16	07:46 16:53	08:57 15:52	09:28 15:50
31	08:47 16:53	07:09 20:14	06:09 21:28	05:41 22:28	04:41 22:28	04:30 22:48	20:45 (2) 22:02	05:22 20:42	07:48 16:51	07:48 16:51	09:27 15:51	09:27 15:51
Potential sun hours	222	260	365	432	521	547	545	478	386	319	236	200
Total, worst case						51						
Sun reduction						0,50		4				
Oper. time red.						0,80		0,80				
Wind dir. red.						0,74		0,74				
Total reduction						0,29		0,29				
Total, real						15		1				

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)		Last time (hh:mm) with flicker	(WTG causing flicker last time)

SHADOW - Calendar

Calculation: Oppdatert layout - real case med vindrose - kun Moifjellet - oppdatert mottaker **Shadow receptor:** AK - Heiavegen 541 (37) Sunshine probability S/S0 (Sun hours/Possible sun hours) []

Assumptions for shadow calculations Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
644 231 315 644 959 714 721 455 378 420 574 938 6 993

	January	February	March	April	May	June	July	August	September	October	November	December		
1	09:27	08:45	07:35	07:06	05:44	04:40	20:27 (2)	04:32	20:32 (2)	05:24	06:33	07:39	07:51	08:59
	15:53	16:56	18:04	20:16	21:25	22:30	9 20:36 (2)	22:48	17 20:49 (2)	22:00	20:39	19:13	16:49	15:51
2	09:27	08:43	07:32	07:04	05:41	04:38	20:27 (2)	04:33	20:32 (2)	05:26	06:35	07:41	07:53	09:01
	15:54	16:58	18:07	20:19	21:28	22:31	11 20:38 (2)	22:47	16 20:48 (2)	21:58	20:36	19:10	16:46	15:50
3	09:26	08:41	07:29	07:01	05:39	04:37	20:27 (2)	04:34	20:33 (2)	05:28	06:37	07:43	07:56	09:03
	15:55	17:01	18:09	20:21	21:30	22:33	12 20:39 (2)	22:47	15 20:48 (2)	21:56	20:33	19:07	16:44	15:49
4	09:26	08:38	07:27	06:58	05:36	04:36	20:27 (2)	04:35	20:33 (2)	05:30	06:39	07:46	07:58	09:05
	15:57	17:03	18:11	20:23	21:32	22:34	12 20:39 (2)	22:46	14 20:47 (2)	21:53	20:31	19:04	16:41	15:48
5	09:25	08:36	07:24	06:55	05:34	04:35	20:27 (2)	04:36	20:33 (2)	05:33	06:42	07:48	08:00	09:06
	15:58	17:06	18:14	20:25	21:35	22:36	13 20:40 (2)	22:45	14 20:47 (2)	21:51	20:28	19:01	16:39	15:47
6	09:25	08:34	07:21	06:52	05:31	04:34	20:27 (2)	04:37	20:33 (2)	05:35	06:44	07:50	08:03	09:08
	16:00	17:08	18:16	20:28	21:37	22:37	13 20:40 (2)	22:44	14 20:47 (2)	21:48	20:25	18:58	16:37	15:46
7	09:24	08:32	07:18	06:49	05:29	04:33	20:28 (2)	04:39	20:33 (2)	05:37	06:46	07:52	08:05	09:10
	16:02	17:11	18:19	20:30	21:39	22:38	14 20:42 (2)	22:43	13 20:46 (2)	21:46	20:22	18:56	16:34	15:45
8	09:23	08:29	07:15	06:46	05:26	04:32	20:27 (2)	04:40	20:33 (2)	05:39	06:48	07:55	08:08	09:11
	16:03	17:13	18:21	20:32	21:41	22:40	15 20:42 (2)	22:42	13 20:46 (2)	21:44	20:19	18:53	16:32	15:45
9	09:22	08:27	07:12	06:44	05:24	04:31	20:27 (2)	04:41	20:34 (2)	05:41	06:50	07:57	08:10	09:13
	16:05	17:16	18:23	20:35	21:44	22:41	15 20:42 (2)	22:41	12 20:46 (2)	21:41	20:16	18:50	16:30	15:44
10	09:21	08:24	07:10	06:41	05:22	04:30	20:28 (2)	04:43	20:34 (2)	05:44	06:53	07:59	08:12	09:14
	16:07	17:18	18:26	20:37	21:46	22:42	15 20:43 (2)	22:40	12 20:46 (2)	21:39	20:13	18:47	16:27	15:43
11	09:20	08:22	07:07	06:38	05:19	04:29	20:28 (2)	04:44	20:34 (2)	05:46	06:55	08:01	08:15	09:16
	16:09	17:20	18:28	20:39	21:48	22:43	16 20:44 (2)	22:39	11 20:45 (2)	21:36	20:11	18:44	16:25	15:43
12	09:19	08:20	07:04	06:35	05:17	04:29	20:29 (2)	04:46	20:35 (2)	05:48	06:57	08:04	08:17	09:17
	16:11	17:23	18:30	20:41	21:50	22:44	16 20:45 (2)	22:37	5 20:42 (2)	21:34	20:08	18:41	16:23	15:43
13	09:18	08:17	07:01	06:32	05:15	04:28	20:28 (2)	04:47	20:35 (2)	05:50	06:59	08:06	08:20	09:18
	16:13	17:25	18:33	20:44	21:53	22:45	17 20:45 (2)	22:36	3 20:38 (2)	21:31	20:05	18:39	16:21	15:42
14	09:17	08:15	06:58	06:29	05:12	04:28	20:29 (2)	04:49	20:35 (2)	05:53	07:01	08:08	08:22	09:19
	16:15	17:28	18:35	20:46	21:55	22:46	17 20:46 (2)	22:34	2 20:37 (2)	21:28	20:02	18:36	16:19	15:42
15	09:15	08:12	06:55	06:27	05:10	04:27	20:29 (2)	04:51	20:36 (2)	05:55	07:04	08:11	08:24	09:20
	16:17	17:30	18:37	20:48	21:57	22:47	18 20:47 (2)	22:33	21:26	19:59	18:33	16:17	15:42	
16	09:14	08:10	06:53	06:24	05:08	04:27	20:30 (2)	04:52	20:37 (2)	05:57	07:06	08:13	08:27	09:21
	16:19	17:33	18:40	20:51	21:59	22:47	17 20:47 (2)	22:31	21:23	19:56	18:30	16:15	15:42	
17	09:12	08:07	06:50	06:21	05:06	04:27	20:30 (2)	04:54	20:38 (2)	05:59	07:08	08:15	08:29	09:22
	16:21	17:35	18:42	20:53	22:01	22:48	18 20:48 (2)	22:30	21:20	19:53	18:28	16:13	15:42	
18	09:11	08:04	06:47	06:18	05:04	04:27	20:30 (2)	04:56	20:39 (2)	06:02	07:10	08:18	08:31	09:23
	16:23	17:38	18:44	20:55	22:03	22:48	18 20:48 (2)	22:28	21:18	19:50	18:25	16:11	15:42	
19	09:09	08:02	06:44	06:16	05:02	04:27	20:30 (2)	04:58	20:40 (2)	07:12	08:20	08:34	09:24	
	16:25	17:40	18:46	20:58	22:05	22:49	19 20:49 (2)	22:26	21:15	19:47	18:22	16:09	15:42	
20	09:08	07:59	06:41	06:13	05:00	04:27	20:31 (2)	05:00	20:41 (2)	07:15	08:22	08:36	09:25	
	16:27	17:43	18:49	21:00	22:07	22:49	18 20:49 (2)	22:25	21:12	19:44	18:19	16:07	15:42	
21	09:06	07:56	06:38	06:10	04:58	04:27	20:31 (2)	05:01	20:42 (2)	07:17	08:25	08:38	09:25	
	16:30	17:45	18:51	21:02	22:10	22:49	18 20:49 (2)	22:23	21:10	19:42	18:17	16:06	15:43	
22	09:05	07:54	06:35	06:07	04:56	04:27	20:31 (2)	05:03	20:43 (2)	07:19	08:27	08:40	09:26	
	16:32	17:47	18:53	21:05	22:12	22:50	18 20:49 (2)	22:21	21:07	19:39	18:14	16:04	15:43	
23	09:03	07:51	06:32	06:05	04:54	04:27	20:30 (2)	05:05	20:44 (2)	07:21	08:29	08:42	09:27	
	16:34	17:50	18:56	21:07	22:14	22:50	19 20:49 (2)	22:19	21:04	19:36	18:11	16:02	15:44	
24	09:01	07:48	06:29	06:02	04:52	04:27	20:31 (2)	05:07	20:45 (2)	07:23	08:32	08:45	09:27	
	16:37	17:52	18:58	21:09	22:15	22:50	19 20:50 (2)	22:17	21:02	19:33	18:09	16:01	15:44	
25	08:59	07:46	06:27	05:59	04:51	04:28	20:31 (2)	05:09	20:46 (2)	07:26	07:34	08:47	09:27	
	16:39	17:55	19:00	21:11	22:17	22:50	18 20:49 (2)	22:15	20:59	19:30	17:06	15:59	15:45	
26	08:57	07:43	06:24	05:57	04:49	04:28	20:32 (2)	05:11	20:56	19:28	07:36	08:49	09:27	
	16:41	17:57	19:03	21:14	22:19	22:50	18 20:50 (2)	22:13	20:56	19:27	17:04	15:58	15:46	
27	08:55	07:40	06:21	05:54	04:47	04:29	20:31 (2)	05:13	20:57	19:27	07:30	07:39	08:51	09:28
	16:44	18:00	19:05	21:16	22:21	22:49	18 20:49 (2)	22:11	20:53	19:24	17:01	15:56	15:47	
28	08:53	07:38	06:18	05:51	04:46	04:30	20:32 (2)	05:15	20:58	19:24	07:32	07:41	08:53	09:28
	16:46	18:02	19:07	21:18	22:23	22:49	17 20:49 (2)	22:09	20:50	19:21	16:59	15:55	15:48	
29	08:51	07:15	05:49	04:44	04:30	04:30	20:32 (2)	05:18	20:59	19:21	07:34	07:44	08:55	09:28
	16:49	20:09	21:21	22:25	22:49	22:49	18 20:50 (2)	22:07	20:48	19:18	16:56	15:53	15:49	
30	08:49	07:12	05:46	04:42	20:27 (2)	04:31	20:32 (2)	05:20	20:58	19:21	07:37	07:46	08:57	09:28
	16:51	20:12	21:23	22:26	2 20:29 (2)	22:48	17 20:49 (2)	22:05	20:45	19:16	16:53	15:52	15:50	
31	08:47	07:09	05:41	04:41	20:27 (2)	04:31	20:32 (2)	05:22	20:59	19:16	07:48	07:57	09:27	
	16:53	20:14	22:28	3 20:30 (2)	22:28	22:28	22:02	20:42	20:42	16:51	16:51	15:51	15:51	
Potential sun hours	222	260	365	432	521	547	545	478	386	319	236	200		
Total, worst case					5	483	161							
Sun reduction					0,50	0,50	0,50							
Oper. time red.					0,80	0,80	0,80							
Wind dir. red.					0,73	0,73	0,73							
Total reduction					0,29	0,29	0,29							
Total, real					1	142	47							

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)		Last time (hh:mm) with flicker	(WTG causing flicker last time)

Project:

Moifjellet vindkraftverk

Licensed user:

Multiconsult Norge AS

Nedre Skøyen vei 2 .

NO-0276 Oslo

+47 21 58 60 15

Martine / martine.bjugg@multiconsult.no

Calculated:

20.01.2025 16:28/4.0.540

SHADOW - Calendar

Calculation: Oppdatert layout - real case med vindrose - kun Moifjellet - oppdatert mottaker Shadow receptor: AL - Buevegen 2100 (38)

Assumptions for shadow calculations

Sunshine probability S/S0 (Sun hours/Possible sun hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
644 231 315 644 959 714 721 455 378 420 574 938 6 993

Calendar table with columns for months (January to December) and rows for each day (01-31) showing sun rise, set, and operational time for various directions (N, NNE, ENE, E, ESE, SSE, S, SSW, WSW, W, WNW, NNW, Sum). Includes summary rows for Potential sun hours, Total, worst case, Sun reduction, Oper. time red., Wind dir. red., Total reduction, and Total, real.

Table layout: For each day in each month the following matrix apply

Matrix with columns: Day in month, Sun rise (hh:mm), Sun set (hh:mm), Minutes with flicker, First time (hh:mm) with flicker, Last time (hh:mm) with flicker, (WTG causing flicker first time), (WTG causing flicker last time)



SHADOW - Calendar

Calculation: Oppdatert layout - real case med vindrose - kun Moifjellet - oppdatert mottaker **Shadow receptor:** AM - Eiendom 121/9 - Hå kommune (39)

Assumptions for shadow calculations

Sunshine probability S/S0 (Sun hours/Possible sun hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
644 231 315 644 959 714 721 455 378 420 574 938 6 993

	January	February	March	April	May	June
1	09:28	08:46	07:35	07:07	05:44	07:30 (1) 04:40
	15:53	16:56	18:05	20:17	21:26	32 08:02 (1) 22:30
2	09:27	08:43	07:33	07:04	05:42	07:32 (1) 04:39
	15:54	16:59	18:07	20:19	21:28	29 08:01 (1) 22:32
3	09:27	08:41	07:30	07:01	05:39	07:32 (1) 04:37
	15:56	17:01	18:10	20:21	21:31	27 07:59 (1) 22:34
4	09:26	08:39	07:27	06:58	05:36	07:33 (1) 04:36
	15:57	17:04	18:12	20:24	21:33	25 07:58 (1) 22:35
5	09:26	08:37	07:24	06:55	05:34	07:35 (1) 04:35
	15:59	17:06	18:14	20:26	21:35	21 07:56 (1) 22:36
6	09:25	08:34	07:21	06:53	05:32	07:37 (1) 04:34
	16:00	17:09	18:17	20:28	21:37	18 07:55 (1) 22:38
7	09:24	08:32	07:19	06:50	05:29	07:39 (1) 04:33
	16:02	17:11	18:19	20:31	21:40	12 07:51 (1) 22:39
8	09:24	08:30	07:16	06:47	05:27	04:32
	16:04	17:14	18:21	20:33	21:42	22:40
9	09:23	08:27	07:13	06:44	05:24	04:31
	16:06	17:16	18:24	20:35	21:44	22:42
10	09:22	08:25	07:10	06:41	07:48 (1) 05:22	04:31
	16:07	17:18	18:26	20:37	9 07:57 (1) 21:46	22:43
11	09:21	08:23	07:07	06:38	07:46 (1) 05:20	04:30
	16:09	17:21	18:28	20:40	15 08:01 (1) 21:49	22:44
12	09:20	08:20	07:04	06:36	07:42 (1) 05:17	04:29
	16:11	17:23	18:31	20:42	21 08:03 (1) 21:51	22:45
13	09:18	08:18	07:02	06:33	07:38 (1) 05:15	04:29
	16:13	17:26	18:33	20:44	26 08:04 (1) 21:53	22:46
14	09:17	08:15	06:59	06:30	07:35 (1) 05:13	04:28
	16:15	17:28	18:35	20:47	30 08:05 (1) 21:55	22:46
15	09:16	08:13	06:56	06:27	07:34 (1) 05:11	04:28
	16:17	17:31	18:38	20:49	32 08:06 (1) 21:57	22:47
16	09:14	08:10	06:53	06:24	07:33 (1) 05:09	04:28
	16:19	17:33	18:40	20:51	34 08:07 (1) 22:00	22:48
17	09:13	08:07	06:50	06:22	07:32 (1) 05:06	04:27
	16:21	17:36	18:42	20:54	35 08:07 (1) 22:02	22:48
18	09:12	08:05	06:47	06:19	07:31 (1) 05:04	04:27
	16:24	17:38	18:45	20:56	37 08:08 (1) 22:04	22:49
19	09:10	08:02	06:44	06:16	07:30 (1) 05:02	04:27
	16:26	17:41	18:47	20:58	38 08:08 (1) 22:06	22:49
20	09:08	08:00	06:42	06:13	07:30 (1) 05:00	04:27
	16:28	17:43	18:49	21:00	38 08:08 (1) 22:08	22:50
21	09:07	07:57	06:39	06:11	07:29 (1) 04:58	04:27
	16:30	17:46	18:52	21:03	39 08:08 (1) 22:10	22:50
22	09:05	07:54	06:36	06:08	07:29 (1) 04:56	04:27
	16:32	17:48	18:54	21:05	38 08:07 (1) 22:12	22:50
23	09:03	07:52	06:33	06:05	07:29 (1) 04:55	04:28
	16:35	17:50	18:56	21:07	39 08:08 (1) 22:14	22:50
24	09:02	07:49	06:30	06:02	07:28 (1) 04:53	04:28
	16:37	17:53	18:58	21:10	39 08:07 (1) 22:16	22:50
25	09:00	07:46	06:27	06:00	07:29 (1) 04:51	04:28
	16:39	17:55	19:01	21:12	38 08:07 (1) 22:18	22:50
26	08:58	07:44	06:24	05:57	07:28 (1) 04:49	04:29
	16:42	17:58	19:03	21:14	38 08:06 (1) 22:20	22:50
27	08:56	07:41	06:21	05:54	07:29 (1) 04:48	06:22 (37) 04:29
	16:44	18:00	19:05	21:17	37 08:06 (1) 22:22	11 06:33 (37) 22:50
28	08:54	07:38	06:18	05:52	07:29 (1) 04:46	06:20 (37) 04:30
	16:47	18:02	19:08	21:19	36 08:05 (1) 22:24	15 06:35 (37) 22:50
29	08:52		07:16	05:49	07:30 (1) 04:44	06:20 (37) 04:31
	16:49		20:10	21:21	34 08:04 (1) 22:25	17 06:37 (37) 22:49
30	08:50		07:13	05:47	07:29 (1) 04:43	06:19 (37) 04:31
	16:51		20:12	21:24	34 08:03 (1) 22:27	19 06:38 (37) 22:49
31	08:48		07:10		04:41	06:17 (37)
	16:54		20:14		22:29	21 06:38 (37)
Potential sun hours	221	260	365	432	521	547
Total, worst case				687	253	872
Sun reduction				0,50	0,50	0,50
Oper. time red.				0,80	0,80	0,80
Wind dir. red.				0,65	0,62	0,58
Total reduction				0,26	0,25	0,23
Total, real				177	63	202

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Calculation: Oppdatert layout - real case med vindrose - kun Moifjellet - oppdatert mottaker **Shadow receptor:** AM - Eiendom 121/9 - Hå kommune (39)

Assumptions for shadow calculations

Sunshine probability S/S0 (Sun hours/Possible sun hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
644 231 315 644 959 714 721 455 378 420 574 938 6 993

	July	August	September	October	November	December		
1	04:32	06:20 (37)	05:24	06:33	07:45 (1)	07:39	07:51	09:00
	22:48	29 06:49 (37)	22:01	20:40	15 08:00 (1)	19:13	16:49	15:51
2	04:33	06:20 (37)	05:27	06:35	07:47 (1)	07:42	07:54	09:01
	22:48	30 06:50 (37)	21:58	20:37	9 07:56 (1)	19:10	16:47	15:50
3	04:34	06:20 (37)	05:29	06:38		07:44	07:56	09:03
	22:47	29 06:49 (37)	21:56	20:34		19:07	16:44	15:49
4	04:35	06:20 (37)	05:31	06:40		07:46	07:59	09:05
	22:46	29 06:49 (37)	21:54	20:31		19:05	16:42	15:48
5	04:36	06:21 (37)	05:33	07:52 (1)	06:42	07:48	08:01	09:07
	22:46	28 06:49 (37)	21:51	6 07:58 (1)	20:28	19:02	16:39	15:47
6	04:38	06:21 (37)	05:35	07:48 (1)	06:44	07:51	08:03	09:09
	22:45	27 06:48 (37)	21:49	14 08:02 (1)	20:25	18:59	16:37	15:47
7	04:39	06:22 (37)	05:38	07:46 (1)	06:47	07:53	08:06	09:10
	22:44	27 06:49 (37)	21:47	19 08:05 (1)	20:23	18:56	16:35	15:46
8	04:40	06:23 (37)	05:40	07:44 (1)	06:49	07:55	08:08	09:12
	22:43	26 06:49 (37)	21:44	22 08:06 (1)	20:20	18:53	16:32	15:45
9	04:42	06:23 (37)	05:42	07:42 (1)	06:51	07:57	08:11	09:13
	22:42	25 06:48 (37)	21:42	26 08:08 (1)	20:17	18:50	16:30	15:44
10	04:43	06:24 (37)	05:44	07:41 (1)	06:53	08:00	08:13	09:15
	22:40	24 06:48 (37)	21:39	28 08:09 (1)	20:14	18:48	16:28	15:44
11	04:45	06:25 (37)	05:46	07:40 (1)	06:55	08:02	08:15	09:16
	22:39	23 06:48 (37)	21:37	30 08:10 (1)	20:11	18:45	16:26	15:43
12	04:46	06:25 (37)	05:49	07:39 (1)	06:58	08:04	08:18	09:17
	22:38	22 06:47 (37)	21:34	32 08:11 (1)	20:08	18:42	16:24	15:43
13	04:48	06:26 (37)	05:51	07:38 (1)	07:00	08:07	08:20	09:19
	22:36	20 06:46 (37)	21:32	33 08:11 (1)	20:05	18:39	16:22	15:43
14	04:49	06:28 (37)	05:53	07:37 (1)	07:02	08:09	08:22	09:20
	22:35	18 06:46 (37)	21:29	35 08:12 (1)	20:02	18:36	16:19	15:43
15	04:51	06:28 (37)	05:55	07:36 (1)	07:04	08:11	08:25	09:21
	22:34	16 06:44 (37)	21:26	36 08:12 (1)	19:59	18:34	16:17	15:42
16	04:53	06:30 (37)	05:58	07:35 (1)	07:06	08:14	08:27	09:22
	22:32	14 06:44 (37)	21:24	37 08:12 (1)	19:57	18:31	16:15	15:42
17	04:54	06:32 (37)	06:00	07:35 (1)	07:09	08:16	08:29	09:23
	22:30	9 06:41 (37)	21:21	38 08:13 (1)	19:54	18:28	16:13	15:42
18	04:56		06:02	07:35 (1)	07:11	08:18	08:32	09:24
	22:29		21:18	39 08:14 (1)	19:51	18:25	16:12	15:42
19	04:58		06:04	07:35 (1)	07:13	08:21	08:34	09:25
	22:27		21:16	38 08:13 (1)	19:48	18:23	16:10	15:43
20	05:00		06:07	07:35 (1)	07:15	08:23	08:36	09:25
	22:25		21:13	38 08:13 (1)	19:45	18:20	16:08	15:43
21	05:02		06:09	07:34 (1)	07:17	08:25	08:39	09:26
	22:23		21:10	39 08:13 (1)	19:42	18:17	16:06	15:43
22	05:04		06:11	07:34 (1)	07:20	08:28	08:41	09:27
	22:22		21:08	38 08:12 (1)	19:39	18:15	16:04	15:44
23	05:06		06:13	07:34 (1)	07:22	08:30	08:43	09:27
	22:20		21:05	38 08:12 (1)	19:36	18:12	16:03	15:44
24	05:08		06:15	07:34 (1)	07:24	08:32	08:45	09:28
	22:18		21:02	37 08:11 (1)	19:33	18:09	16:01	15:45
25	05:10		06:18	07:34 (1)	07:26	07:35	08:47	09:28
	22:16		20:59	36 08:10 (1)	19:30	17:07	16:00	15:46
26	05:12		06:20	07:34 (1)	07:28	07:37	08:50	09:28
	22:14		20:57	35 08:09 (1)	19:28	17:04	15:58	15:46
27	05:14		06:22	07:35 (1)	07:31	07:39	08:52	09:28
	22:12		20:54	33 08:08 (1)	19:25	17:02	15:57	15:47
28	05:16		06:24	07:35 (1)	07:33	07:42	08:54	09:28
	22:10		20:51	32 08:07 (1)	19:22	16:59	15:55	15:48
29	05:18		06:27	07:36 (1)	07:35	07:44	08:56	09:28
	22:07		20:48	30 08:06 (1)	19:19	16:56	15:54	15:49
30	05:20		06:29	07:39 (1)	07:37	07:47	08:58	09:28
	22:05		20:45	26 08:05 (1)	19:16	16:54	15:53	15:50
31	05:22		06:31	07:42 (1)		07:49		09:28
	22:03		20:43	21 08:03 (1)		16:51		15:51
Potential sun hours	545	478		386		319	236	200
Total, worst case	396		836		24			
Sun reduction	0,50		0,50		0,50			
Oper. time red.	0,80		0,80		0,80			
Wind dir. red.	0,58		0,65		0,65			
Total reduction	0,23		0,26		0,26			
Total, real	92		216		6			

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)		Last time (hh:mm) with flicker	(WTG causing flicker last time)

Project:

Moifjellet vindkraftverk

Licensed user:

Multiconsult Norge AS

Nedre Skøyen vei 2 .

NO-0276 Oslo

+47 21 58 60 15

Martine / martine.bjugg@multiconsult.no

Calculated:

20.01.2025 16:28/4.0.540

SHADOW - Calendar

Calculation: Oppdatert layout - real case med vindrose - kun Moifjellet - oppdatert mottaker Shadow receptor: AN - Brusallivegen 219 (40)
Assumptions for shadow calculations

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
644 231 315 644 959 714 721 455 378 420 574 938 6 993

Table with columns for months (January to December) and rows for shadow calculations including sun hours, reduction, and real values.

Table layout: For each day in each month the following matrix apply

Day in month Sun rise (hh:mm) Sun set (hh:mm) Minutes with flicker First time (hh:mm) with flicker Last time (hh:mm) with flicker (WTG causing flicker first time) (WTG causing flicker last time)

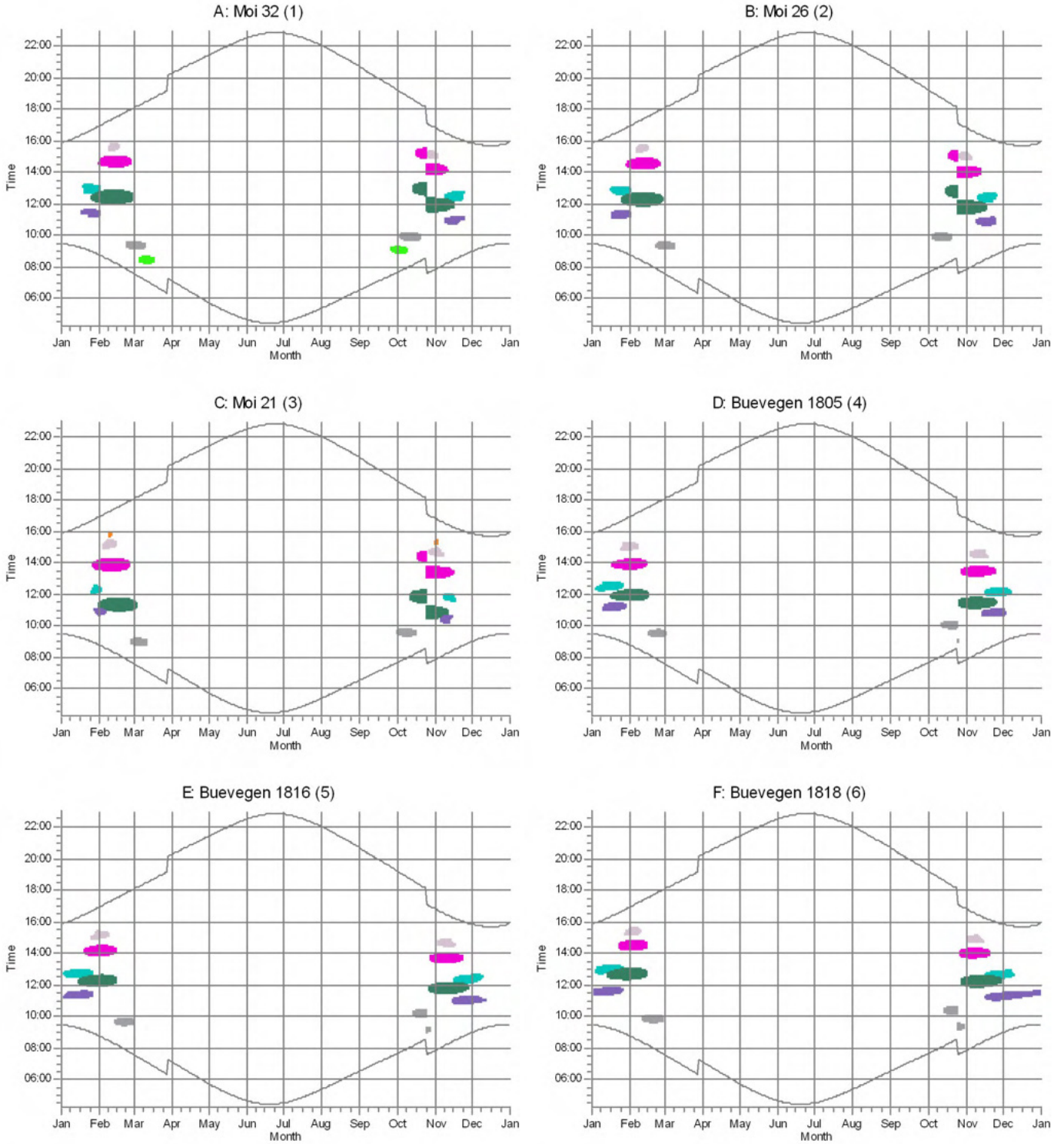




Vedlegg 2.2

SHADOW - Calendar, graphical

Calculation: Oppdatert layout - real case med vindrose - kun Moifjellet - oppdatert mottaker

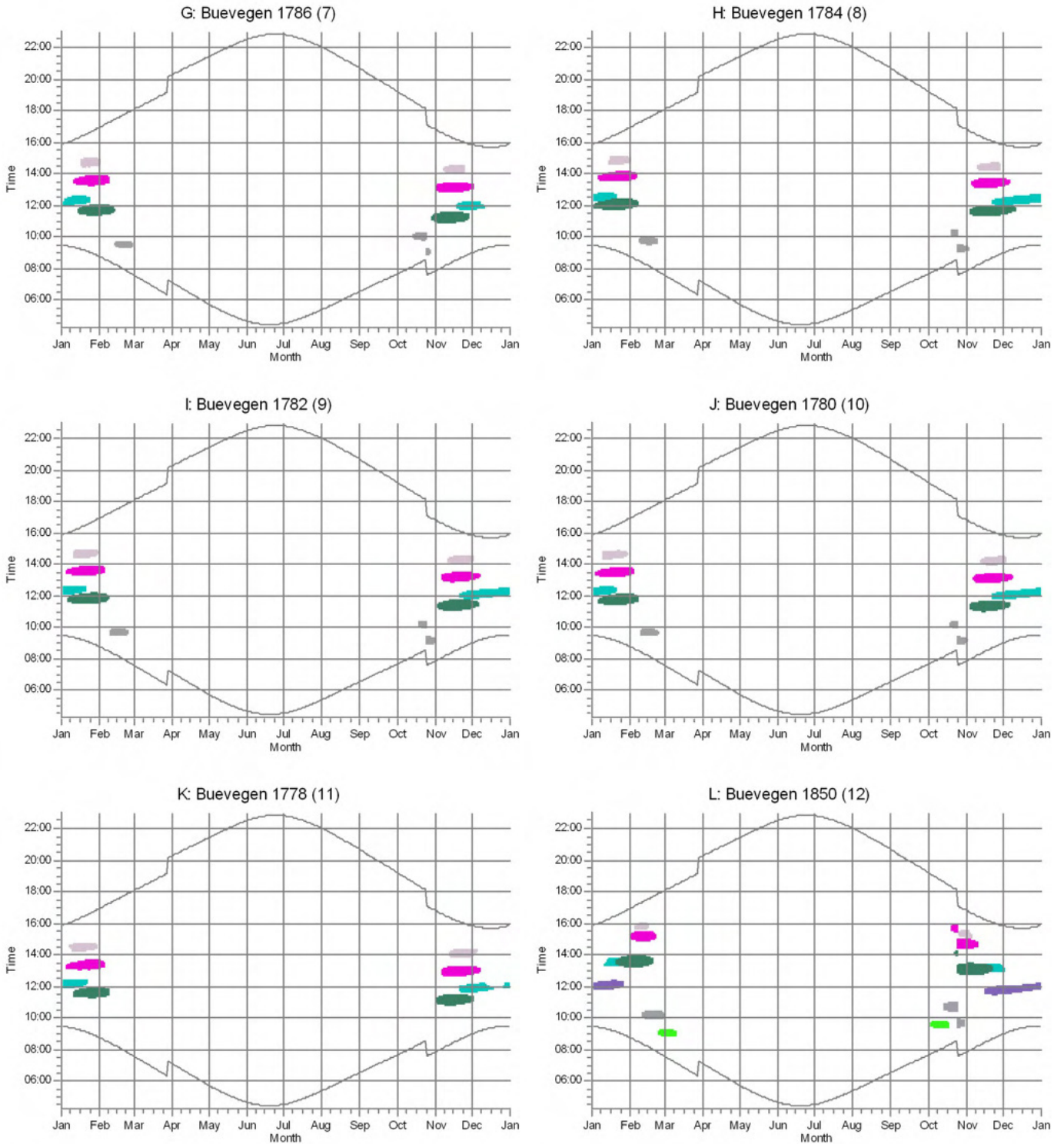


WTGs

<ul style="list-style-type: none"> 16: VESTAS V162-7.2 7200 162.0 10! hub: 119.0 m (TOT: 200.0 m) (2558) 18: VESTAS V162-7.2 7200 162.0 10! hub: 119.0 m (TOT: 200.0 m) (2560) 21: VESTAS V162-7.2 7200 162.0 10! hub: 119.0 m (TOT: 200.0 m) (2563) 	<ul style="list-style-type: none"> 23: VESTAS V162-7.2 7200 162.0 10! hub: 119.0 m (TOT: 200.0 m) (2565) 24: VESTAS V162-7.2 7200 162.0 10! hub: 119.0 m (TOT: 200.0 m) (2566) 25: VESTAS V162-7.2 7200 162.0 10! hub: 119.0 m (TOT: 200.0 m) (2567) 	<ul style="list-style-type: none"> 29: VESTAS V162-7.2 7200 162.0 10! hub: 119.0 m (TOT: 200.0 m) (2571) 34: VESTAS V162-7.2 7200 162.0 10! hub: 119.0 m (TOT: 200.0 m) (2576)
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SHADOW - Calendar, graphical

Calculation: Oppdatert layout - real case med vindrose - kun Moifjellet - oppdatert mottaker

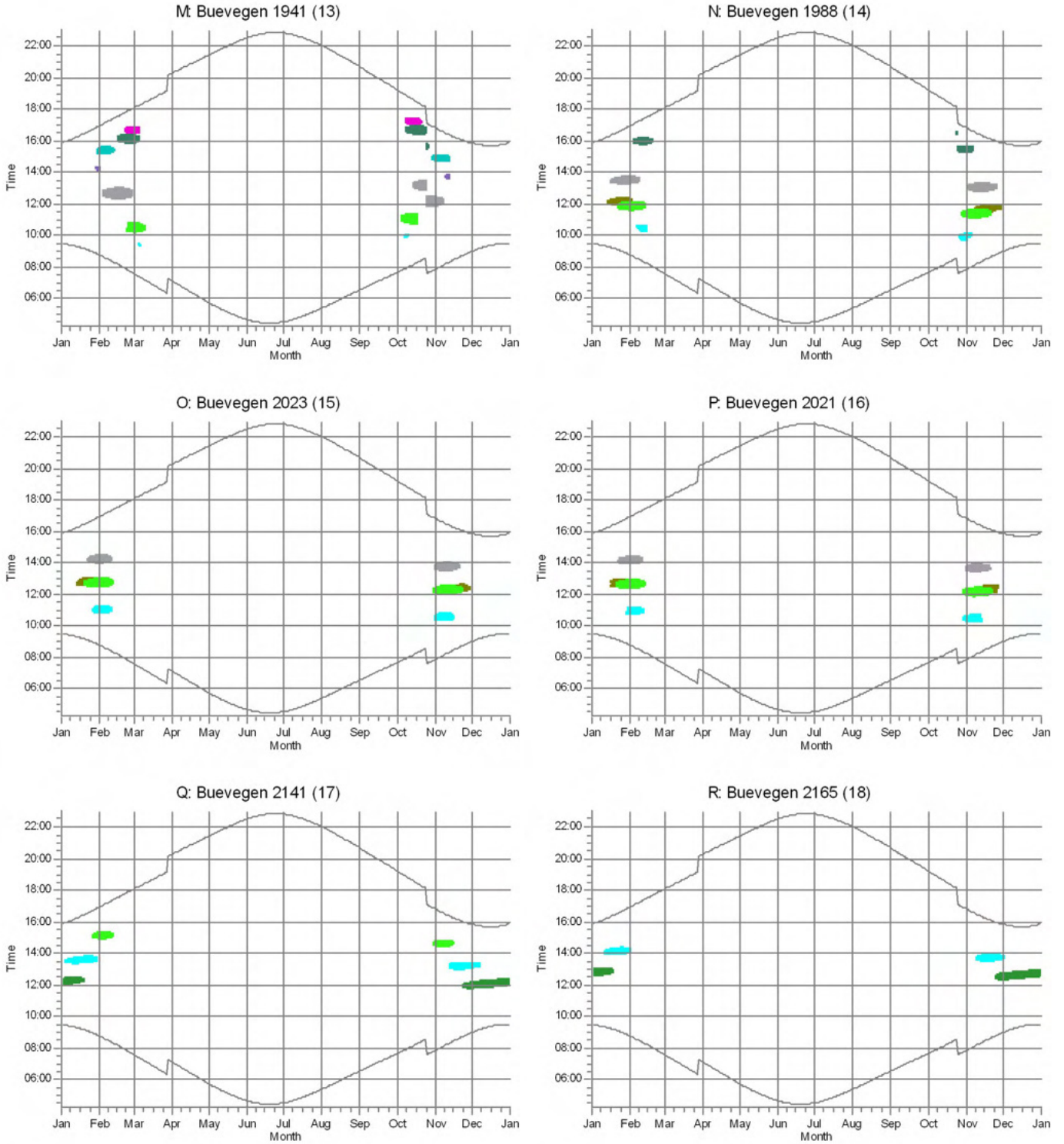


WTGs

- | | | |
|---|---|---|
| <ul style="list-style-type: none"> 16: VESTAS V162-7.2 7200 162.0 10! hub: 119.0 m (TOT: 200.0 m) (2558) 18: VESTAS V162-7.2 7200 162.0 10! hub: 119.0 m (TOT: 200.0 m) (2560) 21: VESTAS V162-7.2 7200 162.0 10! hub: 119.0 m (TOT: 200.0 m) (2563) | <ul style="list-style-type: none"> 24: VESTAS V162-7.2 7200 162.0 10! hub: 119.0 m (TOT: 200.0 m) (2566) 25: VESTAS V162-7.2 7200 162.0 10! hub: 119.0 m (TOT: 200.0 m) (2567) 29: VESTAS V162-7.2 7200 162.0 10! hub: 119.0 m (TOT: 200.0 m) (2571) | <ul style="list-style-type: none"> 34: VESTAS V162-7.2 7200 162.0 10! hub: 119.0 m (TOT: 200.0 m) (2576) |
|---|---|---|

SHADOW - Calendar, graphical

Calculation: Oppdatert layout - real case med vindrose - kun Moifjellet - oppdatert mottaker

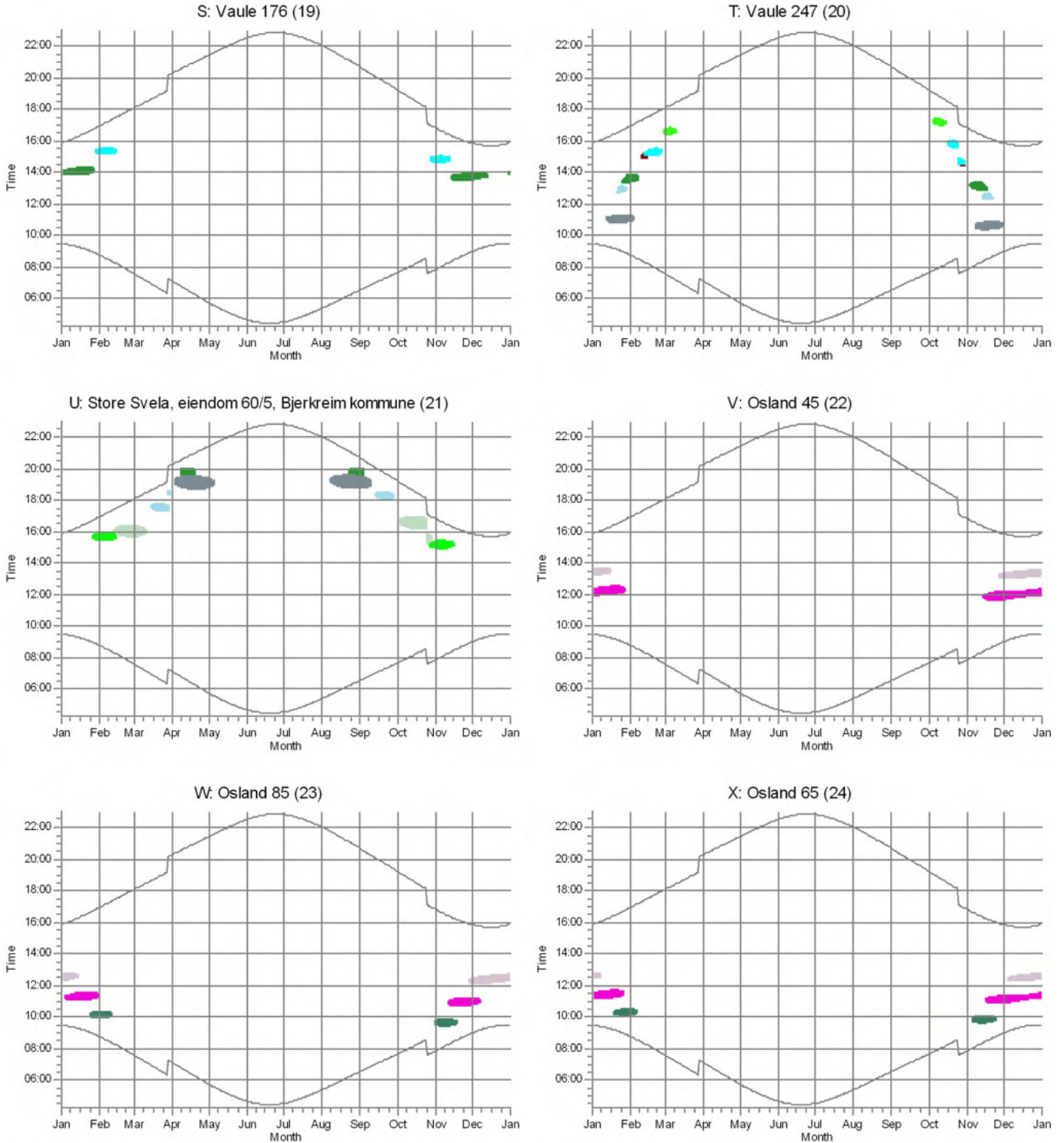


WTGs

<p>10: VESTAS V162-7.2 7200 162.0 IOI hub: 119.0 m (TOT: 200.0 m) (2552)</p> <p>13: VESTAS V162-7.2 7200 162.0 IOI hub: 119.0 m (TOT: 200.0 m) (2555)</p> <p>16: VESTAS V162-7.2 7200 162.0 IOI hub: 119.0 m (TOT: 200.0 m) (2558)</p>	<p>18: VESTAS V162-7.2 7200 162.0 IOI hub: 119.0 m (TOT: 200.0 m) (2560)</p> <p>21: VESTAS V162-7.2 7200 162.0 IOI hub: 119.0 m (TOT: 200.0 m) (2563)</p> <p>24: VESTAS V162-7.2 7200 162.0 IOI hub: 119.0 m (TOT: 200.0 m) (2566)</p>	<p>27: VESTAS V162-7.2 7200 162.0 IOI hub: 119.0 m (TOT: 200.0 m) (2569)</p> <p>29: VESTAS V162-7.2 7200 162.0 IOI hub: 119.0 m (TOT: 200.0 m) (2571)</p> <p>34: VESTAS V162-7.2 7200 162.0 IOI hub: 119.0 m (TOT: 200.0 m) (2576)</p>
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SHADOW - Calendar, graphical

Calculation: Oppdatert layout - real case med vindrose - kun Moifjellet - oppdatert mottaker

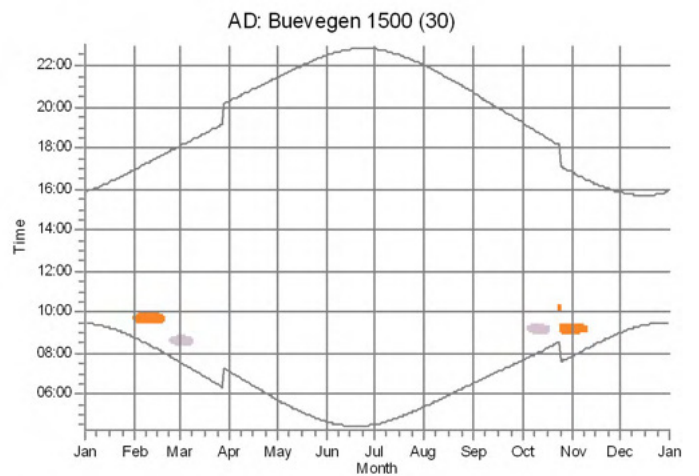
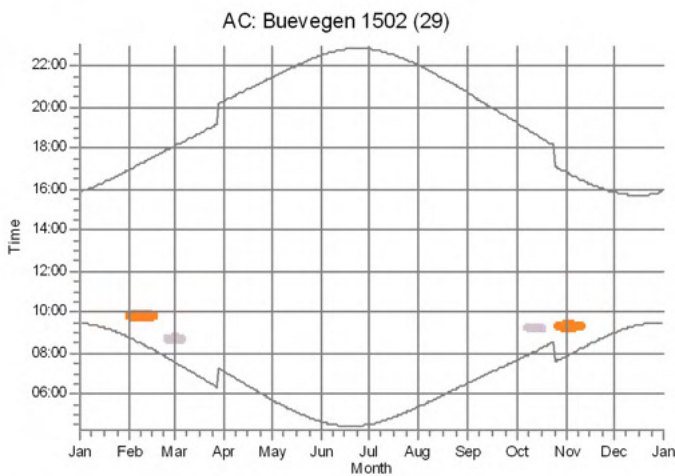
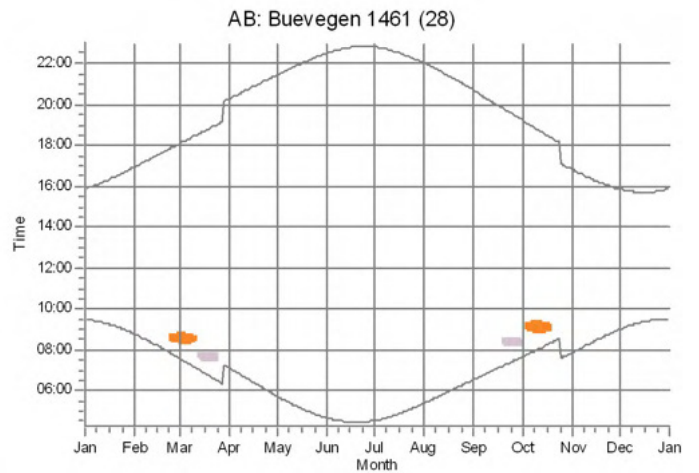
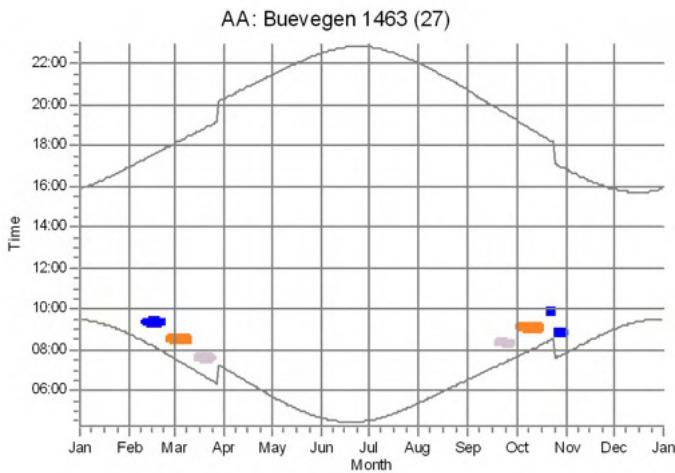
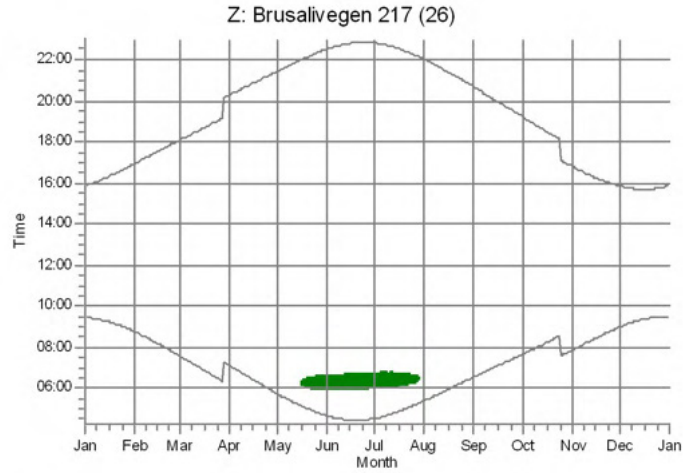
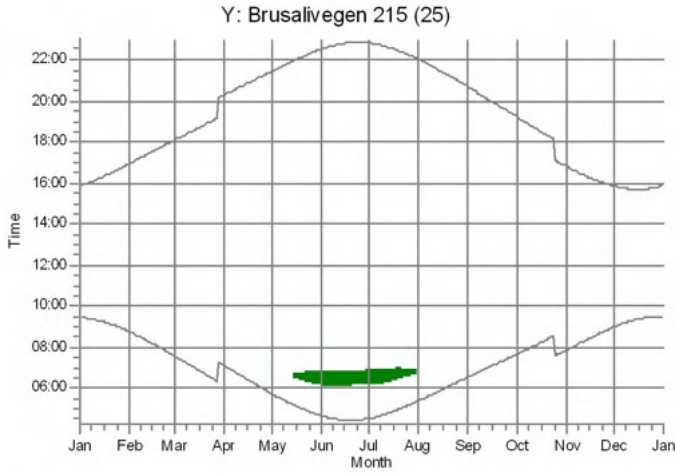


WTGs

<p>8: VESTAS V162-7.2 7200 162.0 IO! hub: 119.0 m (TOT: 200.0 m) (2550)</p> <p>9: VESTAS V162-7.2 7200 162.0 IO! hub: 119.0 m (TOT: 200.0 m) (2551)</p> <p>13: VESTAS V162-7.2 7200 162.0 IO! hub: 119.0 m (TOT: 200.0 m) (2555)</p> <p>14: VESTAS V162-7.2 7200 162.0 IO! hub: 119.0 m (TOT: 200.0 m) (2556)</p>	<p>18: VESTAS V162-7.2 7200 162.0 IO! hub: 119.0 m (TOT: 200.0 m) (2560)</p> <p>24: VESTAS V162-7.2 7200 162.0 IO! hub: 119.0 m (TOT: 200.0 m) (2566)</p> <p>25: VESTAS V162-7.2 7200 162.0 IO! hub: 119.0 m (TOT: 200.0 m) (2567)</p> <p>27: VESTAS V162-7.2 7200 162.0 IO! hub: 119.0 m (TOT: 200.0 m) (2569)</p>	<p>29: VESTAS V162-7.2 7200 162.0 IO! hub: 119.0 m (TOT: 200.0 m) (2571)</p> <p>33: VESTAS V162-7.2 7200 162.0 IO! hub: 119.0 m (TOT: 200.0 m) (2575)</p> <p>38: VESTAS V162-7.2 7200 162.0 IO! hub: 119.0 m (TOT: 200.0 m) (2580)</p>
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SHADOW - Calendar, graphical

Calculation: Oppdatert layout - real case med vindrose - kun Moifjellet - oppdatert mottaker

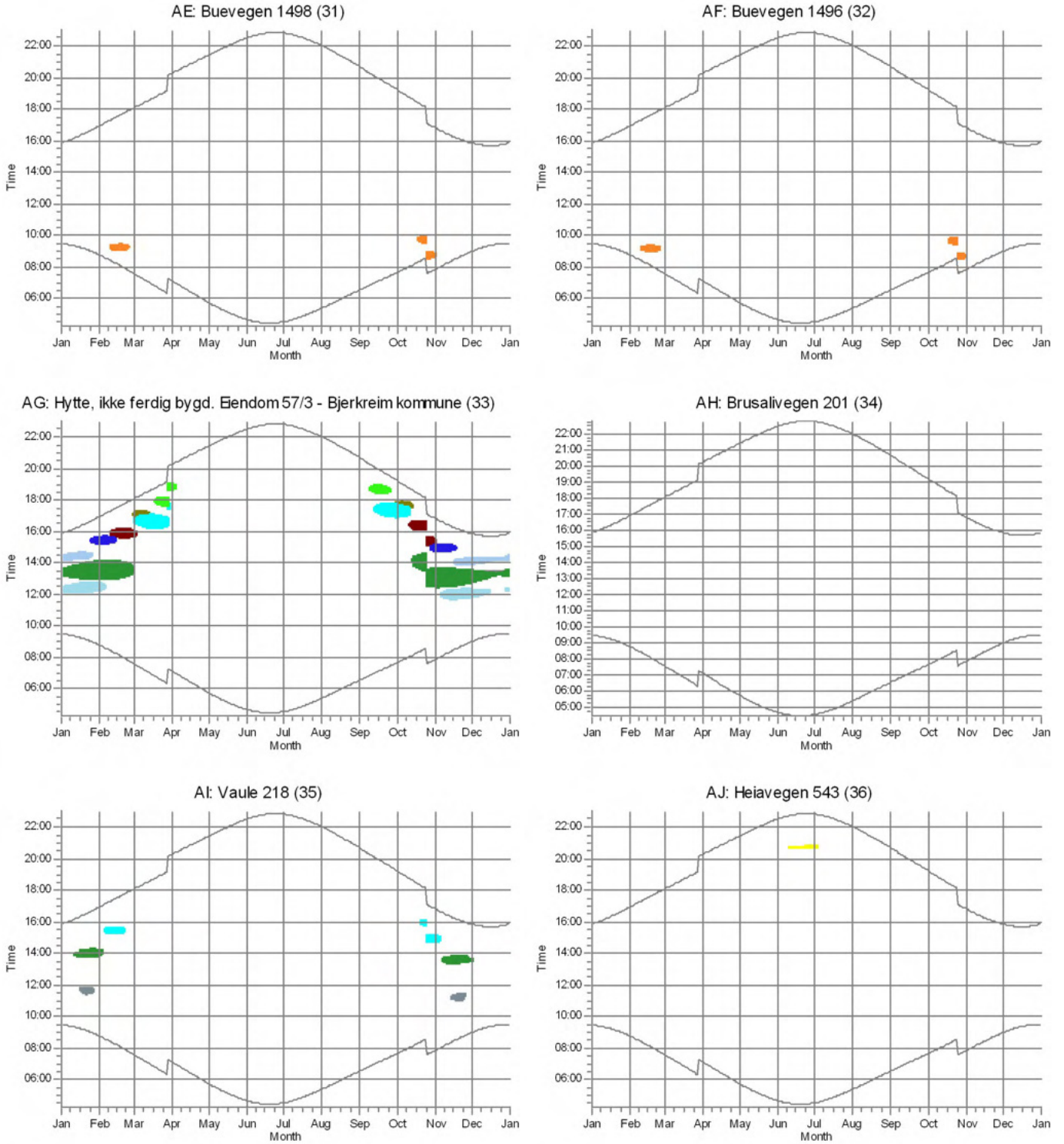


WTGs

- | | |
|---|--|
| <ul style="list-style-type: none"> 1: VESTAS V162-7.2 7200 162.0 IOI hub: 119.0 m (TOT: 200.0 m) (2543) 3: VESTAS V162-7.2 7200 162.0 IOI hub: 119.0 m (TOT: 200.0 m) (2545) | <ul style="list-style-type: none"> 23: VESTAS V162-7.2 7200 162.0 IOI hub: 119.0 m (TOT: 200.0 m) (2565) 25: VESTAS V162-7.2 7200 162.0 IOI hub: 119.0 m (TOT: 200.0 m) (2567) |
|---|--|

SHADOW - Calendar, graphical

Calculation: Oppdatert layout - real case med vindrose - kun Moifjellet - oppdatert mottaker

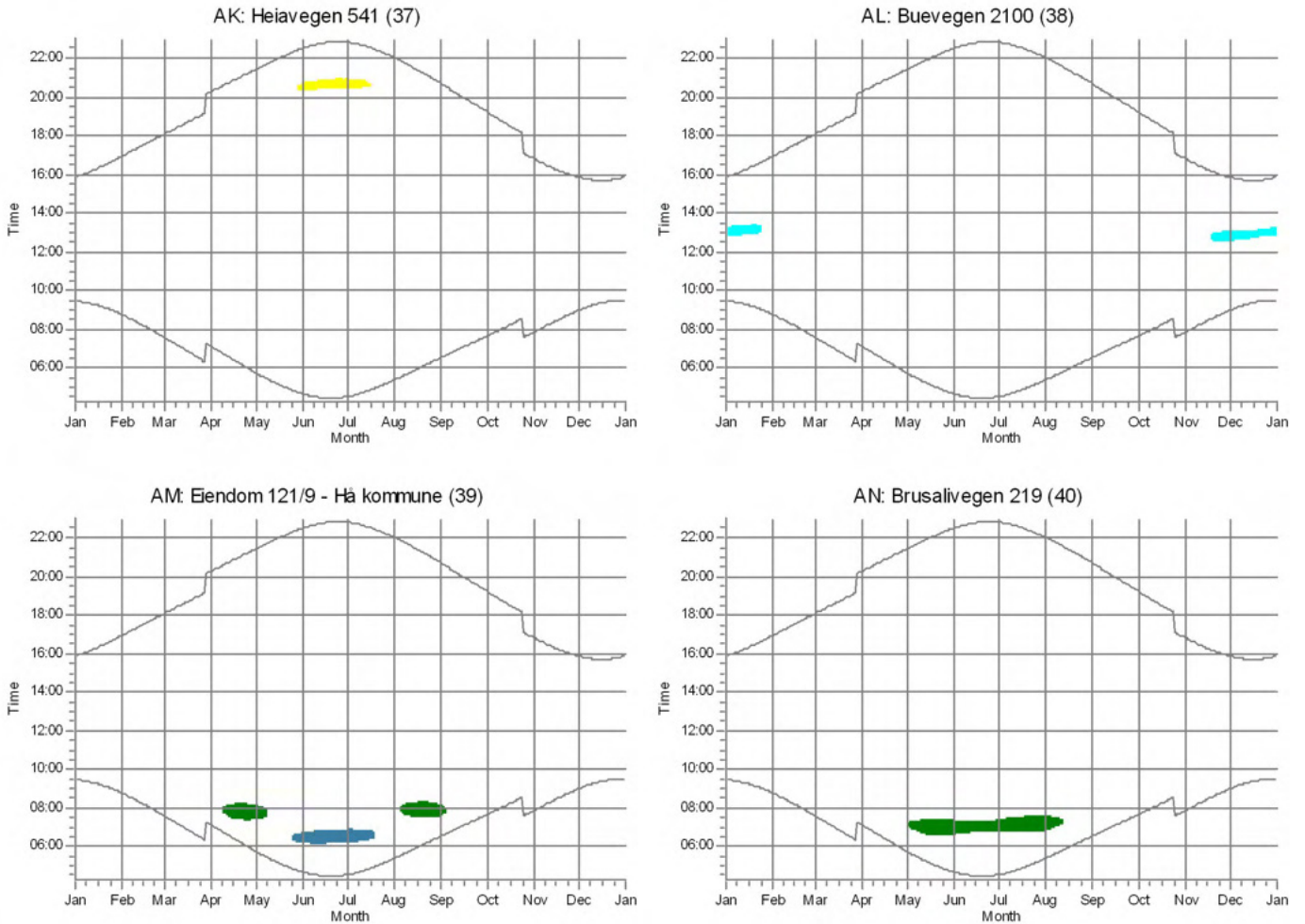


WTGs

<p>2: VESTAS V162-7.2 7200 162.0 IOI hub: 119.0 m (TOT: 200.0 m) (2544)</p> <p>4: VESTAS V162-7.2 7200 162.0 IOI hub: 119.0 m (TOT: 200.0 m) (2546)</p> <p>8: VESTAS V162-7.2 7200 162.0 IOI hub: 119.0 m (TOT: 200.0 m) (2550)</p> <p>10: VESTAS V162-7.2 7200 162.0 IOI hub: 119.0 m (TOT: 200.0 m) (2552)</p>	<p>13: VESTAS V162-7.2 7200 162.0 IOI hub: 119.0 m (TOT: 200.0 m) (2555)</p> <p>15: VESTAS V162-7.2 7200 162.0 IOI hub: 119.0 m (TOT: 200.0 m) (2557)</p> <p>18: VESTAS V162-7.2 7200 162.0 IOI hub: 119.0 m (TOT: 200.0 m) (2560)</p> <p>23: VESTAS V162-7.2 7200 162.0 IOI hub: 119.0 m (TOT: 200.0 m) (2565)</p>	<p>27: VESTAS V162-7.2 7200 162.0 IOI hub: 119.0 m (TOT: 200.0 m) (2569)</p> <p>33: VESTAS V162-7.2 7200 162.0 IOI hub: 119.0 m (TOT: 200.0 m) (2575)</p> <p>36: VESTAS V162-7.2 7200 162.0 IOI hub: 119.0 m (TOT: 200.0 m) (2578)</p> <p>38: VESTAS V162-7.2 7200 162.0 IOI hub: 119.0 m (TOT: 200.0 m) (2580)</p>
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SHADOW - Calendar, graphical

Calculation: Oppdatert layout - real case med vindrose - kun Moifjellet - oppdatert mottaker



WTGs

- 1: VESTAS V162-7.2 7200 162.0 IOI hub: 119.0 m (TOT: 200.0 m) (2543)
- 2: VESTAS V162-7.2 7200 162.0 IOI hub: 119.0 m (TOT: 200.0 m) (2544)
- 13: VESTAS V162-7.2 7200 162.0 IOI hub: 119.0 m (TOT: 200.0 m) (2555)
- 37: VESTAS V162-7.2 7200 162.0 IOI hub: 119.0 m (TOT: 200.0 m) (2579)



Vedlegg 3.1

SHADOW - Calendar

Calculation: Oppdatert layout - med nærliggende - worst case - oppdatert mottaker **Shadow receptor:** A - Moi 32 (1)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

The sun is shining all the day, from sunrise to sunset

The rotor plane is always perpendicular to the line from the WTG to the sun

The WTG is always operating

	January	February	March	April	May	June				
1	09:28	08:46	11:21 (34)	07:35	09:10 (16)	07:07	05:44	04:40		
	15:53	16:56	14:37 (24)	18:05	24	09:34 (16)	20:17	21:26	22:30	
2	09:27	08:43	12:08 (29)	07:33	09:10 (16)	07:04	05:41	04:38		
	15:54	16:58	14:44 (24)	18:07	24	09:34 (16)	20:19	21:28	22:32	
3	09:27	08:41	12:06 (29)	07:30	09:10 (16)	07:01	05:39	04:37		
	15:55	17:01	14:50 (24)	18:09	24	09:34 (16)	20:21	21:30	22:34	
4	09:26	08:39	12:06 (29)	07:27	09:10 (16)	06:58	05:36	04:36		
	15:57	17:03	14:52 (24)	18:12	23	09:33 (16)	20:24	21:33	22:35	
5	09:26	08:37	12:05 (29)	07:24	09:10 (16)	06:55	05:34	04:35		
	15:58	17:06	14:53 (24)	18:14	22	09:32 (16)	20:26	21:35	22:37	
6	09:25	08:34	12:05 (29)	07:21	09:10 (16)	06:52	05:31	04:34		
	16:00	17:08	14:55 (24)	18:17	29	09:31 (16)	20:28	21:37	22:38	
7	09:24	08:32	12:04 (29)	07:19	08:20 (18)	06:50	05:29	04:33		
	16:02	17:11	14:56 (24)	18:19	33	09:30 (16)	20:30	21:40	22:39	
8	09:24	08:30	12:04 (29)	07:16	08:19 (18)	06:47	05:26	04:32		
	16:03	17:13	14:57 (24)	18:21	31	09:28 (16)	20:33	21:42	22:40	
9	09:23	08:27	12:04 (29)	07:13	08:18 (18)	06:44	05:24	04:31		
	16:05	17:16	15:36 (25)	18:24	27	09:25 (16)	20:35	21:44	22:42	
10	09:22	08:25	12:03 (29)	07:10	08:17 (18)	06:41	05:22	04:30		
	16:07	17:18	15:42 (25)	18:26	18	08:35 (18)	20:37	21:46	22:43	
11	09:21	08:23	12:04 (29)	07:07	08:16 (18)	06:38	05:19	04:29		
	16:09	17:21	15:47 (25)	18:28	19	08:35 (18)	20:40	21:49	22:44	
12	09:20	08:20	12:03 (29)	07:04	08:17 (18)	06:35	05:17	04:29		
	16:11	17:23	15:49 (25)	18:31	19	08:36 (18)	20:42	21:51	22:45	
13	09:18	08:18	12:03 (29)	07:01	08:17 (18)	06:32	05:15	04:28		
	16:13	17:26	15:48 (25)	18:33	18	08:35 (18)	20:44	21:53	22:46	
14	09:17	08:15	12:04 (29)	06:59	08:17 (18)	06:30	05:13	04:28		
	16:15	17:28	15:48 (25)	18:35	17	08:34 (18)	20:47	21:55	22:47	
15	09:16	08:13	12:04 (29)	06:56	08:18 (18)	06:27	05:10	04:27		
	16:17	17:31	15:46 (25)	18:38	14	08:32 (18)	20:49	21:58	22:47	
16	09:15	08:10	12:03 (29)	06:53	08:20 (18)	06:24	05:08	04:27		
	16:19	17:33	15:43 (25)	18:40	10	08:30 (18)	20:51	22:00	22:48	
17	09:13	08:07	12:04 (29)	06:50		06:21	05:06	04:27		
	16:21	17:36	14:58 (24)	18:42		20:53	22:02	22:49		
18	09:12	11:27 (34)	08:05	06:47		06:19	05:04	04:27		
	16:23	6	11:33 (34)	17:38	76	14:58 (24)	18:45	20:56	22:04	22:49
19	09:10	11:28 (34)	08:02	06:44		06:16	05:02	04:27		
	16:25	6	13:07 (21)	17:40	75	14:58 (24)	18:47	20:58	22:06	22:50
20	09:08	11:28 (34)	08:00	06:41		06:13	05:00	04:27		
	16:28	23	13:08 (21)	17:43	72	14:57 (24)	18:49	21:00	22:08	22:50
21	09:07	11:26 (34)	07:57	06:38		06:10	04:58	04:27		
	16:30	24	13:08 (21)	17:45	67	14:55 (24)	18:51	21:03	22:10	22:50
22	09:05	11:22 (34)	07:54	06:36		06:08	04:56	04:27		
	16:32	38	13:07 (21)	17:48	62	14:54 (24)	18:54	21:05	22:12	22:50
23	09:03	11:17 (34)	07:52	06:33		06:05	04:54	04:27		
	16:34	43	13:08 (21)	17:50	68	14:53 (24)	18:56	21:07	22:14	22:50
24	09:02	11:11 (34)	07:49	06:30		06:02	04:52	04:27		
	16:37	48	13:08 (21)	17:53	66	14:51 (24)	18:58	21:10	22:16	22:51
25	09:00	11:12 (34)	07:46	06:27		05:59	04:51	04:28		
	16:39	48	13:08 (21)	17:55	55	14:47 (24)	19:01	21:12	22:18	22:50
26	08:58	11:13 (34)	07:44	06:24		05:57	04:49	04:28		
	16:41	48	13:08 (21)	17:57	41	12:35 (29)	19:03	21:14	22:20	22:50
27	08:56	11:13 (34)	07:41	06:21		05:54	04:47	04:29		
	16:44	58	13:07 (21)	18:00	33	12:30 (29)	19:05	21:17	22:22	22:50
28	08:54	11:14 (34)	07:38	06:18		05:52	04:46	04:30		
	16:46	61	13:07 (21)	18:02	23	09:33 (16)	19:07	21:19	22:24	22:50
29	08:52	11:15 (34)		07:15		05:49	04:44	04:30		
	16:49	60	13:06 (21)			20:10	21:21	22:25	22:50	
30	08:50	11:16 (34)		07:12		05:46	04:43	04:31		
	16:51	59	13:04 (21)			20:12	21:24	22:27	22:49	
31	08:48	11:18 (34)		07:10			04:41			
	16:54	55	13:03 (21)			20:14	22:29			
Potential sun hours	221	260	365	432	521	547				
Total, worst case	577	1972	352							

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)		Last time (hh:mm) with flicker	(WTG causing flicker last time)

SHADOW - Calendar

Calculation: Oppdatert layout - med nærliggende - worst case - oppdatert mottaker **Shadow receptor:** A - Moi 32 (1)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

The sun is shining all the day, from sunrise to sunset

The rotor plane is always perpendicular to the line from the WTG to the sun

The WTG is always operating

	July	August	September	October	November	December				
1	04:32	05:24	06:33	07:39	08:56 (18)	07:51	11:33 (29)	09:00		
	22:49	22:01	20:40	19:13	18	09:14 (18)	16:49	91	15:09 (25)	15:51
2	04:33	05:26	06:35	07:42	08:55 (18)	07:54	11:33 (29)	09:02		
	22:48	21:58	20:37	19:10	19	09:14 (18)	16:46	79	15:05 (25)	15:50
3	04:34	05:28	06:37	07:44	08:55 (18)	07:56	11:34 (29)	09:03		
	22:47	21:56	20:34	19:07	18	09:13 (18)	16:44	73	14:26 (24)	15:49
4	04:35	05:31	06:40	07:46	08:55 (18)	07:59	11:34 (29)	09:05		
	22:47	21:54	20:31	19:04	24	10:00 (16)	16:41	71	14:25 (24)	15:48
5	04:36	05:33	06:42	07:48	08:56 (18)	08:01	11:35 (29)	09:07		
	22:46	21:51	20:28	19:02	29	10:04 (16)	16:39	68	14:24 (24)	15:47
6	04:37	05:35	06:44	07:51	08:56 (18)	08:03	11:36 (29)	09:09		
	22:45	21:49	20:25	18:59	32	10:05 (16)	16:37	66	14:24 (24)	15:46
7	04:39	05:37	06:46	07:53	08:57 (18)	08:06	11:36 (29)	09:10		
	22:44	21:47	20:22	18:56	32	10:06 (16)	16:34	61	14:22 (24)	15:45
8	04:40	05:39	06:49	07:55	09:00 (18)	08:08	11:37 (29)	09:12		
	22:43	21:44	20:20	18:53	27	10:07 (16)	16:32	56	14:20 (24)	15:45
9	04:41	05:42	06:51	07:57	09:45 (16)	08:11	11:38 (29)	09:13		
	22:42	21:42	20:17	18:50	22	10:07 (16)	16:30	46	14:15 (24)	15:44
10	04:43	05:44	06:53	08:00	09:45 (16)	08:13	10:52 (34)	09:15		
	22:40	21:39	20:14	18:47	23	10:08 (16)	16:28	47	14:09 (24)	15:44
11	04:44	05:46	06:55	08:02	09:44 (16)	08:15	10:49 (34)	09:16		
	22:39	21:37	20:11	18:45	24	10:08 (16)	16:25	55	12:34 (21)	15:43
12	04:46	05:48	06:57	08:04	09:43 (16)	08:18	10:48 (34)	09:18		
	22:38	21:34	20:08	18:42	24	10:07 (16)	16:23	60	12:36 (21)	15:43
13	04:47	05:51	07:00	08:07	09:44 (16)	08:20	10:47 (34)	09:19		
	22:37	21:31	20:05	18:39	23	10:07 (16)	16:21	60	12:38 (21)	15:42
14	04:49	05:53	07:02	08:09	09:43 (16)	08:22	10:46 (34)	09:20		
	22:35	21:29	20:02	18:36	23	10:06 (16)	16:19	61	12:39 (21)	15:42
15	04:51	05:55	07:04	08:11	09:44 (16)	08:25	10:46 (34)	09:21		
	22:34	21:26	19:59	18:33	37	13:05 (29)	16:17	58	12:40 (21)	15:42
16	04:52	05:57	07:06	08:13	09:45 (16)	08:27	10:46 (34)	09:22		
	22:32	21:24	19:56	18:31	42	13:08 (29)	16:15	46	12:41 (21)	15:42
17	04:54	06:00	07:08	08:16	09:46 (16)	08:29	10:45 (34)	09:23		
	22:30	21:21	19:54	18:28	61	15:21 (24)	16:13	48	12:41 (21)	15:42
18	04:56	06:02	07:11	08:18	09:47 (16)	08:32	10:45 (34)	09:24		
	22:29	21:18	19:51	18:25	66	15:23 (24)	16:11	48	12:42 (21)	15:42
19	04:58	06:04	07:13	08:20	09:50 (16)	08:34	10:52 (34)	09:25		
	22:27	21:16	19:48	18:22	68	15:25 (24)	16:09	43	12:43 (21)	15:42
20	05:00	06:06	07:15	08:23	12:38 (29)	08:36	10:57 (34)	09:26		
	22:25	21:13	19:45	18:20	64	15:25 (24)	16:08	38	12:42 (21)	15:43
21	05:01	06:08	07:17	08:25	12:37 (29)	08:39	11:01 (34)	09:26		
	22:24	21:10	19:42	18:17	68	15:27 (24)	16:06	24	12:43 (21)	15:43
22	05:03	06:11	07:19	08:27	12:35 (29)	08:41	11:04 (34)	09:27		
	22:22	21:08	19:39	18:14	72	15:27 (24)	16:04	22	12:44 (21)	15:43
23	05:05	06:13	07:22	08:30	12:35 (29)	08:43	11:04 (34)	09:27		
	22:20	21:05	19:36	18:12	75	15:28 (24)	16:02	9	12:44 (21)	15:44
24	05:07	06:15	07:24	08:32	12:34 (29)	08:45	11:04 (34)	09:28		
	22:18	21:02	19:33	18:09	77	15:28 (24)	16:01	6	11:10 (34)	15:44
25	05:09	06:17	07:26	07:35	11:34 (29)	08:47		09:28		
	22:16	20:59	19:30	17:06	78	14:28 (24)	15:59		15:45	
26	05:11	06:20	07:28	07:37	11:33 (29)	08:50		09:28		
	22:14	20:56	19:27	17:04	91	15:13 (25)	15:58		15:46	
27	05:13	06:22	07:30	09:03 (18)	07:39	11:33 (29)	08:52		09:28	
	22:12	20:54	19:25	8	09:11 (18)	17:01	15:16 (25)	15:56		15:47
28	05:16	06:24	07:33	09:00 (18)	07:42	11:33 (29)	08:54		09:28	
	22:10	20:51	19:22	12	09:12 (18)	16:59	15:17 (25)	15:55		15:48
29	05:18	06:26	07:35	08:58 (18)	07:44	11:32 (29)	08:56		09:28	
	22:07	20:48	19:19	15	09:13 (18)	16:56	15:18 (25)	15:54		15:49
30	05:20	06:29	07:37	08:56 (18)	07:47	11:33 (29)	08:58		09:28	
	22:05	20:45	19:16	18	09:14 (18)	16:54	15:19 (25)	15:52		15:50
31	05:22	06:31			07:49	11:33 (29)			09:28	
	22:03	20:42			16:51	98	15:16 (25)		15:51	
Potential sun hours	546	478	386	319		236		199		
Total, worst case			53	1635		1236				

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Calculation: Oppdatert layout - med nærliggende - worst case - oppdatert mottaker **Shadow receptor:** B - Moi 26 (2)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

The sun is shining all the day, from sunrise to sunset

The rotor plane is always perpendicular to the line from the WTG to the sun

The WTG is always operating

	January	February	March	April	May	June		
1	09:28 15:53	08:46 16:56	11:18 (34) 14:41 (24)	07:35 18:05	09:09 (16) 23 09:32 (16)	07:07 20:17	05:44 21:26	04:40 22:30
2	09:27 15:54	08:43 16:58	11:58 (29) 14:43 (24)	07:33 18:07	09:09 (16) 24 09:33 (16)	07:04 20:19	05:41 21:28	04:38 22:32
3	09:27 15:55	08:41 17:01	11:57 (29) 14:44 (24)	07:30 18:09	09:09 (16) 23 09:32 (16)	07:01 20:21	05:39 21:30	04:37 22:34
4	09:26 15:57	08:39 17:03	11:57 (29) 14:46 (24)	07:27 18:12	09:09 (16) 22 09:31 (16)	06:58 20:24	05:36 21:33	04:36 22:35
5	09:26 15:58	08:37 17:06	11:56 (29) 14:47 (24)	07:24 18:14	09:10 (16) 20 09:30 (16)	06:55 20:26	05:34 21:35	04:35 22:37
6	09:25 16:00	08:34 17:08	11:56 (29) 14:48 (24)	07:21 18:17	09:10 (16) 19 09:29 (16)	06:52 20:28	05:31 21:37	04:34 22:38
7	09:24 16:02	08:32 17:11	11:55 (29) 15:29 (25)	07:19 18:19	09:11 (16) 16 09:27 (16)	06:50 20:30	05:29 21:40	04:33 22:39
8	09:24 16:03	08:30 17:13	11:56 (29) 15:35 (25)	07:16 18:21	09:13 (16) 12 09:25 (16)	06:47 20:33	05:26 21:42	04:32 22:40
9	09:23 16:05	08:27 17:16	11:55 (29) 15:40 (25)	07:13 18:24		06:44 20:35	05:24 21:44	04:31 22:42
10	09:22 16:07	08:25 17:18	11:55 (29) 15:44 (25)	07:10 18:26		06:41 20:37	05:22 21:46	04:30 22:43
11	09:21 16:09	08:23 17:21	11:55 (29) 15:44 (25)	07:07 18:28		06:38 20:40	05:19 21:49	04:29 22:44
12	09:20 16:11	08:20 17:23	11:55 (29) 15:43 (25)	07:04 18:31		06:35 20:42	05:17 21:51	04:29 22:45
13	09:18 16:13	08:18 17:26	11:55 (29) 15:41 (25)	07:01 18:33		06:32 20:44	05:15 21:53	04:28 22:46
14	09:17 16:15	08:15 17:28	11:55 (29) 15:40 (25)	06:59 18:35		06:30 20:47	05:13 21:55	04:28 22:47
15	09:16 16:17	08:13 17:31	11:55 (29) 15:37 (25)	06:56 18:38		06:27 20:49	05:10 21:58	04:27 22:47
16	09:15 16:19	08:10 17:33	11:55 (29) 14:50 (24)	06:53 18:40		06:24 20:51	05:08 22:00	04:27 22:48
17	09:13 16:21	12:54 (21) 12:55 (21)	08:07 17:36	11:56 (29) 14:49 (24)	06:50 18:42	06:21 20:53	05:06 22:02	04:27 22:49
18	09:12 16:23	11:10 (34) 13:01 (21)	08:05 17:38	11:57 (29) 14:49 (24)	06:47 18:45	06:19 20:56	05:04 22:04	04:27 22:49
19	09:10 16:25	11:10 (34) 13:02 (21)	08:02 17:40	11:57 (29) 14:48 (24)	06:44 18:47	06:16 20:58	05:02 22:06	04:27 22:50
20	09:08 16:28	11:10 (34) 13:02 (21)	08:00 17:43	11:58 (29) 14:47 (24)	06:41 18:49	06:13 21:00	05:00 22:08	04:27 22:50
21	09:07 16:30	11:09 (34) 13:02 (21)	07:57 17:45	11:59 (29) 14:45 (24)	06:38 18:51	06:10 21:03	04:58 22:10	04:27 22:50
22	09:05 16:32	11:07 (34) 13:02 (21)	07:54 17:48	09:19 (16) 14:43 (24)	06:36 18:54	06:08 21:05	04:56 22:12	04:27 22:50
23	09:03 16:34	11:07 (34) 13:02 (21)	07:52 17:50	09:16 (16) 14:41 (24)	06:33 18:56	06:05 21:07	04:54 22:14	04:27 22:50
24	09:02 16:37	11:08 (34) 13:02 (21)	07:49 17:53	09:14 (16) 14:36 (24)	06:30 18:58	06:02 21:10	04:52 22:16	04:27 22:51
25	09:00 16:39	11:08 (34) 13:02 (21)	07:46 17:55	09:12 (16) 12:25 (29)	06:27 19:01	05:59 21:12	04:51 22:18	04:28 22:50
26	08:58 16:41	11:09 (34) 13:02 (21)	07:44 17:57	09:11 (16) 12:18 (29)	06:24 19:03	05:57 21:14	04:49 22:20	04:28 22:50
27	08:56 16:44	11:09 (34) 13:01 (21)	07:41 18:00	09:10 (16) 09:32 (16)	06:21 19:05	05:54 21:17	04:47 22:22	04:29 22:50
28	08:54 16:46	11:10 (34) 13:00 (21)	07:38 18:02	09:09 (16) 09:32 (16)	06:18 19:07	05:52 21:19	04:46 22:24	04:30 22:50
29	08:52 16:49	11:12 (34) 13:00 (21)			07:15 20:10	05:49 21:21	04:44 22:25	04:30 22:50
30	08:50 16:51	11:13 (34) 14:31 (24)			07:12 20:12	05:46 21:24	04:43 22:27	04:31 22:49
31	08:48 16:54	11:15 (34) 14:39 (24)			07:10 20:14		04:41 22:29	
Potential sun hours	221	260	365	432	521	547		
Total, worst case	708	1924	159					

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)		Last time (hh:mm) with flicker	(WTG causing flicker last time)

SHADOW - Calendar

Calculation: Oppdatert layout - med nærliggende - worst case - oppdatert mottaker **Shadow receptor:** B - Moi 26 (2)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

The sun is shining all the day, from sunrise to sunset

The rotor plane is always perpendicular to the line from the WTG to the sun

The WTG is always operating

	July	August	September	October		November		December	
1	04:32 22:49	05:24 22:01	06:33 20:40	07:39 19:13		07:51 16:49	101	11:24 (29) 15:13 (25)	09:00 15:51
2	04:33 22:48	05:26 21:58	06:35 20:37	07:42 19:10		07:54 16:46	96	11:25 (29) 15:09 (25)	09:02 15:50
3	04:34 22:47	05:28 21:56	06:37 20:34	07:44 19:07		07:56 16:44	90	11:25 (29) 15:04 (25)	09:03 15:49
4	04:35 22:47	05:31 21:54	06:40 20:31	07:46 19:04		07:59 16:41	81	11:25 (29) 14:58 (25)	09:05 15:48
5	04:36 22:46	05:33 21:51	06:42 20:28	07:48 19:02	8	09:52 (16) 10:00 (16)	08:01 16:39	11:26 (29) 14:18 (24)	09:07 15:47
6	04:37 22:45	05:35 21:49	06:44 20:25	07:51 18:59	15	09:48 (16) 10:03 (16)	08:03 16:37	11:27 (29) 14:17 (24)	09:09 15:46
7	04:39 22:44	05:37 21:47	06:46 20:22	07:53 18:56	18	09:46 (16) 10:04 (16)	08:06 16:34	11:27 (29) 14:16 (24)	09:10 15:45
8	04:40 22:43	05:39 21:44	06:49 20:20	07:55 18:53	20	09:45 (16) 10:05 (16)	08:08 16:32	11:28 (29) 14:15 (24)	09:12 15:45
9	04:41 22:42	05:42 21:42	06:51 20:17	07:57 18:50	22	09:44 (16) 10:06 (16)	08:11 16:30	11:29 (29) 14:14 (24)	09:13 15:44
10	04:43 22:40	05:44 21:39	06:53 20:14	08:00 18:47	22	09:44 (16) 10:06 (16)	08:13 16:28	10:49 (34) 14:13 (24)	09:15 15:44
11	04:44 22:39	05:46 21:37	06:55 20:11	08:02 18:45	23	09:43 (16) 10:06 (16)	08:15 16:25	10:46 (34) 14:10 (24)	09:16 15:43
12	04:46 22:38	05:48 21:34	06:57 20:08	08:04 18:42	24	09:42 (16) 10:06 (16)	08:18 16:23	10:44 (34) 14:02 (24)	09:18 15:43
13	04:47 22:37	05:51 21:31	07:00 20:05	08:07 18:39	24	09:42 (16) 10:06 (16)	08:20 16:21	10:44 (34) 12:31 (21)	09:19 15:42
14	04:49 22:35	05:53 21:29	07:02 20:02	08:09 18:36	23	09:42 (16) 10:05 (16)	08:22 16:19	10:42 (34) 12:32 (21)	09:20 15:42
15	04:51 22:34	05:55 21:26	07:04 19:59	08:11 18:33	22	09:43 (16) 10:05 (16)	08:25 16:17	10:42 (34) 12:34 (21)	09:21 15:42
16	04:52 22:32	05:57 21:24	07:06 19:56	08:13 18:31	32	09:43 (16) 12:54 (29)	08:27 16:15	10:42 (34) 12:35 (21)	09:22 15:42
17	04:54 22:30	06:00 21:21	07:08 19:54	08:16 18:28	39	09:44 (16) 12:58 (29)	08:29 16:13	10:41 (34) 12:35 (21)	09:23 15:42
18	04:56 22:29	06:02 21:18	07:11 19:51	08:18 18:25	53	09:45 (16) 15:09 (24)	08:32 16:11	10:42 (34) 12:36 (21)	09:24 15:42
19	04:58 22:27	06:04 21:16	07:13 19:48	08:20 18:22	58	09:48 (16) 15:13 (24)	08:34 16:09	10:42 (34) 12:37 (21)	09:25 15:42
20	05:00 22:25	06:06 21:13	07:15 19:45	08:23 18:20	55	12:31 (29) 15:15 (24)	08:36 16:08	10:42 (34) 12:37 (21)	09:26 15:43
21	05:01 22:24	06:08 21:10	07:17 19:42	08:25 18:17	61	12:30 (29) 15:17 (24)	08:39 16:06	10:44 (34) 12:37 (21)	09:26 15:43
22	05:03 22:22	06:11 21:08	07:19 19:39	08:27 18:14	66	12:28 (29) 15:17 (24)	08:41 16:04	10:46 (34) 12:38 (21)	09:27 15:43
23	05:05 22:20	06:13 21:05	07:22 19:36	08:30 18:12	71	12:27 (29) 15:19 (24)	08:43 16:02	10:46 (34) 12:38 (21)	09:27 15:44
24	05:07 22:18	06:15 21:02	07:24 19:33	08:32 18:09	73	12:26 (29) 15:19 (24)	08:45 16:01	10:47 (34) 12:38 (21)	09:28 15:44
25	05:09 22:16	06:17 20:59	07:26 19:30	07:35 17:06	76	11:26 (29) 14:20 (24)	08:47 15:59	12:32 (21) 12:34 (21)	09:28 15:45
26	05:11 22:14	06:20 20:56	07:28 19:27	07:37 17:04	77	11:25 (29) 14:19 (24)	08:50 15:58		09:28 15:46
27	05:13 22:12	06:22 20:54	07:30 19:25	07:39 17:01	87	11:25 (29) 15:07 (25)	08:52 15:56		09:28 15:47
28	05:16 22:10	06:24 20:51	07:33 19:22	07:42 16:59	93	11:25 (29) 15:10 (25)	08:54 15:55		09:28 15:48
29	05:18 22:07	06:26 20:48	07:35 19:19	07:44 16:56	98	11:24 (29) 15:11 (25)	08:56 15:54		09:28 15:49
30	05:20 22:05	06:29 20:45	07:37 19:16	07:47 16:54	100	11:24 (29) 15:12 (25)	08:58 15:52		09:28 15:50
31	05:22 22:03	06:31 20:42		07:49 16:51	100	11:25 (29) 15:13 (25)			09:28 15:51
Potential sun hours	546	478	386	319		236			199
Total, worst case				1360		1465			

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Calculation: Oppdatert layout - med nærliggende - worst case - oppdatert mottaker **Shadow receptor:** C - Moi 21 (3)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

The sun is shining all the day, from sunrise to sunset

The rotor plane is always perpendicular to the line from the WTG to the sun

The WTG is always operating

	January	February	March	April	May	June		
1	09:28	08:46	10:42 (34)	07:35	08:50 (16)	07:07	05:44	04:40
	15:53	16:56	72 14:06 (24)	18:05	39 11:29 (29)	20:17	21:26	22:30
2	09:27	08:43	10:44 (34)	07:33	08:50 (16)	07:04	05:41	04:38
	15:54	16:58	70 14:08 (24)	18:07	31 11:25 (29)	20:19	21:28	22:32
3	09:27	08:41	10:46 (34)	07:30	08:49 (16)	07:01	05:39	04:37
	15:55	17:01	72 14:10 (24)	18:09	21 09:10 (16)	20:21	21:31	22:34
4	09:26	08:39	10:47 (34)	07:27	08:48 (16)	06:58	05:36	04:36
	15:57	17:03	77 15:02 (25)	18:12	22 09:10 (16)	20:24	21:33	22:35
5	09:26	08:37	10:50 (34)	07:24	08:48 (16)	06:55	05:34	04:35
	15:58	17:06	77 15:05 (25)	18:14	21 09:09 (16)	20:26	21:35	22:37
6	09:25	08:34	11:05 (29)	07:21	08:48 (16)	06:52	05:31	04:34
	16:00	17:08	82 15:12 (25)	18:17	21 09:09 (16)	20:28	21:37	22:38
7	09:24	08:32	11:03 (29)	07:19	08:48 (16)	06:50	05:29	04:33
	16:02	17:11	92 15:18 (25)	18:19	20 09:08 (16)	20:30	21:40	22:39
8	09:24	08:30	11:03 (29)	07:16	08:48 (16)	06:47	05:26	04:32
	16:03	17:13	101 15:25 (25)	18:21	19 09:07 (16)	20:33	21:42	22:40
9	09:23	08:27	11:02 (29)	07:13	08:48 (16)	06:44	05:24	04:31
	16:05	17:16	112 15:55 (23)	18:24	18 09:06 (16)	20:35	21:44	22:42
10	09:22	08:25	11:01 (29)	07:10	08:49 (16)	06:41	05:22	04:30
	16:07	17:18	104 15:51 (23)	18:26	15 09:04 (16)	20:37	21:46	22:43
11	09:21	08:23	11:01 (29)	07:07	08:51 (16)	06:38	05:19	04:29
	16:09	17:21	101 15:23 (25)	18:28	11 09:02 (16)	20:40	21:49	22:44
12	09:20	08:20	11:00 (29)	07:04		06:35	05:17	04:29
	16:11	17:23	98 15:21 (25)	18:31		20:42	21:51	22:45
13	09:18	08:18	10:59 (29)	07:02		06:33	05:15	04:28
	16:13	17:26	94 15:18 (25)	18:33		20:44	21:53	22:46
14	09:17	08:15	11:00 (29)	06:59		06:30	05:13	04:28
	16:15	17:28	83 14:14 (24)	18:35		20:47	21:55	22:47
15	09:16	08:13	10:59 (29)	06:56		06:27	05:10	04:27
	16:17	17:31	83 14:13 (24)	18:38		20:49	21:58	22:47
16	09:15	08:10	10:59 (29)	06:53		06:24	05:08	04:27
	16:19	17:33	81 14:12 (24)	18:40		20:51	22:00	22:48
17	09:13	08:07	10:59 (29)	06:50		06:21	05:06	04:27
	16:21	17:36	81 14:12 (24)	18:42		20:53	22:02	22:49
18	09:12	08:05	10:59 (29)	06:47		06:19	05:04	04:27
	16:23	17:38	80 14:12 (24)	18:45		20:56	22:04	22:49
19	09:10	08:02	10:59 (29)	06:44		06:16	05:02	04:27
	16:25	17:40	78 14:11 (24)	18:47		20:58	22:06	22:50
20	09:08	08:00	10:59 (29)	06:41		06:13	05:00	04:27
	16:28	17:43	74 14:09 (24)	18:49		21:00	22:08	22:50
21	09:07	07:57	10:59 (29)	06:39		06:10	04:58	04:27
	16:30	17:45	71 14:08 (24)	18:51		21:03	22:10	22:50
22	09:05	07:54	11:00 (29)	06:36		06:08	04:56	04:27
	16:32	17:48	66 14:06 (24)	18:54		21:05	22:12	22:50
23	09:03	07:52	11:01 (29)	06:33		06:05	04:54	04:27
	16:34	17:50	60 14:04 (24)	18:56		21:07	22:14	22:50
24	09:02	07:49	11:01 (29)	06:30		06:02	04:52	04:27
	16:37	17:53	50 14:00 (24)	18:58		21:10	22:16	22:51
25	09:00	07:46	11:02 (29)	06:27		06:00	04:51	04:28
	16:39	17:55	36 11:38 (29)	19:01		21:12	22:18	22:50
26	08:58	12:05 (21)	07:44	11:03 (29)	06:24	05:57	04:49	04:28
	16:41	5 12:10 (21)	17:57	11:36 (29)	19:03	21:14	22:20	22:50
27	08:56	12:05 (21)	07:41	08:54 (16)	06:21	05:54	04:47	04:29
	16:44	19 13:53 (24)	18:00	11:34 (29)	19:05	21:17	22:22	22:50
28	08:54	11:00 (34)	07:38	08:52 (16)	06:18	05:52	04:46	04:30
	16:46	40 13:59 (24)	18:02	11:32 (29)	19:08	21:19	22:24	22:50
29	08:52	10:56 (34)		07:15		05:49	04:44	04:30
	16:49	47 14:02 (24)		20:10		21:21	22:25	22:50
30	08:50	10:50 (34)		07:13		05:46	04:43	04:31
	16:51	55 14:03 (24)		20:12		21:24	22:27	22:49
31	08:48	10:44 (34)		07:10			04:41	
	16:54	61 14:05 (24)		20:14			22:29	
Potential sun hours	221	260	365		432	521	547	
Total, worst case	227	2110	238					

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Calculation: Oppdatert layout - med nærliggende - worst case - oppdatert mottaker **Shadow receptor:** C - Moi 21 (3)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

The sun is shining all the day, from sunrise to sunset

The rotor plane is always perpendicular to the line from the WTG to the sun

The WTG is always operating

	July	August	September	October		November		December	
1	04:32 22:49	05:24 22:01	06:33 20:40	07:39 19:13		07:51 16:49	107	10:30 (29) 15:21 (23)	09:00 15:51
2	04:33 22:48	05:26 21:58	06:35 20:37	07:42 19:10	7	09:32 (16) 09:39 (16)	111	10:31 (29) 15:25 (23)	09:02 15:50
3	04:34 22:47	05:28 21:56	06:37 20:34	07:44 19:07	14	09:28 (16) 09:42 (16)	97	10:33 (29) 14:53 (25)	09:03 15:49
4	04:35 22:47	05:31 21:54	06:40 20:31	07:46 19:04	17	09:26 (16) 09:43 (16)	89	10:33 (29) 14:46 (25)	09:05 15:48
5	04:36 22:46	05:33 21:51	06:42 20:28	07:48 19:02	19	09:25 (16) 09:44 (16)	82	10:34 (29) 14:41 (25)	09:07 15:47
6	04:37 22:45	05:35 21:49	06:44 20:25	07:51 18:59	20	09:24 (16) 09:44 (16)	77	10:20 (34) 14:35 (25)	09:09 15:46
7	04:39 22:44	05:37 21:47	06:46 20:22	07:53 18:56	21	09:23 (16) 09:44 (16)	78	10:16 (34) 14:32 (25)	09:10 15:45
8	04:40 22:43	05:39 21:44	06:49 20:20	07:55 18:53	22	09:23 (16) 09:45 (16)	71	10:15 (34) 13:39 (24)	09:12 15:45
9	04:41 22:42	05:42 21:42	06:51 20:17	07:57 18:50	21	09:23 (16) 09:44 (16)	71	10:15 (34) 13:39 (24)	09:13 15:44
10	04:43 22:40	05:44 21:39	06:53 20:14	08:00 18:47	21	09:23 (16) 09:44 (16)	70	10:14 (34) 13:38 (24)	09:15 15:44
11	04:44 22:39	05:46 21:37	06:55 20:11	08:02 18:45	20	09:23 (16) 09:43 (16)	61	10:15 (34) 13:36 (24)	09:16 15:43
12	04:46 22:38	05:48 21:34	06:57 20:08	08:04 18:42	35	09:23 (16) 12:00 (29)	52	10:24 (34) 13:35 (24)	09:18 15:43
13	04:47 22:37	05:51 21:31	07:00 20:05	08:07 18:39	39	09:25 (16) 12:04 (29)	46	10:28 (34) 13:33 (24)	09:19 15:42
14	04:49 22:35	05:53 21:29	07:02 20:02	08:09 18:36	42	09:25 (16) 12:06 (29)	39	10:32 (34) 13:30 (24)	09:20 15:42
15	04:51 22:34	05:55 21:26	07:04 19:59	08:11 18:33	40	09:28 (16) 12:08 (29)	19	11:38 (21) 13:26 (24)	09:21 15:42
16	04:52 22:32	05:57 21:24	07:06 19:56	08:13 18:31	34	11:35 (29) 12:09 (29)	4	11:38 (21) 11:42 (21)	09:22 15:42
17	04:54 22:30	06:00 21:21	07:08 19:54	08:16 18:28	36	11:34 (29) 12:10 (29)		08:29 16:13	09:23 15:42
18	04:56 22:29	06:02 21:18	07:11 19:51	08:18 18:25	55	11:32 (29) 14:33 (24)		08:32 16:11	09:24 15:42
19	04:58 22:27	06:04 21:16	07:13 19:48	08:20 18:22	62	11:32 (29) 14:36 (24)		08:34 16:09	09:25 15:42
20	05:00 22:25	06:06 21:13	07:15 19:45	08:23 18:20	67	11:31 (29) 14:37 (24)		08:36 16:08	09:26 15:43
21	05:01 22:24	06:09 21:10	07:17 19:42	08:25 18:17	72	11:30 (29) 14:39 (24)		08:39 16:06	09:26 15:43
22	05:03 22:22	06:11 21:08	07:19 19:39	08:27 18:14	75	11:29 (29) 14:40 (24)		08:41 16:04	09:27 15:43
23	05:05 22:20	06:13 21:05	07:22 19:36	08:30 18:12	78	11:29 (29) 14:41 (24)		08:43 16:02	09:27 15:44
24	05:07 22:18	06:15 21:02	07:24 19:33	08:32 18:09	78	11:29 (29) 14:41 (24)		08:45 16:01	09:28 15:45
25	05:09 22:16	06:17 20:59	07:26 19:30	07:35 17:07	81	10:29 (29) 13:42 (24)		08:47 15:59	09:28 15:45
26	05:11 22:14	06:20 20:57	07:28 19:27	07:37 17:04	82	10:29 (29) 13:43 (24)		08:50 15:58	09:28 15:46
27	05:13 22:12	06:22 20:54	07:30 19:25	07:39 17:01	81	10:29 (29) 13:42 (24)		08:52 15:56	09:28 15:47
28	05:16 22:10	06:24 20:51	07:33 19:22	07:42 16:59	87	10:29 (29) 14:45 (25)		08:54 15:55	09:28 15:48
29	05:18 22:07	06:26 20:48	07:35 19:19	07:44 16:56	95	10:29 (29) 14:48 (25)		08:56 15:54	09:28 15:49
30	05:20 22:05	06:29 20:45	07:37 19:16	07:47 16:54	99	10:30 (29) 14:51 (25)		08:58 15:52	09:28 15:50
31	05:22 22:03	06:31 20:42		07:49 16:51	100	10:30 (29) 14:52 (25)			09:28 15:51
Potential sun hours	546	478	386	319		236			199
Total, worst case					1520		1074		

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Calculation: Oppdatert layout - med nærliggende - worst case - oppdatert mottaker **Shadow receptor:** D - Buevegen 1805 (4)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

The sun is shining all the day, from sunrise to sunset

The rotor plane is always perpendicular to the line from the WTG to the sun

The WTG is always operating

	January	February	March	April	May	June	
1	09:28 15:53	08:46 16:56	11:39 (29) 15:12 (25)	07:35 18:05	09:25 (16) 20:17	05:44 21:26	04:40 22:31
2	09:27 15:54	08:43 16:58	11:39 (29) 15:13 (25)	07:33 18:07	07:04 20:19	05:41 21:28	04:38 22:32
3	09:27 15:55	08:41 17:01	11:40 (29) 15:12 (25)	07:30 18:09	07:01 20:21	05:39 21:31	04:37 22:34
4	09:27 15:57	08:39 17:03	11:39 (29) 15:11 (25)	07:27 18:12	06:58 20:24	05:36 21:33	04:36 22:35
5	09:26 15:58	12:20 (21) 08:37 12:21 (21) 17:06	11:39 (29) 15:09 (25)	07:24 18:14	06:55 20:26	05:34 21:35	04:35 22:37
6	09:25 16:00	12:19 (21) 08:34 12:24 (21) 17:08	11:40 (29) 15:08 (25)	07:21 18:17	06:52 20:28	05:31 21:37	04:34 22:38
7	09:24 16:02	12:17 (21) 08:32 12:28 (21) 17:11	11:40 (29) 15:08 (25)	07:19 18:19	06:50 20:30	05:29 21:40	04:33 22:39
8	09:24 16:03	12:17 (21) 08:30 12:30 (21) 17:13	11:41 (29) 14:11 (24)	07:16 18:21	06:47 20:33	05:26 21:42	04:32 22:40
9	09:23 16:05	12:18 (21) 08:27 12:34 (21) 17:16	11:42 (29) 14:10 (24)	07:13 18:24	06:44 20:35	05:24 21:44	04:31 22:42
10	09:22 16:07	11:06 (34) 08:25 12:39 (21) 17:18	11:42 (29) 14:09 (24)	07:10 18:26	06:41 20:37	05:22 21:46	04:30 22:43
11	09:21 16:09	11:02 (34) 08:23 12:41 (21) 17:21	11:44 (29) 14:08 (24)	07:07 18:28	06:38 20:40	05:19 21:49	04:29 22:44
12	09:20 16:11	11:01 (34) 08:20 12:41 (21) 17:23	11:45 (29) 14:06 (24)	07:04 18:31	06:35 20:42	05:17 21:51	04:29 22:45
13	09:18 16:13	11:02 (34) 08:18 12:42 (21) 17:26	11:46 (29) 14:02 (24)	07:02 18:33	06:32 20:44	05:15 21:53	04:28 22:46
14	09:17 16:15	11:02 (34) 08:15 12:42 (21) 17:28	11:49 (29) 12:07 (29)	06:59 18:35	06:30 20:47	05:13 21:55	04:28 22:47
15	09:16 16:17	11:02 (34) 08:13 12:42 (21) 17:31	11:52 (29) 12:04 (29)	06:56 18:38	06:27 20:49	05:10 21:58	04:27 22:47
16	09:15 16:19	11:02 (34) 08:10 12:42 (21) 17:33	09:29 (16) 06:53 09:34 (16) 18:40	06:53 18:40	06:24 20:51	05:08 22:00	04:27 22:48
17	09:13 16:21	11:02 (34) 08:07 12:42 (21) 17:36	09:26 (16) 06:50 09:37 (16) 18:42	06:50 18:42	06:21 20:53	05:06 22:02	04:27 22:49
18	09:12 16:23	11:03 (34) 08:05 13:55 (24) 17:38	09:25 (16) 06:47 09:39 (16) 18:45	06:47 18:45	06:19 20:56	05:04 22:04	04:27 22:49
19	09:10 16:25	11:03 (34) 08:02 13:59 (24) 17:40	09:23 (16) 06:44 09:40 (16) 18:47	06:44 18:47	06:16 20:58	05:02 22:06	04:27 22:50
20	09:08 16:28	11:04 (34) 08:00 14:01 (24) 17:43	09:22 (16) 06:41 09:41 (16) 18:49	06:41 18:49	06:13 21:00	05:00 22:08	04:27 22:50
21	09:07 16:30	11:04 (34) 07:57 14:03 (24) 17:45	09:21 (16) 06:39 09:41 (16) 18:51	06:39 18:51	06:10 21:03	04:58 22:10	04:27 22:50
22	09:05 16:32	11:05 (34) 07:54 14:05 (24) 17:48	09:20 (16) 06:36 09:41 (16) 18:54	06:36 18:54	06:08 21:05	04:56 22:12	04:27 22:50
23	09:03 16:34	11:05 (34) 07:52 14:05 (24) 17:50	09:21 (16) 06:33 09:42 (16) 18:56	06:33 18:56	06:05 21:07	04:54 22:14	04:27 22:51
24	09:02 16:37	11:06 (34) 07:49 14:07 (24) 17:53	09:21 (16) 06:30 09:42 (16) 18:58	06:30 18:58	06:02 21:10	04:52 22:16	04:27 22:51
25	09:00 16:39	11:07 (34) 07:46 14:52 (25) 17:55	09:21 (16) 06:27 09:41 (16) 19:01	06:27 19:01	05:59 21:12	04:51 22:18	04:28 22:51
26	08:58 16:41	11:09 (34) 07:44 14:57 (25) 17:57	09:21 (16) 06:24 09:40 (16) 19:03	06:24 19:03	05:57 21:14	04:49 22:20	04:28 22:50
27	08:56 16:44	11:10 (34) 07:41 15:12 (25) 18:00	09:22 (16) 06:21 09:39 (16) 19:05	06:21 19:05	05:54 21:17	04:47 22:22	04:29 22:50
28	08:54 16:46	11:13 (34) 07:38 15:13 (25) 18:02	09:23 (16) 06:18 09:37 (16) 19:08	06:18 19:08	05:52 21:19	04:46 22:24	04:30 22:50
29	08:52 16:49	11:40 (29) 15:14 (25)	07:15 20:10	07:15 20:10	05:49 21:21	04:44 22:25	04:30 22:50
30	08:50 16:51	11:39 (29) 15:13 (25)	07:12 20:12	07:12 20:12	05:46 21:24	04:42 22:27	04:31 22:49
31	08:48 16:54	11:39 (29) 15:13 (25)	07:10 20:14	07:10 20:14	04:41 22:29	04:41 22:29	04:41 22:29
Potential sun hours	221	260	365	432	521	547	
Total, worst case	1489	1103	9				

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Calculation: Oppdatert layout - med nærliggende - worst case - oppdatert mottaker **Shadow receptor:** D - Buevegen 1805 (4)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

The sun is shining all the day, from sunrise to sunset

The rotor plane is always perpendicular to the line from the WTG to the sun

The WTG is always operating

	July	August	September	October		November		December			
1	04:32 22:49	05:24 22:01	06:33 20:40	07:39 19:13		07:51 16:49		11:12 (29) 13:38 (24)	09:00 15:51		10:44 (34) 12:23 (21)
2	04:33 22:48	05:26 21:58	06:35 20:37	07:42 19:10		07:54 16:46	53	11:11 (29) 13:40 (24)	09:02 15:50	31	10:48 (34) 12:23 (21)
3	04:34 22:47	05:28 21:56	06:37 20:34	07:44 19:07		07:56 16:44	58	11:11 (29) 13:41 (24)	09:03 15:49	27	12:01 (21) 12:18 (21)
4	04:35 22:47	05:31 21:54	06:40 20:31	07:46 19:04		07:59 16:41	60	11:10 (29) 13:41 (24)	09:05 15:48	17	12:01 (21) 12:14 (21)
5	04:36 22:46	05:33 21:51	06:42 20:28	07:48 19:02		08:01 16:39	63	11:10 (29) 14:38 (25)	09:07 15:47	13	12:02 (21) 12:13 (21)
6	04:37 22:45	05:35 21:49	06:44 20:25	07:51 18:59		08:03 16:37	75	11:10 (29) 14:40 (25)	09:09 15:46	11	12:05 (21) 12:10 (21)
7	04:39 22:44	05:37 21:47	06:46 20:22	07:53 18:56		08:06 16:34	79	11:09 (29) 14:41 (25)	09:10 15:45	5	12:07 (21) 12:09 (21)
8	04:40 22:43	05:39 21:44	06:49 20:20	07:55 18:53		08:08 16:32	84	11:09 (29) 14:42 (25)	09:12 15:45	2	12:09 (21) 12:09 (21)
9	04:41 22:42	05:42 21:42	06:51 20:17	07:57 18:50		08:11 16:30	87	11:10 (29) 14:43 (25)	09:13 15:44		
10	04:43 22:41	05:44 21:39	06:53 20:14	08:00 18:47		08:13 16:28	87	11:10 (29) 14:44 (25)	09:15 15:43		
11	04:44 22:39	05:46 21:37	06:55 20:11	08:02 18:45		08:15 16:25	88	11:10 (29) 14:44 (25)	09:16 15:43		
12	04:46 22:38	05:48 21:34	06:57 20:08	08:04 18:42	4	10:01 (16) 10:05 (16)	88	11:11 (29) 14:45 (25)	09:18 15:43		
13	04:47 22:37	05:51 21:32	07:00 20:05	08:07 18:39	11	09:58 (16) 10:09 (16)	87	11:11 (29) 14:45 (25)	09:19 15:42		
14	04:49 22:35	05:53 21:29	07:02 20:02	08:09 18:36	16	09:55 (16) 10:11 (16)	89	10:45 (34) 14:45 (25)	09:20 15:42		
15	04:51 22:34	05:55 21:26	07:04 19:59	08:11 18:33	18	09:54 (16) 10:12 (16)	87	10:42 (34) 14:45 (25)	09:21 15:42		
16	04:52 22:32	05:57 21:24	07:06 19:56	08:13 18:31	19	09:53 (16) 10:12 (16)	87	10:41 (34) 14:30 (25)	09:22 15:42		
17	04:54 22:30	06:00 21:21	07:08 19:54	08:16 18:28	20	09:53 (16) 10:13 (16)	81	10:41 (34) 14:25 (25)	09:23 15:42		
18	04:56 22:29	06:02 21:18	07:11 19:51	08:18 18:25	21	09:52 (16) 10:13 (16)	84	10:40 (34) 13:41 (24)	09:24 15:42		
19	04:58 22:27	06:04 21:16	07:13 19:48	08:20 18:22	21	09:52 (16) 10:13 (16)	83	10:40 (34) 13:40 (24)	09:25 15:42		
20	05:00 22:25	06:06 21:13	07:15 19:45	08:23 18:20	20	09:52 (16) 10:12 (16)	82	10:39 (34) 13:39 (24)	09:26 15:43		
21	05:01 22:24	06:08 21:10	07:17 19:42	08:25 18:17	20	09:52 (16) 10:12 (16)	79	10:39 (34) 13:38 (24)	09:26 15:43		
22	05:03 22:22	06:11 21:08	07:19 19:39	08:27 18:14	19	09:52 (16) 10:11 (16)	75	10:40 (34) 13:37 (24)	09:27 15:43		
23	05:05 22:20	06:13 21:05	07:22 19:36	08:30 18:12	16	09:54 (16) 10:10 (16)	69	10:39 (34) 13:35 (24)	09:27 15:44		
24	05:07 22:18	06:15 21:02	07:24 19:33	08:32 18:09	14	09:54 (16) 10:08 (16)	58	10:40 (34) 13:32 (24)	09:28 15:44		
25	05:09 22:16	06:17 20:59	07:26 19:30	07:35 17:06	10	08:57 (16) 09:07 (16)	46	10:40 (34) 12:20 (21)	09:28 15:45		
26	05:11 22:14	06:20 20:57	07:28 19:27	07:37 17:04		07:37 15:58	43	10:41 (34) 12:21 (21)	09:28 15:46		
27	05:13 22:12	06:22 20:54	07:30 19:25	07:39 17:01	14	11:20 (29) 11:34 (29)	43	10:41 (34) 12:21 (21)	09:28 15:47		
28	05:16 22:10	06:24 20:51	07:33 19:22	07:42 16:59	19	11:18 (29) 11:37 (29)	42	10:42 (34) 12:22 (21)	09:28 15:48		
29	05:18 22:07	06:26 20:48	07:35 19:19	07:44 16:56	34	11:15 (29) 13:32 (24)	42	10:42 (34) 12:22 (21)	09:28 15:49		
30	05:20 22:05	06:29 20:45	07:37 19:16	07:47 16:54	42	11:14 (29) 13:35 (24)	40	10:42 (34) 12:22 (21)	09:28 15:50		
31	05:22 22:03	06:31 20:42		07:49 16:51	50	11:13 (29) 13:38 (24)			09:28 15:51		
Potential sun hours	546	478	386	319		236			199		
Total, worst case					388		2119			106	

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Calculation: Oppdatert layout - med nærliggende - worst case - oppdatert mottaker **Shadow receptor:** E - Buevegen 1816 (5)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

The sun is shining all the day, from sunrise to sunset

The rotor plane is always perpendicular to the line from the WTG to the sun

The WTG is always operating

	January	February	March	April	May	June	
1	09:28	11:12 (34) 08:46	11:58 (29) 07:35	07:07	05:44	04:40	
	15:53	2 11:14 (34) 16:56	87 15:21 (25) 18:05	20:17	21:26	22:30	
2	09:27	11:12 (34) 08:43	11:59 (29) 07:33	07:04	05:41	04:38	
	15:54	2 11:14 (34) 16:58	85 15:21 (25) 18:07	20:19	21:28	22:32	
3	09:27	11:11 (34) 08:41	12:00 (29) 07:30	07:01	05:39	04:37	
	15:55	4 12:42 (21) 17:01	84 15:21 (25) 18:09	20:21	21:31	22:34	
4	09:27	11:11 (34) 08:39	11:59 (29) 07:27	06:58	05:36	04:36	
	15:57	12 12:45 (21) 17:03	83 15:20 (25) 18:12	20:24	21:33	22:35	
5	09:26	11:11 (34) 08:37	11:59 (29) 07:24	06:55	05:34	04:35	
	15:58	18 12:46 (21) 17:06	81 15:19 (25) 18:14	20:26	21:35	22:37	
6	09:25	11:11 (34) 08:34	12:00 (29) 07:21	06:52	05:31	04:34	
	16:00	29 12:50 (21) 17:08	76 15:18 (25) 18:17	20:28	21:37	22:38	
7	09:24	11:11 (34) 08:32	12:01 (29) 07:19	06:50	05:29	04:33	
	16:02	35 12:50 (21) 17:11	67 15:15 (25) 18:19	20:30	21:40	22:39	
8	09:24	11:12 (34) 08:30	12:02 (29) 07:16	06:47	05:26	04:32	
	16:03	38 12:51 (21) 17:13	57 14:25 (24) 18:21	20:33	21:42	22:40	
9	09:23	11:12 (34) 08:27	12:03 (29) 07:13	06:44	05:24	04:31	
	16:05	40 12:52 (21) 17:16	54 14:24 (24) 18:24	20:35	21:44	22:42	
10	09:22	11:11 (34) 08:25	12:03 (29) 07:10	06:41	05:22	04:30	
	16:07	41 12:52 (21) 17:18	51 14:23 (24) 18:26	20:37	21:46	22:43	
11	09:21	11:12 (34) 08:23	12:05 (29) 07:07	06:38	05:19	04:29	
	16:09	42 12:53 (21) 17:21	45 14:22 (24) 18:28	20:40	21:49	22:44	
12	09:20	11:12 (34) 08:20	12:07 (29) 07:04	06:35	05:17	04:29	
	16:11	43 12:53 (21) 17:23	37 14:20 (24) 18:31	20:42	21:51	22:45	
13	09:18	11:12 (34) 08:18	12:09 (29) 07:02	06:32	05:15	04:28	
	16:13	44 12:54 (21) 17:26	26 14:17 (24) 18:33	20:44	21:53	22:46	
14	09:17	11:12 (34) 08:15	09:39 (16) 06:59	06:30	05:13	04:28	
	16:15	44 12:54 (21) 17:28	12 12:21 (29) 18:35	20:47	21:55	22:47	
15	09:16	11:12 (34) 08:13	09:36 (16) 06:56	06:27	05:10	04:27	
	16:17	51 12:54 (21) 17:31	11 09:47 (16) 18:38	20:49	21:58	22:47	
16	09:15	11:13 (34) 08:10	09:33 (16) 06:53	06:24	05:08	04:27	
	16:19	54 12:54 (21) 17:33	16 09:49 (16) 18:40	20:51	22:00	22:48	
17	09:13	11:13 (34) 08:07	09:32 (16) 06:50	06:21	05:06	04:27	
	16:21	58 12:54 (21) 17:36	17 09:49 (16) 18:42	20:53	22:02	22:49	
18	09:12	11:14 (34) 08:05	09:32 (16) 06:47	06:19	05:04	04:27	
	16:23	61 12:55 (21) 17:38	19 09:51 (16) 18:45	20:56	22:04	22:49	
19	09:10	11:15 (34) 08:02	09:31 (16) 06:44	06:16	05:02	04:27	
	16:25	63 12:55 (21) 17:40	20 09:51 (16) 18:47	20:58	22:06	22:50	
20	09:08	11:15 (34) 08:00	09:30 (16) 06:41	06:13	05:00	04:27	
	16:28	73 14:13 (24) 17:43	21 09:51 (16) 18:49	21:00	22:08	22:50	
21	09:07	11:16 (34) 07:57	09:30 (16) 06:38	06:10	04:58	04:27	
	16:30	76 14:15 (24) 17:45	21 09:51 (16) 18:51	21:03	22:10	22:50	
22	09:05	11:16 (34) 07:54	09:30 (16) 06:36	06:08	04:56	04:27	
	16:32	78 14:16 (24) 17:48	21 09:51 (16) 18:54	21:05	22:12	22:50	
23	09:03	11:17 (34) 07:52	09:31 (16) 06:33	06:05	04:54	04:27	
	16:34	79 14:18 (24) 17:50	20 09:51 (16) 18:56	21:07	22:14	22:51	
24	09:02	11:18 (34) 07:49	09:31 (16) 06:30	06:02	04:52	04:27	
	16:37	79 14:20 (24) 17:53	20 09:51 (16) 18:58	21:10	22:16	22:51	
25	09:00	11:20 (34) 07:46	09:31 (16) 06:27	05:59	04:51	04:28	
	16:39	73 14:21 (24) 17:55	18 09:49 (16) 19:01	21:12	22:18	22:51	
26	08:58	11:23 (34) 07:44	09:32 (16) 06:24	05:57	04:49	04:28	
	16:41	69 15:03 (25) 17:57	16 09:48 (16) 19:03	21:14	22:20	22:50	
27	08:56	11:58 (29) 07:41	09:33 (16) 06:21	05:54	04:47	04:29	
	16:44	66 15:04 (25) 18:00	13 09:46 (16) 19:05	21:17	22:22	22:50	
28	08:54	11:58 (29) 07:38	09:36 (16) 06:18	05:52	04:46	04:30	
	16:46	74 15:10 (25) 18:02	6 09:42 (16) 19:07	21:19	22:24	22:50	
29	08:52	11:59 (29)		07:15	05:49	04:44	04:30
	16:49	82 15:17 (25)		20:10	21:21	22:25	22:50
30	08:50	11:58 (29)		07:12	05:46	04:42	04:31
	16:51	86 15:21 (25)		20:12	21:24	22:27	22:49
31	08:48	11:59 (29)		07:10		04:41	
	16:54	87 15:22 (25)		20:14		22:29	
Potential sun hours	221		365	432	521	547	
Total, worst case	1603	1084					

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Calculation: Oppdatert layout - med nærliggende - worst case - oppdatert mottaker **Shadow receptor:** E - Buevegen 1816 (5)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

The sun is shining all the day, from sunrise to sunset

The rotor plane is always perpendicular to the line from the WTG to the sun

The WTG is always operating

	July	August	September	October	November	December	
1	04:32	05:24	06:33	07:39	07:51	11:33 (29) 09:00	10:54 (34)
	22:49	22:01	20:40	19:13	16:49	50 13:53 (24) 15:51	43 12:35 (21)
2	04:33	05:26	06:35	07:42	07:54	11:32 (29) 09:02	10:55 (34)
	22:48	21:58	20:37	19:10	16:46	55 13:54 (24) 15:50	40 12:35 (21)
3	04:34	05:28	06:37	07:44	07:56	11:31 (29) 09:03	10:55 (34)
	22:47	21:56	20:34	19:07	16:44	59 13:55 (24) 15:49	40 12:35 (21)
4	04:35	05:31	06:40	07:46	07:59	11:30 (29) 09:05	10:56 (34)
	22:47	21:54	20:31	19:04	16:41	69 14:45 (25) 15:48	39 12:35 (21)
5	04:36	05:33	06:42	07:48	08:01	11:30 (29) 09:07	10:56 (34)
	22:46	21:51	20:28	19:02	16:39	76 14:48 (25) 15:47	35 12:36 (21)
6	04:37	05:35	06:44	07:51	08:03	11:30 (29) 09:09	10:57 (34)
	22:45	21:49	20:25	18:59	16:37	79 14:50 (25) 15:46	29 12:36 (21)
7	04:39	05:37	06:46	07:53	08:06	11:29 (29) 09:10	10:58 (34)
	22:44	21:47	20:22	18:56	16:34	83 14:50 (25) 15:45	21 12:34 (21)
8	04:40	05:39	06:49	07:55	08:08	11:29 (29) 09:12	10:59 (34)
	22:43	21:44	20:20	18:53	16:32	87 14:51 (25) 15:45	12 12:33 (21)
9	04:41	05:42	06:51	07:57	08:11	11:30 (29) 09:13	11:00 (34)
	22:42	21:42	20:17	18:50	16:30	86 14:52 (25) 15:44	5 12:32 (21)
10	04:43	05:44	06:53	08:00	08:13	11:30 (29) 09:15	11:01 (34)
	22:41	21:39	20:14	18:47	16:28	88 14:53 (25) 15:43	2 11:03 (34)
11	04:44	05:46	06:55	08:02	08:15	11:29 (29) 09:16	11:02 (34)
	22:39	21:37	20:11	18:45	16:25	87 14:52 (25) 15:43	2 11:04 (34)
12	04:46	05:48	06:57	08:04	08:18	11:30 (29) 09:18	
	22:38	21:34	20:08	18:42	16:23	87 14:53 (25) 15:43	
13	04:47	05:51	07:00	08:07	08:20	11:31 (29) 09:19	
	22:37	21:31	20:05	18:39	16:21	81 14:49 (25) 15:42	
14	04:49	05:53	07:02	08:09	10:08 (16) 08:22	11:30 (29) 09:20	
	22:35	21:29	20:02	18:36	9 10:17 (16) 16:19	73 14:41 (25) 15:42	
15	04:51	05:55	07:04	08:11	10:06 (16) 08:25	11:31 (29) 09:21	
	22:34	21:26	19:59	18:33	14 10:20 (16) 16:17	67 14:37 (25) 15:42	
16	04:52	05:57	07:06	08:13	10:04 (16) 08:27	10:56 (34) 09:22	
	22:32	21:24	19:56	18:31	16 10:20 (16) 16:15	69 14:36 (25) 15:42	
17	04:54	06:00	07:08	08:16	10:03 (16) 08:30	10:54 (34) 09:23	
	22:30	21:21	19:54	18:28	19 10:22 (16) 16:13	73 13:55 (24) 15:42	
18	04:56	06:02	07:11	08:18	10:02 (16) 08:32	10:52 (34) 09:24	
	22:29	21:18	19:51	18:25	20 10:22 (16) 16:11	79 13:54 (24) 15:42	
19	04:58	06:04	07:13	08:20	10:02 (16) 08:34	10:52 (34) 09:25	
	22:27	21:16	19:48	18:22	21 10:23 (16) 16:09	79 13:53 (24) 15:42	
20	05:00	06:06	07:15	08:23	10:01 (16) 08:36	10:51 (34) 09:26	
	22:25	21:13	19:45	18:20	21 10:22 (16) 16:08	78 13:51 (24) 15:43	
21	05:01	06:08	07:17	08:25	10:01 (16) 08:39	10:51 (34) 09:26	
	22:24	21:10	19:42	18:17	21 10:22 (16) 16:06	76 13:50 (24) 15:43	
22	05:03	06:11	07:19	08:27	10:01 (16) 08:41	10:51 (34) 09:27	
	22:22	21:08	19:39	18:14	21 10:22 (16) 16:04	73 13:49 (24) 15:43	
23	05:05	06:13	07:22	08:30	10:01 (16) 08:43	10:51 (34) 09:27	
	22:20	21:05	19:36	18:12	20 10:21 (16) 16:02	63 12:31 (21) 15:44	
24	05:07	06:15	07:24	08:32	10:01 (16) 08:45	10:51 (34) 09:28	
	22:18	21:02	19:33	18:09	19 10:20 (16) 16:01	61 12:32 (21) 15:44	
25	05:09	06:17	07:26	07:35	09:02 (16) 08:47	10:51 (34) 09:28	
	22:16	20:59	19:30	17:06	17 09:19 (16) 15:59	59 12:32 (21) 15:45	
26	05:11	06:20	07:28	07:37	09:03 (16) 08:50	10:52 (34) 09:28	
	22:14	20:57	19:27	17:04	14 09:17 (16) 15:58	55 12:33 (21) 15:46	
27	05:13	06:22	07:30	07:39	09:06 (16) 08:52	10:52 (34) 09:28	
	22:12	20:54	19:25	17:01	10 09:16 (16) 15:56	51 12:33 (21) 15:47	
28	05:16	06:24	07:33	07:42	11:42 (29) 08:54	10:53 (34) 09:28	
	22:10	20:51	19:22	16:59	10 11:52 (29) 15:55	43 12:34 (21) 15:48	
29	05:18	06:26	07:35	07:44	11:38 (29) 08:56	10:53 (34) 09:28	
	22:07	20:48	19:19	16:56	28 13:47 (24) 15:54	43 12:34 (21) 15:49	
30	05:20	06:29	07:37	07:47	11:36 (29) 08:58	10:53 (34) 09:28	
	22:05	20:45	19:16	16:54	39 13:50 (24) 15:52	43 12:34 (21) 15:50	
31	05:22	06:31		07:49	11:35 (29)		09:28
	22:03	20:42		16:51	45 13:52 (24)		15:51
Potential sun hours	546	478	386	319	236		199
Total, worst case				364	2072		268

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Calculation: Oppdatert layout - med nærliggende - worst case - oppdatert mottaker **Shadow receptor:** F - Buevegen 1818 (6)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

The sun is shining all the day, from sunrise to sunset

The rotor plane is always perpendicular to the line from the WTG to the sun

The WTG is always operating

	January	February	March	April	May	June
1	09:28	11:23 (34) 08:46	12:23 (29) 07:35	07:07	05:44	04:40
	15:53	17 11:40 (34) 16:56	82 15:30 (25) 18:05	20:17	21:26	22:30
2	09:27	11:23 (34) 08:43	12:24 (29) 07:33	07:04	05:41	04:38
	15:54	17 11:40 (34) 16:58	86 15:34 (25) 18:07	20:19	21:28	22:32
3	09:27	11:23 (34) 08:41	12:25 (29) 07:30	07:01	05:39	04:37
	15:55	18 11:41 (34) 17:01	84 15:34 (25) 18:09	20:21	21:31	22:34
4	09:26	11:23 (34) 08:39	12:25 (29) 07:27	06:58	05:36	04:36
	15:57	23 12:52 (21) 17:03	85 15:34 (25) 18:12	20:24	21:33	22:35
5	09:26	11:23 (34) 08:37	12:25 (29) 07:24	06:55	05:34	04:35
	15:58	25 12:53 (21) 17:06	82 15:33 (25) 18:14	20:26	21:35	22:37
6	09:25	11:24 (34) 08:34	12:26 (29) 07:21	06:52	05:31	04:34
	16:00	31 13:06 (21) 17:08	79 15:33 (25) 18:17	20:28	21:37	22:38
7	09:24	11:24 (34) 08:32	12:26 (29) 07:19	06:50	05:29	04:33
	16:02	34 13:07 (21) 17:11	74 15:31 (25) 18:19	20:30	21:40	22:39
8	09:24	11:24 (34) 08:30	12:28 (29) 07:16	06:47	05:26	04:32
	16:03	41 13:07 (21) 17:13	68 15:30 (25) 18:21	20:33	21:42	22:40
9	09:23	11:24 (34) 08:27	12:28 (29) 07:13	06:44	05:24	04:31
	16:05	42 13:07 (21) 17:16	60 15:26 (25) 18:24	20:35	21:44	22:42
10	09:22	11:25 (34) 08:25	12:29 (29) 07:10	06:41	05:22	04:30
	16:07	42 13:08 (21) 17:18	51 14:44 (24) 18:26	20:37	21:46	22:43
11	09:21	11:25 (34) 08:23	12:32 (29) 07:07	06:38	05:19	04:29
	16:09	43 13:09 (21) 17:21	44 14:43 (24) 18:28	20:40	21:49	22:44
12	09:20	11:25 (34) 08:20	09:50 (16) 07:04	06:35	05:17	04:29
	16:11	44 13:09 (21) 17:23	43 14:42 (24) 18:31	20:42	21:51	22:45
13	09:18	11:26 (34) 08:18	09:46 (16) 07:01	06:32	05:15	04:28
	16:13	44 13:10 (21) 17:26	41 14:40 (24) 18:33	20:44	21:53	22:46
14	09:17	11:26 (34) 08:15	09:45 (16) 06:59	06:30	05:13	04:28
	16:15	54 13:10 (21) 17:28	26 14:38 (24) 18:35	20:47	21:55	22:47
15	09:16	11:26 (34) 08:13	09:43 (16) 06:56	06:27	05:10	04:27
	16:17	57 13:10 (21) 17:31	18 10:01 (16) 18:38	20:49	21:58	22:47
16	09:15	11:27 (34) 08:10	09:42 (16) 06:53	06:24	05:08	04:27
	16:19	60 13:10 (21) 17:33	20 10:02 (16) 18:40	20:51	22:00	22:48
17	09:13	11:27 (34) 08:07	09:41 (16) 06:50	06:21	05:06	04:27
	16:21	63 13:10 (21) 17:35	21 10:02 (16) 18:42	20:53	22:02	22:49
18	09:12	11:28 (34) 08:05	09:41 (16) 06:47	06:19	05:04	04:27
	16:23	64 13:11 (21) 17:38	22 10:03 (16) 18:45	20:56	22:04	22:49
19	09:10	11:29 (34) 08:02	09:41 (16) 06:44	06:16	05:02	04:27
	16:25	63 13:11 (21) 17:40	22 10:03 (16) 18:47	20:58	22:06	22:50
20	09:08	11:30 (34) 08:00	09:40 (16) 06:41	06:13	05:00	04:27
	16:28	63 13:11 (21) 17:43	23 10:03 (16) 18:49	21:00	22:08	22:50
21	09:07	11:31 (34) 07:57	09:40 (16) 06:38	06:10	04:58	04:27
	16:30	62 13:10 (21) 17:45	22 10:02 (16) 18:51	21:03	22:10	22:50
22	09:05	11:31 (34) 07:54	09:40 (16) 06:36	06:08	04:56	04:27
	16:32	60 13:09 (21) 17:48	22 10:02 (16) 18:54	21:05	22:12	22:50
23	09:03	11:33 (34) 07:52	09:42 (16) 06:33	06:05	04:54	04:27
	16:34	66 14:33 (24) 17:50	20 10:02 (16) 18:56	21:07	22:14	22:50
24	09:02	11:35 (34) 07:49	09:42 (16) 06:30	06:02	04:52	04:27
	16:37	67 14:36 (24) 17:53	19 10:01 (16) 18:58	21:10	22:16	22:51
25	09:00	11:39 (34) 07:46	09:43 (16) 06:27	05:59	04:51	04:28
	16:39	58 14:38 (24) 17:55	16 09:59 (16) 19:01	21:12	22:18	22:50
26	08:58	12:24 (29) 07:44	09:45 (16) 06:24	05:57	04:49	04:28
	16:41	55 14:40 (24) 17:57	12 09:57 (16) 19:03	21:14	22:20	22:50
27	08:56	12:23 (29) 07:41	09:48 (16) 06:21	05:54	04:47	04:29
	16:44	57 14:40 (24) 18:00	5 09:53 (16) 19:05	21:17	22:22	22:50
28	08:54	12:23 (29) 07:38		06:18	05:52	04:46
	16:46	61 15:15 (25) 18:02		19:07	21:19	22:24
29	08:52	12:24 (29)		07:15	05:49	04:44
	16:49	67 15:19 (25)		20:10	21:21	22:25
30	08:50	12:23 (29)		07:12	05:46	04:42
	16:51	74 15:23 (25)		20:12	21:24	22:27
31	08:48	12:24 (29)		07:10		04:41
	16:53	77 15:26 (25)		20:14		22:29
Potential sun hours	221		365	432	521	547
Total, worst case	1549	260	1147			

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Calculation: Oppdatert layout - med nærliggende - worst case - oppdatert mottaker **Shadow receptor:** F - Buevegen 1818 (6)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

The sun is shining all the day, from sunrise to sunset

The rotor plane is always perpendicular to the line from the WTG to the sun

The WTG is always operating

	July	August	September	October	November	December			
1	04:32	05:24	06:33	07:39	07:51	11:59 (29) 09:00	11:07 (34)		
	22:49	22:01	20:40	19:13	16:49	51 14:13 (24) 15:51	43 12:51 (21)		
2	04:33	05:26	06:35	07:42	07:54	11:58 (29) 09:02	11:08 (34)		
	22:48	21:58	20:37	19:10	16:46	61 14:57 (25) 15:50	42 12:51 (21)		
3	04:34	05:28	06:37	07:44	07:56	11:57 (29) 09:03	11:08 (34)		
	22:47	21:56	20:34	19:07	16:44	71 15:00 (25) 15:49	42 12:51 (21)		
4	04:35	05:31	06:40	07:46	07:59	11:56 (29) 09:05	11:09 (34)		
	22:47	21:54	20:31	19:04	16:41	76 15:01 (25) 15:48	41 12:52 (21)		
5	04:36	05:33	06:42	07:48	08:01	11:55 (29) 09:07	11:09 (34)		
	22:46	21:51	20:28	19:02	16:39	80 15:02 (25) 15:47	35 12:52 (21)		
6	04:37	05:35	06:44	07:51	08:03	11:55 (29) 09:09	11:10 (34)		
	22:45	21:49	20:25	18:59	16:37	82 15:03 (25) 15:46	31 12:52 (21)		
7	04:38	05:37	06:46	07:53	08:06	11:54 (29) 09:10	11:11 (34)		
	22:44	21:47	20:22	18:56	16:34	84 15:03 (25) 15:45	24 12:40 (21)		
8	04:40	05:39	06:49	07:55	08:08	11:54 (29) 09:12	11:11 (34)		
	22:43	21:44	20:20	18:53	16:32	87 15:04 (25) 15:45	24 12:41 (21)		
9	04:41	05:42	06:51	07:57	08:11	11:55 (29) 09:13	11:12 (34)		
	22:42	21:42	20:17	18:50	16:30	87 15:05 (25) 15:44	20 12:37 (21)		
10	04:43	05:44	06:53	08:00	08:13	11:55 (29) 09:15	11:12 (34)		
	22:40	21:39	20:14	18:47	16:28	81 15:01 (25) 15:43	17 11:29 (34)		
11	04:44	05:46	06:55	08:02	08:15	11:54 (29) 09:16	11:14 (34)		
	22:39	21:37	20:11	18:45	16:25	78 14:57 (25) 15:43	16 11:30 (34)		
12	04:46	05:48	06:57	08:04	08:18	11:55 (29) 09:18	11:14 (34)		
	22:38	21:34	20:08	18:42	16:23	74 14:55 (25) 15:43	15 11:29 (34)		
13	04:47	05:51	07:00	08:07	08:20	11:55 (29) 09:19	11:15 (34)		
	22:37	21:31	20:05	18:39	16:21	68 14:51 (25) 15:42	15 11:30 (34)		
14	04:49	05:53	07:02	08:09	08:22	11:55 (29) 09:20	11:16 (34)		
	22:35	21:29	20:02	18:36	16:19	62 14:47 (25) 15:42	14 11:30 (34)		
15	04:51	05:55	07:04	08:11	10:19 (16)	08:25	11:56 (29) 09:21	11:16 (34)	
	22:34	21:26	19:59	18:33	8 10:27 (16)	16:17	57 14:13 (24) 15:42	14 11:30 (34)	
16	04:52	05:57	07:06	08:13	10:16 (16)	08:27	11:57 (29) 09:22	11:17 (34)	
	22:32	21:24	19:56	18:31	14 10:30 (16)	16:15	54 14:12 (24) 15:42	12 11:29 (34)	
17	04:54	06:00	07:08	08:16	10:15 (16)	08:29	11:12 (34) 09:23	11:17 (34)	
	22:30	21:21	19:54	18:28	17 10:32 (16)	16:13	58 14:11 (24) 15:42	12 11:29 (34)	
18	04:56	06:02	07:11	08:18	10:13 (16)	08:32	11:09 (34) 09:24	11:18 (34)	
	22:29	21:18	19:51	18:25	19 10:32 (16)	16:11	67 14:10 (24) 15:42	11 11:29 (34)	
19	04:58	06:04	07:13	08:20	10:12 (16)	08:34	11:08 (34) 09:25	11:19 (34)	
	22:27	21:16	19:48	18:22	21 10:33 (16)	16:09	66 14:08 (24) 15:42	11 11:30 (34)	
20	05:00	06:06	07:15	08:23	10:11 (16)	08:36	11:06 (34) 09:26	11:20 (34)	
	22:25	21:13	19:45	18:20	22 10:33 (16)	16:08	60 12:44 (21) 15:43	10 11:30 (34)	
21	05:01	06:08	07:17	08:25	10:11 (16)	08:39	11:06 (34) 09:26	11:20 (34)	
	22:24	21:10	19:42	18:17	23 10:34 (16)	16:06	62 12:45 (21) 15:43	10 11:30 (34)	
22	05:03	06:11	07:19	08:27	10:10 (16)	08:41	11:06 (34) 09:27	11:21 (34)	
	22:22	21:08	19:39	18:14	23 10:33 (16)	16:04	63 12:47 (21) 15:43	10 11:31 (34)	
23	05:05	06:13	07:22	08:30	10:11 (16)	08:43	11:05 (34) 09:27	11:21 (34)	
	22:20	21:05	19:36	18:12	22 10:33 (16)	16:02	63 12:47 (21) 15:44	10 11:31 (34)	
24	05:07	06:15	07:24	08:32	10:10 (16)	08:45	11:05 (34) 09:28	11:22 (34)	
	22:18	21:02	19:33	18:09	22 10:32 (16)	16:01	64 12:48 (21) 15:44	10 11:32 (34)	
25	05:09	06:17	07:26	07:35	09:11 (16)	08:47	11:05 (34) 09:28	11:22 (34)	
	22:16	20:59	19:30	17:06	21 09:32 (16)	15:59	63 12:48 (21) 15:45	11 11:33 (34)	
26	05:11	06:20	07:28	07:37	09:11 (16)	08:50	11:06 (34) 09:28	11:22 (34)	
	22:14	20:56	19:27	17:04	20 09:31 (16)	15:58	60 12:49 (21) 15:46	12 11:34 (34)	
27	05:13	06:22	07:30	07:39	09:13 (16)	08:52	11:05 (34) 09:28	11:23 (34)	
	22:12	20:54	19:25	17:01	17 09:30 (16)	15:56	58 12:49 (21) 15:47	11 11:34 (34)	
28	05:16	06:24	07:33	07:42	09:14 (16)	08:54	11:06 (34) 09:28	11:23 (34)	
	22:10	20:51	19:22	16:59	28 14:08 (24)	15:55	53 12:50 (21) 15:48	13 11:36 (34)	
29	05:18	06:26	07:35	07:44	09:16 (16)	08:56	11:06 (34) 09:28	11:22 (34)	
	22:07	20:48	19:19	16:56	42 14:10 (24)	15:54	44 12:50 (21) 15:49	14 11:36 (34)	
30	05:20	06:29	07:37	07:47	12:02 (29)	08:58	11:06 (34) 09:28	11:23 (34)	
	22:05	20:45	19:16	16:54	40 14:11 (24)	15:52	43 12:50 (21) 15:50	15 11:38 (34)	
31	05:22	06:31		07:49	12:01 (29)			09:28	11:23 (34)
	22:03	20:42		16:51	46 14:13 (24)			15:51	15 11:38 (34)
Potential sun hours	546	478	386	319	236	197	199	580	
Total, worst case				405	1977			580	

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Calculation: Oppdatert layout - med nærliggende - worst case - oppdatert mottaker **Shadow receptor:** G - Buevegen 1786 (7)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

The sun is shining all the day, from sunrise to sunset

The rotor plane is always perpendicular to the line from the WTG to the sun

The WTG is always operating

	January	February	March	April	May	June			
1	09:28 15:53		08:46 16:56	70	11:27 (29) 14:51 (25)	07:35 18:05	07:07 20:17	05:44 21:26	04:40 22:31
2	09:27 15:54	12:04 (21)	08:43 16:58	60	11:27 (29) 13:50 (24)	07:33 18:07	07:04 20:19	05:41 21:28	04:38 22:32
3	09:27 15:55	12:05 (21)	08:41 17:01	58	11:28 (29) 13:50 (24)	07:30 18:09	07:01 20:21	05:39 21:31	04:37 22:34
4	09:27 15:57	12:04 (21)	08:39 17:03	54	11:28 (29) 13:48 (24)	07:27 18:12	06:58 20:24	05:36 21:33	04:36 22:35
5	09:26 15:58	12:04 (21)	08:37 17:06	52	11:28 (29) 13:47 (24)	07:24 18:14	06:55 20:26	05:34 21:35	04:35 22:37
6	09:25 16:00	12:04 (21)	08:34 17:08	49	11:29 (29) 13:47 (24)	07:21 18:17	06:52 20:28	05:31 21:37	04:34 22:38
7	09:24 16:02	12:05 (21)	08:32 17:11	43	11:29 (29) 13:44 (24)	07:19 18:19	06:50 20:30	05:29 21:40	04:33 22:39
8	09:24 16:03	12:05 (21)	08:30 17:13	35	11:31 (29) 13:42 (24)	07:16 18:21	06:47 20:33	05:26 21:42	04:32 22:40
9	09:23 16:05	12:06 (21)	08:27 17:16	22	11:32 (29) 11:54 (29)	07:13 18:24	06:44 20:35	05:24 21:44	04:31 22:42
10	09:22 16:07	12:06 (21)	08:25 17:18	18	11:34 (29) 11:52 (29)	07:10 18:26	06:41 20:37	05:22 21:46	04:30 22:43
11	09:21 16:09	12:07 (21)	08:23 17:21	13	11:37 (29) 11:50 (29)	07:07 18:28	06:38 20:40	05:19 21:49	04:29 22:44
12	09:20 16:11	12:07 (21)	08:20 17:23	2	11:42 (29) 11:44 (29)	07:04 18:31	06:35 20:42	05:17 21:51	04:29 22:45
13	09:18 16:13	12:08 (21)	08:18 17:26			07:02 18:33	06:32 20:44	05:15 21:53	04:28 22:46
14	09:17 16:15	12:08 (21)	08:15 17:28	3	09:31 (16) 09:34 (16)	06:59 18:35	06:30 20:47	05:13 21:55	04:28 22:47
15	09:16 16:17	13:38 (24)	08:13 17:31	10	09:27 (16) 09:37 (16)	06:56 18:38	06:27 20:49	05:10 21:58	04:27 22:47
16	09:15 16:19	13:40 (24)	08:10 17:33	14	09:33 (16) 09:39 (16)	06:53 18:40	06:24 20:51	05:08 22:00	04:27 22:48
17	09:13 16:21	11:31 (29)	08:07 17:36	17	09:23 (16) 09:40 (16)	06:50 18:42	06:21 20:53	05:06 22:02	04:27 22:49
18	09:12 16:23	11:30 (29)	08:05 17:38	18	09:23 (16) 09:41 (16)	06:47 18:45	06:19 20:56	05:04 22:04	04:27 22:49
19	09:10 16:25	14:53 (25)	08:02 17:40	18	09:41 (16) 09:22 (16)	06:44 18:47	06:16 20:58	05:02 22:06	04:27 22:50
20	09:09 16:28	11:28 (29)	08:00 17:43	19	09:22 (16) 09:41 (16)	06:41 18:49	06:13 21:00	05:00 22:08	04:27 22:50
21	09:07 16:30	14:54 (25)	07:57 17:45	19	09:22 (16) 09:41 (16)	06:39 18:51	06:10 21:03	04:58 22:10	04:27 22:50
22	09:05 16:32	11:27 (29)	07:54 17:48	19	09:22 (16) 09:41 (16)	06:36 18:54	06:08 21:05	04:56 22:12	04:27 22:50
23	09:03 16:34	11:26 (29)	07:52 17:50	18	09:23 (16) 09:41 (16)	06:33 18:56	06:05 21:07	04:54 22:14	04:27 22:51
24	09:02 16:37	14:54 (25)	07:49 17:53	17	09:23 (16) 09:40 (16)	06:30 18:58	06:02 21:10	04:52 22:16	04:27 22:51
25	09:00 16:39	11:26 (29)	07:46 17:55	14	09:24 (16) 09:38 (16)	06:27 19:01	05:59 21:12	04:51 22:18	04:28 22:51
26	08:58 16:41	11:26 (29)	07:44 17:57	11	09:25 (16) 09:36 (16)	06:24 19:03	05:57 21:14	04:49 22:20	04:28 22:50
27	08:56 16:44	11:25 (29)	07:41 18:00	3	09:29 (16) 09:32 (16)	06:21 19:05	05:54 21:17	04:47 22:22	04:29 22:50
28	08:54 16:46	14:54 (25)	07:38 18:02			06:18 19:08	05:52 21:19	04:46 22:24	04:30 22:50
29	08:52 16:49	11:26 (29)				07:15 20:10	05:49 21:21	04:44 22:25	04:30 22:50
30	08:50 16:51	14:54 (25)				07:13 20:12	05:46 21:24	04:42 22:27	04:31 22:49
31	08:48 16:54	11:26 (29)				07:10 20:14		04:41 22:29	
Potential sun hours	221		260		365	432	521	547	
Total, worst case	1565		676						112

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Calculation: Oppdatert layout - med nærliggende - worst case - oppdatert mottaker **Shadow receptor:** G - Buevegen 1786 (7)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

The sun is shining all the day, from sunrise to sunset

The rotor plane is always perpendicular to the line from the WTG to the sun

The WTG is always operating

	July	August	September	October	November	December
1	04:32	05:24	06:33	07:39	07:51	11:03 (29) 09:00
	22:49	22:01	20:40	19:13	16:49	19 11:22 (29) 15:51
2	04:33	05:26	06:35	07:42	07:54	11:01 (29) 09:02
	22:48	21:59	20:37	19:10	16:46	23 11:24 (29) 15:50
3	04:34	05:28	06:37	07:44	07:56	11:01 (29) 09:03
	22:47	21:56	20:34	19:07	16:44	36 13:12 (24) 15:49
4	04:35	05:31	06:40	07:46	07:59	10:59 (29) 09:05
	22:47	21:54	20:31	19:04	16:41	43 13:14 (24) 15:48
5	04:36	05:33	06:42	07:48	08:01	10:59 (29) 09:07
	22:46	21:51	20:28	19:02	16:39	48 13:16 (24) 15:47
6	04:37	05:35	06:44	07:51	08:03	10:58 (29) 09:09
	22:45	21:49	20:25	18:59	16:37	53 13:18 (24) 15:46
7	04:39	05:37	06:46	07:53	08:06	10:57 (29) 09:10
	22:44	21:47	20:23	18:56	16:34	55 13:18 (24) 15:45
8	04:40	05:39	06:49	07:55	08:08	10:57 (29) 09:12
	22:43	21:44	20:20	18:53	16:32	58 13:19 (24) 15:45
9	04:41	05:42	06:51	07:57	08:11	10:57 (29) 09:13
	22:42	21:42	20:17	18:50	16:30	63 14:18 (25) 15:44
10	04:43	05:44	06:53	08:00	08:13	10:58 (29) 09:15
	22:41	21:39	20:14	18:47	16:28	71 14:22 (25) 15:43
11	04:44	05:46	06:55	08:02	08:15	10:57 (29) 09:16
	22:39	21:37	20:11	18:45	16:25	76 14:23 (25) 15:43
12	04:46	05:48	06:57	08:04	08:18	10:57 (29) 09:18
	22:38	21:34	20:08	18:42	16:23	80 14:25 (25) 15:43
13	04:47	05:51	07:00	08:07	08:20	10:58 (29) 09:19
	22:37	21:32	20:05	18:39	16:21	81 14:26 (25) 15:42
14	04:49	05:53	07:02	08:09	08:22	10:58 (29) 09:20
	22:35	21:29	20:02	18:36	16:19	82 14:26 (25) 15:42
15	04:51	05:55	07:04	08:11	10:00 (16)	08:25
	22:34	21:26	19:59	18:33	7 10:07 (16)	16:17
16	04:52	05:57	07:06	08:13	09:57 (16)	08:27
	22:32	21:24	19:56	18:31	12 10:09 (16)	16:15
17	04:54	06:00	07:08	08:16	09:55 (16)	08:30
	22:31	21:21	19:54	18:28	16 10:11 (16)	16:13
18	04:56	06:02	07:11	08:18	09:54 (16)	08:32
	22:29	21:18	19:51	18:25	17 10:11 (16)	16:11
19	04:58	06:04	07:13	08:20	09:54 (16)	08:34
	22:27	21:16	19:48	18:22	18 10:12 (16)	16:09
20	05:00	06:06	07:15	08:23	09:53 (16)	08:36
	22:25	21:13	19:45	18:20	19 10:12 (16)	16:08
21	05:01	06:08	07:17	08:25	09:53 (16)	08:39
	22:24	21:10	19:42	18:17	19 10:12 (16)	16:06
22	05:03	06:11	07:19	08:27	09:52 (16)	08:41
	22:22	21:08	19:39	18:14	20 10:12 (16)	16:04
23	05:05	06:13	07:22	08:30	09:53 (16)	08:43
	22:20	21:05	19:36	18:12	19 10:12 (16)	16:02
24	05:07	06:15	07:24	08:32	09:53 (16)	08:45
	22:18	21:02	19:33	18:09	17 10:10 (16)	16:01
25	05:09	06:17	07:26	07:35	08:54 (16)	08:47
	22:16	20:59	19:30	17:06	16 09:10 (16)	15:59
26	05:11	06:20	07:28	07:37	08:56 (16)	08:50
	22:14	20:57	19:27	17:04	13 09:09 (16)	15:58
27	05:13	06:22	07:30	07:39	08:57 (16)	08:52
	22:12	20:54	19:25	17:01	9 09:06 (16)	15:56
28	05:16	06:24	07:33	07:42	08:54	11:48 (21) 09:28
	22:10	20:51	19:22	16:59	15:55	35 13:18 (24) 15:48
29	05:18	06:26	07:35	07:44	08:56	11:48 (21) 09:28
	22:07	20:48	19:19	16:56	15:54	33 13:17 (24) 15:49
30	05:20	06:29	07:37	07:47	11:09 (29)	08:58
	22:05	20:45	19:16	16:54	7 11:16 (29)	15:52
31	05:22	06:31	07:40	07:49	11:06 (29)	08:58
	22:03	20:42	19:15	16:51	14 11:20 (29)	15:51
Potential sun hours	546	478	386	319	236	199
Total, worst case				223	1885	154

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Calculation: Oppdatert layout - med nærliggende - worst case - oppdatert mottaker **Shadow receptor:** H - Buevegen 1784 (8)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

The sun is shining all the day, from sunrise to sunset

The rotor plane is always perpendicular to the line from the WTG to the sun

The WTG is always operating

	January	February	March	April	May	June	
1	09:28	12:18 (21) 08:46	11:54 (29) 07:35	07:07	05:44	04:40	
	15:53	21 12:39 (21) 16:56	47 14:04 (24) 18:05	20:17	21:26	22:31	
2	09:27	11:56 (29) 08:43	11:54 (29) 07:33	07:04	05:41	04:38	
	15:54	22 12:39 (21) 16:58	44 14:02 (24) 18:07	20:19	21:28	22:32	
3	09:27	11:53 (29) 08:41	11:56 (29) 07:30	07:01	05:39	04:37	
	15:55	28 12:39 (21) 17:01	38 14:01 (24) 18:09	20:21	21:31	22:34	
4	09:27	11:52 (29) 08:39	11:57 (29) 07:27	06:58	05:36	04:36	
	15:57	32 12:40 (21) 17:03	31 13:59 (24) 18:12	20:24	21:33	22:35	
5	09:26	11:51 (29) 08:37	11:59 (29) 07:24	06:55	05:34	04:35	
	15:58	34 12:40 (21) 17:06	18 13:54 (24) 18:14	20:26	21:35	22:37	
6	09:25	11:50 (29) 08:34	12:05 (29) 07:21	06:52	05:31	04:34	
	16:00	36 12:40 (21) 17:08	3 12:08 (29) 18:17	20:28	21:37	22:38	
7	09:24	11:50 (29) 08:32	07:19	06:50	05:29	04:33	
	16:02	43 13:47 (24) 17:11	18:19	20:30	21:40	22:39	
8	09:24	11:50 (29) 08:30	07:16	06:47	05:26	04:32	
	16:03	49 13:50 (24) 17:13	18:21	20:33	21:42	22:40	
9	09:23	11:50 (29) 08:27	09:43 (16) 07:13	06:44	05:24	04:31	
	16:05	54 13:52 (24) 17:16	6 09:49 (16) 18:24	20:35	21:44	22:42	
10	09:22	11:49 (29) 08:25	09:40 (16) 07:10	06:41	05:22	04:30	
	16:07	57 13:53 (24) 17:18	11 09:51 (16) 18:26	20:37	21:46	22:43	
11	09:21	11:49 (29) 08:23	09:39 (16) 07:07	06:38	05:19	04:29	
	16:09	60 13:55 (24) 17:21	15 09:54 (16) 18:28	20:40	21:49	22:44	
12	09:20	11:48 (29) 08:20	09:38 (16) 07:04	06:35	05:17	04:29	
	16:11	61 13:55 (24) 17:23	16 09:54 (16) 18:31	20:42	21:51	22:45	
13	09:18	11:49 (29) 08:18	09:37 (16) 07:02	06:32	05:15	04:28	
	16:13	64 13:57 (24) 17:26	18 09:55 (16) 18:33	20:44	21:53	22:46	
14	09:17	11:48 (29) 08:15	09:37 (16) 06:59	06:30	05:13	04:28	06:03 (77)
	16:15	64 13:58 (24) 17:28	19 09:56 (16) 18:35	20:47	21:55	22:47	2 06:05 (77)
15	09:16	11:48 (29) 08:13	09:36 (16) 06:56	06:27	05:10	04:27	06:03 (77)
	16:17	74 14:47 (25) 17:31	20 09:56 (16) 18:38	20:49	21:58	22:47	3 06:06 (77)
16	09:15	11:47 (29) 08:10	09:36 (16) 06:53	06:24	05:08	04:27	06:03 (77)
	16:19	83 14:59 (25) 17:33	20 09:56 (16) 18:40	20:51	22:00	22:48	4 06:07 (77)
17	09:13	11:48 (29) 08:07	09:36 (16) 06:50	06:21	05:06	04:27	06:04 (77)
	16:21	88 15:01 (25) 17:36	19 09:55 (16) 18:42	20:53	22:02	22:49	4 06:08 (77)
18	09:12	11:48 (29) 08:05	09:37 (16) 06:47	06:19	05:04	04:27	06:04 (77)
	16:23	87 15:01 (25) 17:38	19 09:56 (16) 18:45	20:56	22:04	22:49	5 06:09 (77)
19	09:10	11:48 (29) 08:02	09:37 (16) 06:44	06:16	05:02	04:27	06:04 (77)
	16:25	84 15:02 (25) 17:40	18 09:55 (16) 18:47	20:58	22:06	22:50	5 06:09 (77)
20	09:08	11:48 (29) 08:00	09:38 (16) 06:41	06:13	05:00	04:27	06:04 (77)
	16:28	79 15:02 (25) 17:43	16 09:54 (16) 18:49	21:00	22:08	22:50	5 06:09 (77)
21	09:07	11:48 (29) 07:57	09:39 (16) 06:39	06:10	04:58	04:27	06:04 (77)
	16:30	80 15:02 (25) 17:45	13 09:52 (16) 18:51	21:03	22:10	22:50	6 06:10 (77)
22	09:05	11:48 (29) 07:54	09:41 (16) 06:36	06:08	04:56	04:27	06:04 (77)
	16:32	82 15:03 (25) 17:48	8 09:49 (16) 18:54	21:05	22:12	22:50	6 06:10 (77)
23	09:03	11:48 (29) 07:52	06:33	06:05	04:54	04:27	06:05 (77)
	16:34	80 15:02 (25) 17:50	18:56	21:07	22:14	22:51	5 06:10 (77)
24	09:02	11:48 (29) 07:49	06:30	06:02	04:52	04:27	06:05 (77)
	16:37	80 15:02 (25) 17:53	18:58	21:10	22:16	22:51	5 06:10 (77)
25	09:00	11:49 (29) 07:46	06:27	05:59	04:51	04:28	06:05 (77)
	16:39	80 15:02 (25) 17:55	19:01	21:12	22:18	22:51	5 06:10 (77)
26	08:58	11:49 (29) 07:44	06:24	05:57	04:49	04:28	06:05 (77)
	16:41	79 15:02 (25) 17:57	19:03	21:14	22:20	22:50	5 06:10 (77)
27	08:56	11:49 (29) 07:41	06:21	05:54	04:47	04:29	06:05 (77)
	16:44	75 15:01 (25) 18:00	19:05	21:17	22:22	22:50	4 06:09 (77)
28	08:54	11:50 (29) 07:38	06:18	05:52	04:46	04:30	06:06 (77)
	16:46	73 15:01 (25) 18:02	19:08	21:19	22:24	22:50	3 06:09 (77)
29	08:52	11:51 (29)	07:15	05:49	04:44	04:30	
	16:49	69 15:00 (25)	20:10	21:21	22:25	22:50	
30	08:50	11:51 (29)	07:12	05:46	04:42	04:31	
	16:51	64 14:58 (25)	20:12	21:24	22:27	22:49	
31	08:48	11:52 (29)	07:10		04:41		
	16:54	54 14:55 (25)	20:14		22:29		
Potential sun hours	221	260	365	432	521	547	
Total, worst case	1936	399				67	

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)		Last time (hh:mm) with flicker	(WTG causing flicker last time)

SHADOW - Calendar

Calculation: Oppdatert layout - med nærliggende - worst case - oppdatert mottaker **Shadow receptor:** H - Buevegen 1784 (8)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

The sun is shining all the day, from sunrise to sunset

The rotor plane is always perpendicular to the line from the WTG to the sun

The WTG is always operating

	July	August	September	October	November	December
1	04:32	05:24	06:33	07:39	07:51	09:10 (16) 09:00
	22:49	22:01	20:40	19:13	16:49	11 09:21 (16) 15:51
2	04:33	05:26	06:35	07:42	07:54	09:13 (16) 09:02
	22:48	21:59	20:37	19:10	16:46	5 09:18 (16) 15:50
3	04:34	05:28	06:37	07:44	07:56	09:03
	22:47	21:56	20:34	19:07	16:44	53 15:49
4	04:35	05:31	06:40	07:46	07:59	09:05
	22:47	21:54	20:31	19:04	16:41	49 15:48
5	04:36	05:33	06:42	07:48	08:01	11:33 (29) 09:07
	22:46	21:51	20:28	19:02	16:39	6 11:39 (29) 15:47
6	04:37	05:35	06:44	07:51	08:03	11:30 (29) 09:09
	22:45	21:49	20:25	18:59	16:37	20 13:26 (24) 15:46
7	04:38	05:37	06:46	07:53	08:06	11:27 (29) 09:10
	22:44	21:47	20:22	18:56	16:34	31 13:29 (24) 15:45
8	04:40	05:39	06:49	07:55	08:08	11:26 (29) 09:12
	22:43	21:44	20:20	18:53	16:32	38 13:31 (24) 15:45
9	04:41	05:42	06:51	07:57	08:11	11:25 (29) 09:13
	22:42	21:42	20:17	18:50	16:30	44 13:33 (24) 15:44
10	04:43	05:44	06:53	08:00	08:13	11:24 (29) 09:15
	22:41	21:39	20:14	18:47	16:28	48 13:34 (24) 15:43
11	04:44	05:46	06:55	08:02	08:15	11:23 (29) 09:16
	22:39	21:37	20:11	18:45	16:25	55 14:27 (25) 15:43
12	04:46	05:48	06:57	08:04	08:18	11:23 (29) 09:18
	22:38	21:34	20:08	18:42	16:23	63 14:30 (25) 15:43
13	04:47	05:51	07:00	08:07	08:20	11:23 (29) 09:19
	22:37	21:32	20:05	18:39	16:21	69 14:32 (25) 15:42
14	04:49	05:53	07:02	08:09	08:22	11:22 (29) 09:20
	22:35	21:29	20:02	18:36	16:19	73 14:33 (25) 15:42
15	04:51	05:55	07:04	08:11	08:25	11:22 (29) 09:21
	22:34	21:26	19:59	18:33	16:17	76 14:34 (25) 15:42
16	04:52	05:57	07:06	08:13	08:27	11:22 (29) 09:22
	22:32	21:24	19:56	18:31	16:15	79 14:35 (25) 15:42
17	04:54	06:00	07:08	08:16	08:30	11:23 (29) 09:23
	22:31	21:21	19:54	18:28	16:13	80 14:36 (25) 15:42
18	04:56	06:02	07:11	08:18	08:32	11:22 (29) 09:24
	22:29	21:18	19:51	18:25	16:11	80 14:36 (25) 15:42
19	04:58	06:04	07:13	08:20	08:34	11:23 (29) 09:25
	22:27	21:16	19:48	18:22	16:09	80 14:37 (25) 15:42
20	05:00	06:06	07:15	08:23	08:36	11:22 (29) 09:26
	22:25	21:13	19:45	18:20	16:08	82 14:37 (25) 15:43
21	05:01	06:08	07:17	08:25	08:39	11:23 (29) 09:26
	22:24	21:10	19:42	18:17	16:06	80 14:37 (25) 15:43
22	05:03	06:11	07:19	08:27	08:41	11:24 (29) 09:27
	22:22	21:08	19:39	18:14	16:04	79 14:38 (25) 15:43
23	05:05	06:13	07:22	08:30	08:43	11:24 (29) 09:27
	22:20	21:05	19:36	18:12	16:02	83 14:38 (25) 15:44
24	05:07	06:15	07:24	08:32	08:45	11:25 (29) 09:28
	22:18	21:02	19:33	18:09	16:01	87 14:38 (25) 15:44
25	05:09	06:17	07:26	07:35	09:06 (16) 08:47	11:25 (29) 09:28
	22:16	20:59	19:30	17:06	20 09:26 (16) 15:59	
26	05:11	06:20	07:28	07:37	09:06 (16) 08:50	11:26 (29) 09:28
	22:14	20:57	19:27	17:04	20 09:26 (16) 15:58	
27	05:13	06:22	07:30	07:39	09:06 (16) 08:52	11:27 (29) 09:28
	22:12	20:54	19:25	17:01	19 09:25 (16) 15:56	
28	05:16	06:24	07:33	07:42	09:06 (16) 08:54	11:28 (29) 09:28
	22:10	20:51	19:22	16:59	19 09:25 (16) 15:55	
29	05:18	06:26	07:35	07:44	09:06 (16) 08:56	11:29 (29) 09:28
	22:07	20:48	19:19	16:56	18 09:24 (16) 15:54	
30	05:20	06:29	07:37	07:47	09:07 (16) 08:58	11:29 (29) 09:28
	22:05	20:45	19:16	16:54	17 09:24 (16) 15:52	
31	05:22	06:31		07:49	09:09 (16)	13:37 (24) 15:50
	22:03	20:42		16:51	14 09:23 (16)	09:28
Potential sun hours	546	478	386	319	236	199
Total, worst case				205	1705	847

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Calculation: Oppdatert layout - med nærliggende - worst case - oppdatert mottaker **Shadow receptor:** I - Buevegen 1782 (9)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

The sun is shining all the day, from sunrise to sunset

The rotor plane is always perpendicular to the line from the WTG to the sun

The WTG is always operating

	January	February	March	April	May	June	
1	09:28 15:53	21 12:08 (21) 08:46 12:29 (21) 16:56	48 11:39 (29) 07:35 13:50 (24) 18:05	07:07 20:17	05:44 21:26	04:40 22:31	
2	09:27 15:54	21 12:09 (21) 08:43 12:29 (21) 16:58	44 11:40 (29) 07:33 13:48 (24) 18:07	07:04 20:19	05:41 21:28	04:38 22:32	06:09 (77) 06:11 (77)
3	09:27 15:55	20 12:09 (21) 08:41 12:29 (21) 17:01	39 11:41 (29) 07:30 13:47 (24) 18:09	07:01 20:21	05:39 21:31	04:37 22:34	06:09 (77) 06:13 (77)
4	09:27 15:57	21 12:09 (21) 08:39 12:30 (21) 17:03	31 11:42 (29) 07:27 13:44 (24) 18:12	07:27 20:24	05:36 21:33	04:36 22:35	06:09 (77) 06:15 (77)
5	09:26 15:58	21 12:09 (21) 08:37 12:30 (21) 17:06	18 11:43 (29) 07:24 12:01 (29) 18:14	06:55 20:26	05:34 21:35	04:35 22:37	06:09 (77) 06:16 (77)
6	09:25 16:00	26 12:10 (21) 08:34 13:33 (24) 17:08	14 11:46 (29) 07:21 12:00 (29) 18:17	06:52 20:28	05:31 21:37	04:34 22:38	06:08 (77) 06:16 (77)
7	09:24 16:02	37 11:42 (29) 08:32 13:36 (24) 17:11	3 11:51 (29) 07:19 11:54 (29) 18:19	07:19 20:30	05:29 21:40	04:33 22:39	06:09 (77) 06:18 (77)
8	09:24 16:03	45 11:40 (29) 08:30 13:38 (24) 17:13	07:16 18:21	06:47 20:33	05:26 21:42	04:32 22:41	06:08 (77) 06:18 (77)
9	09:23 16:05	50 11:39 (29) 08:27 13:40 (24) 17:16	07:13 18:24	06:44 20:35	05:24 21:44	04:31 22:42	06:07 (77) 06:18 (77)
10	09:22 16:07	52 11:38 (29) 08:25 13:40 (24) 17:18	2 09:40 (16) 07:10 09:42 (16) 18:26	07:10 20:37	05:22 21:46	04:30 22:43	06:08 (77) 06:19 (77)
11	09:21 16:09	56 11:38 (29) 08:23 13:42 (24) 17:21	10 09:36 (16) 07:07 09:46 (16) 18:28	06:38 20:40	05:19 21:49	04:29 22:44	06:07 (77) 06:19 (77)
12	09:20 16:11	63 11:37 (29) 08:20 14:47 (25) 17:23	14 09:34 (16) 07:04 09:48 (16) 18:31	06:35 20:42	05:17 21:51	04:29 22:45	06:07 (77) 06:20 (77)
13	09:18 16:13	74 11:37 (29) 08:18 14:49 (25) 17:26	16 09:33 (16) 07:02 09:49 (16) 18:33	06:32 20:44	05:15 21:53	04:28 22:46	06:07 (77) 06:20 (77)
14	09:17 16:15	82 11:36 (29) 08:15 14:49 (25) 17:28	17 09:33 (16) 06:59 09:50 (16) 18:35	06:30 20:47	05:13 21:55	04:28 22:47	06:07 (77) 06:21 (77)
15	09:16 16:17	87 11:36 (29) 08:13 14:50 (25) 17:31	18 09:32 (16) 06:56 09:50 (16) 18:38	06:27 20:49	05:10 21:58	04:27 22:47	06:07 (77) 06:21 (77)
16	09:15 16:19	87 11:35 (29) 08:10 14:50 (25) 17:33	19 09:31 (16) 06:53 09:50 (16) 18:40	06:24 20:51	05:08 22:00	04:27 22:48	06:07 (77) 06:22 (77)
17	09:13 16:21	87 11:36 (29) 08:07 14:52 (25) 17:36	19 09:31 (16) 06:50 09:50 (16) 18:42	06:21 20:53	05:06 22:02	04:27 22:49	06:07 (77) 06:22 (77)
18	09:12 16:23	89 11:36 (29) 08:05 14:52 (25) 17:38	19 09:32 (16) 06:47 09:51 (16) 18:45	06:19 20:56	05:04 22:04	04:27 22:49	06:07 (77) 06:23 (77)
19	09:10 16:25	86 11:35 (29) 08:02 14:52 (25) 17:40	18 09:32 (16) 06:44 09:50 (16) 18:47	06:16 20:58	05:02 22:06	04:27 22:50	06:07 (77) 06:23 (77)
20	09:09 16:28	83 11:35 (29) 08:00 14:53 (25) 17:43	17 09:32 (16) 06:41 09:49 (16) 18:49	06:13 21:00	05:00 22:08	04:27 22:50	06:07 (77) 06:23 (77)
21	09:07 16:30	79 11:35 (29) 07:57 14:53 (25) 17:45	15 09:33 (16) 06:39 09:48 (16) 18:51	06:10 21:03	04:58 22:10	04:27 22:50	06:08 (77) 06:23 (77)
22	09:05 16:32	80 11:35 (29) 07:54 14:53 (25) 17:48	12 09:34 (16) 06:36 09:46 (16) 18:54	06:08 21:05	04:56 22:12	04:27 22:50	06:08 (77) 06:23 (77)
23	09:03 16:34	79 11:35 (29) 07:52 14:52 (25) 17:50	7 09:37 (16) 06:33 09:44 (16) 18:56	06:05 21:07	04:54 22:14	04:27 22:51	06:08 (77) 06:24 (77)
24	09:02 16:37	79 11:35 (29) 07:49 14:52 (25) 17:53	06:30 18:58	06:02 21:10	04:52 22:16	04:27 22:51	06:08 (77) 06:24 (77)
25	09:00 16:39	78 11:35 (29) 07:46 14:52 (25) 17:55	06:27 19:01	05:59 21:12	04:51 22:18	04:28 22:51	06:08 (77) 06:23 (77)
26	08:58 16:41	77 11:36 (29) 07:44 14:52 (25) 17:57	06:24 19:03	05:57 21:14	04:49 22:20	04:28 22:50	06:09 (77) 06:24 (77)
27	08:56 16:44	73 11:36 (29) 07:41 14:51 (25) 18:00	06:21 19:05	05:54 21:17	04:47 22:22	04:29 22:50	06:09 (77) 06:24 (77)
28	08:54 16:46	71 11:36 (29) 07:38 14:50 (25) 18:02	06:18 19:08	05:52 21:19	04:46 22:24	04:30 22:50	06:10 (77) 06:24 (77)
29	08:52 16:49	66 11:37 (29) 07:41 14:49 (25) 17:59	07:15 20:10	05:49 21:21	04:44 22:25	04:30 22:50	06:11 (77) 06:24 (77)
30	08:50 16:51	54 11:37 (29) 07:41 14:44 (25) 17:59	07:13 20:12	05:46 21:24	04:42 22:27	04:31 22:49	06:10 (77) 06:24 (77)
31	08:48 16:54	51 11:38 (29) 07:41 13:50 (24) 18:02	07:10 20:14	04:41 22:29	04:41 22:29	04:31 22:49	06:10 (77) 06:24 (77)
Potential sun hours	221	260	365	432	521	547	360
Total, worst case	1895	400					

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Calculation: Oppdatert layout - med nærliggende - worst case - oppdatert mottaker **Shadow receptor:** I - Buevegen 1782 (9)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

The sun is shining all the day, from sunrise to sunset

The rotor plane is always perpendicular to the line from the WTG to the sun

The WTG is always operating

	July	August	September	October	November	December		
1	04:32	06:11 (77)	05:24	06:33	07:39	07:51	09:00	11:20 (29)
	22:49	06:24 (77)	22:01	20:40	19:13	16:49	15:51	13:24 (24)
2	04:33	06:12 (77)	05:26	06:35	07:42	07:54	09:02	11:21 (29)
	22:48	06:24 (77)	21:59	20:37	19:10	16:46	15:50	13:23 (24)
3	04:34	06:13 (77)	05:28	06:37	07:44	07:56	09:03	11:22 (29)
	22:47	06:24 (77)	21:56	20:34	19:07	16:44	15:49	13:23 (24)
4	04:35	06:13 (77)	05:31	06:40	07:46	07:59	09:05	11:24 (29)
	22:47	06:24 (77)	21:54	20:31	19:04	16:41	15:48	13:22 (24)
5	04:36	06:14 (77)	05:33	06:42	07:48	08:01	11:14 (29)	09:07
	22:46	06:23 (77)	21:51	20:28	19:02	16:39	15:47	13:21 (24)
6	04:37	06:14 (77)	05:35	06:44	07:51	08:03	11:14 (29)	09:09
	22:45	06:23 (77)	21:49	20:25	18:59	16:37	15:46	13:19 (24)
7	04:38	06:15 (77)	05:37	06:46	07:53	08:06	11:12 (29)	09:10
	22:44	06:22 (77)	21:47	20:23	18:56	16:34	15:45	13:17 (21)
8	04:40	06:15 (77)	05:39	06:49	07:55	08:08	11:11 (29)	09:12
	22:43	06:22 (77)	21:44	20:20	18:53	16:32	15:44	13:17 (21)
9	04:41	06:16 (77)	05:42	06:51	07:57	08:11	11:10 (29)	09:13
	22:42	06:22 (77)	21:42	20:17	18:50	16:30	15:44	13:17 (21)
10	04:43	06:16 (77)	05:44	06:53	08:00	08:13	11:10 (29)	09:15
	22:41	06:20 (77)	21:39	20:14	18:47	16:28	15:43	13:17 (21)
11	04:44		05:46	06:55	08:02	08:15	11:09 (29)	09:16
	22:39		21:37	20:11	18:45	16:25	15:43	13:17 (21)
12	04:46		05:48	06:57	08:04	08:18	11:09 (29)	09:18
	22:38		21:34	20:08	18:42	16:23	15:43	13:17 (21)
13	04:47		05:51	07:00	08:07	08:20	11:09 (29)	09:19
	22:37		21:32	20:05	18:39	16:21	15:42	13:17 (21)
14	04:49		05:53	07:02	08:09	08:23	11:08 (29)	09:20
	22:35		21:29	20:02	18:36	16:19	15:42	13:17 (21)
15	04:51		05:55	07:04	08:11	08:25	11:08 (29)	09:21
	22:34		21:26	19:59	18:33	16:17	15:42	13:17 (21)
16	04:52		05:57	07:06	08:13	08:27	11:09 (29)	09:22
	22:32		21:24	19:56	18:31	16:15	15:42	13:17 (21)
17	04:54		06:00	07:08	08:16	08:30	11:09 (29)	09:23
	22:31		21:21	19:54	18:28	16:13	15:42	13:17 (21)
18	04:56		06:02	07:11	08:18	08:32	11:09 (29)	09:24
	22:29		21:18	19:51	18:25	16:11	15:42	13:17 (21)
19	04:58		06:04	07:13	08:20	10:07 (16)	11:10 (29)	09:25
	22:27		21:16	19:48	18:22	16:09	15:42	13:17 (21)
20	05:00		06:06	07:15	08:23	10:05 (16)	11:10 (29)	09:26
	22:25		21:13	19:45	18:20	16:08	15:43	13:17 (21)
21	05:01		06:08	07:17	08:25	10:04 (16)	11:10 (29)	09:26
	22:24		21:10	19:42	18:17	16:06	15:43	13:17 (21)
22	05:03		06:11	07:19	08:27	10:02 (16)	11:11 (29)	09:27
	22:22		21:08	19:39	18:14	16:04	15:43	13:17 (21)
23	05:05		06:13	07:22	08:30	10:02 (16)	11:11 (29)	09:27
	22:20		21:05	19:36	18:12	16:02	15:44	13:17 (21)
24	05:07		06:15	07:24	08:32	10:01 (16)	11:13 (29)	09:28
	22:18		21:02	19:33	18:09	16:01	15:44	13:17 (21)
25	05:09		06:17	07:26	07:35	09:01 (16)	11:13 (29)	09:28
	22:16		20:59	19:30	17:06	15:59	15:45	13:17 (21)
26	05:11		06:20	07:28	07:37	09:02 (16)	11:14 (29)	09:28
	22:14		20:57	19:27	17:04	15:58	15:46	13:17 (21)
27	05:13		06:22	07:30	07:39	09:01 (16)	11:15 (29)	09:28
	22:12		20:54	19:25	17:01	15:56	15:47	13:17 (21)
28	05:16		06:24	07:33	07:42	09:02 (16)	11:16 (29)	09:28
	22:10		20:51	19:22	16:59	15:55	15:48	13:17 (21)
29	05:18		06:26	07:35	07:44	09:02 (16)	11:17 (29)	09:28
	22:07		20:48	19:19	16:56	15:54	15:49	13:17 (21)
30	05:20		06:29	07:37	07:47	09:04 (16)	11:18 (29)	09:28
	22:05		20:45	19:16	16:54	15:52	15:50	13:17 (21)
31	05:22		06:31		07:49	09:06 (16)	09:28	12:07 (21)
	22:03		20:42		16:51	09:15 (16)	15:51	13:17 (21)
Potential sun hours	546		478	386	319	236	199	766
Total, worst case	89				204	1733		

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)		Last time (hh:mm) with flicker	(WTG causing flicker last time)

SHADOW - Calendar

Calculation: Oppdatert layout - med nærliggende - worst case - oppdatert mottaker **Shadow receptor:** J - Buevegen 1780 (10)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

The sun is shining all the day, from sunrise to sunset

The rotor plane is always perpendicular to the line from the WTG to the sun

The WTG is always operating

	January	February	March	April	May	June		
1	09:28	12:05 (21) 08:46	11:36 (29) 07:35	07:07	05:44	04:40	06:13 (77)	
	15:53	21 12:26 (21) 16:56	45 13:44 (24) 18:05	20:17	21:26	22:31	8 06:21 (77)	
2	09:27	12:06 (21) 08:43	11:37 (29) 07:33	07:04	05:41	04:38	06:13 (77)	
	15:54	20 12:26 (21) 16:58	40 13:42 (24) 18:07	20:19	21:28	22:32	9 06:22 (77)	
3	09:27	12:06 (21) 08:41	11:38 (29) 07:30	07:01	05:39	04:37	06:12 (77)	
	15:55	20 12:26 (21) 17:01	34 13:40 (24) 18:09	20:21	21:31	22:34	11 06:23 (77)	
4	09:27	12:06 (21) 08:39	11:39 (29) 07:27	06:58	05:36	04:36	06:12 (77)	
	15:57	21 12:27 (21) 17:03	20 11:59 (29) 18:12	20:24	21:33	22:35	11 06:23 (77)	
5	09:26	12:06 (21) 08:37	11:41 (29) 07:24	06:55	05:34	04:35	06:11 (77)	
	15:58	28 13:28 (24) 17:06	16 11:57 (29) 18:14	20:26	21:35	22:37	13 06:24 (77)	
6	09:25	12:07 (21) 08:34	11:44 (29) 07:21	06:52	05:31	04:34	06:10 (77)	
	16:00	31 13:30 (24) 17:08	10 11:54 (29) 18:17	20:28	21:37	22:38	14 06:24 (77)	
7	09:24	11:38 (29) 08:32	07:19	06:50	05:29	04:33	06:11 (77)	
	16:02	39 13:32 (24) 17:11	18:19	20:30	21:40	22:39	14 06:25 (77)	
8	09:24	11:37 (29) 08:30	07:16	06:47	05:26	04:32	06:10 (77)	
	16:03	46 13:34 (24) 17:13	18:21	20:33	21:42	22:41	15 06:25 (77)	
9	09:23	11:36 (29) 08:27	07:13	06:44	05:24	04:31	06:10 (77)	
	16:05	50 13:36 (24) 17:16	18:24	20:35	21:44	22:42	15 06:25 (77)	
10	09:22	11:35 (29) 08:25	09:38 (16) 07:10	06:41	05:22	04:30	06:10 (77)	
	16:07	58 14:41 (25) 17:18	5 09:43 (16) 18:26	20:37	21:46	22:43	16 06:26 (77)	
11	09:21	11:34 (29) 08:23	09:36 (16) 07:07	06:38	05:19	04:29	06:09 (77)	
	16:09	71 14:43 (25) 17:21	10 09:46 (16) 18:28	20:40	21:49	22:44	17 06:26 (77)	
12	09:20	11:33 (29) 08:20	09:34 (16) 07:04	06:35	05:17	04:29	06:09 (77)	
	16:11	79 14:44 (25) 17:23	14 09:48 (16) 18:31	20:42	21:51	22:45	18 06:27 (77)	
13	09:18	11:34 (29) 08:18	09:32 (16) 07:02	06:32	05:15	04:28	06:09 (77)	
	16:13	81 14:45 (25) 17:26	16 09:48 (16) 18:33	20:44	21:53	22:46	17 06:26 (77)	
14	09:17	11:33 (29) 08:15	09:32 (16) 06:59	06:30	05:13	04:28	06:09 (77)	
	16:15	84 14:45 (25) 17:28	18 09:50 (16) 18:35	20:47	21:55	22:47	18 06:27 (77)	
15	09:16	11:32 (29) 08:13	09:32 (16) 06:56	06:27	05:10	04:27	06:09 (77)	
	16:17	86 14:46 (25) 17:31	18 09:50 (16) 18:38	20:49	21:58	22:47	19 06:28 (77)	
16	09:15	11:32 (29) 08:10	09:31 (16) 06:53	06:24	05:08	04:27	06:09 (77)	
	16:19	87 14:46 (25) 17:33	19 09:50 (16) 18:40	20:51	22:00	22:48	19 06:28 (77)	
17	09:13	11:32 (29) 08:07	09:31 (16) 06:50	06:21	05:06	04:27	06:10 (77)	
	16:21	87 14:47 (25) 17:36	19 09:50 (16) 18:42	20:53	22:02	22:49	18 06:28 (77)	
18	09:12	11:32 (29) 08:05	09:32 (16) 06:47	06:19	05:04	04:27	06:10 (77)	
	16:23	88 14:48 (25) 17:38	18 09:50 (16) 18:45	20:56	22:04	22:49	19 06:29 (77)	
19	09:10	11:32 (29) 08:02	09:32 (16) 06:44	06:16	05:02	04:27	06:10 (77)	
	16:25	86 14:48 (25) 17:40	17 09:49 (16) 18:47	20:58	22:06	22:50	19 06:29 (77)	
20	09:09	11:32 (29) 08:00	09:32 (16) 06:41	06:13	05:00	04:27	06:10 (77)	
	16:28	77 14:48 (25) 17:43	16 09:48 (16) 18:49	21:00	22:08	22:50	19 06:29 (77)	
21	09:07	11:32 (29) 07:57	09:33 (16) 06:39	06:10	04:58	04:27	06:10 (77)	
	16:30	77 14:48 (25) 17:45	14 09:47 (16) 18:51	21:03	22:10	22:50	19 06:29 (77)	
22	09:05	11:32 (29) 07:54	09:35 (16) 06:36	06:08	04:56	04:27	06:10 (77)	
	16:32	79 14:49 (25) 17:48	10 09:45 (16) 18:54	21:05	22:12	22:50	19 06:29 (77)	
23	09:03	11:31 (29) 07:52	09:39 (16) 06:33	06:05	04:54	04:27	06:11 (77)	
	16:34	78 14:48 (25) 17:50	2 09:41 (16) 18:56	21:07	22:14	22:51	19 06:30 (77)	
24	09:02	11:32 (29) 07:49	06:30	06:02	04:52	04:27	06:11 (77)	
	16:37	77 14:48 (25) 17:53	18:58	21:10	22:16	22:51	19 06:30 (77)	
25	09:00	11:32 (29) 07:46	06:27	05:59	04:51	04:28	06:11 (77)	
	16:39	75 14:47 (25) 17:55	19:01	21:12	22:18	22:51	18 06:29 (77)	
26	08:58	11:33 (29) 07:44	06:24	05:57	04:49	04:28	06:12 (77)	
	16:41	73 14:47 (25) 17:57	19:03	21:14	22:20	22:50	18 06:30 (77)	
27	08:56	11:32 (29) 07:41	06:21	05:54	04:47	04:29	06:11 (77)	
	16:44	70 14:45 (25) 18:00	19:05	21:17	22:22	22:50	19 06:30 (77)	
28	08:54	11:33 (29) 07:38	06:18	05:52	04:46	04:30	06:12 (77)	
	16:46	66 14:44 (25) 18:02	19:08	21:19	22:24	22:50	18 06:30 (77)	
29	08:52	11:34 (29)	07:15	05:49	04:44	06:14 (77)	04:30	06:13 (77)
	16:49	57 14:41 (25)	20:10	21:21	22:25	2 06:16 (77)	22:50	18 06:31 (77)
30	08:50	11:34 (29)	07:13	05:46	04:42	06:14 (77)	04:31	06:13 (77)
	16:51	52 13:45 (24)	20:12	21:24	22:27	4 06:18 (77)	22:49	17 06:30 (77)
31	08:48	11:35 (29)	07:10		04:41	06:14 (77)		
	16:54	48 13:44 (24)	20:14		22:29	6 06:20 (77)		
Potential sun hours	221	260	365	432	521	547	493	
Total, worst case	1912	361			12			

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Calculation: Oppdatert layout - med nærliggende - worst case - oppdatert mottaker **Shadow receptor:** J - Buevegen 1780 (10)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

The sun is shining all the day, from sunrise to sunset

The rotor plane is always perpendicular to the line from the WTG to the sun

The WTG is always operating

	July	August	September	October	November	December
1	04:32	06:13 (77)	05:24	06:33	07:39	07:51
	22:49	06:30 (77)	22:01	20:40	19:13	09:09 (16)
2	04:33	06:14 (77)	05:26	06:35	07:42	09:11 (16)
	22:48	06:31 (77)	21:59	20:37	19:10	15:50
3	04:34	06:15 (77)	05:28	06:37	07:44	09:03
	22:47	06:31 (77)	21:56	20:34	19:07	15:49
4	04:35	06:15 (77)	05:31	06:40	07:46	09:05
	22:47	06:31 (77)	21:54	20:31	19:04	15:48
5	04:36	06:16 (77)	05:33	06:42	07:48	11:13 (29)
	22:46	06:31 (77)	21:51	20:28	19:02	09:07
6	04:37	06:17 (77)	05:35	06:44	07:51	11:25 (29)
	22:45	06:30 (77)	21:49	20:25	18:59	15:47
7	04:38	06:17 (77)	05:37	06:46	07:53	11:28 (29)
	22:44	06:30 (77)	21:47	20:23	18:56	15:46
8	04:40	06:18 (77)	05:39	06:49	07:55	11:30 (24)
	22:43	06:30 (77)	21:44	20:20	18:53	15:45
9	04:41	06:19 (77)	05:42	06:51	07:57	11:07 (29)
	22:42	06:30 (77)	21:42	20:17	18:50	09:13
10	04:43	06:20 (77)	05:44	06:53	08:00	13:10 (24)
	22:41	06:30 (77)	21:39	20:14	18:47	15:44
11	04:44	06:20 (77)	05:46	06:55	08:02	11:07 (29)
	22:39	06:29 (77)	21:37	20:11	18:45	09:16
12	04:46	06:22 (77)	05:48	06:57	08:04	13:15 (24)
	22:38	06:29 (77)	21:34	20:08	18:42	15:43
13	04:47	06:22 (77)	05:51	07:00	08:07	11:06 (29)
	22:37	06:28 (77)	21:32	20:05	18:39	09:19
14	04:49	06:23 (77)	05:53	07:02	08:09	14:14 (25)
	22:35	06:26 (77)	21:29	20:02	18:36	15:42
15	04:51		05:55	07:04	08:11	11:05 (29)
	22:34		21:26	19:59	18:33	09:21
16	04:52		05:57	07:06	08:13	14:16 (25)
	22:32		21:24	19:56	18:31	15:42
17	04:54		06:00	07:08	08:16	11:06 (29)
	22:31		21:21	19:54	18:28	09:23
18	04:56		06:02	07:11	08:18	14:21 (25)
	22:29		21:18	19:51	18:25	15:42
19	04:58		06:04	07:13	08:20	11:06 (29)
	22:27		21:16	19:48	18:22	09:25
20	05:00		06:06	07:15	08:23	14:23 (25)
	22:25		21:13	19:45	18:20	15:42
21	05:01		06:08	07:17	08:25	11:06 (29)
	22:24		21:10	19:42	18:17	09:26
22	05:03		06:11	07:19	08:27	14:23 (25)
	22:22		21:08	19:39	18:14	15:43
23	05:05		06:13	07:22	08:30	11:08 (29)
	22:20		21:05	19:36	18:12	09:27
24	05:07		06:15	07:24	08:32	14:24 (25)
	22:18		21:02	19:33	18:09	15:43
25	05:09		06:17	07:26	07:35	11:08 (29)
	22:16		20:59	19:30	17:06	09:28
26	05:11		06:20	07:28	07:37	14:25 (25)
	22:14		20:57	19:27	17:04	15:45
27	05:13		06:22	07:30	07:39	11:11 (29)
	22:12		20:54	19:25	17:01	09:28
28	05:16		06:24	07:33	07:42	14:25 (25)
	22:10		20:51	19:22	16:59	15:47
29	05:18		06:26	07:35	07:44	11:14 (29)
	22:07		20:48	19:19	16:56	09:28
30	05:20		06:29	07:37	07:47	14:25 (25)
	22:05		20:45	19:16	16:54	15:48
31	05:22		06:31		07:49	11:14 (29)
	22:03		20:42		16:51	09:28
Potential sun hours	546	478	386	319	236	15:51
Total, worst case	165			200	1684	199
						800

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)		Last time (hh:mm) with flicker	(WTG causing flicker last time)

SHADOW - Calendar

Calculation: Oppdatert layout - med nærliggende - worst case - oppdatert mottaker **Shadow receptor:** K - Buevegen 1778 (11)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

The sun is shining all the day, from sunrise to sunset

The rotor plane is always perpendicular to the line from the WTG to the sun

The WTG is always operating

	January	February	March	April	May	June	
1	09:28	11:58 (21) 08:46	11:24 (29) 07:35	07:07	05:44	04:40	06:12 (77)
	15:53	16	12:14 (21) 16:56	49	13:35 (24) 18:05	20:17	21:26
2	09:28	11:58 (21) 08:43	11:24 (29) 07:33	07:04	05:41	04:38	06:12 (77)
	15:54	18	12:16 (21) 16:58	47	13:34 (24) 18:07	20:19	21:28
3	09:27	11:58 (21) 08:41	11:25 (29) 07:30	07:01	05:39	04:37	06:11 (77)
	15:55	20	12:18 (21) 17:01	42	13:33 (24) 18:09	20:21	21:31
4	09:27	11:58 (21) 08:39	11:26 (29) 07:27	06:58	05:36	04:36	06:11 (77)
	15:57	21	12:19 (21) 17:03	35	13:30 (24) 18:12	20:24	21:33
5	09:26	11:59 (21) 08:37	11:26 (29) 07:24	06:55	05:34	04:35	06:10 (77)
	15:58	20	12:19 (21) 17:06	23	11:49 (29) 18:14	20:26	21:35
6	09:25	11:59 (21) 08:34	11:28 (29) 07:21	06:52	05:31	04:34	06:10 (77)
	16:00	26	13:18 (24) 17:08	20	11:48 (29) 18:17	20:28	21:37
7	09:25	12:00 (21) 08:32	11:30 (29) 07:19	06:50	05:29	04:33	06:10 (77)
	16:02	30	13:21 (24) 17:11	16	11:46 (29) 18:19	20:30	21:40
8	09:24	12:00 (21) 08:30	11:33 (29) 07:16	06:47	05:26	04:32	06:10 (77)
	16:03	34	14:35 (25) 17:13	11	11:44 (29) 18:21	20:33	21:42
9	09:23	12:01 (21) 08:27	07:13	06:44	05:24	04:31	06:09 (77)
	16:05	41	14:36 (25) 17:16	18:24	20:35	21:44	22:42
10	09:22	12:01 (21) 08:25	07:10	06:41	05:22	04:30	06:09 (77)
	16:07	50	14:36 (25) 17:18	18:26	20:37	21:46	22:43
11	09:21	12:02 (21) 08:23	07:07	06:38	05:19	04:29	06:09 (77)
	16:09	57	14:37 (25) 17:21	18:28	20:40	21:49	22:44
12	09:20	11:27 (29) 08:20	07:04	06:35	05:17	04:29	06:09 (77)
	16:11	69	14:38 (25) 17:23	18:31	20:42	21:51	22:45
13	09:18	11:26 (29) 08:18	07:02	06:32	05:15	04:28	06:08 (77)
	16:13	75	14:39 (25) 17:26	18:33	20:44	21:53	22:46
14	09:17	11:25 (29) 08:15	06:59	06:30	05:13	04:28	06:08 (77)
	16:15	78	14:39 (25) 17:28	18:35	20:47	21:55	22:47
15	09:16	11:24 (29) 08:13	06:56	06:27	05:10	04:27	06:07 (77)
	16:17	82	14:40 (25) 17:31	18:38	20:49	21:58	22:47
16	09:15	11:23 (29) 08:10	06:53	06:24	05:08	04:27	06:07 (77)
	16:19	85	14:40 (25) 17:33	18:40	20:51	22:00	22:48
17	09:13	11:23 (29) 08:07	06:50	06:21	05:06	04:27	06:07 (77)
	16:21	86	14:41 (25) 17:36	18:42	20:54	22:02	22:49
18	09:12	11:23 (29) 08:05	06:47	06:19	05:04	04:27	06:07 (77)
	16:23	87	14:42 (25) 17:38	18:45	20:56	22:04	22:49
19	09:10	11:22 (29) 08:02	06:44	06:16	05:02	04:27	06:08 (77)
	16:25	87	14:42 (25) 17:40	18:47	20:58	22:06	22:50
20	09:09	11:22 (29) 08:00	06:41	06:13	05:00	04:27	06:08 (77)
	16:28	85	14:42 (25) 17:43	18:49	21:00	22:08	22:50
21	09:07	11:22 (29) 07:57	06:39	06:10	04:58	04:27	06:08 (77)
	16:30	82	14:42 (25) 17:45	18:51	21:03	22:10	22:50
22	09:05	11:22 (29) 07:54	06:36	06:08	04:56	04:27	06:08 (77)
	16:32	77	14:42 (25) 17:48	18:54	21:05	22:12	22:50
23	09:03	11:21 (29) 07:52	06:33	06:05	04:54	04:27	06:09 (77)
	16:34	77	14:41 (25) 17:50	18:56	21:07	22:14	22:51
24	09:02	11:21 (29) 07:49	06:30	06:02	04:52	04:27	06:08 (77)
	16:37	76	14:41 (25) 17:53	18:58	21:10	22:16	22:51
25	09:00	11:21 (29) 07:46	06:27	05:59	04:51	04:28	06:08 (77)
	16:39	77	14:41 (25) 17:55	19:01	21:12	22:18	22:51
26	08:58	11:21 (29) 07:44	06:24	05:57	04:49	04:28	06:09 (77)
	16:41	75	14:41 (25) 17:57	19:03	21:14	22:20	22:50
27	08:56	11:21 (29) 07:41	06:21	05:54	04:47	04:29	06:09 (77)
	16:44	71	14:39 (25) 18:00	19:05	21:17	22:22	4 06:15 (77)
28	08:54	11:21 (29) 07:38	06:18	05:52	04:46	06:15 (77)	22:50
	16:46	69	14:38 (25) 18:02	19:08	21:19	22:24	6 06:15 (77)
29	08:52	11:22 (29)	07:15	05:49	04:44	06:14 (77)	22:50
	16:49	61	14:36 (25)	20:10	21:21	22:25	7 06:14 (77)
30	08:50	11:22 (29)	07:13	05:46	04:42	06:13 (77)	22:50
	16:51	55	13:36 (24)	20:12	21:24	22:27	9 06:21 (77)
31	08:48	11:23 (29)	07:10		04:41	06:13 (77)	22:49
	16:54	53	13:36 (24)	20:14	22:29	10 06:23 (77)	20 06:32 (77)
Potential sun hours	221	260	365	432	521	547	587
Total, worst case	1840	243			36		

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Calculation: Oppdatert layout - med nærliggende - worst case - oppdatert mottaker **Shadow receptor:** K - Buevegen 1778 (11)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

The sun is shining all the day, from sunrise to sunset

The rotor plane is always perpendicular to the line from the WTG to the sun

The WTG is always operating

	July	August	September	October	November	December						
1	04:32	06:13 (77)	05:24	06:33	07:39	07:51	09:00	11:13 (29)				
	22:49	19	06:32 (77)	22:01	20:40	19:13	16:49	15:51	59	14:20 (25)		
2	04:33	06:14 (77)	05:26	06:35	07:42	07:54	09:02	11:44 (21)				
	22:48	18	06:32 (77)	21:59	20:37	19:10	16:46	15:50	50	14:19 (25)		
3	04:34	06:14 (77)	05:28	06:37	07:44	07:56	11:02 (29)	09:03	11:44 (21)			
	22:47	18	06:32 (77)	21:56	20:34	19:07	16:44	12	11:14 (29)	15:49	40	14:19 (25)
4	04:35	06:15 (77)	05:31	06:40	07:46	07:59	10:59 (29)	09:05	11:44 (21)			
	22:47	18	06:33 (77)	21:54	20:31	19:04	16:41	17	11:16 (29)	15:48	34	14:19 (25)
5	04:36	06:15 (77)	05:33	06:42	07:48	08:01	10:58 (29)	09:07	11:45 (21)			
	22:46	18	06:33 (77)	21:51	20:28	19:02	16:39	20	11:18 (29)	15:47	31	13:06 (24)
6	04:37	06:16 (77)	05:35	06:44	07:51	08:03	10:57 (29)	09:09	11:45 (21)			
	22:45	16	06:32 (77)	21:49	20:25	18:59	16:37	22	11:19 (29)	15:46	27	13:05 (24)
7	04:39	06:16 (77)	05:37	06:46	07:53	08:06	10:56 (29)	09:10	11:46 (21)			
	22:44	16	06:32 (77)	21:47	20:23	18:56	16:34	37	13:01 (24)	15:45	20	12:06 (21)
8	04:40	06:17 (77)	05:39	06:49	07:55	08:08	10:55 (29)	09:12	11:47 (21)			
	22:43	15	06:32 (77)	21:44	20:20	18:53	16:32	43	13:03 (24)	15:45	20	12:07 (21)
9	04:41	06:18 (77)	05:42	06:51	07:57	08:11	10:55 (29)	09:13	11:47 (21)			
	22:42	15	06:33 (77)	21:42	20:17	18:50	16:30	47	13:05 (24)	15:44	20	12:07 (21)
10	04:43	06:19 (77)	05:44	06:53	08:00	08:13	10:54 (29)	09:15	11:47 (21)			
	22:41	13	06:32 (77)	21:39	20:14	18:47	16:28	51	13:06 (24)	15:43	19	12:07 (21)
11	04:44	06:19 (77)	05:46	06:55	08:02	08:15	10:54 (29)	09:16	11:48 (21)			
	22:39	13	06:32 (77)	21:37	20:11	18:45	16:25	52	13:06 (24)	15:43	16	12:04 (21)
12	04:46	06:21 (77)	05:48	06:57	08:04	08:18	10:54 (29)	09:18	11:48 (21)			
	22:38	11	06:32 (77)	21:34	20:08	18:42	16:23	55	13:08 (24)	15:43	11	11:59 (21)
13	04:47	06:21 (77)	05:51	07:00	08:07	08:20	10:54 (29)	09:19	11:49 (21)			
	22:37	10	06:31 (77)	21:32	20:05	18:39	16:21	62	14:08 (25)	15:42	11	12:00 (21)
14	04:49	06:22 (77)	05:53	07:02	08:09	08:23	10:53 (29)	09:20	11:50 (21)			
	22:35	8	06:30 (77)	21:29	20:02	18:36	16:19	69	14:10 (25)	15:42	7	12:00 (21)
15	04:51	06:23 (77)	05:55	07:04	08:11	08:25	10:54 (29)	09:21	11:50 (21)			
	22:34	7	06:30 (77)	21:26	19:59	18:33	16:17	71	14:12 (25)	15:42	3	11:53 (21)
16	04:52	06:24 (77)	05:57	07:06	08:13	08:27	10:54 (29)	09:22	11:50 (21)			
	22:32	4	06:28 (77)	21:24	19:56	18:31	16:15	75	14:14 (25)	15:42	3	11:53 (21)
17	04:54	06:25 (77)	06:00	07:08	08:16	08:30	10:55 (29)	09:23	11:51 (21)			
	22:31	2	06:27 (77)	21:21	19:54	18:28	16:13	77	14:15 (25)	15:42	1	11:52 (21)
18	04:56	06:02	07:11	08:18	08:32	10:55 (29)	09:24	11:52 (21)				
	22:29		21:18	19:51	18:25	16:11	76	14:15 (25)	15:42			
19	04:58	06:04	07:13	08:20	08:34	10:56 (29)	09:25	11:53 (21)				
	22:27		21:16	19:48	18:22	16:09	77	14:16 (25)	15:42			
20	05:00	06:06	07:15	08:23	08:36	10:56 (29)	09:26	11:54 (21)				
	22:25		21:13	19:45	18:20	16:08	77	14:16 (25)	15:43			
21	05:01	06:08	07:17	08:25	08:39	10:57 (29)	09:26	11:55 (21)				
	22:24		21:10	19:42	18:17	16:06	81	14:17 (25)	15:43			
22	05:03	06:11	07:19	08:27	08:41	10:58 (29)	09:27	11:56 (21)				
	22:22		21:08	19:39	18:14	16:04	85	14:18 (25)	15:43			
23	05:05	06:13	07:22	08:30	08:43	10:58 (29)	09:27	11:57 (21)				
	22:20		21:05	19:36	18:12	16:02	88	14:18 (25)	15:44			
24	05:07	06:15	07:24	08:32	08:45	11:00 (29)	09:28	11:58 (21)				
	22:18		21:02	19:33	18:09	16:01	87	14:19 (25)	15:44			
25	05:09	06:17	07:26	07:35	08:47	11:00 (29)	09:28	11:59 (21)				
	22:16		20:59	19:30	17:06	15:59	86	14:18 (25)	15:45			
26	05:11	06:20	07:28	07:37	08:50	11:02 (29)	09:28	12:00 (21)				
	22:14		20:57	19:27	17:04	15:58	85	14:19 (25)	15:46			
27	05:13	06:22	07:30	07:39	08:52	11:03 (29)	09:28	12:01 (21)				
	22:12		20:54	19:25	17:01	15:56	82	14:19 (25)	15:47	3	11:59 (21)	
28	05:16	06:24	07:33	07:42	08:54	11:05 (29)	09:28	12:02 (21)				
	22:10		20:51	19:22	16:59	15:55	79	14:19 (25)	15:48	3	12:00 (21)	
29	05:18	06:26	07:35	07:44	08:56	11:06 (29)	09:28	12:01 (21)				
	22:07		20:48	19:19	16:56	15:54	74	14:19 (25)	15:49	5	12:07 (21)	
30	05:20	06:29	07:37	07:47	08:58	11:08 (29)	09:28	12:02 (21)				
	22:05		20:45	19:16	16:54	15:52	69	14:19 (25)	15:50	11	12:08 (21)	
31	05:22	06:31	07:49	08:00	09:11	11:10 (29)	09:28	12:03 (21)				
	22:03		20:42	16:51	15:51	15:51	11	12:08 (21)				
Potential sun hours	546		478	386	319	236	1756	199	405			
Total, worst case	221											

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)		Last time (hh:mm) with flicker	(WTG causing flicker last time)

SHADOW - Calendar

Calculation: Oppdatert layout - med nærliggende - worst case - oppdatert mottaker **Shadow receptor:** L - Buevegen 1850 (12)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

The sun is shining all the day, from sunrise to sunset

The rotor plane is always perpendicular to the line from the WTG to the sun

The WTG is always operating

	January	February	March	April	May	June
1	09:28	11:52 (34) 08:46	13:17 (29) 07:35	08:53 (18) 07:07	05:44	04:40
	15:53	12:09 (34) 16:56	13:53 (29) 18:05	09:12 (18) 20:17	21:26	22:30
2	09:27	11:51 (34) 08:43	13:18 (29) 07:32	08:53 (18) 07:04	05:41	04:38
	15:54	12:10 (34) 16:58	15:13 (24) 18:07	09:13 (18) 20:19	21:28	22:32
3	09:27	11:51 (34) 08:41	13:17 (29) 07:30	08:52 (18) 07:01	05:39	04:37
	15:55	12:10 (34) 17:01	15:18 (24) 18:09	09:13 (18) 20:21	21:30	22:34
4	09:26	11:51 (34) 08:39	13:18 (29) 07:27	08:52 (18) 06:58	05:36	04:36
	15:57	12:11 (34) 17:03	15:20 (24) 18:12	09:12 (18) 20:24	21:33	22:35
5	09:26	11:52 (34) 08:37	13:17 (29) 07:24	08:52 (18) 06:55	05:34	04:35
	15:58	12:12 (34) 17:06	15:21 (24) 18:14	09:12 (18) 20:26	21:35	22:37
6	09:25	11:52 (34) 08:34	13:18 (29) 07:21	08:52 (18) 06:52	05:31	04:34
	16:00	12:12 (34) 17:08	15:44 (25) 18:16	09:11 (18) 20:28	21:37	22:38
7	09:24	11:52 (34) 08:32	13:17 (29) 07:19	08:53 (18) 06:49	05:29	04:33
	16:02	12:13 (34) 17:11	15:46 (25) 18:19	09:10 (18) 20:30	21:40	22:39
8	09:24	11:53 (34) 08:30	13:18 (29) 07:16	08:54 (18) 06:47	05:26	04:32
	16:03	12:14 (34) 17:13	15:51 (25) 18:21	09:08 (18) 20:33	21:42	22:40
9	09:23	11:52 (34) 08:27	13:18 (29) 07:13	08:55 (18) 06:44	05:24	04:31
	16:05	12:14 (34) 17:16	15:59 (25) 18:24	09:05 (18) 20:35	21:44	22:42
10	09:22	11:53 (34) 08:25	13:18 (29) 07:10	06:41	05:22	04:30
	16:07	12:15 (34) 17:18	16:00 (25) 18:26	20:37	21:46	22:43
11	09:21	11:54 (34) 08:23	13:20 (29) 07:07	06:38	05:19	04:29
	16:09	12:16 (34) 17:21	16:00 (25) 18:28	20:40	21:49	22:44
12	09:20	11:53 (34) 08:20	10:07 (16) 07:04	06:35	05:17	04:29
	16:11	13:22 (21) 17:23	15:59 (25) 18:31	20:42	21:51	22:45
13	09:18	11:53 (34) 08:18	10:04 (16) 07:01	06:32	05:15	04:28
	16:13	13:28 (21) 17:26	15:58 (25) 18:33	20:44	21:53	22:46
14	09:17	11:54 (34) 08:15	10:03 (16) 06:59	06:30	05:13	04:28
	16:15	13:37 (21) 17:28	15:57 (25) 18:35	20:47	21:55	22:46
15	09:16	11:55 (34) 08:13	10:02 (16) 06:56	06:27	05:10	04:27
	16:17	13:43 (21) 17:31	15:54 (25) 18:38	20:49	21:57	22:47
16	09:15	11:55 (34) 08:10	10:01 (16) 06:53	06:24	05:08	04:27
	16:19	13:44 (21) 17:33	15:24 (24) 18:40	20:51	22:00	22:48
17	09:13	11:55 (34) 08:07	10:00 (16) 06:50	06:21	05:06	04:27
	16:21	13:44 (21) 17:35	15:23 (24) 18:42	20:53	22:02	22:49
18	09:12	11:57 (34) 08:05	10:00 (16) 06:47	06:19	05:04	04:27
	16:23	13:46 (21) 17:38	15:23 (24) 18:45	20:56	22:04	22:49
19	09:10	11:57 (34) 08:02	10:00 (16) 06:44	06:16	05:02	04:27
	16:25	13:46 (21) 17:40	15:21 (24) 18:47	20:58	22:06	22:50
20	09:08	11:58 (34) 08:00	09:59 (16) 06:41	06:13	05:00	04:27
	16:28	13:46 (21) 17:43	15:19 (24) 18:49	21:00	22:08	22:50
21	09:07	11:59 (34) 07:57	09:59 (16) 06:38	06:10	04:58	04:27
	16:30	13:46 (21) 17:45	15:15 (24) 18:51	21:03	22:10	22:50
22	09:05	11:59 (34) 07:54	09:59 (16) 06:36	06:08	04:56	04:27
	16:32	13:46 (21) 17:48	10:24 (16) 18:54	21:05	22:12	22:50
23	09:03	12:01 (34) 07:52	10:00 (16) 06:33	06:05	04:54	04:27
	16:34	13:46 (21) 17:50	10:24 (16) 18:56	21:07	22:14	22:50
24	09:02	12:03 (34) 07:49	10:01 (16) 06:30	06:02	04:52	04:27
	16:37	13:46 (21) 17:53	10:23 (16) 18:58	21:10	22:16	22:51
25	09:00	12:05 (34) 07:46	09:00 (18) 06:27	05:59	04:51	04:28
	16:39	13:46 (29) 17:55	10:22 (16) 19:01	21:12	22:18	22:50
26	08:58	13:21 (29) 07:43	08:57 (18) 06:24	05:57	04:49	04:28
	16:41	13:48 (29) 17:57	10:20 (16) 19:03	21:14	22:20	22:50
27	08:56	13:20 (29) 07:41	08:55 (18) 06:21	05:54	04:47	04:29
	16:44	13:48 (29) 18:00	10:18 (16) 19:05	21:17	22:22	22:50
28	08:54	13:19 (29) 07:38	08:54 (18) 06:18	05:52	04:46	04:30
	16:46	13:50 (29) 18:02	10:14 (16) 19:07	21:19	22:24	22:50
29	08:52	13:19 (29)	07:15	05:49	04:44	04:30
	16:49	13:51 (29)	20:10	21:21	22:25	22:50
30	08:50	13:18 (29)	07:12	05:46	04:42	04:31
	16:51	13:51 (29)	20:12	21:24	22:27	22:49
31	08:48	13:18 (29)	07:10		04:41	
	16:53	13:53 (29)	20:14		22:29	
Potential sun hours	221	260	365	432	521	547
Total, worst case	948	1529	160			

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Calculation: Oppdatert layout - med nærliggende - worst case - oppdatert mottaker **Shadow receptor:** L - Buevegen 1850 (12)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

The sun is shining all the day, from sunrise to sunset

The rotor plane is always perpendicular to the line from the WTG to the sun

The WTG is always operating

	July	August	September	October		November		December		
1	04:32 22:49	05:24 22:01	06:33 20:40	07:39 19:13		07:51 16:49		12:48 (29) 15:30 (25)	09:00 15:51	11:36 (34) 11:58 (34)
2	04:33 22:48	05:26 21:58	06:35 20:37	07:42 19:10		07:54 16:46	83 76	12:48 (29) 15:28 (25)	09:02 15:50	11:36 (34) 11:58 (34)
3	04:34 22:47	05:28 21:56	06:37 20:34	07:44 19:07		07:56 16:44		12:48 (29) 15:20 (25)	09:03 15:49	11:36 (34) 11:58 (34)
4	04:35 22:47	05:31 21:54	06:40 20:31	07:46 19:04		07:59 16:41		12:47 (29) 15:15 (25)	09:05 15:48	11:37 (34) 11:58 (34)
5	04:36 22:46	05:33 21:51	06:42 20:28	07:48 19:01	7	09:34 (18) 09:41 (18)	66	12:47 (29) 15:13 (25)	09:07 15:47	11:37 (34) 11:58 (34)
6	04:37 22:45	05:35 21:49	06:44 20:25	07:51 18:59	12	09:44 (18) 09:46 (18)	62	12:48 (29) 14:50 (24)	09:09 15:46	11:38 (34) 11:59 (34)
7	04:38 22:44	05:37 21:47	06:46 20:22	07:53 18:56	15	09:45 (18) 09:28 (18)	58	14:52 (24) 12:47 (29)	15:46 09:10	11:59 (34) 11:39 (34)
8	04:40 22:43	05:39 21:44	06:48 20:20	07:55 18:53	18	09:46 (18) 09:27 (18)	55	14:50 (24) 12:48 (29)	15:45 09:12	11:59 (34) 11:40 (34)
9	04:41 22:42	05:42 21:42	06:51 20:17	07:57 18:50	19	09:47 (18) 09:27 (18)	50	14:48 (24) 12:49 (29)	15:45 09:13	11:59 (34) 11:41 (34)
10	04:43 22:40	05:44 21:39	06:53 20:14	08:00 18:47	20	09:47 (18) 09:26 (18)	42	13:24 (29) 12:49 (29)	15:43 09:15	11:59 (34) 11:41 (34)
11	04:44 22:39	05:46 21:37	06:55 20:11	08:02 18:45	20	09:46 (18) 09:26 (18)	34	12:49 (29) 13:23 (29)	09:16 15:43	11:42 (34) 12:00 (34)
12	04:46 22:38	05:48 21:34	06:57 20:08	08:04 18:42	19	09:45 (18) 09:27 (18)	33	12:50 (29) 13:23 (29)	09:18 15:43	11:42 (34) 11:59 (34)
13	04:47 22:37	05:51 21:31	07:00 20:05	08:06 18:39	18	09:27 (18) 09:45 (18)	32	12:51 (29) 13:23 (29)	09:19 15:42	11:43 (34) 12:00 (34)
14	04:49 22:35	05:53 21:29	07:02 20:02	08:09 18:36	28	09:27 (18) 10:49 (16)	31	12:51 (29) 13:22 (29)	09:20 15:42	11:44 (34) 12:00 (34)
15	04:51 22:34	05:55 21:26	07:04 19:59	08:11 18:33	30	09:29 (18) 10:52 (16)	28	12:53 (29) 13:21 (29)	09:21 15:42	11:44 (34) 12:00 (34)
16	04:52 22:32	05:57 21:24	07:06 19:56	08:13 18:31	29	09:30 (18) 10:53 (16)	27	12:54 (29) 13:21 (29)	09:22 15:42	11:45 (34) 12:00 (34)
17	04:54 22:30	05:59 21:21	07:08 19:54	08:16 18:28	21	10:33 (16) 10:54 (16)	32	11:38 (34) 13:19 (29)	09:23 15:42	11:45 (34) 12:00 (34)
18	04:56 22:29	06:02 21:18	07:10 19:51	08:18 18:25	24	10:31 (16) 10:55 (16)	34	11:37 (34) 13:20 (21)	09:24 15:42	11:46 (34) 12:01 (34)
19	04:58 22:27	06:04 21:16	07:13 19:48	08:20 18:22	24	10:31 (16) 10:55 (16)	36	11:36 (34) 13:21 (21)	09:25 15:42	11:47 (34) 12:01 (34)
20	05:00 22:25	06:06 21:13	07:15 19:45	08:23 18:20	25	10:30 (16) 10:55 (16)	39	11:34 (34) 13:21 (21)	09:26 15:42	11:48 (34) 12:02 (34)
21	05:01 22:24	06:08 21:10	07:17 19:42	08:25 18:17	36	10:30 (16) 15:48 (24)	40	11:34 (34) 13:21 (21)	09:26 15:43	11:48 (34) 12:02 (34)
22	05:03 22:22	06:11 21:08	07:19 19:39	08:27 18:14	41	10:30 (16) 15:50 (24)	43	11:34 (34) 13:22 (21)	09:27 15:43	11:48 (34) 12:03 (34)
23	05:05 22:20	06:13 21:05	07:22 19:36	08:30 18:12	48	10:30 (16) 15:52 (24)	44	11:33 (34) 13:22 (21)	09:27 15:44	11:49 (34) 12:03 (34)
24	05:07 22:18	06:15 21:02	07:24 19:33	08:32 18:09	61	10:30 (16) 15:52 (24)	44	11:34 (34) 13:23 (21)	09:28 15:44	11:50 (34) 12:04 (34)
25	05:09 22:16	06:17 20:59	07:26 19:30	07:35 17:06	69	10:30 (16) 14:54 (24)	44	11:33 (34) 13:22 (21)	09:28 15:45	11:50 (34) 12:04 (34)
26	05:11 22:14	06:20 20:56	07:28 19:27	07:37 17:04	73	09:30 (16) 14:54 (24)	44	11:34 (34) 13:23 (21)	09:28 15:46	11:50 (34) 12:05 (34)
27	05:13 22:12	06:22 20:54	07:30 19:24	07:39 17:01	81	09:32 (16) 15:24 (25)	44	11:34 (34) 13:23 (21)	09:28 15:47	11:50 (34) 12:06 (34)
28	05:16 22:10	06:24 20:51	07:33 19:22	07:42 16:59	88	09:33 (16) 15:27 (25)	38	11:35 (34) 13:18 (21)	09:28 15:48	11:50 (34) 12:06 (34)
29	05:18 22:07	06:26 20:48	07:35 19:19	07:44 16:56	90	09:34 (16) 15:28 (25)	29	11:35 (34) 13:09 (21)	09:28 15:49	11:50 (34) 12:07 (34)
30	05:20 22:05	06:29 20:45	07:37 19:16	07:47 16:54	89	09:37 (16) 15:29 (25)	23	11:35 (34) 13:03 (21)	09:28 15:50	11:51 (34) 12:08 (34)
31	05:22 22:03	06:31 20:42		07:49 16:51	81	12:49 (29) 15:30 (25)			09:28 15:51	11:51 (34) 12:08 (34)
Potential sun hours	546	478	386	319		236		199		531
Total, worst case					1106		1317			531

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Calculation: Oppdatert layout - med nærliggende - worst case - oppdatert mottaker **Shadow receptor:** M - Buevegen 1941 (13)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

The sun is shining all the day, from sunrise to sunset

The rotor plane is always perpendicular to the line from the WTG to the sun

The WTG is always operating

	January	February	March	April	May	June
1	09:28 15:53	08:46 16:56	14:11 (34) 15:31 (21)	07:35 18:05	10:14 (18) 16:49 (24)	05:44 21:26
2	09:27 15:54	08:43 16:58	15:15 (21) 15:32 (21)	07:32 18:07	10:15 (18) 16:50 (24)	05:41 21:28
3	09:27 15:55	08:41 17:01	15:14 (21) 15:33 (21)	07:30 18:09	10:16 (18) 16:48 (24)	05:39 21:30
4	09:26 15:57	08:39 17:03	12:34 (16) 15:33 (21)	07:27 18:12	10:16 (18) 16:47 (24)	05:36 21:33
5	09:26 15:58	08:37 17:06	12:30 (16) 15:33 (21)	07:24 18:14	09:25 (13) 16:44 (24)	06:55 21:35
6	09:25 16:00	08:34 17:08	12:29 (16) 15:34 (21)	07:21 18:16	09:21 (13) 10:42 (18)	06:52 21:37
7	09:24 16:02	08:32 17:11	12:27 (16) 15:33 (21)	07:18 18:19	10:19 (18) 10:39 (18)	06:49 21:40
8	09:24 16:03	08:30 17:13	12:27 (16) 15:34 (21)	07:16 18:21	10:21 (18) 10:36 (18)	06:47 21:42
9	09:23 16:05	08:27 17:16	12:25 (16) 15:33 (21)	07:13 18:24	10:25 (18) 10:32 (18)	06:44 21:44
10	09:22 16:07	08:25 17:18	12:24 (16) 15:31 (21)	07:10 18:26	06:41 20:37	05:22 21:46
11	09:21 16:09	08:22 17:21	12:24 (16) 15:30 (21)	07:07 18:28	06:38 20:40	05:19 21:49
12	09:20 16:11	08:20 17:23	12:23 (16) 15:27 (21)	07:04 18:31	06:35 20:42	05:17 21:51
13	09:18 16:13	08:18 17:26	12:22 (16) 12:56 (16)	07:01 18:33	06:32 20:44	05:15 21:53
14	09:17 16:15	08:15 17:28	12:23 (16) 12:57 (16)	06:59 18:35	06:30 20:46	05:12 21:55
15	09:16 16:17	08:12 17:30	12:22 (16) 12:57 (16)	06:56 18:38	06:27 20:49	05:10 21:57
16	09:14 16:19	08:10 17:33	12:22 (16) 16:12 (29)	06:53 18:40	06:24 20:51	05:08 22:00
17	09:13 16:21	08:07 17:35	12:22 (16) 16:15 (29)	06:50 18:42	06:21 20:53	05:06 22:02
18	09:12 16:23	08:05 17:38	12:23 (16) 16:17 (29)	06:47 18:44	06:18 20:56	05:04 22:04
19	09:10 16:25	08:02 17:40	12:23 (16) 16:18 (29)	06:44 18:47	06:16 20:58	05:02 22:06
20	09:08 16:28	08:00 17:43	12:23 (16) 16:19 (29)	06:41 18:49	06:13 21:00	05:00 22:08
21	09:07 16:30	07:57 17:45	12:23 (16) 16:20 (29)	06:38 18:51	06:10 21:03	04:58 22:10
22	09:05 16:32	07:54 17:48	12:24 (16) 16:42 (24)	06:36 18:54	06:07 21:05	04:56 22:12
23	09:03 16:34	07:52 17:50	12:26 (16) 16:48 (24)	06:33 18:56	06:05 21:07	04:54 22:14
24	09:01 16:37	07:49 17:52	10:20 (18) 16:49 (24)	06:30 18:58	06:02 21:10	04:52 22:16
25	09:00 16:39	07:46 17:55	10:16 (18) 16:50 (24)	06:27 19:01	05:59 21:12	04:51 22:18
26	08:58 16:41	07:43 17:57	10:15 (18) 16:50 (24)	06:24 19:03	05:57 21:14	04:49 22:20
27	08:56 16:44	07:41 18:00	10:15 (18) 16:50 (24)	06:21 19:05	05:54 21:17	04:47 22:22
28	08:54 16:46	07:38 18:02	10:15 (18) 16:50 (24)	06:18 19:07	05:51 21:19	04:45 22:24
29	08:52 16:49			07:15 20:10	05:49 21:21	04:44 22:25
30	08:50 16:51	14:16 (34) 14:19 (34)		07:12 20:12	05:46 21:23	04:42 22:27
31	08:48 16:53	14:08 (34) 15:27 (21)		07:10 20:14		04:41 22:29
Potential sun hours	221	260	365	432	521	547
Total, worst case	24	1365	364			

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Calculation: Oppdatert layout - med nærliggende - worst case - oppdatert mottaker **Shadow receptor:** M - Buevegen 1941 (13)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

The sun is shining all the day, from sunrise to sunset

The rotor plane is always perpendicular to the line from the WTG to the sun

The WTG is always operating

	July	August	September	October		November	December		
1	04:32 22:48	05:24 22:01	06:33 20:40	07:39 19:13		07:51 16:49	11:54 (16) 15:01 (21)	09:00 15:51	
2	04:33 22:48	05:26 21:58	06:35 20:37	07:41 19:10		07:54 16:46	11:55 (16) 15:02 (21)	09:01 15:50	
3	04:34 22:47	05:28 21:56	06:37 20:34	07:44 19:07		07:56 16:44	11:56 (16) 15:03 (21)	09:03 15:49	
4	04:35 22:46	05:31 21:54	06:40 20:31	07:46 19:04		07:58 16:41	11:57 (16) 15:03 (21)	09:05 15:48	
5	04:36 22:46	05:33 21:51	06:42 20:28	07:48 19:01	13	10:59 (18) 11:12 (18)	08:01 16:39	11:59 (16) 15:03 (21)	09:07 15:47
6	04:37 22:45	05:35 21:49	06:44 20:25	07:50 18:59	19	10:56 (18) 11:15 (18)	08:03 16:37	12:01 (16) 15:04 (21)	09:09 15:46
7	04:38 22:44	05:37 21:47	06:46 20:22	07:53 18:56	25	09:54 (13) 11:16 (18)	08:06 16:34	12:04 (16) 15:03 (21)	09:10 15:45
8	04:40 22:43	05:39 21:44	06:48 20:20	07:55 18:53	33	09:58 (13) 17:18 (24)	08:08 16:32	14:45 (21) 15:03 (21)	09:12 15:45
9	04:41 22:42	05:42 21:42	06:51 20:17	07:57 18:50	49	10:01 (13) 17:20 (24)	08:10 16:30	14:46 (21) 15:03 (21)	09:13 15:44
10	04:43 22:40	05:44 21:39	06:53 20:14	08:00 18:47	59	10:49 (18) 17:21 (24)	08:13 16:28	13:42 (34) 15:03 (21)	09:15 15:43
11	04:44 22:39	05:46 21:37	06:55 20:11	08:02 18:44	66	10:49 (18) 17:23 (24)	08:15 16:25	13:39 (34) 14:58 (21)	09:16 15:43
12	04:46 22:38	05:48 21:34	06:57 20:08	08:04 18:42	71	10:48 (18) 17:23 (24)	08:18 16:23	13:48 (34) 13:51 (34)	09:17 15:43
13	04:47 22:36	05:50 21:31	06:59 20:05	08:06 18:39	73	10:48 (18) 17:23 (24)	08:20 16:21	09:19 15:42	15:42
14	04:49 22:35	05:53 21:29	07:02 20:02	08:09 18:36	77	10:47 (18) 17:23 (24)	08:22 16:19	09:20 15:42	15:42
15	04:50 22:34	05:55 21:26	07:04 19:59	08:11 18:33	88	10:48 (18) 17:23 (24)	08:25 16:17	09:21 15:42	15:42
16	04:52 22:32	05:57 21:24	07:06 19:56	08:13 18:31	94	10:47 (18) 17:22 (24)	08:27 16:15	09:22 15:42	15:42
17	04:54 22:30	05:59 21:21	07:08 19:53	08:16 18:28	85	10:48 (18) 17:22 (24)	08:29 16:13	09:23 15:42	15:42
18	04:56 22:29	06:02 21:18	07:10 19:51	08:18 18:25	67	12:57 (16) 17:20 (24)	08:32 16:11	09:24 15:42	15:42
19	04:58 22:27	06:04 21:16	07:13 19:48	08:20 18:22	65	12:56 (16) 17:17 (24)	08:34 16:09	09:25 15:42	15:42
20	04:59 22:25	06:06 21:13	07:15 19:45	08:23 18:20	58	12:55 (16) 17:12 (24)	08:36 16:07	09:25 15:42	15:42
21	05:01 22:23	06:08 21:10	07:17 19:42	08:25 18:17	57	12:54 (16) 16:51 (29)	08:39 16:06	09:26 15:43	15:43
22	05:03 22:22	06:11 21:07	07:19 19:39	08:27 18:14	55	12:53 (16) 16:49 (29)	08:41 16:04	09:27 15:43	15:43
23	05:05 22:20	06:13 21:05	07:21 19:36	08:30 18:12	53	12:53 (16) 16:48 (29)	08:43 16:02	09:27 15:44	15:44
24	05:07 22:18	06:15 21:02	07:24 19:33	08:32 18:09	52	12:52 (16) 16:46 (29)	08:45 16:01	09:28 15:44	15:44
25	05:09 22:16	06:17 20:59	07:26 19:30	08:34 17:06	47	11:52 (16) 15:44 (29)	08:47 15:59	09:28 15:45	15:45
26	05:11 22:14	06:20 20:56	07:28 19:27	08:37 17:04	40	11:51 (16) 15:40 (29)	08:49 15:58	09:28 15:46	15:46
27	05:13 22:12	06:22 20:54	07:30 19:24	08:39 17:01	35	11:52 (16) 12:27 (16)	08:52 15:56	09:28 15:47	15:47
28	05:15 22:10	06:24 20:51	07:33 19:22	08:42 16:59	35	11:52 (16) 12:27 (16)	08:54 15:55	09:28 15:48	15:48
29	05:18 22:07	06:26 20:48	07:35 19:19	08:44 16:56	34	11:52 (16) 12:26 (16)	08:56 15:53	09:28 15:49	15:49
30	05:20 22:05	06:29 20:45	07:37 19:16	08:46 16:54	39	11:53 (16) 14:57 (21)	08:58 15:52	09:28 15:50	15:50
31	05:22 22:03	06:31 20:42		08:49 16:51	42	11:54 (16) 15:00 (21)		09:28 15:51	15:51
Potential sun hours	546	478	386	319		236		199	
Total, worst case					1431		359		

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Calculation: Oppdatert layout - med nærliggende - worst case - oppdatert mottaker **Shadow receptor:** N - Buevegen 1988 (14)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

The sun is shining all the day, from sunrise to sunset

The rotor plane is always perpendicular to the line from the WTG to the sun

The WTG is always operating

	January	February	March	April	May	June	July	August	September	October	November	December
1	09:28 15:53	08:46 16:56	11:38 (18) 13:43 (16)	07:35 18:05	07:07 20:17	05:44 21:26	04:40 22:30	04:32 22:48	05:24 22:01	06:33 20:40	07:39 19:13	09:00 16:49
2	09:27 15:54	08:43 16:58	11:39 (18) 13:43 (16)	07:32 18:07	07:04 20:19	05:41 21:28	04:38 22:32	04:33 22:48	05:26 21:58	06:35 20:37	07:41 19:10	15:51 16:46
3	09:27 15:55	08:41 17:01	11:38 (18) 13:42 (16)	07:30 18:09	07:01 20:21	05:39 21:30	04:37 22:34	04:34 22:47	05:28 21:56	06:37 20:34	07:44 19:07	15:50 16:44
4	09:26 15:57	08:39 17:03	11:39 (18) 15:59 (29)	07:27 18:12	06:58 20:23	05:36 21:33	04:36 22:35	04:35 22:46	05:30 21:54	06:40 20:31	07:46 19:04	15:48 16:41
5	09:26 15:58	08:37 17:06	11:39 (18) 16:02 (29)	07:24 18:14	06:55 20:26	05:34 21:35	04:35 22:36	04:36 22:46	05:33 21:51	06:42 20:28	07:48 19:01	15:47 16:39
6	09:25 16:00	08:34 17:08	11:40 (18) 16:05 (29)	07:21 18:16	06:52 20:28	05:31 21:37	04:34 22:38	04:37 22:45	05:35 21:49	06:44 20:25	07:50 18:59	15:46 16:37
7	09:24 16:02	08:32 17:11	10:32 (13) 16:05 (29)	07:18 18:19	06:49 20:30	05:29 21:40	04:33 22:39	04:38 22:44	05:37 21:47	06:46 20:22	07:53 18:56	15:45 16:34
8	09:24 16:03	08:30 17:13	10:27 (13) 16:07 (29)	07:16 18:21	06:47 20:33	05:26 21:42	04:32 22:40	04:40 22:43	05:39 21:44	06:48 20:20	07:55 18:53	15:44 16:32
9	09:23 16:05	08:27 17:16	10:26 (13) 16:07 (29)	07:13 18:23	06:44 20:35	05:24 21:44	04:31 22:42	04:41 22:42	05:42 21:42	06:51 20:17	07:57 18:50	15:43 16:30
10	09:22 16:07	08:25 17:18	10:15 (13) 16:07 (29)	07:10 18:26	06:41 20:37	05:22 21:46	04:30 22:43	04:43 22:40	05:44 21:39	06:53 20:14	08:00 18:47	15:42 16:28
11	09:21 16:09	08:22 17:21	10:16 (13) 16:08 (29)	07:07 18:28	06:38 20:40	05:19 21:49	04:29 22:44	04:44 22:39	05:46 21:37	06:55 20:11	08:02 18:44	15:41 16:25
12	09:20 16:11	08:20 17:23	10:17 (13) 16:08 (29)	07:04 18:31	06:35 20:42	05:17 21:51	04:29 22:45	04:46 22:38	05:48 21:34	06:57 20:08	08:04 18:42	15:40 16:23
13	09:18 16:13	08:17 17:26	10:18 (13) 16:07 (29)	07:01 18:33	06:32 20:44	05:15 21:53	04:28 22:46	04:47 22:36	05:50 21:31	06:59 20:05	08:06 18:39	15:39 16:21
14	09:17 16:15	8 12:03 (10) 12:11 (10)	08:15 17:28	10:21 (13) 18:35	06:59 20:46	06:30 21:55	05:12 22:46	04:28 22:35	04:49 21:29	05:53 20:02	07:02 18:36	15:38 16:19
15	09:16 16:17	12:02 (10) 12:12 (10)	08:12 17:30	15:50 (29) 16:07 (29)	06:56 18:37	06:27 20:49	05:10 21:57	04:27 22:47	05:55 21:26	07:04 19:59	08:11 18:33	15:37 16:17
16	09:14 16:19	12:02 (10) 12:13 (10)	08:10 17:33	15:51 (29) 16:05 (29)	06:53 18:40	06:24 20:51	05:08 22:00	04:27 22:48	05:57 21:24	07:06 19:56	08:13 18:31	15:36 16:15
17	09:13 16:21	12:02 (10) 13:29 (16)	08:07 17:35	15:52 (29) 16:04 (29)	06:50 18:42	06:21 20:53	05:06 22:02	04:27 22:48	05:59 21:21	07:08 19:53	08:16 18:28	15:35 16:13
18	09:12 16:23	11:58 (10) 13:33 (16)	08:05 17:38	15:56 (29) 16:02 (29)	06:47 18:44	06:18 20:56	05:04 22:04	04:27 22:49	06:02 21:18	07:10 19:51	08:18 18:25	15:34 16:11
19	09:10 16:25	11:58 (10) 13:35 (16)	08:02 17:40	16:02 (29) 06:44	18:44 06:44	20:56 06:16	22:04 05:02	22:49 04:26	21:18 06:04	19:51 18:25	18:25 08:20	15:33 16:11
20	09:08 16:27	11:57 (10) 13:37 (16)	08:00 17:43	06:41 18:49	06:13 21:00	05:00 22:08	04:26 22:50	04:59 22:25	06:06 21:13	07:15 19:45	08:23 18:20	15:32 16:07
21	09:07 16:30	11:57 (10) 13:38 (16)	07:57 17:45	06:38 18:51	06:10 21:03	04:58 22:10	04:27 22:50	05:01 22:23	06:08 21:10	07:17 19:42	08:25 18:17	15:31 16:06
22	09:05 16:32	11:46 (18) 13:38 (16)	07:54 17:48	06:36 18:54	06:07 21:05	04:56 22:12	04:27 22:50	05:03 22:22	06:11 21:07	07:19 19:39	08:17 18:14	15:30 16:04
23	09:03 16:34	11:44 (18) 13:39 (16)	07:52 17:50	06:33 18:56	06:05 21:07	04:54 22:14	04:27 22:50	05:05 22:20	06:13 21:05	07:21 19:36	08:30 18:12	15:29 16:02
24	09:01 16:37	11:43 (18) 13:40 (16)	07:49 17:52	06:30 18:58	06:02 21:10	04:52 22:16	04:27 22:50	05:07 22:18	06:15 21:02	07:24 19:33	08:32 18:09	15:28 16:01
25	09:00 16:39	11:42 (18) 13:41 (16)	07:46 17:55	06:27 19:01	05:59 21:12	04:50 22:18	04:28 22:50	05:09 22:16	06:17 20:59	07:26 19:30	08:34 17:06	15:27 16:00
26	08:58 16:41	11:41 (18) 13:42 (16)	07:43 17:57	06:24 19:03	05:57 21:14	04:49 22:20	04:28 22:50	05:11 22:14	06:20 20:56	07:28 19:27	08:37 17:04	15:26 16:00
27	08:56 16:44	11:40 (18) 13:42 (16)	07:41 18:00	06:21 19:05	05:54 21:17	04:47 22:22	04:29 22:50	05:13 22:12	06:22 20:54	07:30 19:24	08:39 17:01	15:25 16:00
28	08:54 16:46	11:40 (18) 13:43 (16)	07:38 18:02	06:18 19:07	05:51 21:19	04:45 22:24	04:29 22:50	05:15 22:10	06:24 20:51	07:33 19:22	08:42 18:59	15:24 16:01
29	08:52 16:49	11:40 (18) 13:43 (16)	07:38 18:02	06:18 19:07	05:51 21:19	04:45 22:24	04:29 22:50	05:15 22:10	06:24 20:51	07:33 19:22	08:42 18:59	15:23 16:01
30	08:50 16:51	11:39 (18) 13:43 (16)	07:38 18:02	06:18 19:07	05:51 21:19	04:45 22:24	04:29 22:50	05:15 22:10	06:24 20:51	07:33 19:22	08:42 18:59	15:22 16:01
31	08:48 16:53	11:39 (18) 13:43 (16)	07:38 18:02	06:18 19:07	05:51 21:19	04:45 22:24	04:29 22:50	05:15 22:10	06:24 20:51	07:33 19:22	08:42 18:59	15:21 16:01
Potential sun hours	221	260	365	432	521	547	546	478	386	319	236	199
Total, worst case	789	766								227	1347	

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)		Last time (hh:mm) with flicker	(WTG causing flicker last time)

SHADOW - Calendar

Calculation: Oppdatert layout - med nærliggende - worst case - oppdatert mottaker **Shadow receptor:** O - Buevegen 2023 (15)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

The sun is shining all the day, from sunrise to sunset

The rotor plane is always perpendicular to the line from the WTG to the sun

The WTG is always operating

	January	February	March	April	May	June			
1	09:28	08:46	10:50 (13)	07:35	07:07	05:44	04:39	20:01 (76)	
	15:53	16:56	74 14:26 (16)	18:04	20:17	21:26	22:30	25 20:26 (76)	
2	09:27	08:43	10:51 (13)	07:32	07:04	05:41	04:38	20:02 (76)	
	15:54	16:58	73 14:27 (16)	18:07	20:19	21:28	22:32	24 20:26 (76)	
3	09:27	08:41	10:50 (13)	07:30	07:01	05:39	04:37	20:02 (76)	
	15:55	17:01	74 14:27 (16)	18:09	20:21	21:30	22:34	24 20:26 (76)	
4	09:26	08:39	10:51 (13)	07:27	06:58	05:36	04:36	20:02 (76)	
	15:57	17:03	73 14:27 (16)	18:12	20:23	21:33	22:35	23 20:25 (76)	
5	09:26	08:37	10:51 (13)	07:24	06:55	05:34	04:35	20:02 (76)	
	15:58	17:06	69 14:26 (16)	18:14	20:26	21:35	22:36	23 20:25 (76)	
6	09:25	08:34	10:52 (13)	07:21	06:52	05:31	04:34	20:03 (76)	
	16:00	17:08	65 14:26 (16)	18:16	20:28	21:37	22:38	22 20:25 (76)	
7	09:24	08:32	10:53 (13)	07:18	06:49	05:29	04:33	20:03 (76)	
	16:02	17:11	61 14:25 (16)	18:19	20:30	21:40	22:39	22 20:25 (76)	
8	09:24	08:30	10:55 (13)	07:16	06:47	05:26	04:32	20:04 (76)	
	16:03	17:13	55 14:25 (16)	18:21	20:33	21:42	22:40	21 20:25 (76)	
9	09:23	08:27	10:56 (13)	07:13	06:44	05:24	04:31	20:04 (76)	
	16:05	17:16	46 14:23 (16)	18:23	20:35	21:44	22:42	21 20:25 (76)	
10	09:22	08:25	10:57 (13)	07:10	06:41	05:22	04:30	20:05 (76)	
	16:07	17:18	32 14:20 (16)	18:26	20:37	21:46	22:43	21 20:26 (76)	
11	09:21	08:22	12:43 (18)	07:07	06:38	05:19	04:29	20:05 (76)	
	16:09	17:21	8 12:51 (18)	18:28	20:40	21:49	22:44	20 20:25 (76)	
12	09:20	08:20	10:57 (13)	07:04	06:35	05:17	04:29	20:06 (76)	
	16:11	17:23		18:30	20:42	21:51	22:45	19 20:25 (76)	
13	09:18	08:17	10:58 (13)	07:01	06:32	05:15	04:28	20:06 (76)	
	16:13	17:25		18:33	20:44	21:53	22:46	19 20:25 (76)	
14	09:17	12:39 (10)	08:15	06:59	06:30	05:12	20:08 (76)	04:28	20:06 (76)
	16:15	6 12:45 (10)	17:28	18:35	20:46	21:55	4 20:12 (76)	22:46	19 20:25 (76)
15	09:16	12:39 (10)	08:12	06:56	06:27	05:10	20:06 (76)	04:27	20:07 (76)
	16:17	7 12:46 (10)	17:30	18:37	20:49	21:57	7 20:13 (76)	22:47	18 20:25 (76)
16	09:14	12:38 (10)	08:10	06:53	06:24	05:08	20:04 (76)	04:27	20:08 (76)
	16:19	17 12:55 (10)	17:33	18:40	20:51	22:00	9 20:13 (76)	22:48	18 20:26 (76)
17	09:13	12:38 (10)	08:07	06:50	06:21	05:06	20:03 (76)	04:27	20:08 (76)
	16:21	18 12:56 (10)	17:35	18:42	20:53	22:02	11 20:14 (76)	22:48	18 20:26 (76)
18	09:12	12:37 (10)	08:05	06:47	06:18	05:04	20:02 (76)	04:27	20:08 (76)
	16:23	19 12:56 (10)	17:38	18:44	20:56	22:04	13 20:15 (76)	22:49	18 20:26 (76)
19	09:10	12:38 (10)	08:02	06:44	06:16	05:02	20:01 (76)	04:26	20:09 (76)
	16:25	20 12:57 (10)	17:40	18:47	20:58	22:06	14 20:15 (76)	22:49	17 20:26 (76)
20	09:08	12:38 (18)	07:59	06:41	06:13	05:00	20:01 (76)	04:26	20:09 (76)
	16:27	21 12:59 (10)	17:43	18:49	21:00	22:08	16 20:17 (76)	22:50	17 20:26 (76)
21	09:07	12:35 (18)	07:57	06:38	06:10	04:58	20:01 (76)	04:27	20:09 (76)
	16:30	23 12:58 (10)	17:45	18:51	21:03	22:10	16 20:17 (76)	22:50	17 20:26 (76)
22	09:05	12:34 (18)	07:54	06:35	06:07	04:56	20:00 (76)	04:27	20:09 (76)
	16:32	29 14:14 (16)	17:48	18:54	21:05	22:12	18 20:18 (76)	22:50	17 20:26 (76)
23	09:03	12:34 (18)	07:52	06:33	06:05	04:54	20:00 (76)	04:27	20:09 (76)
	16:34	36 14:18 (16)	17:50	18:56	21:07	22:14	20 20:20 (76)	22:50	17 20:26 (76)
24	09:01	12:33 (18)	07:49	06:30	06:02	04:52	20:00 (76)	04:27	20:09 (76)
	16:37	41 14:20 (16)	17:52	18:58	21:10	22:16	20 20:20 (76)	22:50	18 20:27 (76)
25	09:00	12:33 (18)	07:46	06:27	05:59	04:50	20:00 (76)	04:28	20:09 (76)
	16:39	44 14:22 (16)	17:55	19:00	21:12	22:18	22 20:22 (76)	22:50	18 20:27 (76)
26	08:58	12:32 (18)	07:43	06:24	05:57	04:49	20:00 (76)	04:28	20:10 (76)
	16:41	46 14:23 (16)	17:57	19:03	21:14	22:20	22 20:22 (76)	22:50	18 20:28 (76)
27	08:56	10:54 (13)	07:41	06:21	05:54	04:47	20:00 (76)	04:29	20:09 (76)
	16:44	54 14:24 (16)	18:00	19:05	21:17	22:22	23 20:23 (76)	22:50	18 20:27 (76)
28	08:54	10:52 (13)	07:38	06:18	05:51	04:45	20:00 (76)	04:29	20:10 (76)
	16:46	67 14:25 (16)	18:02	19:07	21:19	22:24	24 20:24 (76)	22:50	18 20:28 (76)
29	08:52	10:51 (13)		07:15	05:49	04:44	20:00 (76)	04:30	20:10 (76)
	16:49	70 14:26 (16)		20:10	21:21	22:25	25 20:25 (76)	22:49	19 20:29 (76)
30	08:50	10:51 (13)		07:12	05:46	04:42	20:00 (76)	04:31	20:09 (76)
	16:51	71 14:26 (16)		20:12	21:23	22:27	25 20:25 (76)	22:49	20 20:29 (76)
31	08:48	10:51 (13)		07:09		04:41	20:01 (76)		
	16:53	74 14:27 (16)		20:14		22:29	24 20:25 (76)		
Potential sun hours	221	260	365	432	521	547	589		
Total, worst case	663	630			313		589		

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Calculation: Oppdatert layout - med nærliggende - worst case - oppdatert mottaker **Shadow receptor:** O - Buevegen 2023 (15)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

The sun is shining all the day, from sunrise to sunset

The rotor plane is always perpendicular to the line from the WTG to the sun

The WTG is always operating

	July	August	September	October	November	December
1	04:32	20:09 (76)	05:24	06:33	07:39	07:51
	22:48	20:29 (76)	22:01	20:40	19:13	16:49
2	04:33	20:09 (76)	05:26	06:35	07:41	07:54
	22:48	21	20:30 (76)	21:58	20:37	19:10
3	04:34	20:10 (76)	05:28	06:37	07:44	07:56
	22:47	20	20:30 (76)	21:56	20:34	19:07
4	04:35	20:09 (76)	05:30	06:40	07:46	07:58
	22:46	22	20:31 (76)	21:54	20:31	19:04
5	04:36	20:09 (76)	05:33	06:42	07:48	08:01
	22:46	22	20:31 (76)	21:51	20:28	19:01
6	04:37	20:09 (76)	05:35	06:44	07:50	08:03
	22:45	22	20:31 (76)	21:49	20:25	18:59
7	04:38	20:09 (76)	05:37	06:46	07:53	08:06
	22:44	23	20:32 (76)	21:46	20:22	18:56
8	04:40	20:09 (76)	05:39	06:48	07:55	08:08
	22:43	23	20:32 (76)	21:44	20:19	18:53
9	04:41	20:10 (76)	05:41	06:51	07:57	08:10
	22:42	23	20:33 (76)	21:42	20:17	18:50
10	04:42	20:09 (76)	05:44	06:53	08:00	08:13
	22:40	24	20:33 (76)	21:39	20:14	18:47
11	04:44	20:09 (76)	05:46	06:55	08:02	08:15
	22:39	24	20:33 (76)	21:37	20:11	18:44
12	04:46	20:08 (76)	05:48	06:57	08:04	08:18
	22:38	25	20:33 (76)	21:34	20:08	18:42
13	04:47	20:09 (76)	05:50	06:59	08:06	08:20
	22:36	25	20:34 (76)	21:31	20:05	18:39
14	04:49	20:09 (76)	05:53	07:02	08:09	08:22
	22:35	25	20:34 (76)	21:29	20:02	18:36
15	04:50	20:09 (76)	05:55	07:04	08:11	08:25
	22:34	24	20:33 (76)	21:26	19:59	18:33
16	04:52	20:09 (76)	05:57	07:06	08:13	08:27
	22:32	23	20:32 (76)	21:24	19:56	18:31
17	04:54	20:09 (76)	05:59	07:08	08:16	08:29
	22:30	23	20:32 (76)	21:21	19:53	18:28
18	04:56	20:10 (76)	06:02	07:10	08:18	08:32
	22:29	22	20:32 (76)	21:18	19:51	18:25
19	04:58	20:09 (76)	06:04	07:13	08:20	08:34
	22:27	21	20:30 (76)	21:16	19:48	18:22
20	04:59	20:10 (76)	06:06	07:15	08:23	08:36
	22:25	20	20:30 (76)	21:13	19:45	18:20
21	05:01	20:10 (76)	06:08	07:17	08:25	08:39
	22:23	18	20:28 (76)	21:10	19:42	18:17
22	05:03	20:10 (76)	06:11	07:19	08:27	08:41
	22:22	18	20:28 (76)	21:07	19:39	18:14
23	05:05	20:11 (76)	06:13	07:21	08:30	08:43
	22:20	16	20:27 (76)	21:05	19:36	18:12
24	05:07	20:12 (76)	06:15	07:24	08:32	08:45
	22:18	15	20:27 (76)	21:02	19:33	18:09
25	05:09	20:13 (76)	06:17	07:26	07:34	08:47
	22:16	13	20:26 (76)	20:59	19:30	17:06
26	05:11	20:12 (76)	06:20	07:28	07:37	08:49
	22:14	13	20:25 (76)	20:56	19:27	17:04
27	05:13	20:14 (76)	06:22	07:30	07:39	08:52
	22:12	10	20:24 (76)	20:54	19:24	17:01
28	05:15	20:15 (76)	06:24	07:32	07:42	08:54
	22:09	8	20:23 (76)	20:51	19:21	16:59
29	05:18	20:17 (76)	06:26	07:35	07:44	08:56
	22:07	6	20:23 (76)	20:48	19:19	16:56
30	05:20	20:20 (76)	06:28	07:37	07:46	08:58
	22:05	2	20:22 (76)	20:45	19:16	16:54
31	05:22		06:31		07:49	12:11 (18)
	22:03		20:42		16:51	12:21 (18)
Potential sun hours	546		478	386	319	10
Total, worst case	571				10	1294

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Calculation: Oppdatert layout - med nærliggende - worst case - oppdatert mottaker **Shadow receptor:** P - Buevegen 2021 (16)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

The sun is shining all the day, from sunrise to sunset

The rotor plane is always perpendicular to the line from the WTG to the sun

The WTG is always operating

	January	February	March	April	May	June		
1	09:28	08:46	10:45 (13)	07:35	07:07	05:44		20:04 (76)
	15:53	16:56	14:22 (16)	18:04	20:17	21:26	22	20:26 (76)
2	09:27	08:43	10:46 (13)	07:32	07:04	05:41		20:04 (76)
	15:54	16:58	14:23 (16)	18:07	20:19	21:28	23	20:27 (76)
3	09:27	08:41	10:45 (13)	07:30	07:01	05:39		20:04 (76)
	15:55	17:01	14:22 (16)	18:09	20:21	21:30	24	20:28 (76)
4	09:26	08:39	10:46 (13)	07:27	06:58	05:36		20:04 (76)
	15:57	17:03	14:23 (16)	18:12	20:23	21:33	24	20:28 (76)
5	09:26	08:37	10:46 (13)	07:24	06:55	05:34		20:04 (76)
	15:58	17:06	14:22 (16)	18:14	20:26	21:35	25	20:29 (76)
6	09:25	08:34	10:47 (13)	07:21	06:52	05:31		20:04 (76)
	16:00	17:08	14:22 (16)	18:16	20:28	21:37	25	20:29 (76)
7	09:24	08:32	10:47 (13)	07:18	06:49	05:29		20:04 (76)
	16:02	17:11	14:21 (16)	18:19	20:30	21:40	25	20:29 (76)
8	09:24	08:30	10:48 (13)	07:16	06:47	05:26		20:05 (76)
	16:03	17:13	14:21 (16)	18:21	20:33	21:42	26	20:31 (76)
9	09:23	08:27	10:49 (13)	07:13	06:44	05:24		20:05 (76)
	16:05	17:16	14:19 (16)	18:23	20:35	21:44	25	20:30 (76)
10	09:22	08:25	10:50 (13)	07:10	06:41	05:22		20:06 (76)
	16:07	17:18	14:16 (16)	18:26	20:37	21:46	25	20:31 (76)
11	09:21	08:22	10:53 (13)	07:07	06:38	05:19		20:06 (76)
	16:09	17:21	12:47 (18)	18:28	20:40	21:49	25	20:31 (76)
12	09:20	08:20	12:38 (18)	07:04	06:35	05:17		20:06 (76)
	16:11	17:23	3 12:41 (18)	18:30	20:42	21:51	25	20:31 (76)
13	09:18	08:17		07:01	06:32	05:15		20:06 (76)
	16:13	17:25		18:33	20:44	21:53	25	20:31 (76)
14	09:17	08:15		06:59	06:30	05:12		20:07 (76)
	16:15	17:28		18:35	20:46	21:55	24	20:31 (76)
15	09:16	08:12		06:56	06:27	05:10		20:07 (76)
	16:17	17:30		18:37	20:49	21:57	24	20:31 (76)
16	09:14	12:49 (10)	08:10	06:53	06:24	05:08		20:08 (76)
	16:19	1 12:50 (10)	17:33	18:40	20:51	22:00	24	20:32 (76)
17	09:13	12:33 (10)	08:07	06:50	06:21	05:06		20:08 (76)
	16:21	5 12:50 (10)	17:35	18:42	20:53	22:02	24	20:32 (76)
18	09:12	12:33 (10)	08:05	06:47	06:18	05:04	20:10 (76)	20:08 (76)
	16:23	18 12:51 (10)	17:38	18:44	20:56	22:04	5 20:15 (76)	20:32 (76)
19	09:10	12:34 (10)	08:02	06:44	06:16	05:02	20:08 (76)	20:08 (76)
	16:25	19 12:33 (10)	17:40	18:47	20:58	22:06	8 20:16 (76)	20:32 (76)
20	09:08	12:33 (10)	07:59	06:41	06:13	05:00	20:07 (76)	20:09 (76)
	16:27	21 12:54 (10)	17:43	18:49	21:00	22:08	10 20:17 (76)	20:32 (76)
21	09:07	12:31 (18)	07:57	06:38	06:10	04:58	20:06 (76)	20:09 (76)
	16:30	22 12:53 (10)	17:45	18:51	21:03	22:10	12 20:18 (76)	20:32 (76)
22	09:05	12:29 (18)	07:54	06:35	06:07	04:56	20:05 (76)	20:09 (76)
	16:32	26 14:06 (16)	17:48	18:54	21:05	22:12	13 20:18 (76)	20:32 (76)
23	09:03	12:28 (18)	07:52	06:33	06:05	04:54	20:05 (76)	20:09 (76)
	16:34	36 14:13 (16)	17:50	18:56	21:07	22:14	15 20:20 (76)	20:32 (76)
24	09:01	12:27 (18)	07:49	06:30	06:02	04:52	20:04 (76)	20:09 (76)
	16:37	42 14:15 (16)	17:52	18:58	21:10	22:16	16 20:20 (76)	20:33 (76)
25	09:00	12:27 (18)	07:46	06:27	05:59	04:50	20:04 (76)	20:09 (76)
	16:39	44 14:17 (16)	17:55	19:00	21:12	22:18	17 20:21 (76)	20:33 (76)
26	08:58	12:26 (18)	07:43	06:24	05:57	04:49	20:03 (76)	20:10 (76)
	16:41	49 14:19 (16)	17:57	19:03	21:14	22:20	18 20:21 (76)	20:34 (76)
27	08:56	12:25 (18)	07:41	06:21	05:54	04:47	20:04 (76)	20:09 (76)
	16:44	50 14:19 (16)	18:00	19:05	21:17	22:22	18 20:22 (76)	20:33 (76)
28	08:54	12:25 (18)	07:38	06:18	05:51	04:45	20:04 (76)	20:10 (76)
	16:46	51 14:20 (16)	18:02	19:07	21:19	22:24	20 20:24 (76)	20:34 (76)
29	08:52	10:48 (13)		07:15	05:49	04:44	20:03 (76)	20:10 (76)
	16:49	53 14:21 (16)		20:10	21:21	22:25	21 20:24 (76)	20:35 (76)
30	08:50	10:46 (13)		07:12	05:46	04:42	20:03 (76)	20:10 (76)
	16:51	55 14:21 (16)		20:12	21:23	22:27	22 20:25 (76)	20:34 (76)
31	08:48	10:46 (13)		07:09		04:41	20:03 (76)	
	16:53	69 14:22 (16)		20:14		22:29	22 20:25 (76)	
Potential sun hours	221	260	365	432	521	547	724	
Total, worst case	561	676			217			

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Calculation: Oppdatert layout - med nærliggende - worst case - oppdatert mottaker **Shadow receptor:** P - Buevegen 2021 (16)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

The sun is shining all the day, from sunrise to sunset

The rotor plane is always perpendicular to the line from the WTG to the sun

The WTG is always operating

	July	August	September	October	November	December
1	04:32	20:10 (76)	05:24	06:33	07:39	07:51
	22:48	25	20:35 (76)	22:01	20:40	19:13
2	04:33	20:10 (76)	05:26	06:35	07:41	07:54
	22:48	25	20:35 (76)	21:58	20:37	19:10
3	04:34	20:10 (76)	05:28	06:37	07:44	07:56
	22:47	26	20:36 (76)	21:56	20:34	19:07
4	04:35	20:11 (76)	05:30	06:40	07:46	07:58
	22:46	25	20:36 (76)	21:54	20:31	19:04
5	04:36	20:11 (76)	05:33	06:42	07:48	08:01
	22:46	25	20:36 (76)	21:51	20:28	19:01
6	04:37	20:11 (76)	05:35	06:44	07:50	08:03
	22:45	25	20:36 (76)	21:49	20:25	18:59
7	04:38	20:11 (76)	05:37	06:46	07:53	08:06
	22:44	24	20:35 (76)	21:46	20:22	18:56
8	04:40	20:11 (76)	05:39	06:48	07:55	08:08
	22:43	24	20:35 (76)	21:44	20:19	18:53
9	04:41	20:11 (76)	05:41	06:51	07:57	08:10
	22:42	24	20:35 (76)	21:42	20:17	18:50
10	04:42	20:11 (76)	05:44	06:53	08:00	08:13
	22:40	24	20:35 (76)	21:39	20:14	18:47
11	04:44	20:11 (76)	05:46	06:55	08:02	08:15
	22:39	23	20:34 (76)	21:37	20:11	18:44
12	04:46	20:11 (76)	05:48	06:57	08:04	08:18
	22:38	22	20:33 (76)	21:34	20:08	18:42
13	04:47	20:12 (76)	05:50	06:59	08:06	08:20
	22:36	21	20:33 (76)	21:31	20:05	18:39
14	04:49	20:12 (76)	05:53	07:02	08:09	08:22
	22:35	21	20:33 (76)	21:29	20:02	18:36
15	04:50	20:12 (76)	05:55	07:04	08:11	08:25
	22:34	21	20:33 (76)	21:26	19:59	18:33
16	04:52	20:12 (76)	05:57	07:06	08:13	08:27
	22:32	20	20:32 (76)	21:24	19:56	18:31
17	04:54	20:13 (76)	05:59	07:08	08:16	08:29
	22:30	18	20:31 (76)	21:21	19:53	18:28
18	04:56	20:14 (76)	06:02	07:10	08:18	08:32
	22:29	17	20:31 (76)	21:18	19:51	18:25
19	04:58	20:14 (76)	06:04	07:13	08:20	08:34
	22:27	16	20:30 (76)	21:16	19:48	18:22
20	04:59	20:15 (76)	06:06	07:15	08:23	08:36
	22:25	15	20:30 (76)	21:13	19:45	18:20
21	05:01	20:15 (76)	06:08	07:17	08:25	08:39
	22:23	13	20:28 (76)	21:10	19:42	18:17
22	05:03	20:16 (76)	06:11	07:19	08:27	08:41
	22:22	12	20:28 (76)	21:07	19:39	18:14
23	05:05	20:17 (76)	06:13	07:21	08:30	08:43
	22:20	10	20:27 (76)	21:05	19:36	18:12
24	05:07	20:18 (76)	06:15	07:24	08:32	08:45
	22:18	9	20:27 (76)	21:02	19:33	18:09
25	05:09	20:20 (76)	06:17	07:26	07:34	08:47
	22:16	6	20:26 (76)	20:59	19:30	17:06
26	05:11	20:21 (76)	06:20	07:28	07:37	08:49
	22:14	4	20:25 (76)	20:56	19:27	17:04
27	05:13	06:22	07:30	07:39	08:52	09:28
	22:12	06:24	19:24	17:01	15:56	15:47
28	05:15	06:24	07:32	07:42	08:54	09:28
	22:09	20:51	19:22	16:59	15:55	15:48
29	05:18	06:26	07:35	07:44	08:56	09:28
	22:07	20:48	19:19	16:56	15:53	15:49
30	05:20	06:28	07:37	07:46	10:26 (13)	08:58
	22:05	20:45	19:16	16:54	8	12:13 (18)
31	05:22	06:31	07:49	07:58	10:22 (13)	09:28
	22:03	20:42	16:51	25	12:17 (18)	15:51
Potential sun hours	546	478	386	319	236	199
Total, worst case	495			33	1222	

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)		Last time (hh:mm) with flicker	(WTG causing flicker last time)

SHADOW - Calendar

Calculation: Oppdatert layout - med nærliggende - worst case - oppdatert mottaker **Shadow receptor:** Q - Buevegen 2141 (17)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

The sun is shining all the day, from sunrise to sunset

The rotor plane is always perpendicular to the line from the WTG to the sun

The WTG is always operating

	January		February		March		April		May		June	
1	09:28		12:03 (27)	08:45	14:59 (18)	07:35	07:07		05:44		04:39	20:33 (78)
	15:52	20	12:23 (27)	16:56	15:17 (18)	18:04	20:16		21:26		22:30	8 20:41 (78)
2	09:27		12:03 (27)	08:43	14:59 (18)	07:32	07:04		05:41		04:38	20:33 (78)
	15:54	20	12:23 (27)	16:58	15:18 (18)	18:07	20:19		21:28		22:32	9 20:42 (78)
3	09:27		12:03 (27)	08:41	14:58 (18)	07:30	07:01		05:38		04:37	20:33 (78)
	15:55	20	12:23 (27)	17:01	15:17 (18)	18:09	20:21		21:30		22:33	9 20:42 (78)
4	09:26		12:03 (27)	08:39	14:59 (18)	07:27	06:58		05:36		04:36	20:33 (78)
	15:57	21	12:24 (27)	17:03	15:18 (18)	18:12	20:23		21:33		22:35	10 20:43 (78)
5	09:26		12:04 (27)	08:37	14:59 (18)	07:24	06:55		05:33		04:34	20:33 (78)
	15:58	25	13:33 (13)	17:06	15:18 (18)	18:14	20:26		21:35		22:36	11 20:44 (78)
6	09:25		12:04 (27)	08:34	15:00 (18)	07:21	06:52		19:35 (76)	05:31	04:33	20:33 (78)
	16:00	29	13:35 (13)	17:08	15:18 (18)	18:16	20:28	2	19:37 (76)	21:37	22:38	11 20:44 (78)
7	09:24		12:05 (27)	08:32	15:00 (18)	07:18	06:49		19:31 (76)	05:29	04:32	20:33 (78)
	16:01	31	13:37 (13)	17:11	15:17 (18)	18:19	20:30	9	19:40 (76)	21:39	22:39	12 20:45 (78)
8	09:23		12:06 (27)	08:30	15:00 (18)	07:16	06:46		19:31 (76)	05:26	04:31	20:34 (78)
	16:03	32	13:38 (13)	17:13	15:16 (18)	18:21	20:33	11	19:42 (76)	21:42	22:40	12 20:46 (78)
9	09:23		12:06 (27)	08:27	15:02 (18)	07:13	06:44		19:29 (76)	05:24	04:31	20:34 (78)
	16:05	33	13:39 (13)	17:15	15:16 (18)	18:23	20:35	13	19:42 (76)	21:44	22:42	12 20:46 (78)
10	09:22		12:07 (27)	08:25	15:03 (18)	07:10	06:41		19:29 (76)	05:21	04:30	20:35 (78)
	16:07	34	13:40 (13)	17:18	15:14 (18)	18:26	20:37	13	19:42 (76)	21:46	22:43	12 20:47 (78)
11	09:21		12:07 (27)	08:22	15:07 (18)	07:07	06:38		19:28 (76)	05:19	04:29	20:35 (78)
	16:09	35	13:41 (13)	17:20	15:12 (18)	18:28	20:39	13	19:41 (76)	21:49	22:44	13 20:48 (78)
12	09:19		12:08 (27)	08:20		07:04	06:35		19:28 (76)	05:17	04:29	20:35 (78)
	16:11	35	13:42 (13)	17:23		18:30	20:42	12	19:40 (76)	21:51	22:45	13 20:48 (78)
13	09:18		12:08 (27)	08:17		07:01	06:32		19:29 (76)	05:15	20:19 (79)	04:28
	16:12	36	13:43 (13)	17:25		18:33	20:44	16	19:46 (77)	21:53	1 20:20 (79)	22:46
14	09:17		12:10 (27)	08:15		06:58	06:29		19:30 (76)	05:12	20:20 (79)	04:28
	16:14	35	13:44 (13)	17:28		18:35	20:46	16	19:47 (77)	21:55	1 20:21 (79)	22:46
15	09:16		12:11 (27)	08:12		06:56	06:27		19:37 (77)	05:10	20:21 (79)	04:27
	16:17	34	13:45 (13)	17:30		18:37	20:49	10	19:47 (77)	21:57	2 20:23 (79)	22:47
16	09:14		12:12 (27)	08:10		06:53	06:24		19:37 (77)	05:08	20:22 (79)	04:27
	16:19	32	13:45 (13)	17:33		18:40	20:51	12	19:49 (77)	22:00	2 20:24 (79)	22:48
17	09:13		12:14 (27)	08:07		06:50	06:21		19:36 (77)	05:06	20:22 (79)	04:27
	16:21	29	13:45 (13)	17:35		18:42	20:53	14	19:50 (77)	22:02	3 20:25 (79)	22:48
18	09:11		12:16 (27)	08:05		06:47	06:18		19:35 (77)	05:04	20:24 (79)	04:26
	16:23	26	13:46 (13)	17:38		18:44	20:56	16	19:51 (77)	22:04	3 20:27 (79)	22:49
19	09:10		13:25 (13)	08:02		06:44	06:16		19:35 (77)	05:02	20:25 (79)	04:26
	16:25	21	13:46 (13)	17:40		18:47	20:58	16	19:51 (77)	22:06	3 20:28 (79)	22:49
20	09:08		13:25 (13)	07:59		06:41	06:13		19:35 (77)	05:00		04:26
	16:27	22	13:47 (13)	17:43		18:49	21:00	15	19:50 (77)	22:08		22:50
21	09:07		13:26 (13)	07:57		06:38	06:10		19:35 (77)	04:58		04:26
	16:30	21	13:47 (13)	17:45		18:51	21:03	13	19:48 (77)	22:10		22:50
22	09:05		13:26 (13)	07:54		06:35	06:07		19:37 (77)	04:56		04:27
	16:32	21	13:47 (13)	17:48		18:54	21:05	11	19:48 (77)	22:12		22:50
23	09:03		13:27 (13)	07:51		06:33	06:05		19:38 (77)	04:54		04:27
	16:34	20	13:47 (13)	17:50		18:56	21:07	7	19:45 (77)	22:14		22:50
24	09:01		13:28 (13)	07:49		06:30	06:02			04:52		04:27
	16:37	19	13:47 (13)	17:52		18:58	21:09			22:16		22:50
25	09:00		13:29 (13)	07:46		06:27	05:59			04:50	20:33 (78)	04:28
	16:39	18	13:47 (13)	17:55		19:00	21:12		2 20:35 (78)	22:18		22:50
26	08:58		13:30 (13)	07:43		06:24	05:57			04:49	20:32 (78)	04:28
	16:41	17	13:47 (13)	17:57		19:03	21:14		3 20:35 (78)	22:20		22:50
27	08:56		13:30 (13)	07:41		06:21	05:54			04:47	20:33 (78)	04:29
	16:44	21	15:09 (18)	18:00		19:05	21:16		3 20:36 (78)	22:22		22:50
28	08:54		13:32 (13)	07:38		06:18	05:51			04:45	20:33 (78)	04:29
	16:46	23	15:12 (18)	18:02		19:07	21:19		4 20:37 (78)	22:23		22:50
29	08:52		13:35 (13)			07:15	05:49			04:44	20:32 (78)	04:30
	16:48	21	15:14 (18)			20:10	21:21		5 20:37 (78)	22:25		22:49
30	08:50		15:00 (18)			07:12	05:46			04:42	20:32 (78)	04:31
	16:51	15	15:15 (18)			20:12	21:23		7 20:39 (78)	22:27		22:49
31	08:48		15:00 (18)			07:09				04:41	20:32 (78)	
	16:53	16	15:16 (18)			20:14			8 20:40 (78)	22:29		
Potential sun hours	221			260		365	432		521		547	
Total, worst case		782			175			219		47		379

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Calculation: Oppdatert layout - med nærliggende - worst case - oppdatert mottaker **Shadow receptor:** Q - Buevegen 2141 (17)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

The sun is shining all the day, from sunrise to sunset

The rotor plane is always perpendicular to the line from the WTG to the sun

The WTG is always operating

	July		August		September		October		November		December	
1	04:32	20:39 (78)	05:24		06:33	19:27 (76)	07:39		07:51	14:32 (18)	08:59	11:49 (27)
	22:48	13 20:52 (78)	22:01		20:39	13 19:40 (76)	19:13		16:48	12 14:44 (18)	15:51	34 13:23 (13)
2	04:33	20:39 (78)	05:26		06:35	19:27 (76)	07:41		07:54	15 14:31 (18)	09:01	11:50 (27)
	22:48	13 20:52 (78)	21:58		20:37	13 19:40 (76)	19:10		16:46	15 14:46 (18)	15:50	35 13:24 (13)
3	04:34	20:39 (78)	05:28		06:37	19:27 (76)	07:44		07:56	16 14:31 (18)	09:03	11:50 (27)
	22:47	13 20:52 (78)	21:56		20:34	13 19:40 (76)	19:07		16:44	16 14:47 (18)	15:49	33 13:23 (13)
4	04:35	20:39 (78)	05:30		06:39	19:28 (76)	07:46		07:58	17 14:29 (18)	09:05	11:50 (27)
	22:46	13 20:52 (78)	21:54		20:31	11 19:39 (76)	19:04		16:41	18 14:47 (18)	15:48	33 13:23 (13)
5	04:36	20:40 (78)	05:33		06:42	19:28 (76)	07:48		08:01	19 14:29 (18)	09:07	11:50 (27)
	22:46	11 20:51 (78)	21:51		20:28	9 19:37 (76)	19:01		16:39	19 14:48 (18)	15:47	31 13:22 (13)
6	04:37	20:40 (78)	05:35		06:44	19:31 (76)	07:50		08:03	20 14:29 (18)	09:08	11:50 (27)
	22:45	11 20:51 (78)	21:49		20:25	2 19:33 (76)	18:58		16:36	19 14:48 (18)	15:46	29 13:21 (13)
7	04:38	20:40 (78)	05:37		06:46		07:53		08:06	20 14:29 (18)	09:10	11:51 (27)
	22:44	10 20:50 (78)	21:46		20:22		18:56		16:34	19 14:48 (18)	15:45	25 13:20 (13)
8	04:40	20:39 (78)	05:39		06:48		07:55		08:08	20 14:29 (18)	09:12	11:51 (27)
	22:43	11 20:50 (78)	21:44		20:19		18:53		16:32	19 14:48 (18)	15:44	21 12:12 (27)
9	04:41	20:39 (78)	05:41		06:51		07:57		08:10	20 14:30 (18)	09:13	11:51 (27)
	22:42	10 20:49 (78)	21:41		20:17		18:50		16:30	18 14:48 (18)	15:44	21 12:12 (27)
10	04:42	20:40 (78)	05:44		06:53		07:59		08:13	19 14:29 (18)	09:15	11:52 (27)
	22:40	9 20:49 (78)	21:39		20:14		18:47		16:27	18 14:47 (18)	15:43	20 12:12 (27)
11	04:44	20:40 (78)	05:46		06:55		08:02		08:15	19 14:30 (18)	09:16	11:53 (27)
	22:39	9 20:49 (78)	21:36		20:11		18:44		16:25	17 14:47 (18)	15:43	20 12:13 (27)
12	04:45	20:40 (78)	05:48		06:57		08:04		08:18	18 14:32 (18)	09:17	11:53 (27)
	22:38	8 20:48 (78)	21:34		20:08		18:42		16:23	15 14:47 (18)	15:42	20 12:13 (27)
13	04:47	20:41 (78)	05:50		06:59		08:06		08:20	16 13:07 (13)	09:19	11:54 (27)
	22:36	7 20:48 (78)	21:31		20:05		18:39		16:21	21 14:46 (18)	15:42	20 12:14 (27)
14	04:49	20:41 (78)	05:53		07:02		08:09		08:22	22 13:04 (13)	09:20	11:54 (27)
	22:35	6 20:47 (78)	21:29		20:02		18:36		16:19	23 14:44 (18)	15:42	20 12:14 (27)
15	04:50	20:41 (78)	05:55		07:04		08:11		08:25	24 13:03 (13)	09:21	11:54 (27)
	22:33	5 20:46 (78)	21:26		19:59		18:33		16:17	21 14:42 (18)	15:42	20 12:14 (27)
16	04:52	20:41 (78)	05:57		07:06		08:13		08:27	22 13:03 (13)	09:22	11:55 (27)
	22:32	4 20:45 (78)	21:23		19:56		18:30		16:15	17 13:20 (13)	15:42	20 12:15 (27)
17	04:54	20:42 (78)	05:59		07:08		08:16		08:29	18 13:02 (13)	09:23	11:55 (27)
	22:30	3 20:45 (78)	21:21		19:53		18:28		16:13	18 13:20 (13)	15:42	20 12:15 (27)
18	04:56	20:42 (78)	06:02		07:10		08:18		08:32	19 13:02 (13)	09:24	11:56 (27)
	22:29	2 20:44 (78)	21:18		19:50		18:25		16:11	19 13:21 (13)	15:42	19 12:15 (27)
19	04:57	20:43 (78)	06:04		07:13		08:20		08:34	20 13:02 (13)	09:25	11:56 (27)
	22:27	1 20:44 (78)	21:15		19:48		18:22		16:09	20 13:22 (13)	15:42	20 12:16 (27)
20	04:59		06:06		07:15		08:23		08:36	21 13:01 (13)	09:25	11:57 (27)
	22:25		21:13	7	19:51 (77)	19:45	18:20		16:07	21 13:22 (13)	15:42	20 12:17 (27)
21	05:01		06:08		19:41 (77)	07:17	08:25		08:38	22 13:02 (13)	09:26	11:57 (27)
	22:23		21:10	11	19:52 (77)	19:42	18:17		16:06	21 13:23 (13)	15:43	20 12:17 (27)
22	05:03		06:10		19:40 (77)	07:19	08:27		08:41	22 13:02 (13)	09:27	11:58 (27)
	22:22		21:07	13	19:53 (77)	19:39	18:14		16:04	22 13:24 (13)	15:43	20 12:18 (27)
23	05:05		06:13		19:39 (77)	07:21	08:30		08:43	23 13:02 (13)	09:27	11:58 (27)
	22:20		21:05	15	19:54 (77)	19:36	18:12		16:02	21 13:23 (13)	15:44	20 12:18 (27)
24	05:07		06:15		19:39 (77)	07:24	08:32		08:45	22 11:54 (27)	09:27	11:58 (27)
	22:18		21:02	16	19:55 (77)	19:33	18:09		16:01	26 13:24 (13)	15:44	20 12:18 (27)
25	05:09	20:34 (79)	06:17		19:39 (77)	07:26	07:34		08:47	27 11:52 (27)	09:28	11:59 (27)
	22:16	3 20:37 (79)	20:59	15	19:54 (77)	19:30	17:06		15:59	30 13:24 (13)	15:45	20 12:19 (27)
26	05:11	20:33 (79)	06:19		19:38 (77)	07:28	07:37		08:49	31 11:51 (27)	09:28	12:00 (27)
	22:14	3 20:36 (79)	20:56	14	19:52 (77)	19:27	17:04		15:57	32 13:24 (13)	15:46	20 12:20 (27)
27	05:13	20:32 (79)	06:22		19:38 (77)	07:30	07:39		08:51	33 11:50 (27)	09:28	12:00 (27)
	22:12	3 20:35 (79)	20:54	12	19:50 (77)	19:24	17:01		15:56	34 13:24 (13)	15:47	20 12:20 (27)
28	05:15	20:31 (79)	06:24		19:39 (77)	07:32	07:42		08:54	35 11:49 (27)	09:28	12:00 (27)
	22:09	3 20:34 (79)	20:51	10	19:49 (77)	19:21	16:59		15:55	35 13:23 (13)	15:48	20 12:20 (27)
29	05:17	20:31 (79)	06:26		19:31 (76)	07:35	07:44		08:56	36 11:50 (27)	09:28	12:01 (27)
	22:07	2 20:33 (79)	20:48	17	19:48 (77)	19:19	16:56		15:53	35 13:24 (13)	15:49	20 12:21 (27)
30	05:20	20:31 (79)	06:28		19:29 (76)	07:37	07:46		08:58	36 11:49 (27)	09:28	12:01 (27)
	22:05	1 20:32 (79)	20:45	16	19:46 (77)	19:16	16:53		15:52	35 13:23 (13)	15:50	21 12:22 (27)
31	05:22		06:31		19:28 (76)		07:49				09:28	12:01 (27)
	22:03		20:42	12	19:40 (76)		16:51	6	14:35 (18)		15:51	21 12:22 (27)
								319		236		703
Potential sun hours	546		478		386		61	6		656		703
Total, worst case		174		158								

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Calculation: Oppdatert layout - med nærliggende - worst case - oppdatert mottaker **Shadow receptor:** R - Buevegen 2165 (18)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

The sun is shining all the day, from sunrise to sunset

The rotor plane is always perpendicular to the line from the WTG to the sun

The WTG is always operating

	January	February	March	April	May	June
1	09:28 15:52	08:45 16:56	14:09 (13)	07:35 18:04	07:06 20:16	05:44 21:26
2	09:27 15:54	08:43 16:58	14:14 (13)	07:32 18:07	07:04 20:19	05:41 21:28
3	09:27 15:55	08:41 17:01		07:30 18:09	07:01 20:21	05:38 21:30
4	09:26 15:57	08:39 17:03		07:27 18:12	06:58 20:23	05:36 21:33
5	09:26 15:58	08:37 17:06		07:24 18:14	06:55 20:26	05:33 21:35
6	09:25 16:00	08:34 17:08		07:21 18:16	06:52 20:28	05:31 21:37
7	09:24 16:01	08:32 17:11		07:18 18:19	06:49 20:30	05:29 21:39
8	09:23 16:03	08:30 17:13		07:16 18:21	06:46 20:33	05:26 21:42
9	09:23 16:05	08:27 17:15		07:13 18:23	06:44 20:35	05:24 21:44
10	09:22 16:07	08:25 17:18		07:10 18:26	06:41 20:37	05:21 21:46
11	09:21 16:09	08:22 17:20		07:07 18:28	06:38 20:39	05:19 21:49
12	09:19 16:10	08:20 17:23		07:04 18:30	06:35 20:42	05:17 21:51
13	09:18 16:12	08:17 17:25		07:01 18:33	06:32 20:44	05:15 21:53
14	09:17 16:14	08:15 17:28		06:58 18:35	06:29 20:46	05:12 21:55
15	09:16 16:17	08:12 17:30		06:56 18:37	06:27 20:49	05:10 21:57
16	09:14 16:19	08:10 17:33		06:53 18:40	06:24 20:51	05:08 21:59
17	09:13 16:21	08:07 17:35		06:50 18:42	06:21 20:53	05:06 22:02
18	09:11 16:23	08:05 17:38		06:47 18:44	06:18 20:56	05:04 22:04
19	09:10 16:25	08:02 17:40		06:44 18:47	06:16 20:58	05:02 22:06
20	09:08 16:27	07:59 17:43		06:41 18:49	06:13 21:00	05:00 22:08
21	09:07 16:30	07:57 17:45		06:38 18:51	06:10 21:03	04:58 22:10
22	09:05 16:32	07:54 17:47		06:35 18:54	06:07 21:05	04:56 22:12
23	09:03 16:34	07:51 17:50		06:32 18:56	06:05 21:07	04:54 22:14
24	09:01 16:36	07:49 17:52		06:30 18:58	06:02 21:09	04:52 22:16
25	09:00 16:39	07:46 17:55		06:27 19:00	05:59 21:12	04:50 22:18
26	08:58 16:41	07:43 17:57		06:24 19:03	05:57 21:14	04:49 22:20
27	08:56 16:44	07:41 18:00		06:21 19:05	05:54 21:16	04:47 22:22
28	08:54 16:46	07:38 18:02		06:18 19:07	05:51 21:19	04:45 22:23
29	08:52 16:48	07:36 18:04		06:15 19:09	05:49 21:21	04:44 22:25
30	08:50 16:51	07:34 18:06		06:12 19:11	05:46 21:23	04:42 22:27
31	08:48 16:53	07:32 18:08		06:09 19:13	05:43 21:25	04:41 22:29
Potential sun hours	221	260	365	432	521	547
Total, worst case	629	5	105	263	547	

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Calculation: Oppdatert layout - med nærliggende - worst case - oppdatert mottaker **Shadow receptor:** R - Buevegen 2165 (18)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

The sun is shining all the day, from sunrise to sunset

The rotor plane is always perpendicular to the line from the WTG to the sun

The WTG is always operating

	July	August	September	October	November	December				
1	04:32	05:24	20:33 (78)	06:33	19:37 (77)	07:39	07:51	08:59	12:22 (27)	
	22:48	22:01	9 20:42 (78)	20:39	10 19:47 (77)	19:13	16:48	15:51	19 12:41 (27)	
2	04:33	05:26	20:34 (78)	06:35	19:39 (77)	07:41	07:54	09:01	12:23 (27)	
	22:48	21:58	8 20:42 (78)	20:37	5 19:44 (77)	19:10	16:46	15:50	19 12:42 (27)	
3	04:34	05:28	20:30 (79)	06:37		07:44	07:56	09:03	12:23 (27)	
	22:47	21:56	8 20:40 (78)	20:34		19:07	16:44	15:49	20 12:43 (27)	
4	04:35	05:30	20:26 (79)	06:39		07:46	07:58	09:05	12:23 (27)	
	22:46	21:54	10 20:37 (78)	20:31		19:04	16:41	15:48	20 12:43 (27)	
5	04:36	05:33	20:25 (79)	06:42		07:48	08:01	09:07	12:24 (27)	
	22:46	21:51	9 20:35 (79)	20:28		19:01	16:39	15:47	20 12:44 (27)	
6	04:37	05:35	20:24 (79)	06:44		07:50	08:03	09:08	12:24 (27)	
	22:45	21:49	8 20:32 (79)	20:25		18:58	16:36	15:46	20 12:44 (27)	
7	04:38	05:37	20:23 (79)	06:46		07:53	08:06	09:10	12:24 (27)	
	22:44	21:46	7 20:30 (79)	20:22		18:56	16:34	15:45	21 12:45 (27)	
8	04:40	05:39	20:23 (79)	06:48		07:55	08:08	09:12	12:25 (27)	
	22:43	21:44	6 20:29 (79)	20:19		18:53	16:32	15:44	20 12:45 (27)	
9	04:41	05:41	20:23 (79)	06:50		07:57	08:10	09:13	12:24 (27)	
	22:42	21:41	5 20:28 (79)	20:17		18:50	16:30	15:44	21 12:45 (27)	
10	04:42	05:44	20:23 (79)	06:53		07:59	08:13	09:15	12:25 (27)	
	22:40	21:39	4 20:27 (79)	20:14		18:47	16:27	7 13:39 (13)	09:15	21 12:46 (27)
11	04:44	05:46	20:23 (79)	06:55		08:02	08:15	13:37 (13)	09:16	12:26 (27)
	22:39	21:36	2 20:25 (79)	20:11		18:44	16:25	11 13:48 (13)	15:43	21 12:47 (27)
12	04:45	05:48		06:57		08:04	08:18	13:36 (13)	09:17	12:26 (27)
	22:38	21:34		20:08		18:42	16:23	14 13:50 (13)	15:42	20 12:46 (27)
13	04:47	05:50		06:59		08:06	08:20	13:35 (13)	09:19	12:27 (27)
	22:36	21:31		20:05		18:39	16:21	17 13:52 (13)	15:42	20 12:47 (27)
14	04:49	05:53		07:01		08:09	08:22	13:34 (13)	09:20	12:27 (27)
	22:35	21:29		20:02		18:36	16:19	18 13:52 (13)	15:42	21 12:48 (27)
15	04:50	05:55		07:04		08:11	08:25	13:34 (13)	09:21	12:27 (27)
	22:33	21:26		19:59		18:33	16:17	19 13:53 (13)	15:42	21 12:48 (27)
16	04:52	05:57		07:06		08:13	08:27	13:34 (13)	09:22	12:28 (27)
	22:32	21:23		19:56		18:30	16:15	20 13:54 (13)	15:42	20 12:48 (27)
17	04:54	20:39 (78)	05:59	07:08		08:16	08:29	13:33 (13)	09:23	12:28 (27)
	22:30	3 20:42 (78)	21:21	19:53		18:28	16:13	20 13:53 (13)	15:42	20 12:48 (27)
18	04:56	20:36 (78)	06:02	07:10		08:18	08:32	13:34 (13)	09:24	12:29 (27)
	22:29	8 20:44 (78)	21:18	19:50		18:25	16:11	20 13:54 (13)	15:42	20 12:49 (27)
19	04:57	20:35 (78)	06:04	07:12		08:20	08:34	13:34 (13)	09:25	12:30 (27)
	22:27	11 20:46 (78)	21:15	19:48		18:22	16:09	21 13:55 (13)	15:42	20 12:50 (27)
20	04:59	20:34 (78)	06:06	07:15		08:23	08:36	13:34 (13)	09:25	12:30 (27)
	22:25	13 20:47 (78)	21:13	19:45		18:20	16:07	20 13:54 (13)	15:42	20 12:50 (27)
21	05:01	20:33 (78)	06:08	07:17		08:25	08:38	13:35 (13)	09:26	12:30 (27)
	22:23	14 20:47 (78)	21:10	19:42		18:17	16:06	20 13:55 (13)	15:43	20 12:50 (27)
22	05:03	20:33 (78)	06:10	07:19		08:27	08:41	13:35 (13)	09:27	12:31 (27)
	22:21	15 20:48 (78)	21:07	19:39		18:14	16:04	19 13:54 (13)	15:43	20 12:51 (27)
23	05:05	20:33 (78)	06:13	07:21		08:30	08:43	13:36 (13)	09:27	12:31 (27)
	22:20	15 20:48 (78)	21:05	19:36		18:11	16:02	19 13:55 (13)	15:44	20 12:51 (27)
24	05:07	20:32 (78)	06:15	19:43 (77)	07:24	08:32	08:45	13:37 (13)	09:27	12:31 (27)
	22:18	16 20:48 (78)	21:02	5 19:48 (77)	19:33	18:09	16:01	18 13:55 (13)	15:44	21 12:52 (27)
25	05:09	20:31 (78)	06:17	19:41 (77)	07:26	07:34	08:47	12:26 (27)	09:28	12:33 (27)
	22:16	16 20:47 (78)	20:59	9 19:50 (77)	19:30	17:06	15:59	25 13:54 (13)	15:45	20 12:53 (27)
26	05:11	20:31 (78)	06:19	19:39 (77)	07:28	07:37	08:49	12:25 (27)	09:28	12:33 (27)
	22:14	15 20:46 (78)	20:56	11 19:50 (77)	19:27	17:04	15:57	26 13:54 (13)	15:46	20 12:53 (27)
27	05:13	20:31 (78)	06:22	19:38 (77)	07:30	07:39	08:51	12:24 (27)	09:28	12:34 (27)
	22:12	14 20:45 (78)	20:54	13 19:51 (77)	19:24	17:01	15:56	27 13:53 (13)	15:47	20 12:54 (27)
28	05:15	20:32 (78)	06:24	19:37 (77)	07:32	07:42	08:54	12:23 (27)	09:28	12:33 (27)
	22:09	14 20:46 (78)	20:51	14 19:51 (77)	19:21	16:58	15:55	27 13:52 (13)	15:47	20 12:53 (27)
29	05:17	20:32 (78)	06:26	19:37 (77)	07:35	07:44	08:56	12:23 (27)	09:28	12:34 (27)
	22:07	13 20:45 (78)	20:48	13 19:50 (77)	19:19	16:56	15:53	27 13:52 (13)	15:49	20 12:54 (27)
30	05:20	20:32 (78)	06:28	19:36 (77)	07:37	07:46	08:58	12:23 (27)	09:28	12:35 (27)
	22:05	12 20:44 (78)	20:45	14 19:50 (77)	19:16	16:53	15:52	24 13:51 (13)	15:50	20 12:55 (27)
31	05:22	20:32 (78)	06:31	19:37 (77)		07:49			09:28	12:35 (27)
	22:03	10 20:42 (78)	20:42	12 19:49 (77)		16:51			15:51	20 12:55 (27)
Potential sun hours	546	478	386	319	236	199				
Total, worst case	189	167	15	419	625					

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Calculation: Oppdatert layout - med nærliggende - worst case - oppdatert mottaker **Shadow receptor:** S - Vaule 176 (19)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

The sun is shining all the day, from sunrise to sunset

The rotor plane is always perpendicular to the line from the WTG to the sun

The WTG is always operating

	January	February	March	April	May	June	
1	09:28	13:54 (27) 08:45	15:13 (13) 07:35	07:06	05:43	04:39	
	15:52	8 14:02 (27) 16:56	13 15:26 (13) 18:04	20:16	21:26	22:30	
2	09:27	13:55 (27) 08:43	15:12 (13) 07:32	07:04	05:41	20:29 (78) 04:38	
	15:54	9 14:04 (27) 16:58	16 15:28 (13) 18:07	20:19	21:28	6 20:35 (78) 22:32	
3	09:27	13:54 (27) 08:41	15:11 (13) 07:29	07:01	05:38	20:28 (78) 04:37	
	15:55	11 14:05 (27) 17:01	17 15:28 (13) 18:09	20:21	21:30	9 20:37 (78) 22:33	
4	09:26	13:54 (27) 08:39	15:11 (13) 07:27	06:58	05:36	20:27 (78) 04:36	
	15:57	12 14:06 (27) 17:03	18 15:29 (13) 18:12	20:23	21:33	10 20:37 (78) 22:35	
5	09:26	13:54 (27) 08:37	15:11 (13) 07:24	06:55	05:33	20:26 (78) 04:34	
	15:58	13 14:07 (27) 17:06	18 15:29 (13) 18:14	20:26	21:35	12 20:38 (78) 22:36	
6	09:25	13:54 (27) 08:34	15:11 (13) 07:21	06:52	05:31	20:25 (78) 04:33	
	16:00	14 14:08 (27) 17:08	19 15:30 (13) 18:16	20:28	21:37	13 20:38 (78) 22:38	
7	09:24	13:54 (27) 08:32	15:11 (13) 07:18	06:49	05:29	20:25 (78) 04:32	
	16:01	15 14:09 (27) 17:10	19 15:30 (13) 18:19	20:30	21:39	14 20:39 (78) 22:39	
8	09:23	13:54 (27) 08:30	15:11 (13) 07:15	06:46	05:26	20:25 (78) 04:31	21:34 (81)
	16:03	17 14:11 (27) 17:13	18 15:29 (13) 18:21	20:32	21:42	14 20:39 (78) 22:40	5 21:39 (81)
9	09:23	13:53 (27) 08:27	15:12 (13) 07:13	06:44	05:24	20:26 (78) 04:31	21:33 (81)
	16:05	18 14:11 (27) 17:15	18 15:30 (13) 18:23	20:35	21:44	13 20:39 (78) 22:41	6 21:39 (81)
10	09:22	13:54 (27) 08:25	15:12 (13) 07:10	06:41	05:21	20:25 (78) 04:30	21:32 (81)
	16:07	18 14:12 (27) 17:18	17 15:29 (13) 18:26	20:37	21:46	12 20:37 (78) 22:43	8 21:40 (81)
11	09:20	13:53 (27) 08:22	15:13 (13) 07:07	06:38	05:19	20:26 (78) 04:29	21:32 (81)
	16:09	19 14:12 (27) 17:20	15 15:28 (13) 18:28	20:39	21:48	11 20:37 (78) 22:44	9 21:41 (81)
12	09:19	13:54 (27) 08:20	15:15 (13) 07:04	06:35	05:17	20:27 (78) 04:28	21:32 (81)
	16:10	19 14:13 (27) 17:23	12 15:27 (13) 18:30	20:42	21:51	9 20:36 (78) 22:45	10 21:42 (81)
13	09:18	13:53 (27) 08:17	15:17 (13) 07:01	06:32	05:14	20:29 (78) 04:28	21:32 (81)
	16:12	21 14:14 (27) 17:25	7 15:24 (13) 18:33	20:44	21:53	5 20:34 (78) 22:45	10 21:42 (81)
14	09:17	13:54 (27) 08:15	06:58	06:29	05:12	04:27	21:32 (81)
	16:14	21 14:15 (27) 17:28	18:35	20:46	21:55	22:46	10 21:42 (81)
15	09:16	13:54 (27) 08:12	06:56	06:27	05:10	04:27	21:32 (81)
	16:16	21 14:15 (27) 17:30	18:37	20:49	21:57	22:47	11 21:43 (81)
16	09:14	13:54 (27) 08:10	06:53	06:24	05:08	04:27	21:32 (81)
	16:19	21 14:15 (27) 17:33	18:40	20:51	21:59	22:48	12 21:44 (81)
17	09:13	13:54 (27) 08:07	06:50	06:21	05:06	20:57 (80) 04:27	21:32 (81)
	16:21	22 14:16 (27) 17:35	18:42	20:53	22:02	1 20:58 (80) 22:48	11 21:43 (81)
18	09:11	13:55 (27) 08:05	06:47	06:18	05:04	20:56 (80) 04:26	21:32 (81)
	16:23	21 14:16 (27) 17:38	18:44	20:56	22:04	3 20:59 (80) 22:49	11 21:43 (81)
19	09:10	13:55 (27) 08:02	06:44	06:15	05:02	20:56 (80) 04:26	21:32 (81)
	16:25	21 14:16 (27) 17:40	18:47	20:58	22:06	5 21:01 (80) 22:49	12 21:44 (81)
20	09:08	13:56 (27) 07:59	06:41	06:13	05:00	20:55 (80) 04:26	21:33 (81)
	16:27	20 14:16 (27) 17:43	18:49	21:00	22:08	7 21:02 (80) 22:50	12 21:45 (81)
21	09:07	13:56 (27) 07:57	06:38	06:10	04:58	20:56 (80) 04:26	21:33 (81)
	16:30	20 14:16 (27) 17:45	18:51	21:02	22:10	11 21:07 (80) 22:50	12 21:45 (81)
22	09:05	13:57 (27) 07:54	06:35	06:07	04:56	20:55 (80) 04:27	21:33 (81)
	16:32	19 14:16 (27) 17:47	18:53	21:05	22:12	13 21:08 (80) 22:50	12 21:45 (81)
23	09:03	13:58 (27) 07:51	06:32	06:05	04:54	20:56 (80) 04:27	21:33 (81)
	16:34	18 14:16 (27) 17:50	18:56	21:07	22:14	13 21:09 (80) 22:50	12 21:45 (81)
24	09:01	13:59 (27) 07:49	06:30	06:02	04:52	20:56 (80) 04:27	21:34 (81)
	16:36	17 14:16 (27) 17:52	18:58	21:09	22:16	13 21:09 (80) 22:50	11 21:45 (81)
25	08:59	14:01 (27) 07:46	06:27	05:59	04:50	20:57 (80) 04:28	21:34 (81)
	16:39	14 14:15 (27) 17:55	19:00	21:12	22:18	12 21:09 (80) 22:50	11 21:45 (81)
26	08:58	14:01 (27) 07:43	06:24	05:57	04:49	20:57 (80) 04:28	21:35 (81)
	16:41	13 14:14 (27) 17:57	19:03	21:14	22:20	11 21:08 (80) 22:50	11 21:46 (81)
27	08:56	14:04 (27) 07:41	06:21	05:54	04:47	20:58 (80) 04:29	21:34 (81)
	16:44	8 14:12 (27) 18:00	19:05	21:16	22:22	10 21:08 (80) 22:50	11 21:45 (81)
28	08:54	07:38	06:18	05:51	04:45	20:58 (80) 04:29	21:35 (81)
	16:46	18:02	19:07	21:19	22:23	9 21:07 (80) 22:50	11 21:46 (81)
29	08:52		07:15	05:49	04:44	20:59 (80) 04:30	21:35 (81)
	16:48		20:10	21:21	22:25	8 21:07 (80) 22:49	10 21:45 (81)
30	08:50	15:16 (13)	07:12	05:46	04:42	21:00 (80) 04:31	21:36 (81)
	16:51	6 15:22 (13)	20:12	21:23	22:27	6 21:06 (80) 22:49	9 21:45 (81)
31	08:48	15:14 (13)	07:09		04:41		
	16:53	11 15:25 (13)	20:14		22:29		
Potential sun hours	221	260	365	432	521	547	237
Total, worst case	467	207			250		

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Calculation: Oppdatert layout - med nærliggende - worst case - oppdatert mottaker **Shadow receptor:** S - Vaule 176 (19)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

The sun is shining all the day, from sunrise to sunset

The rotor plane is always perpendicular to the line from the WTG to the sun

The WTG is always operating

	July		August		September		October		November		December	
1	04:32	21:36 (81)	05:24	20:38 (78)	06:33	07:39	07:51	14:42 (13)	08:59	13:35 (27)		
	22:48	9 21:45 (81)	22:01	9 20:47 (78)	20:39	19:13	16:48	16 14:58 (13)	15:51	19 13:54 (27)		
2	04:33	21:37 (81)	05:26	20:37 (78)	06:35	07:41	07:53	14:41 (13)	09:01	13:37 (27)		
	22:48	8 21:45 (81)	21:58	11 20:48 (78)	20:37	19:10	16:46	18 14:59 (13)	15:50	18 13:55 (27)		
3	04:34	21:38 (81)	05:28	20:35 (78)	06:37	07:44	07:56	14:40 (13)	09:03	13:37 (27)		
	22:47	7 21:45 (81)	21:56	13 20:48 (78)	20:34	19:07	16:44	19 14:59 (13)	15:49	18 13:55 (27)		
4	04:35	21:39 (81)	05:30	20:35 (78)	06:39	07:46	07:58	14:40 (13)	09:05	13:38 (27)		
	22:46	5 21:44 (81)	21:54	13 20:48 (78)	20:31	19:04	16:41	19 14:59 (13)	15:48	17 13:55 (27)		
5	04:36	21:40 (81)	05:32	20:35 (78)	06:42	07:48	08:01	14:41 (13)	09:07	13:39 (27)		
	22:45	3 21:43 (81)	21:51	13 20:48 (78)	20:28	19:01	16:39	19 15:00 (13)	15:47	16 13:55 (27)		
6	04:37		05:35	20:35 (78)	06:44	07:50	08:03	14:41 (13)	09:08	13:40 (27)		
	22:45		21:49	13 20:48 (78)	20:25	18:58	16:36	19 15:00 (13)	15:46	14 13:54 (27)		
7	04:38		05:37	20:35 (78)	06:46	07:53	08:06	14:41 (13)	09:10	13:41 (27)		
	22:44		21:46	12 20:47 (78)	20:22	18:56	16:34	18 14:59 (13)	15:45	13 13:54 (27)		
8	04:40		05:39	20:35 (78)	06:48	07:55	08:08	14:42 (13)	09:12	13:42 (27)		
	22:43		21:44	12 20:47 (78)	20:19	18:53	16:32	17 14:59 (13)	15:44	12 13:54 (27)		
9	04:41		05:41	20:36 (78)	06:50	07:57	08:10	14:43 (13)	09:13	13:42 (27)		
	22:41		21:41	10 20:46 (78)	20:16	18:50	16:30	15 14:58 (13)	15:44	11 13:53 (27)		
10	04:42		05:44	20:38 (78)	06:53	07:59	08:13	14:43 (13)	09:15	13:44 (27)		
	22:40		21:39	8 20:46 (78)	20:14	18:47	16:27	14 14:57 (13)	15:43	9 13:53 (27)		
11	04:44		05:46	20:40 (78)	06:55	08:02	08:15	14:45 (13)	09:16	13:45 (27)		
	22:39		21:36	4 20:44 (78)	20:11	18:44	16:25	11 14:56 (13)	15:43	8 13:53 (27)		
12	04:45		05:48		06:57	08:04	08:18	14:48 (13)	09:17	13:46 (27)		
	22:38		21:34		20:08	18:41	16:23	5 14:53 (13)	15:42	6 13:52 (27)		
13	04:47	21:10 (80)	05:50		06:59	08:06	08:20		09:19	13:49 (27)		
	22:36	4 21:14 (80)	21:31		20:05	18:39	16:21		15:42	3 13:52 (27)		
14	04:49	21:08 (80)	05:53		07:01	08:09	08:22		09:20			
	22:35	7 21:15 (80)	21:29		20:02	18:36	16:19		15:42			
15	04:50	21:08 (80)	05:55		07:04	08:11	08:25	13:37 (27)	09:21			
	22:33	8 21:16 (80)	21:26		19:59	18:33	16:17	8 13:45 (27)	15:42			
16	04:52	21:07 (80)	05:57		07:06	08:13	08:27	13:35 (27)	09:22			
	22:32	10 21:17 (80)	21:23		19:56	18:30	16:15	12 13:47 (27)	15:42			
17	04:54	21:07 (80)	05:59		07:08	08:16	08:29	13:33 (27)	09:23			
	22:30	11 21:18 (80)	21:21		19:53	18:28	16:13	15 13:48 (27)	15:42			
18	04:56	21:06 (80)	06:01		07:10	08:18	08:32	13:33 (27)	09:24			
	22:29	12 21:18 (80)	21:18		19:50	18:25	16:11	17 13:50 (27)	15:42			
19	04:57	21:06 (80)	06:04		07:12	08:20	08:34	13:33 (27)	09:25			
	22:27	12 21:18 (80)	21:15		19:47	18:22	16:09	18 13:51 (27)	15:42			
20	04:59	21:06 (80)	06:06		07:15	08:23	08:36	13:32 (27)	09:25			
	22:25	13 21:19 (80)	21:13		19:45	18:19	16:07	19 13:51 (27)	15:42			
21	05:01	21:05 (80)	06:08		07:17	08:25	08:38	13:32 (27)	09:26			
	22:23	13 21:18 (80)	21:10		19:42	18:17	16:06	20 13:52 (27)	15:43			
22	05:03	21:06 (80)	06:10		07:19	08:27	08:41	13:32 (27)	09:27			
	22:21	11 21:17 (80)	21:07		19:39	18:14	16:04	20 13:52 (27)	15:43			
23	05:05	21:06 (80)	06:13		07:21	08:30	08:43	13:32 (27)	09:27			
	22:20	9 21:16 (80)	21:05		19:36	18:11	16:02	21 13:53 (27)	15:44			
24	05:07	21:06 (80)	06:15		07:23	08:32	08:45	13:33 (27)	09:27			
	22:18	6 21:12 (80)	21:02		19:33	18:09	16:00	21 13:54 (27)	15:44			
25	05:09	21:06 (80)	06:17		07:26	07:34	08:47	13:32 (27)	09:28			
	22:16	4 21:10 (80)	20:59		19:30	17:06	15:59	22 13:54 (27)	15:45			
26	05:11	21:07 (80)	06:19		07:28	07:37	08:49	13:33 (27)	09:28			
	22:14	2 21:09 (80)	20:56		19:27	17:04	15:57	21 13:54 (27)	15:46			
27	05:13		06:22		07:30	07:39	08:51	13:33 (27)	09:28			
	22:11		20:53		19:24	17:01	15:56	21 13:54 (27)	15:47			
28	05:15		06:24		07:32	07:41	08:53	13:33 (27)	09:28			
	22:09		20:51		19:21	16:58	15:55	21 13:54 (27)	15:47			
29	05:17		06:26		07:35	07:44	08:55	13:35 (27)	09:28			
	22:07		20:48		19:18	16:56	8 14:54 (13)	15:53	20 13:55 (27)	15:48		
30	05:19		06:28		07:37	07:46	08:57	14:44 (13)	08:57	13:35 (27)	09:28	
	22:05		20:45		19:16	16:53	13 14:57 (13)	15:52	19 13:54 (27)	15:50		
31	05:22	20:40 (78)	06:31			07:49		14:42 (13)		09:28	13:56 (27)	
	22:03	6 20:46 (78)	20:42			16:51	15 14:57 (13)			15:51	4 14:00 (27)	
Potential sun hours	546		478		386	319	236		199			
Total, worst case	160		118		36	36	485		168			

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)		Last time (hh:mm) with flicker	(WTG causing flicker last time)

SHADOW - Calendar

Calculation: Oppdatert layout - med nærliggende - worst case - oppdatert mottaker **Shadow receptor:** T - Vaule 247 (20)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

The sun is shining all the day, from sunrise to sunset

The rotor plane is always perpendicular to the line from the WTG to the sun

The WTG is always operating

	January	February	March	April	May	June			
1	09:28	08:45	10:57 (38)	07:35	16:28 (18)	07:06	05:44	04:39	21:26 (78)
	15:52	16:56	41 13:51 (27)	18:04	11 16:39 (18)	20:16	21:26	22:30	2 21:28 (78)
2	09:27	08:43	10:59 (38)	07:32	16:27 (18)	07:04	05:41	04:38	21:24 (78)
	15:54	16:58	37 13:51 (27)	18:07	14 16:41 (18)	20:19	21:28	22:32	6 21:30 (78)
3	09:27	08:41	11:02 (38)	07:30	16:27 (18)	07:01	05:38	04:37	21:23 (78)
	15:55	17:01	27 13:49 (27)	18:09	15 16:42 (18)	20:21	21:30	22:33	8 21:31 (78)
4	09:26	08:39	13:29 (27)	07:27	16:27 (18)	06:58	05:36	04:36	21:23 (78)
	15:57	17:03	20 13:49 (27)	18:12	18 16:45 (18)	20:23	21:33	22:35	9 21:32 (78)
5	09:26	08:37	13:30 (27)	07:24	16:28 (18)	06:55	05:33	04:34	21:22 (78)
	15:58	17:06	17 13:47 (27)	18:14	18 16:46 (18)	20:26	21:35	22:36	11 21:33 (78)
6	09:25	08:34	13:34 (27)	07:21	16:28 (18)	06:52	05:31	04:33	21:22 (78)
	16:00	17:08	11 13:45 (27)	18:16	17 16:45 (18)	20:28	21:37	22:38	11 21:33 (78)
7	09:24	08:32		07:18	16:29 (18)	06:49	05:29	04:32	21:21 (78)
	16:01	17:11		18:19	15 16:44 (18)	20:30	21:39	22:39	12 21:33 (78)
8	09:23	08:30		07:15	16:30 (18)	06:46	05:26	04:32	21:22 (78)
	16:03	17:13		18:21	12 16:42 (18)	20:32	21:42	22:40	13 21:35 (78)
9	09:23	08:27		07:13	16:33 (18)	06:44	05:24	04:31	21:22 (78)
	16:05	17:15		18:23	5 16:38 (18)	20:35	21:44	22:41	13 21:35 (78)
10	09:22	08:25		07:10		06:41	05:21	04:30	21:22 (78)
	16:07	17:18		18:26		20:37	21:46	22:43	13 21:35 (78)
11	09:20	08:22	14:55 (8)	07:07		06:38	05:19	04:29	21:22 (78)
	16:09	17:20	7 15:02 (8)	18:28		20:39	21:48	22:44	13 21:35 (78)
12	09:19	08:20	14:57 (8)	07:04		06:35	05:17	04:29	21:22 (78)
	16:11	17:23	10 15:07 (8)	18:30		20:42	21:51	22:45	14 21:36 (78)
13	09:18	08:17	14:59 (8)	07:01		06:32	05:15	04:28	21:22 (78)
	16:12	5 11:06 (38)	17:25	12 15:11 (13)	18:33	20:44	21:53	22:45	14 21:36 (78)
14	09:17	10:57 (38)	08:15	15:02 (8)	06:58	06:29	05:12	04:28	21:22 (78)
	16:14	11 11:08 (38)	17:28	12 15:15 (13)	18:35	20:46	21:55	22:46	14 21:36 (78)
15	09:16	10:52 (38)	08:12	15:06 (13)	06:56	06:27	05:10	04:27	21:22 (78)
	16:17	17 11:09 (38)	17:30	13 15:19 (13)	18:37	20:49	21:57	22:47	15 21:37 (78)
16	09:14	10:52 (38)	08:10	15:06 (13)	06:53	06:24	05:08	04:27	21:23 (78)
	16:19	18 11:10 (38)	17:33	16 15:22 (13)	18:40	20:51	21:59	22:48	14 21:37 (78)
17	09:13	10:51 (38)	08:07	15:05 (13)	06:50	06:21	05:06	04:27	21:22 (78)
	16:21	19 11:10 (38)	17:35	16 15:21 (13)	18:42	20:53	22:02	22:48	15 21:37 (78)
18	09:11	10:51 (38)	08:05	15:05 (13)	06:47	06:18	05:04	04:26	21:22 (78)
	16:23	20 11:11 (38)	17:38	15 15:20 (13)	18:44	20:56	22:04	22:49	15 21:37 (78)
19	09:10	10:51 (38)	08:02	15:06 (13)	06:44	06:16	05:02	04:26	21:23 (78)
	16:25	21 11:12 (38)	17:40	17 15:23 (13)	18:47	20:58	22:06	22:49	15 21:38 (78)
20	09:08	10:51 (38)	07:59	15:07 (13)	06:41	06:13	05:00	04:26	21:24 (78)
	16:27	22 11:13 (38)	17:43	18 15:25 (13)	18:49	21:00	22:08	22:50	14 21:38 (78)
21	09:07	10:51 (38)	07:57	15:07 (13)	06:38	06:10	04:58	04:26	21:24 (78)
	16:30	23 12:45 (33)	17:45	21 15:28 (13)	18:51	21:02	22:10	22:50	14 21:38 (78)
22	09:05	10:51 (38)	07:54	15:08 (13)	06:35	06:07	04:56	04:27	21:24 (78)
	16:32	35 12:57 (33)	17:47	20 15:28 (13)	18:53	21:05	22:12	22:50	14 21:38 (78)
23	09:03	10:51 (38)	07:51	15:09 (13)	06:32	06:05	04:54	04:27	21:23 (78)
	16:34	41 13:04 (33)	17:50	18 15:27 (13)	18:56	21:07	22:14	22:50	15 21:38 (78)
24	09:01	10:52 (38)	07:49	15:12 (13)	06:30	06:02	04:52	04:27	21:24 (78)
	16:37	40 13:04 (33)	17:52	14 15:26 (13)	18:58	21:09	22:16	22:50	15 21:39 (78)
25	08:59	10:52 (38)	07:46	15:16 (13)	06:27	05:59	04:50	04:28	21:24 (78)
	16:39	39 13:04 (33)	17:55	6 15:22 (13)	19:00	21:12	22:18	22:50	15 21:39 (78)
26	08:58	10:52 (38)	07:43		06:24	05:57	04:49	04:28	21:25 (78)
	16:41	40 13:25 (27)	17:57		19:03	21:14	22:20	22:50	14 21:39 (78)
27	08:56	10:53 (38)	07:41		06:21	05:54	04:47	04:29	21:25 (78)
	16:44	42 13:31 (27)	18:00		19:05	21:16	22:22	22:50	14 21:39 (78)
28	08:54	10:53 (38)	07:38	16:29 (18)	06:18	05:51	04:45	04:29	21:25 (78)
	16:46	46 13:41 (27)	18:02	6 16:37 (18)	19:07	21:19	22:23	22:50	14 21:39 (78)
29	08:52	10:54 (38)			07:15	05:49	04:44	04:30	21:25 (78)
	16:48	42 13:45 (27)			20:10	21:21	22:25	22:49	14 21:39 (78)
30	08:50	10:55 (38)			07:12	05:46	04:42	04:31	21:25 (78)
	16:51	43 13:48 (27)			20:12	21:23	22:27	22:49	14 21:39 (78)
31	08:48	10:56 (38)			07:09		04:41		
	16:53	43 13:50 (27)			20:14		22:29		
Potential sun hours	221	260	365		432	521	547	384	
Total, worst case	567	374	125						

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Calculation: Oppdatert layout - med nærliggende - worst case - oppdatert mottaker **Shadow receptor:** T - Vaule 247 (20)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

The sun is shining all the day, from sunrise to sunset

The rotor plane is always perpendicular to the line from the WTG to the sun

The WTG is always operating

	July	August	September	October	November	December
1	04:32	21:26 (78)	05:24	06:33	07:39	08:59
	22:48	21:40 (78)	22:01	20:39	19:13	15:51
2	04:33	21:26 (78)	05:26	06:35	07:41	09:01
	22:48	21:40 (78)	21:58	20:37	19:10	15:50
3	04:34	21:27 (78)	05:28	06:37	07:44	09:03
	22:47	21:40 (78)	21:56	20:34	19:07	15:49
4	04:35	21:27 (78)	05:30	06:39	07:46	09:05
	22:46	21:40 (78)	21:54	20:31	19:04	15:48
5	04:36	21:28 (78)	05:33	06:42	07:48	09:07
	22:45	21:40 (78)	21:51	20:28	19:01	15:47
6	04:37	21:28 (78)	05:35	06:44	07:50	09:08
	22:45	21:40 (78)	21:49	20:25	18:58	15:46
7	04:38	21:28 (78)	05:37	06:46	07:53	09:10
	22:44	21:39 (78)	21:46	20:22	18:56	15:45
8	04:40	21:29 (78)	05:39	06:48	07:55	09:12
	22:43	21:39 (78)	21:44	20:19	18:53	15:44
9	04:41	21:29 (78)	05:41	06:50	07:57	09:13
	22:41	21:38 (78)	21:41	20:16	18:50	15:44
10	04:42	21:31 (78)	05:44	06:53	07:59	09:15
	22:40	21:38 (78)	21:39	20:14	18:47	15:43
11	04:44	21:32 (78)	05:46	06:55	08:02	09:16
	22:39	21:37 (78)	21:36	20:11	18:44	15:43
12	04:45		05:48	06:57	08:04	09:17
	22:38		21:34	20:08	18:41	15:42
13	04:47		05:50	06:59	08:06	09:19
	22:36		21:31	20:05	18:39	15:42
14	04:49		05:53	07:01	08:09	09:20
	22:35		21:29	20:02	18:36	15:42
15	04:50		05:55	07:04	08:11	09:21
	22:33		21:26	19:59	18:33	15:42
16	04:52		05:57	07:06	08:13	09:22
	22:32		21:23	19:56	18:30	15:42
17	04:54		05:59	07:08	08:16	09:23
	22:30		21:21	19:53	18:28	15:42
18	04:56		06:02	07:10	08:18	09:24
	22:29		21:18	19:50	18:25	15:42
19	04:57		06:04	07:12	08:20	09:25
	22:27		21:15	19:47	18:22	15:42
20	04:59		06:06	07:15	08:23	09:25
	22:25		21:13	19:45	18:20	15:42
21	05:01		06:08	07:17	08:25	09:26
	22:23		21:10	19:42	18:17	15:43
22	05:03		06:10	07:19	08:27	09:27
	22:21		21:07	19:39	18:14	15:43
23	05:05		06:13	07:21	08:30	09:27
	22:20		21:05	19:36	18:12	15:44
24	05:07		06:15	07:24	08:32	09:27
	22:18		21:02	19:33	18:09	15:44
25	05:09		06:17	07:26	07:34	09:28
	22:16		20:59	19:30	17:06	15:45
26	05:11		06:19	07:28	07:37	09:28
	22:14		20:56	19:27	17:04	15:46
27	05:13		06:22	07:30	07:39	09:28
	22:11		20:53	19:24	17:01	15:47
28	05:15		06:24	07:32	07:41	09:28
	22:09		20:51	19:21	16:58	15:48
29	05:17		06:26	07:35	07:44	09:28
	22:07		20:48	19:19	16:56	15:49
30	05:20		06:28	07:37	07:46	09:28
	22:05		20:45	19:16	16:53	15:50
31	05:22		06:31		07:49	09:28
	22:03		20:42		16:51	15:51
Potential sun hours	546		478	386	319	199
Total, worst case	120			343	725	

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)		Last time (hh:mm) with flicker	(WTG causing flicker last time)

SHADOW - Calendar

Calculation: Oppdatert layout - med nærliggende - worst case - oppdatert mottaker **Shadow receptor:** U - Store Svæla, eiendom 60/5, Bjerkreim kommune (21)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

The sun is shining all the day, from sunrise to sunset

The rotor plane is always perpendicular to the line from the WTG to the sun

The WTG is always operating

	January	February	March	April	May	June				
1	09:27	08:45	15:29 (9)	07:35	15:43 (14)	07:06	05:43	18:53 (38)	04:39	
	15:52	16:56	21 15:50 (9)	18:04	38 16:21 (14)	20:16	21:25	26 19:19 (38)	22:30	
2	09:27	08:43	15:29 (9)	07:32	15:43 (14)	07:04	05:41	18:54 (38)	04:38	
	15:54	16:58	23 15:52 (9)	18:07	37 16:20 (14)	20:19	21:28	23 19:17 (38)	22:32	
3	09:27	08:41	15:29 (9)	07:29	15:43 (14)	07:01	05:38	18:56 (38)	04:37	
	15:55	17:01	23 15:52 (9)	18:09	36 16:19 (14)	20:21	21:30	19 19:15 (38)	22:33	
4	09:26	08:39	15:29 (9)	07:27	15:44 (14)	06:58	19:04 (38)	05:36	19:00 (38)	04:36
	15:57	17:03	23 15:52 (9)	18:11	34 16:18 (14)	20:23	15 19:19 (38)	21:32	12 19:12 (38)	22:35
5	09:25	08:36	15:29 (9)	07:24	15:46 (14)	06:55	19:00 (38)	05:33		04:35
	15:58	17:06	23 15:52 (9)	18:14	32 16:18 (14)	20:25	22 19:22 (38)	21:35		22:36
6	09:25	08:34	15:28 (9)	07:21	15:47 (14)	06:52	18:57 (38)	05:31		04:33
	16:00	17:08	24 15:52 (9)	18:16	29 16:16 (14)	20:28	27 19:24 (38)	21:37		22:37
7	09:24	08:32	15:29 (9)	07:18	15:48 (14)	06:49	18:55 (38)	05:29		04:32
	16:01	17:10	23 15:52 (9)	18:19	27 16:15 (14)	20:30	30 19:25 (38)	21:39		22:39
8	09:23	08:29	15:29 (9)	07:15	15:50 (14)	06:46	18:53 (38)	05:26		04:32
	16:03	17:13	23 15:52 (9)	18:21	22 16:12 (14)	20:32	33 19:26 (38)	21:42		22:40
9	09:22	08:27	15:30 (9)	07:13	15:52 (14)	06:43	18:52 (38)	05:24		04:31
	16:05	17:15	22 15:52 (9)	18:23	18 16:10 (14)	20:35	47 19:57 (27)	21:44		22:41
10	09:21	08:25	15:31 (9)	07:10	15:57 (14)	06:41	18:51 (38)	05:21		04:30
	16:07	17:18	20 15:51 (9)	18:26	8 16:05 (14)	20:37	55 19:58 (27)	21:46		22:42
11	09:20	08:22	15:31 (9)	07:07		06:38	18:49 (38)	05:19		04:29
	16:09	17:20	19 15:50 (9)	18:28		20:39	60 19:58 (27)	21:48		22:43
12	09:19	08:20	15:33 (9)	07:04		06:35	18:48 (38)	05:17		04:29
	16:11	17:23	16 15:49 (9)	18:30		20:42	61 19:58 (27)	21:50		22:44
13	09:18	08:17	15:35 (9)	07:01		06:32	18:48 (38)	05:15		04:28
	16:12	17:25	16 16:05 (14)	18:33		20:44	63 19:59 (27)	21:53		22:45
14	09:17	08:15	15:38 (9)	06:58		06:29	18:47 (38)	05:12		04:28
	16:14	17:28	21 16:10 (14)	18:35		20:46	63 19:58 (27)	21:55		22:46
15	09:15	08:12	15:52 (14)	06:55		06:27	18:46 (38)	05:10		04:27
	16:17	17:30	21 16:13 (14)	18:37		20:48	64 19:57 (27)	21:57		22:47
16	09:14	08:10	15:51 (14)	06:53	17:31 (33)	06:24	18:46 (38)	05:08		04:27
	16:19	17:33	25 16:16 (14)	18:40	6 17:37 (33)	20:51	63 19:57 (27)	21:59		22:47
17	09:13	08:07	15:49 (14)	06:50		06:21	18:45 (38)	05:06		04:27
	16:21	17:35	28 16:17 (14)	18:42	13 17:40 (33)	20:53	61 19:55 (27)	22:01		22:48
18	09:11	08:04	15:48 (14)	06:47		06:18	18:45 (38)	05:04		04:26
	16:23	17:38	30 16:18 (14)	18:44	16 17:41 (33)	20:55	58 19:54 (27)	22:04		22:49
19	09:10	08:02	15:46 (14)	06:44		06:15	18:45 (38)	05:02		04:26
	16:25	17:40	33 16:19 (14)	18:46	19 17:42 (33)	20:58	55 19:52 (27)	22:06		22:49
20	09:08	07:59	15:46 (14)	06:41		06:13	18:45 (38)	05:00		04:26
	16:27	17:43	34 16:20 (14)	18:49	20 17:42 (33)	21:00	44 19:29 (38)	22:08		22:49
21	09:06	07:57	15:45 (14)	06:38		06:10	18:45 (38)	04:58		04:26
	16:30	17:45	36 16:21 (14)	18:51	22 17:43 (33)	21:02	43 19:28 (38)	22:10		22:50
22	09:05	07:54	15:44 (14)	06:35		06:07	18:45 (38)	04:56		04:27
	16:32	17:47	37 16:21 (14)	18:53	22 17:42 (33)	21:05	43 19:28 (38)	22:12		22:50
23	09:03	07:51	15:44 (14)	06:32		06:05	18:45 (38)	04:54		04:27
	16:34	17:50	37 16:21 (14)	18:56	22 17:42 (33)	21:07	42 19:27 (38)	22:14		22:50
24	09:01	07:49	15:43 (14)	06:29		06:02	18:46 (38)	04:52		04:27
	16:36	17:52	38 16:21 (14)	18:58	22 17:42 (33)	21:09	41 19:27 (38)	22:16		22:50
25	08:59	07:46	15:44 (14)	06:27		05:59	18:46 (38)	04:50		04:28
	16:39	17:55	38 16:22 (14)	19:00	21 17:41 (33)	21:12	40 19:26 (38)	22:18		22:50
26	08:57	07:43	15:43 (14)	06:24		05:57	18:47 (38)	04:49		04:28
	16:41	17:57	39 16:22 (14)	19:03	20 17:40 (33)	21:14	38 19:25 (38)	22:20		22:50
27	08:55	15:35 (9)	07:40	15:43 (14)	06:21	17:22 (33)	05:54	18:47 (38)	04:47	04:29
	16:44	8 15:43 (9)	18:00	16:22 (14)	19:05	17:39 (33)	21:16	37 19:24 (38)	22:21	22:50
28	08:54	15:33 (9)	07:38	15:43 (14)	06:18	17:23 (33)	05:51	18:49 (38)	04:45	04:29
	16:46	13 15:46 (9)	18:02	16:21 (14)	19:07	17:37 (33)	21:19	34 19:23 (38)	22:23	22:49
29	08:51	15:31 (9)		07:15		18:25 (33)	05:49	18:49 (38)	04:44	04:30
	16:48	16 15:47 (9)		20:09	10 18:35 (33)	21:21	33 19:22 (38)	22:25		22:49
30	08:49	15:31 (9)		07:12		05:46	18:51 (38)	04:42		04:31
	16:51	17 15:48 (9)		20:12		21:23	30 19:21 (38)	22:27		22:49
31	08:47	15:29 (9)		07:09				04:41		
	16:53	20 15:49 (9)		20:14				22:28		
Potential sun hours	221	260	365	432	525	1202	521	80	547	
Total, worst case	74	770	525	1202	80	547				

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Calculation: Oppdatert layout - med nærliggende - worst case - oppdatert mottaker **Shadow receptor:** U - Store Sveta, eiendom 60/5, Bjerkreim kommune (21)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

The sun is shining all the day, from sunrise to sunset

The rotor plane is always perpendicular to the line from the WTG to the sun

The WTG is always operating

	July	August	September	October	November	December				
1	04:32	05:24	06:33	18:48 (38)	07:39	07:51	15:00 (9)	08:59		
	22:48	22:00	20:39	60 19:57 (27)	19:13	16:48	21 15:21 (9)	15:51		
2	04:33	05:26	06:35	18:49 (38)	07:41	07:53	15:00 (9)	09:01		
	22:47	21:58	20:36	56 19:56 (27)	19:10	16:46	22 15:22 (9)	15:50		
3	04:34	05:28	06:37	18:49 (38)	07:43	07:56	14:59 (9)	09:03		
	22:47	21:56	20:34	47 19:54 (27)	19:07	16:44	22 15:21 (9)	15:49		
4	04:35	05:30	06:39	18:51 (38)	07:46	07:58	14:59 (9)	09:05		
	22:46	21:53	20:31	33 19:24 (38)	19:04	14 16:45 (14)	23 15:22 (9)	15:48		
5	04:36	05:33	06:42	18:52 (38)	07:48	16:27 (14)	08:01	14:59 (9)	09:07	
	22:45	21:51	20:28	30 19:22 (38)	19:01	21 16:48 (14)	16:39	24 15:23 (9)	15:47	
6	04:37	05:35	06:44	18:53 (38)	07:50	16:25 (14)	08:03	14:58 (9)	09:08	
	22:44	21:49	20:25	27 19:20 (38)	18:58	25 16:50 (14)	16:36	24 15:22 (9)	15:46	
7	04:38	05:37	06:46	18:55 (38)	07:52	16:23 (14)	08:05	14:59 (9)	09:10	
	22:43	21:46	20:22	22 19:17 (38)	18:55	28 16:51 (14)	16:34	23 15:22 (9)	15:45	
8	04:40	05:39	19:13 (38)	06:48	18:58 (38)	07:55	16:21 (14)	08:08	14:59 (9)	09:11
	22:42	21:44	3 19:16 (38)	20:19	15 19:13 (38)	18:53	31 16:52 (14)	16:32	23 15:22 (9)	15:44
9	04:41	05:41	19:07 (38)	06:50	07:57	16:20 (14)	08:10	14:59 (9)	09:13	
	22:41	21:41	15 19:22 (38)	20:16	18:50	33 16:53 (14)	16:30	22 15:21 (9)	15:44	
10	04:42	05:44	19:05 (38)	06:53	07:59	16:18 (14)	08:13	15:00 (9)	09:14	
	22:40	21:39	20 19:25 (38)	20:13	18:47	35 16:53 (14)	16:27	21 15:21 (9)	15:43	
11	04:44	05:46	19:03 (38)	06:55	08:02	16:18 (14)	08:15	15:01 (9)	09:16	
	22:39	21:36	24 19:27 (38)	20:11	18:44	36 16:54 (14)	16:25	20 15:21 (9)	15:43	
12	04:45	05:48	19:01 (38)	06:57	08:04	16:17 (14)	08:17	15:03 (9)	09:17	
	22:37	21:34	27 19:28 (38)	20:08	18:41	37 16:54 (14)	16:23	17 15:20 (9)	15:42	
13	04:47	05:50	18:59 (38)	06:59	08:06	16:16 (14)	08:20	15:03 (9)	09:18	
	22:36	21:31	30 19:29 (38)	20:05	18:39	38 16:54 (14)	16:21	16 15:19 (9)	15:42	
14	04:49	05:53	18:57 (38)	07:01	18:16 (33)	08:08	16:16 (14)	08:22	15:05 (9)	09:20
	22:35	21:28	33 19:30 (38)	20:02	8 18:24 (33)	18:36	38 16:54 (14)	16:19	12 15:17 (9)	15:42
15	04:50	05:55	18:56 (38)	07:04	18:13 (33)	08:11	16:15 (14)	08:24	15:08 (9)	09:21
	22:33	21:26	35 19:31 (38)	19:59	13 18:26 (33)	18:33	39 16:54 (14)	16:17	7 15:15 (9)	15:42
16	04:52	05:57	18:55 (38)	07:06	18:11 (33)	08:13	16:15 (14)	08:27		09:22
	22:32	21:23	37 19:32 (38)	19:56	16 18:27 (33)	18:30	39 16:54 (14)	16:15		15:42
17	04:54	05:59	18:53 (38)	07:08	18:09 (33)	08:15	16:15 (14)	08:29		09:23
	22:30	21:21	39 19:32 (38)	19:53	19 18:28 (33)	18:28	38 16:53 (14)	16:13		15:42
18	04:56	06:01	18:52 (38)	07:10	18:08 (33)	08:18	16:15 (14)	08:31		09:24
	22:28	21:18	40 19:32 (38)	19:50	20 18:28 (33)	18:25	38 16:53 (14)	16:11		15:42
19	04:57	06:04	18:51 (38)	07:12	18:07 (33)	08:20	16:15 (14)	08:34		09:24
	22:27	21:15	42 19:33 (38)	19:47	22 18:29 (33)	18:22	37 16:52 (14)	16:09		15:42
20	04:59	06:06	18:51 (38)	07:15	18:07 (33)	08:22	16:16 (14)	08:36		09:25
	22:25	21:13	42 19:33 (38)	19:44	22 18:29 (33)	18:19	36 16:52 (14)	16:07		15:42
21	05:01	06:08	18:50 (38)	07:17	18:06 (33)	08:25	16:16 (14)	08:38		09:26
	22:23	21:10	43 19:33 (38)	19:42	22 18:28 (33)	18:17	35 16:51 (14)	16:06		15:43
22	05:03	06:10	18:49 (38)	07:19	18:06 (33)	08:27	16:17 (14)	08:40		09:26
	22:21	21:07	44 19:33 (38)	19:39	21 18:27 (33)	18:14	33 16:50 (14)	16:04		15:43
23	05:05	06:13	18:49 (38)	07:21	18:06 (33)	08:29	16:17 (14)	08:43		09:27
	22:19	21:04	48 19:52 (27)	19:36	20 18:26 (33)	18:11	32 16:49 (14)	16:02		15:44
24	05:07	06:15	18:48 (38)	07:23	18:07 (33)	08:32	16:18 (14)	08:45		09:27
	22:17	21:02	55 19:55 (27)	19:33	19 18:26 (33)	18:09	30 16:48 (14)	16:01		15:44
25	05:09	06:17	18:49 (38)	07:26	18:07 (33)	07:34	15:19 (14)	08:47		09:28
	22:15	20:59	58 19:57 (27)	19:30	17 18:24 (33)	17:06	27 15:46 (14)	15:59		15:45
26	05:11	06:19	18:48 (38)	07:28	18:08 (33)	07:37	15:21 (14)	08:49		09:28
	22:13	20:56	62 19:58 (27)	19:27	14 18:22 (33)	17:04	23 15:44 (14)	15:57		15:46
27	05:13	06:22	18:48 (38)	07:30	18:10 (33)	07:39	15:23 (14)	08:51		09:28
	22:11	20:53	63 19:59 (27)	19:24	9 18:19 (33)	17:01	20 15:43 (14)	15:56		15:47
28	05:15	06:24	18:48 (38)	07:32	07:41	15:07 (9)	08:53			09:28
	22:09	20:51	63 19:59 (27)	19:21	21 16:58	15:39 (14)	15:55			15:48
29	05:17	06:26	18:48 (38)	07:34	07:44	15:04 (9)	08:55			09:28
	22:07	20:48	64 19:59 (27)	19:18	13 16:56	15:17 (9)	15:53			15:49
30	05:20	06:28	18:48 (38)	07:37	07:46	15:03 (9)	08:57			09:28
	22:05	20:45	63 19:59 (27)	19:16	16 16:53	15:19 (9)	15:52			15:50
31	05:22	06:30	18:48 (38)		07:49	15:01 (9)				09:28
	22:03	20:42	61 19:58 (27)		19 16:51	15:20 (9)				15:51
Potential sun hours	545	478	386		319		236			200
Total, worst case		1011		532		832		297		

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Calculation: Oppdatert layout - med nærliggende - worst case - oppdatert mottaker **Shadow receptor:** V - Osland 45 (22)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

The sun is shining all the day, from sunrise to sunset

The rotor plane is always perpendicular to the line from the WTG to the sun

The WTG is always operating

	January	February	March	April	May	June	July	August	September	October	November	December	
1	09:28 15:53	12:02 (24) 13:36 (25)	08:46 16:56	07:35 18:05	07:07 20:17	05:44 21:26	04:40 22:31	04:32 22:49	05:24 22:01	06:33 20:40	07:39 19:13	07:51 16:49	09:00 15:51
2	09:28 15:54	12:01 (24) 13:36 (25)	08:44 16:58	07:33 18:07	07:04 20:19	05:41 21:28	04:38 22:32	04:33 22:48	05:26 21:59	06:35 20:37	07:42 19:10	07:54 16:46	09:02 15:50
3	09:27 15:55	12:01 (24) 13:36 (25)	08:41 17:01	07:30 18:09	07:01 20:21	05:39 21:31	04:37 22:34	04:34 22:47	05:28 21:56	06:37 20:34	07:44 19:07	07:56 16:44	09:03 15:49
4	09:27 15:57	12:01 (24) 13:36 (25)	08:39 17:03	07:27 18:12	06:58 20:24	05:36 21:33	04:36 22:35	04:35 22:47	05:31 21:54	06:40 20:31	07:46 19:04	07:59 16:41	09:05 15:48
5	09:26 15:58	12:01 (24) 13:37 (25)	08:37 17:06	07:24 18:14	06:55 20:26	05:34 21:35	04:35 22:37	04:36 22:46	05:33 21:52	06:42 20:28	07:48 19:02	08:01 16:41	09:07 15:47
6	09:25 16:00	12:02 (24) 13:37 (25)	08:35 17:08	07:21 18:17	06:52 20:28	05:31 21:37	04:34 22:38	04:37 22:45	05:35 21:49	06:44 20:25	07:51 18:59	08:03 16:37	09:09 15:46
7	09:25 16:02	12:02 (24) 13:37 (25)	08:32 17:11	07:19 18:19	06:50 20:30	05:29 21:40	04:33 22:39	04:39 22:44	05:37 21:47	06:46 20:23	07:53 18:56	08:06 16:34	09:10 15:45
8	09:24 16:03	12:02 (24) 13:38 (25)	08:30 17:13	07:16 18:21	06:47 20:33	05:26 21:42	04:32 22:41	04:40 22:43	05:42 21:44	06:49 20:20	07:55 18:53	08:08 16:32	09:12 15:45
9	09:23 16:05	12:03 (24) 13:38 (25)	08:27 17:16	07:13 18:24	06:44 20:35	05:24 21:44	04:31 22:42	04:41 22:42	05:44 21:42	06:51 20:17	07:57 18:50	08:11 16:30	09:13 15:44
10	09:22 16:07	12:03 (24) 13:37 (25)	08:25 17:18	07:10 18:26	06:41 20:37	05:22 21:47	04:30 22:43	04:43 22:41	05:44 21:39	06:53 20:14	08:00 18:47	08:13 16:28	09:15 15:43
11	09:21 16:09	12:03 (24) 13:37 (25)	08:23 17:21	07:07 18:28	06:38 20:40	05:19 21:49	04:29 22:44	04:44 22:39	05:46 21:37	06:55 20:11	08:02 18:45	08:15 16:25	09:16 15:43
12	09:20 16:11	12:03 (24) 13:37 (25)	08:20 17:23	07:04 18:31	06:35 20:42	05:17 21:51	04:29 22:45	04:46 22:38	05:48 21:34	06:57 20:08	08:04 18:42	08:18 16:23	09:18 15:43
13	09:19 16:13	12:04 (24) 13:37 (25)	08:18 17:26	07:02 18:33	06:33 20:44	05:15 21:53	04:28 22:46	04:47 22:37	05:51 21:32	07:00 20:05	08:07 18:39	08:20 16:21	09:19 15:42
14	09:17 16:15	12:04 (24) 13:36 (25)	08:15 17:28	06:59 18:35	06:30 20:47	05:13 21:55	04:28 22:47	04:49 22:35	05:53 21:29	07:02 20:02	08:09 18:36	08:23 16:19	09:20 15:42
15	09:16 16:17	12:04 (24) 13:35 (25)	08:13 17:31	06:56 18:38	06:27 20:49	05:10 21:58	04:27 22:47	04:51 22:34	05:55 21:26	07:04 19:59	08:11 18:33	08:25 16:17	09:21 15:50 (24)
16	09:15 16:19	12:04 (24) 12:28 (24)	08:10 17:33	06:53 18:40	06:24 20:51	05:08 22:00	04:27 22:48	04:52 22:32	05:57 21:24	07:06 19:56	08:13 18:31	08:27 16:15	09:22 15:48 (24)
17	09:13 16:21	12:06 (24) 12:30 (24)	08:07 17:36	06:50 18:42	06:21 20:54	05:06 22:02	04:27 22:49	04:54 22:31	06:00 21:21	07:08 19:54	08:16 18:28	08:30 16:13	09:23 15:47 (24)
18	09:12 16:23	12:06 (24) 12:30 (24)	08:05 17:38	06:47 18:45	06:19 20:56	05:04 22:04	04:27 22:49	04:56 22:29	06:02 21:18	07:11 19:51	08:18 18:25	08:32 16:11	09:24 15:42 (24)
19	09:10 16:25	12:06 (24) 12:30 (24)	08:02 17:40	06:44 18:47	06:16 20:58	05:02 22:06	04:27 22:50	04:58 22:27	06:04 21:16	07:13 19:48	08:20 18:22	08:34 16:09	09:25 15:42 (24)
20	09:09 16:28	12:07 (24) 12:30 (24)	08:00 17:43	06:41 18:49	06:13 21:00	05:00 22:08	04:27 22:50	05:00 22:25	06:06 21:13	07:15 19:45	08:23 18:20	08:36 16:08	09:26 15:43 (24)
21	09:07 16:30	12:08 (24) 12:29 (24)	07:57 17:45	06:39 18:51	06:10 21:03	04:58 22:10	04:27 22:50	05:01 22:24	06:09 21:10	07:17 19:42	08:25 18:17	08:39 16:06	09:26 15:43 (24)
22	09:05 16:32	12:09 (24) 12:29 (24)	07:54 17:48	06:36 18:54	06:08 21:05	04:56 22:12	04:27 22:50	05:03 22:22	06:11 21:08	07:19 19:39	08:28 18:14	08:41 16:04	09:27 15:43 (24)
23	09:03 16:34	12:09 (24) 12:28 (24)	07:52 17:50	06:33 18:56	06:05 21:07	04:54 22:14	04:27 22:51	05:05 22:20	06:13 21:05	07:22 19:36	08:30 18:12	08:43 16:02	09:27 15:44 (24)
24	09:02 16:37	12:10 (24) 12:27 (24)	07:49 17:53	06:30 18:58	06:02 21:10	04:52 22:16	04:27 22:51	05:07 22:18	06:15 21:02	07:24 19:33	08:32 18:09	08:45 16:01	09:28 15:44 (24)
25	09:00 16:39	12:12 (24) 12:27 (24)	07:46 17:55	06:27 19:01	06:00 21:12	04:51 22:18	04:28 22:51	05:09 22:16	06:17 20:59	07:26 19:30	08:35 18:07	08:48 15:59	09:28 15:45 (24)
26	08:58 16:41	12:14 (24) 12:25 (24)	07:44 17:57	06:24 19:03	05:57 21:14	04:49 22:20	04:28 22:50	05:11 22:14	06:20 20:57	07:28 19:27	08:37 17:04	08:50 15:58	09:28 15:46 (24)
27	08:56 16:44	12:17 (24) 12:21 (24)	07:41 18:00	06:21 19:05	05:54 21:17	04:47 22:22	04:29 22:50	05:13 22:12	06:22 20:54	07:30 19:25	08:39 17:01	08:52 15:56	09:28 15:47 (24)
28	08:54 16:46	12:21 (24)	07:38 18:02	06:18 19:08	05:52 21:19	04:46 22:24	04:30 22:50	05:16 22:10	06:24 20:51	07:33 19:22	08:42 16:59	08:54 15:55	09:29 15:48 (24)
29	08:52 16:49		07:15 20:10	05:49 21:21	04:44 22:26	04:30 22:50	04:30 22:50	05:18 22:08	06:26 20:48	07:35 19:19	08:44 16:56	08:56 15:54	09:28 15:49 (24)
30	08:50 16:51		07:13 20:12	05:46 21:24	04:42 22:27	04:31 22:49	04:31 22:49	05:20 22:05	06:29 20:45	07:37 19:16	08:47 16:54	08:58 15:52	09:28 15:50 (24)
31	08:48 16:54		07:10 20:14	05:44 22:29	04:41 22:29	04:41 22:29	04:41 22:29	05:22 22:03	06:31 20:43	07:49 16:51	08:59 16:51	09:09 15:51	09:28 13:35 (25)
Potential sun hours	221	260	365	432	521	547	546	478	386	319	236	199	199
Total, worst case	820									371			1193

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)		Last time (hh:mm) with flicker	(WTG causing flicker last time)

SHADOW - Calendar

Calculation: Oppdatert layout - med nærliggende - worst case - oppdatert mottaker **Shadow receptor:** W - Osland 85 (23)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

The sun is shining all the day, from sunrise to sunset

The rotor plane is always perpendicular to the line from the WTG to the sun

The WTG is always operating

	January	February	March	April	May	June
1	09:28	12:21 (25) 08:46	10:00 (29) 07:35	07:07	05:44	07:10 (76) 04:40
	15:53	20 12:41 (25) 16:56	20 10:20 (29) 18:05	20:17	21:26	11 07:21 (76) 22:31
2	09:28	12:21 (25) 08:44	09:59 (29) 07:33	07:04	05:41	06:28 (79) 04:38
	15:54	20 12:41 (25) 16:58	20 10:19 (29) 18:07	20:19	21:28	15 07:19 (76) 22:32
3	09:27	12:22 (25) 08:41	10:00 (29) 07:30	07:01	05:39	06:26 (79) 04:37
	15:55	19 12:41 (25) 17:01	20 10:20 (29) 18:09	20:21	21:31	10 06:36 (79) 22:34
4	09:27	12:22 (25) 08:39	10:00 (29) 07:27	06:58	05:36	06:25 (79) 04:36
	15:57	20 12:42 (25) 17:03	20 10:20 (29) 18:12	20:24	21:33	12 06:37 (79) 22:35
5	09:26	11:11 (24) 08:37	10:01 (29) 07:24	06:55	05:34	06:25 (79) 04:35
	15:58	25 12:42 (25) 17:06	19 10:20 (29) 18:14	20:26	21:35	13 06:38 (79) 22:37
6	09:25	11:10 (24) 08:35	10:01 (29) 07:21	06:52	05:31	06:24 (79) 04:34
	16:00	27 12:42 (25) 17:08	18 10:19 (29) 18:17	20:28	21:37	13 06:37 (79) 22:38
7	09:25	11:10 (24) 08:32	10:01 (29) 07:19	06:50	05:29	06:24 (79) 04:33
	16:02	28 12:42 (25) 17:11	17 10:18 (29) 18:19	20:31	21:40	13 06:37 (79) 22:39
8	09:24	11:09 (24) 08:30	10:03 (29) 07:16	06:47	05:26	06:24 (79) 04:32
	16:03	29 12:42 (25) 17:13	15 10:18 (29) 18:21	20:33	21:42	13 06:37 (79) 22:41
9	09:23	11:09 (24) 08:27	10:04 (29) 07:13	06:44	05:24	06:25 (79) 04:31
	16:05	30 12:42 (25) 17:16	12 10:16 (29) 18:24	20:35	21:44	12 06:37 (79) 22:42
10	09:22	11:08 (24) 08:25	10:07 (29) 07:10	06:41	05:22	06:25 (79) 04:30
	16:07	30 12:42 (25) 17:18	5 10:12 (29) 18:26	20:37	21:47	11 06:36 (79) 22:43
11	09:21	11:09 (24) 08:23	07:07	06:38	05:19	06:26 (79) 04:29
	16:09	29 12:42 (25) 17:21	18:28	20:40	21:49	9 06:35 (79) 22:44
12	09:20	11:08 (24) 08:20	07:04	06:35	05:17	06:28 (79) 04:29
	16:11	27 12:40 (25) 17:23	18:31	20:42	21:51	6 06:34 (79) 22:45
13	09:19	11:08 (24) 08:18	07:02	06:33	05:15	04:28
	16:13	25 12:39 (25) 17:26	18:33	20:44	21:53	22:46
14	09:17	11:08 (24) 08:15	06:59	06:30	05:13	04:28
	16:15	20 11:28 (24) 17:28	18:35	20:47	21:55	22:47
15	09:16	11:08 (24) 08:13	06:56	06:27	05:10	04:27
	16:17	21 11:29 (24) 17:31	18:38	20:49	21:58	22:47
16	09:15	11:08 (24) 08:10	06:53	06:24	05:08	04:27
	16:19	21 11:29 (24) 17:33	18:40	20:51	22:00	22:48
17	09:13	11:09 (24) 08:08	06:50	06:21	07:11 (77) 05:06	04:27
	16:21	22 11:31 (24) 17:36	18:42	20:54	3 07:14 (77) 22:02	22:49
18	09:12	11:09 (24) 08:05	06:47	06:19	07:08 (77) 05:04	04:27
	16:23	22 11:31 (24) 17:38	18:45	20:56	9 07:17 (77) 22:04	22:49
19	09:10	11:09 (24) 08:02	06:44	06:16	07:05 (77) 05:02	04:27
	16:25	22 11:31 (24) 17:40	18:47	20:58	12 07:17 (77) 22:06	22:50
20	09:09	11:09 (24) 08:00	06:41	06:13	07:04 (77) 05:00	04:27
	16:28	23 11:32 (24) 17:43	18:49	21:01	18 07:22 (76) 22:08	22:50
21	09:07	11:09 (24) 07:57	06:39	06:10	07:04 (77) 04:58	04:27
	16:30	23 11:32 (24) 17:45	18:52	21:03	20 07:24 (76) 22:10	22:50
22	09:05	11:10 (24) 07:54	06:36	06:08	07:03 (77) 04:56	04:27
	16:32	22 11:32 (24) 17:48	18:54	21:05	22 07:25 (76) 22:12	22:50
23	09:03	11:10 (24) 07:52	06:33	06:05	07:04 (77) 04:54	04:27
	16:34	22 11:32 (24) 17:50	18:56	21:07	22 07:26 (76) 22:14	22:51
24	09:02	11:10 (24) 07:49	06:30	06:02	07:03 (77) 04:52	04:27
	16:37	22 11:32 (24) 17:53	18:58	21:10	22 07:25 (76) 22:16	22:51
25	09:00	10:05 (29) 07:46	06:27	06:00	07:04 (77) 04:51	04:28
	16:39	27 11:32 (24) 17:55	19:01	21:12	22 07:26 (76) 22:18	22:51
26	08:58	10:03 (29) 07:44	06:24	05:57	07:05 (77) 04:49	04:28
	16:42	31 11:32 (24) 17:57	19:03	21:14	20 07:25 (76) 22:20	22:50
27	08:56	10:02 (29) 07:41	06:21	05:54	07:07 (77) 04:47	04:29
	16:44	32 11:31 (24) 18:00	19:05	21:17	19 07:26 (76) 22:22	22:50
28	08:54	10:00 (29) 07:38	06:18	05:52	07:08 (76) 04:46	04:30
	16:46	32 11:30 (24) 18:02	19:08	21:19	16 07:24 (76) 22:24	22:50
29	08:52	10:00 (29)	07:15	05:49	07:08 (76) 04:44	04:30
	16:49	30 11:29 (24)	20:10	21:21	16 07:24 (76) 22:26	22:50
30	08:50	09:59 (29)	07:13	05:46	07:08 (76) 04:43	04:31
	16:51	29 11:27 (24)	20:12	21:24	14 07:22 (76) 22:27	22:49
31	08:48	09:59 (29)	07:10		04:41	
	16:54	20 10:19 (29)	20:14		22:29	
Potential sun hours	221	260	365	432	521	547
Total, worst case	770	166		235	138	

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Calculation: Oppdatert layout - med nærliggende - worst case - oppdatert mottaker **Shadow receptor:** W - Osland 85 (23)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

The sun is shining all the day, from sunrise to sunset

The rotor plane is always perpendicular to the line from the WTG to the sun

The WTG is always operating

	July	August	September	October	November	December
1	04:32 22:49	05:24 22:01	06:37 (79) 06:45 (79)	06:33 20:40	07:39 19:13	07:51 16:49
2	04:33 22:48	05:26 21:59	06:36 (79) 06:46 (79)	06:35 20:37	07:42 19:10	07:54 16:46
3	04:34 22:47	05:28 21:56	06:35 (79) 06:47 (79)	06:38 20:34	07:44 19:07	07:56 16:44
4	04:35 22:47	05:31 21:54	06:35 (79) 06:47 (79)	06:40 20:31	07:46 19:04	07:59 16:41
5	04:36 22:46	05:33 21:52	06:34 (79) 06:48 (79)	06:42 20:28	07:48 19:02	08:01 16:39
6	04:37 22:45	05:35 21:49	06:34 (79) 06:48 (79)	06:44 20:25	07:51 18:59	08:03 16:37
7	04:39 22:44	05:37 21:47	06:34 (79) 06:48 (79)	06:46 20:23	07:53 18:56	08:06 16:34
8	04:40 22:43	05:39 21:44	06:34 (79) 06:47 (79)	06:49 20:20	07:55 18:53	08:08 16:32
9	04:41 22:42	05:42 21:42	06:35 (79) 06:46 (79)	06:51 20:17	07:57 18:50	08:11 16:30
10	04:43 22:41	05:44 21:39	06:36 (79) 06:45 (79)	06:53 20:14	08:00 18:47	08:13 16:28
11	04:44 22:39	05:46 21:37	06:37 (79) 07:29 (76)	06:55 20:11	08:02 18:45	08:15 16:26
12	04:46 22:38	05:48 21:34	07:18 (76) 07:30 (76)	06:57 20:08	08:04 18:42	08:18 16:23
13	04:47 22:37	05:51 21:32	07:17 (76) 07:31 (76)	07:00 20:05	08:07 18:39	08:20 16:21
14	04:49 22:35	05:53 21:29	07:16 (76) 07:32 (76)	07:02 20:02	08:09 18:36	08:23 16:19
15	04:51 22:34	05:55 21:26	07:15 (76) 07:32 (76)	07:04 19:59	08:11 18:33	08:25 16:17
16	04:52 22:32	05:57 21:24	07:13 (77) 07:32 (76)	07:06 19:57	08:14 18:31	08:27 16:15
17	04:54 22:31	06:00 21:21	07:11 (77) 07:32 (76)	07:08 19:54	08:16 18:28	08:30 16:13
18	04:56 22:29	06:02 21:18	07:10 (77) 07:32 (76)	07:11 19:51	08:18 18:25	08:32 16:11
19	04:58 22:27	06:04 21:16	07:09 (77) 07:31 (76)	07:13 19:48	08:21 18:23	08:34 16:09
20	05:00 22:25	06:06 21:13	07:09 (77) 07:31 (76)	07:15 19:45	08:23 18:20	08:36 16:08
21	05:02 22:24	06:09 21:10	07:09 (77) 07:30 (76)	07:17 19:42	08:25 18:17	08:39 16:06
22	05:03 22:22	06:11 21:08	07:08 (77) 07:29 (76)	07:19 19:39	08:28 18:14	08:41 16:04
23	05:05 22:20	06:13 21:05	07:08 (77) 07:26 (76)	07:22 19:36	08:30 18:12	08:43 16:02
24	05:07 22:18	06:15 21:02	07:09 (77) 07:21 (77)	07:24 19:33	08:32 18:09	08:45 16:01
25	05:09 22:16	06:17 20:59	07:11 (77) 07:19 (77)	07:26 19:30	07:35 17:07	08:48 15:59
26	05:11 22:14	06:20 20:57	07:14 (77) 07:16 (77)	07:28 19:27	07:37 17:04	08:50 15:58
27	05:14 22:12	06:22 20:54	07:16 (77)	07:30 19:25	07:39 17:01	08:52 15:56
28	05:16 22:10	06:24 20:51		07:33 19:22	07:42 16:59	08:54 15:55
29	05:18 22:08	06:26 20:48		07:35 19:19	07:44 16:56	08:56 15:54
30	05:20 22:05	06:29 20:45		07:37 19:16	07:47 16:54	08:58 15:52
31	05:22 22:03	06:41 (79) 06:42 (79)	06:31 20:43		07:49 16:51	
Potential sun hours	546	478	386	319	236	199
Total, worst case	1	380			663	699

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Calculation: Oppdatert layout - med nærliggende - worst case - oppdatert mottaker **Shadow receptor:** X - Osland 65 (24)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

The sun is shining all the day, from sunrise to sunset

The rotor plane is always perpendicular to the line from the WTG to the sun

The WTG is always operating

	January	February	March	April	May	June
1	09:28	11:14 (24) 08:46	10:11 (29) 07:35	07:07	05:44	06:33 (79) 04:40
	15:53	31 12:43 (25) 16:56	18 10:29 (29) 18:05	20:17	21:26	14 06:47 (79) 22:31
2	09:28	11:14 (24) 08:44	10:11 (29) 07:33	07:04	05:41	06:33 (79) 04:38
	15:54	30 12:43 (25) 16:58	17 10:28 (29) 18:07	20:19	21:28	14 06:47 (79) 22:32
3	09:27	11:13 (24) 08:41	10:13 (29) 07:30	07:01	05:39	06:33 (79) 04:37
	15:55	31 12:43 (25) 17:01	14 10:27 (29) 18:09	20:21	21:31	13 06:46 (79) 22:34
4	09:27	11:13 (24) 08:39	10:14 (29) 07:27	06:58	05:36	06:33 (79) 04:36
	15:57	31 12:43 (25) 17:03	11 10:25 (29) 18:12	20:24	21:33	13 06:46 (79) 22:35
5	09:26	11:14 (24) 08:37	10:17 (29) 07:24	06:55	05:34	06:34 (79) 04:35
	15:58	29 12:43 (25) 17:06	6 10:23 (29) 18:14	20:26	21:35	12 06:46 (79) 22:37
6	09:25	11:14 (24) 08:35	07:21	06:52	05:31	06:34 (79) 04:34
	16:00	28 12:42 (25) 17:08	18:17	20:28	21:37	10 06:44 (79) 22:38
7	09:25	11:14 (24) 08:32	07:19	06:50	05:29	06:35 (79) 04:33
	16:02	26 12:41 (25) 17:11	18:19	20:31	21:40	8 06:43 (79) 22:39
8	09:24	11:15 (24) 08:30	07:16	06:47	05:26	06:38 (79) 04:32
	16:03	20 11:35 (24) 17:13	18:21	20:33	21:42	2 06:40 (79) 22:41
9	09:23	11:15 (24) 08:27	07:13	06:44	05:24	04:31
	16:05	21 11:36 (24) 17:16	18:24	20:35	21:44	22:42
10	09:22	11:15 (24) 08:25	07:10	06:41	05:22	04:30
	16:07	21 11:36 (24) 17:18	18:26	20:37	21:47	22:43
11	09:21	11:15 (24) 08:23	07:07	06:38	05:19	04:29
	16:09	22 11:37 (24) 17:21	18:28	20:40	21:49	22:44
12	09:20	11:15 (24) 08:20	07:04	06:35	05:17	04:29
	16:11	22 11:37 (24) 17:23	18:31	20:42	21:51	22:45
13	09:19	11:16 (24) 08:18	07:02	06:33	05:15	04:28
	16:13	22 11:38 (24) 17:26	18:33	20:44	9 07:27 (77) 21:53	22:46
14	09:17	11:16 (24) 08:15	06:59	06:30	07:16 (77) 05:13	04:28
	16:15	22 11:38 (24) 17:28	18:35	20:47	19 07:35 (76) 21:55	22:47
15	09:16	11:16 (24) 08:13	06:56	06:27	07:16 (77) 05:10	04:27
	16:17	22 11:38 (24) 17:31	18:38	20:49	22 07:38 (76) 21:58	22:47
16	09:15	11:16 (24) 08:10	06:53	06:24	07:15 (77) 05:08	04:27
	16:19	22 11:38 (24) 17:33	18:40	20:51	24 07:39 (76) 22:00	22:48
17	09:13	11:18 (24) 08:08	06:50	06:21	07:14 (77) 05:06	04:27
	16:21	21 11:39 (24) 17:36	18:42	20:54	25 07:39 (76) 22:02	22:49
18	09:12	11:18 (24) 08:05	06:47	06:19	07:14 (77) 05:04	04:27
	16:23	21 11:39 (24) 17:38	18:45	20:56	26 07:40 (76) 22:04	22:49
19	09:10	10:13 (29) 08:02	06:44	06:16	07:14 (77) 05:02	04:27
	16:25	27 11:39 (24) 17:40	18:47	20:58	26 07:40 (76) 22:06	22:50
20	09:09	10:12 (29) 08:00	06:41	06:13	07:14 (77) 05:00	04:27
	16:28	30 11:39 (24) 17:43	18:49	21:01	25 07:39 (76) 22:08	22:50
21	09:07	10:11 (29) 07:57	06:39	06:10	07:16 (77) 04:58	04:27
	16:30	32 11:39 (24) 17:45	18:52	21:03	23 07:39 (76) 22:10	22:50
22	09:05	10:10 (29) 07:54	06:36	06:08	07:17 (77) 04:56	04:27
	16:32	32 11:38 (24) 17:48	18:54	21:05	21 07:38 (76) 22:12	22:51
23	09:03	10:09 (29) 07:52	06:33	06:05	07:22 (76) 04:54	04:27
	16:34	31 11:37 (24) 17:50	18:56	21:07	16 07:38 (76) 22:14	22:51
24	09:02	10:09 (29) 07:49	06:30	06:02	07:22 (76) 04:52	04:27
	16:37	29 11:36 (24) 17:53	18:58	21:10	14 07:36 (76) 22:16	22:51
25	09:00	10:09 (29) 07:46	06:27	06:00	07:24 (76) 04:51	04:28
	16:39	26 11:34 (24) 17:55	19:01	21:12	11 07:35 (76) 22:18	22:51
26	08:58	10:09 (29) 07:44	06:24	05:57	07:25 (76) 04:49	04:28
	16:41	19 10:28 (29) 17:57	19:03	21:14	7 07:32 (76) 22:20	22:51
27	08:56	10:09 (29) 07:41	06:21	05:54	06:39 (79) 04:47	04:29
	16:44	20 10:29 (29) 18:00	19:05	21:17	4 06:43 (79) 22:22	22:50
28	08:54	10:09 (29) 07:38	06:18	05:52	06:36 (79) 04:46	04:30
	16:46	19 10:28 (29) 18:02	19:08	21:19	9 06:45 (79) 22:24	22:50
29	08:52	10:09 (29)	07:15	05:49	06:35 (79) 04:44	04:30
	16:49	20 10:29 (29)	20:10	21:21	11 06:46 (79) 22:26	22:50
30	08:50	10:09 (29)	07:13	05:46	06:33 (79) 04:43	04:31
	16:51	19 10:28 (29)	20:12	21:24	13 06:46 (79) 22:27	22:49
31	08:48	10:10 (29)	07:10		04:41	
	16:54	19 10:29 (29)	20:14		22:29	
Potential sun hours	221	260	365	432	521	547
Total, worst case	765	66		305	86	

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Calculation: Oppdatert layout - med nærliggende - worst case - oppdatert mottaker **Shadow receptor:** X - Osland 65 (24)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

The sun is shining all the day, from sunrise to sunset

The rotor plane is always perpendicular to the line from the WTG to the sun

The WTG is always operating

	July	August	September	October	November	December	
1	04:32	05:24	06:33	07:39	07:51	09:00	10:57 (24)
	22:49	22:01	20:40	19:13	16:49	15:51	22 11:19 (24)
2	04:33	05:26	06:35	07:42	07:54	09:02	10:58 (24)
	22:48	21:59	20:37	19:10	16:46	15:50	21 11:19 (24)
3	04:34	05:28	06:38	07:44	07:56	09:04	10:58 (24)
	22:47	21:56	20:34	19:07	16:44	15:49	21 11:19 (24)
4	04:35	05:31	06:40	07:46	07:59	09:05	10:59 (24)
	22:47	21:54	20:31	19:04	16:41	15:48	20 11:19 (24)
5	04:36	05:33	06:47 (79)	07:48	08:01	09:07	10:59 (24)
	22:46	21:52	20:28	19:02	16:39	15:47	26 12:26 (25)
6	04:37	05:35	06:45 (79)	07:51	08:03	09:47 (29)	09:09
	22:45	21:49	20:25	18:59	16:37	09:54 (29)	15:46 28 12:28 (25)
7	04:39	05:37	06:44 (79)	07:53	08:06	09:45 (29)	09:10
	22:44	21:47	20:23	18:56	16:34	09:56 (29)	15:45 29 12:30 (25)
8	04:40	05:39	06:43 (79)	07:55	08:08	09:43 (29)	09:12
	22:43	21:44	20:20	18:53	16:32	09:57 (29)	15:45 30 12:31 (25)
9	04:41	05:42	06:42 (79)	07:57	08:11	09:42 (29)	09:14
	22:42	21:42	20:17	18:50	16:30	09:59 (29)	15:44 30 12:32 (25)
10	04:43	05:44	06:42 (79)	08:00	08:13	09:42 (29)	09:15
	22:41	21:39	20:14	18:47	16:28	10:00 (29)	15:44 30 12:32 (25)
11	04:44	05:46	06:42 (79)	08:02	08:15	09:41 (29)	09:16
	22:39	21:37	20:11	18:45	16:26	10:00 (29)	15:43 31 12:34 (25)
12	04:46	05:48	06:42 (79)	08:04	08:18	09:41 (29)	09:18
	22:38	21:34	20:08	18:42	16:23	10:00 (29)	15:43 31 12:34 (25)
13	04:47	05:51	06:42 (79)	08:07	08:20	09:41 (29)	09:19
	22:37	21:32	20:05	18:39	16:21	10:01 (29)	15:42 31 12:35 (25)
14	04:49	05:53	06:43 (79)	08:09	08:23	09:42 (29)	09:20
	22:35	21:29	20:02	18:36	16:19	10:01 (29)	15:42 30 12:35 (25)
15	04:51	05:55	06:44 (79)	08:11	08:25	09:41 (29)	09:21
	22:34	21:26	19:59	18:33	16:17	10:01 (29)	15:42 31 12:36 (25)
16	04:52	05:57	07:06	08:14	08:27	09:42 (29)	09:22
	22:32	21:24	19:57	18:31	16:15	10:01 (29)	15:42 30 12:37 (25)
17	04:54	06:00	07:31 (76)	08:16	08:30	09:43 (29)	09:23
	22:31	21:21	19:54	18:28	16:13	11:08 (24)	15:42 30 12:38 (25)
18	04:56	06:02	07:29 (76)	08:18	08:32	09:43 (29)	09:24
	22:29	21:18	19:51	18:25	16:11	11:10 (24)	15:42 28 12:37 (25)
19	04:58	06:04	07:27 (76)	08:21	08:34	09:44 (29)	09:25
	22:27	21:16	19:48	18:23	16:09	11:12 (24)	15:42 30 12:38 (25)
20	05:00	06:06	07:27 (76)	08:23	08:36	09:45 (29)	09:26
	22:25	21:13	19:45	18:20	16:08	11:13 (24)	15:43 30 12:39 (25)
21	05:01	06:09	07:22 (77)	08:25	08:39	09:46 (29)	09:26
	22:24	21:10	19:42	18:17	16:06	11:14 (24)	15:43 29 12:40 (25)
22	05:03	06:11	07:20 (77)	08:28	08:41	09:48 (29)	09:27
	22:22	21:08	19:39	18:14	16:04	11:15 (24)	15:43 29 12:40 (25)
23	05:05	06:13	07:19 (77)	08:30	08:43	09:49 (29)	09:27
	22:20	21:05	19:36	18:12	16:02	11:15 (24)	15:44 30 12:40 (25)
24	05:07	06:15	07:18 (77)	08:32	08:45	10:55 (24)	09:28
	22:18	21:02	19:33	18:09	16:01	11:16 (24)	15:45 30 12:41 (25)
25	05:09	06:17	07:17 (77)	08:35	08:48	10:55 (24)	09:28
	22:16	20:59	19:30	17:07	15:59	11:16 (24)	15:45 29 12:41 (25)
26	05:11	06:20	07:17 (77)	08:37	08:50	10:55 (24)	09:28
	22:14	20:57	19:27	17:04	15:58	11:17 (24)	15:46 30 12:42 (25)
27	05:14	06:22	07:16 (77)	08:39	08:52	10:55 (24)	09:28
	22:12	20:54	19:25	17:01	15:56	11:17 (24)	15:47 30 12:42 (25)
28	05:16	06:24	07:17 (77)	08:42	08:54	10:56 (24)	09:29
	22:10	20:51	19:22	16:59	15:55	11:18 (24)	15:48 31 12:43 (25)
29	05:18	06:26	07:17 (77)	08:44	08:56	10:56 (24)	09:29
	22:08	20:48	19:19	16:56	15:54	11:18 (24)	15:49 31 12:42 (25)
30	05:20	06:29	07:18 (77)	08:47	08:58	10:56 (24)	09:28
	22:05	20:45	19:16	16:54	15:52	11:18 (24)	15:50 31 12:43 (25)
31	05:22	06:31	07:49			09:28	11:14 (24)
	22:03	20:43	16:51			15:51	30 12:43 (25)
Potential sun hours	546	478	386	319	236	199	889
Total, worst case		394			542		

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Calculation: Oppdatert layout - med nærliggende - worst case - oppdatert mottaker **Shadow receptor:** Y - Brusalivegen 215 (25)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

The sun is shining all the day, from sunrise to sunset

The rotor plane is always perpendicular to the line from the WTG to the sun

The WTG is always operating

	January	February	March	April	May	June			
1	09:28	08:46	07:35	08:18 (63)	07:07	05:44	04:40	06:16 (1)	
	15:53	16:56	18:05	13 08:31 (63)	20:17	21:26	22:30	29 06:45 (1)	
2	09:27	08:43	07:33	08:19 (63)	07:04	05:42	04:39	06:15 (1)	
	15:54	16:59	18:07	10 08:29 (63)	20:19	21:28	22:32	31 06:46 (1)	
3	09:27	08:41	07:30	08:22 (63)	07:01	05:39	04:38	06:14 (1)	
	15:56	17:01	18:10	4 08:26 (63)	20:21	21:31	22:33	32 06:46 (1)	
4	09:26	08:39	07:27		06:58	05:37	04:36	06:14 (1)	
	15:57	17:04	18:12		20:24	21:33	22:35	32 06:46 (1)	
5	09:26	08:37	07:24		06:55	05:34	04:35	06:14 (1)	
	15:59	17:06	18:14		20:26	21:35	22:36	32 06:46 (1)	
6	09:25	08:34	07:21		06:53	05:32	04:34	06:13 (1)	
	16:00	17:09	18:17		20:28	21:37	22:38	33 06:46 (1)	
7	09:24	08:32	07:19	07:48 (62)	06:50	05:29	04:33	06:12 (1)	
	16:02	17:11	18:19	7 07:55 (62)	20:31	21:40	22:39	34 06:46 (1)	
8	09:24	08:30	07:16	07:46 (62)	06:47	05:27	04:32	06:12 (1)	
	16:04	17:14	18:21	10 07:56 (62)	20:33	21:42	22:40	34 06:46 (1)	
9	09:23	08:27	07:13	07:44 (62)	06:44	05:24	04:31	06:13 (1)	
	16:06	17:16	18:24	13 07:57 (62)	20:35	21:44	22:41	34 06:47 (1)	
10	09:22	08:25	07:10	07:44 (62)	06:41	05:22	04:31	06:13 (1)	
	16:07	17:19	18:26	14 07:58 (62)	20:37	21:46	22:43	33 06:46 (1)	
11	09:21	08:23	07:07	07:44 (62)	06:38	05:20	04:30	06:14 (1)	
	16:09	17:21	18:28	14 07:58 (62)	20:40	21:49	22:44	33 06:47 (1)	
12	09:20	08:20	07:04	07:44 (62)	06:36	05:17	04:29	06:13 (1)	
	16:11	17:23	18:31	13 07:57 (62)	20:42	21:51	22:45	33 06:46 (1)	
13	09:18	08:18	07:02	07:44 (62)	06:33	05:15	04:29	06:14 (1)	
	16:13	17:26	18:33	12 07:56 (62)	20:44	21:53	22:46	33 06:47 (1)	
14	09:17	08:15	06:59	07:45 (62)	06:30	05:13	04:28	06:15 (1)	
	16:15	17:28	18:35	10 07:55 (62)	20:47	21:55	22:46	32 06:47 (1)	
15	09:16	08:13	06:56	07:46 (62)	06:27	05:11	06:38 (1)	04:28	06:14 (1)
	16:17	17:31	18:38	6 07:52 (62)	20:49	21:57	2 06:40 (1)	22:47	32 06:46 (1)
16	09:14	08:10	06:53		06:24	05:09	06:37 (1)	04:28	06:15 (1)
	16:19	17:33	18:40		20:51	22:00	4 06:41 (1)	22:48	32 06:47 (1)
17	09:13	08:07	06:50		06:22	05:06	06:35 (1)	04:27	06:15 (1)
	16:21	17:36	18:42		20:54	22:02	6 06:41 (1)	22:48	32 06:47 (1)
18	09:12	08:05	06:47		06:19	05:04	06:34 (1)	04:27	06:15 (1)
	16:24	17:38	18:45		20:56	22:04	9 06:43 (1)	22:49	32 06:47 (1)
19	09:10	08:02	06:44		06:16	05:02	06:32 (1)	04:27	06:16 (1)
	16:26	17:41	18:47		20:58	22:06	11 06:43 (1)	22:49	31 06:47 (1)
20	09:08	08:00	06:42		06:13	05:00	06:31 (1)	04:27	06:16 (1)
	16:28	17:43	18:49		21:00	22:08	12 06:43 (1)	22:50	31 06:47 (1)
21	09:07	07:57	06:39		06:11	04:58	06:29 (1)	04:27	06:16 (1)
	16:30	17:46	18:52		21:03	22:10	14 06:43 (1)	22:50	31 06:47 (1)
22	09:05	07:54	08:23 (63)	06:36	06:08	04:56	06:28 (1)	04:27	06:17 (1)
	16:32	17:48	5 08:28 (63)	18:54	21:05	22:12	16 06:44 (1)	22:50	31 06:48 (1)
23	09:03	07:52	08:21 (63)	06:33	06:05	04:55	06:26 (1)	04:28	06:17 (1)
	16:35	17:50	10 08:31 (63)	18:56	21:07	22:14	18 06:44 (1)	22:50	31 06:48 (1)
24	09:02	07:49	08:18 (63)	06:30	06:02	04:53	06:26 (1)	04:28	06:16 (1)
	16:37	17:53	13 08:31 (63)	18:58	21:10	22:16	19 06:45 (1)	22:50	32 06:48 (1)
25	09:00	07:46	08:17 (63)	06:27	06:00	04:51	06:24 (1)	04:28	06:17 (1)
	16:39	17:55	15 08:32 (63)	19:01	21:12	22:18	21 06:45 (1)	22:50	32 06:49 (1)
26	08:58	07:44	08:17 (63)	06:24	05:57	04:49	06:23 (1)	04:29	06:17 (1)
	16:42	17:58	15 08:32 (63)	19:03	21:14	22:20	22 06:45 (1)	22:50	32 06:49 (1)
27	08:56	07:41	08:17 (63)	06:21	05:54	04:48	06:21 (1)	04:29	06:17 (1)
	16:44	18:00	14 08:31 (63)	19:05	21:17	22:22	24 06:45 (1)	22:50	32 06:49 (1)
28	08:54	07:38	08:17 (63)	06:18	05:52	04:46	06:20 (1)	04:30	06:17 (1)
	16:47	18:02	14 08:31 (63)	19:08	21:19	22:24	25 06:45 (1)	22:50	32 06:49 (1)
29	08:52			07:16	05:49	04:44	06:20 (1)	04:31	06:17 (1)
	16:49			20:10	21:21	22:25	26 06:46 (1)	22:49	33 06:50 (1)
30	08:50			07:13	05:47	04:43	06:19 (1)	04:32	06:18 (1)
	16:51			20:12	21:24	22:27	27 06:46 (1)	22:49	32 06:50 (1)
31	08:48			07:10		04:41	06:17 (1)		
	16:54			20:14		22:29	28 06:45 (1)		
Potential sun hours	221	260	365	432	521	547			
Total, worst case		86	126	284	963				

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)		Last time (hh:mm) with flicker	(WTG causing flicker last time)

SHADOW - Calendar

Calculation: Oppdatert layout - med nærliggende - worst case - oppdatert mottaker **Shadow receptor:** Y - Brusalivegen 215 (25)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

The sun is shining all the day, from sunrise to sunset

The rotor plane is always perpendicular to the line from the WTG to the sun

The WTG is always operating

	July	August	September	October	November	December		
1	04:32	06:18 (1)	05:24	06:33	07:39	08:23 (62)	07:51	09:00
	22:48	33 06:51 (1)	22:01	20:40	19:13	13 08:36 (62)	16:49	15:52
2	04:33	06:18 (1)	05:27	06:35	07:42	08:22 (62)	07:54	09:01
	22:48	33 06:51 (1)	21:58	20:37	19:10	14 08:36 (62)	16:47	15:50
3	04:34	06:17 (1)	05:29	06:38	07:44	08:21 (62)	07:56	09:03
	22:47	34 06:51 (1)	21:56	20:34	19:07	14 08:35 (62)	16:44	15:49
4	04:35	06:18 (1)	05:31	06:40	07:46	08:22 (62)	07:59	09:05
	22:46	33 06:51 (1)	21:54	20:31	19:05	13 08:35 (62)	16:42	15:48
5	04:37	06:18 (1)	05:33	06:42	07:48	08:22 (62)	08:01	09:07
	22:46	33 06:51 (1)	21:51	20:28	19:02	12 08:34 (62)	16:39	15:47
6	04:38	06:19 (1)	05:35	06:44	07:51	08:23 (62)	08:03	09:09
	22:45	34 06:53 (1)	21:49	20:25	18:59	9 08:32 (62)	16:37	15:47
7	04:39	06:20 (1)	05:38	06:47	07:53	08:27 (62)	08:06	09:10
	22:44	33 06:53 (1)	21:47	20:23	18:56	2 08:29 (62)	16:35	15:46
8	04:40	06:21 (1)	05:40	06:49	07:55		08:08	09:12
	22:43	32 06:53 (1)	21:44	20:20	18:53		16:32	15:45
9	04:42	06:21 (1)	05:42	06:51	07:57		08:11	09:13
	22:42	32 06:53 (1)	21:42	20:17	18:50		16:30	15:44
10	04:43	06:22 (1)	05:44	06:53	08:00		08:13	09:15
	22:40	31 06:53 (1)	21:39	20:14	18:48		16:28	15:44
11	04:45	06:24 (1)	05:46	06:55	08:02	08:54 (63)	08:15	09:16
	22:39	30 06:54 (1)	21:37	20:11	18:45	7 09:01 (63)	16:26	15:43
12	04:46	06:25 (1)	05:49	06:58	08:04	08:51 (63)	08:18	09:17
	22:38	29 06:54 (1)	21:34	20:08	18:42	11 09:02 (63)	16:24	15:43
13	04:48	06:26 (1)	05:51	07:00	08:07	08:51 (63)	08:20	09:19
	22:36	28 06:54 (1)	21:32	20:05	18:39	13 09:04 (63)	16:22	15:43
14	04:49	06:28 (1)	05:53	07:02	08:09	08:49 (63)	08:22	09:20
	22:35	26 06:54 (1)	21:29	20:02	18:36	15 09:04 (63)	16:19	15:43
15	04:51	06:28 (1)	05:55	07:04	08:11	08:49 (63)	08:25	09:21
	22:34	26 06:54 (1)	21:26	19:59	18:34	15 09:04 (63)	16:17	15:42
16	04:53	06:30 (1)	05:58	07:06	08:14	08:49 (63)	08:27	09:22
	22:32	24 06:54 (1)	21:24	19:57	18:31	15 09:04 (63)	16:15	15:42
17	04:54	06:31 (1)	06:00	07:09	08:16	08:50 (63)	08:29	09:23
	22:30	23 06:54 (1)	21:21	19:54	18:28	14 09:04 (63)	16:14	15:42
18	04:56	06:33 (1)	06:02	07:11	08:18	08:50 (63)	08:32	09:24
	22:29	21 06:54 (1)	21:18	19:51	18:25	12 09:02 (63)	16:12	15:42
19	04:58	06:35 (1)	06:04	07:13	08:21	08:53 (63)	08:34	09:25
	22:27	20 06:55 (1)	21:16	19:48	18:23	8 09:01 (63)	16:10	15:43
20	05:00	06:35 (1)	06:07	07:15	08:23	08:55 (63)	08:36	09:25
	22:25	19 06:54 (1)	21:13	19:45	18:20	3 08:58 (63)	16:08	15:43
21	05:02	06:37 (1)	06:09	07:17	08:25		08:39	09:26
	22:23	17 06:54 (1)	21:10	19:42	18:17		16:06	15:43
22	05:04	06:39 (1)	06:11	07:20	08:28		08:41	09:27
	22:22	15 06:54 (1)	21:08	19:39	18:15		16:04	15:44
23	05:06	06:40 (1)	06:13	07:22	08:30		08:43	09:27
	22:20	13 06:53 (1)	21:05	19:36	18:12		16:03	15:44
24	05:08	06:42 (1)	06:15	07:24	08:32		08:45	09:28
	22:18	11 06:53 (1)	21:02	19:33	18:09		16:01	15:45
25	05:10	06:43 (1)	06:18	07:26	07:35		08:47	09:28
	22:16	10 06:53 (1)	20:59	19:30	17:07		16:00	15:46
26	05:12	06:45 (1)	06:20	07:28	07:37		08:49	09:28
	22:14	7 06:52 (1)	20:57	19:28	17:04		15:58	15:46
27	05:14	06:47 (1)	06:22	07:31	07:39		08:52	09:28
	22:12	5 06:52 (1)	20:54	19:25	17:02		15:57	15:47
28	05:16	06:49 (1)	06:24	07:33	08:29 (62)	07:42	08:54	09:28
	22:10	2 06:51 (1)	20:51	19:22	16:59	3 08:32 (62)	15:55	15:48
29	05:18	06:49 (1)	06:27	07:35	08:25 (62)	07:44	08:56	09:28
	22:07	1 06:50 (1)	20:48	19:19	9 08:34 (62)	16:56	15:54	15:49
30	05:20		06:29	07:37	08:23 (62)	07:47	08:58	09:28
	22:05		20:45	19:16	12 08:35 (62)	16:54	15:53	15:50
31	05:22		06:31		07:49			09:28
	22:03		20:43		16:51			15:51
Potential sun hours	545	478	386	319	190	236	200	
Total, worst case	655		24					

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)		Last time (hh:mm) with flicker	(WTG causing flicker last time)

SHADOW - Calendar

Calculation: Oppdatert layout - med nærliggende - worst case - oppdatert mottaker **Shadow receptor:** Z - Brusalivegen 217 (26)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

The sun is shining all the day, from sunrise to sunset

The rotor plane is always perpendicular to the line from the WTG to the sun

The WTG is always operating

	January	February	March	April	May	June			
1	09:28	08:46	07:35	08:16 (63)	07:07	05:44	04:40	06:00 (1)	
	15:53	16:56	18:05	15 08:31 (63)	20:17	21:26	22:30	35 06:35 (1)	
2	09:27	08:43	07:33	08:17 (63)	07:04	05:42	04:39	06:00 (1)	
	15:54	16:59	18:07	13 08:30 (63)	20:19	21:28	22:32	35 06:35 (1)	
3	09:27	08:41	07:30	08:18 (63)	07:01	05:39	04:38	06:00 (1)	
	15:56	17:01	18:10	10 08:28 (63)	20:21	21:30	22:33	36 06:36 (1)	
4	09:26	08:39	07:27	08:20 (63)	06:58	05:37	04:36	06:00 (1)	
	15:57	17:04	18:12	5 08:25 (63)	20:24	21:33	22:35	36 06:36 (1)	
5	09:26	08:37	07:24		06:55	05:34	04:35	06:01 (1)	
	15:59	17:06	18:14		20:26	21:35	22:36	36 06:37 (1)	
6	09:25	08:34	07:21		06:53	05:32	04:34	06:01 (1)	
	16:00	17:09	18:17		20:28	21:37	22:38	36 06:37 (1)	
7	09:24	08:32	07:19		06:50	05:29	04:33	06:01 (1)	
	16:02	17:11	18:19		20:31	21:40	22:39	36 06:37 (1)	
8	09:24	08:30	07:16	07:46 (62)	06:47	05:27	04:32	06:01 (1)	
	16:04	17:14	18:21	6 07:52 (62)	20:33	21:42	22:40	36 06:37 (1)	
9	09:23	08:27	07:13	07:44 (62)	06:44	05:24	04:31	06:01 (1)	
	16:06	17:16	18:24	10 07:54 (62)	20:35	21:44	22:41	37 06:38 (1)	
10	09:22	08:25	07:10	07:43 (62)	06:41	05:22	04:31	06:01 (1)	
	16:07	17:19	18:26	13 07:56 (62)	20:37	21:46	22:43	37 06:38 (1)	
11	09:21	08:23	07:07	07:42 (62)	06:38	05:20	04:30	06:02 (1)	
	16:09	17:21	18:28	14 07:56 (62)	20:40	21:49	22:44	36 06:38 (1)	
12	09:20	08:20	07:04	07:42 (62)	06:36	05:17	04:29	06:01 (1)	
	16:11	17:23	18:31	14 07:56 (62)	20:42	21:51	22:45	37 06:38 (1)	
13	09:18	08:18	07:02	07:41 (62)	06:33	05:15	04:29	06:02 (1)	
	16:13	17:26	18:33	15 07:56 (62)	20:44	21:53	22:46	37 06:39 (1)	
14	09:17	08:15	06:59	07:41 (62)	06:30	05:13	04:28	06:02 (1)	
	16:15	17:28	18:35	14 07:55 (62)	20:47	21:55	22:46	37 06:39 (1)	
15	09:16	08:13	06:56	07:42 (62)	06:27	05:11	04:28	06:02 (1)	
	16:17	17:31	18:38	11 07:53 (62)	20:49	21:57	22:47	37 06:39 (1)	
16	09:14	08:10	06:53	07:43 (62)	06:24	05:09	04:28	06:02 (1)	
	16:19	17:33	18:40	8 07:51 (62)	20:51	22:00	22:48	37 06:39 (1)	
17	09:13	08:07	06:50		06:22	05:06	06:13 (1)	04:27	06:03 (1)
	16:21	17:36	18:42		20:54	22:02	7 06:20 (1)	22:48	36 06:39 (1)
18	09:12	08:05	06:47		06:19	05:04	06:11 (1)	04:27	06:03 (1)
	16:24	17:38	18:45		20:56	22:04	13 06:24 (1)	22:49	37 06:40 (1)
19	09:10	08:02	06:44		06:16	05:02	06:10 (1)	04:27	06:03 (1)
	16:26	17:41	18:47		20:58	22:06	16 06:26 (1)	22:49	37 06:40 (1)
20	09:08	08:00	06:42		06:13	05:00	06:08 (1)	04:27	06:03 (1)
	16:28	17:43	18:49		21:00	22:08	19 06:27 (1)	22:50	37 06:40 (1)
21	09:07	07:57	06:39		06:11	04:58	06:06 (1)	04:27	06:03 (1)
	16:30	17:46	18:52		21:03	22:10	22 06:28 (1)	22:50	37 06:40 (1)
22	09:05	07:54	06:36		06:08	04:56	06:05 (1)	04:27	06:04 (1)
	16:32	17:48	18:54		21:05	22:12	25 06:30 (1)	22:50	37 06:41 (1)
23	09:03	07:52	08:21 (63)	06:33	06:05	04:55	06:04 (1)	04:28	06:04 (1)
	16:35	17:50	8 08:29 (63)	18:56	21:07	22:14	26 06:30 (1)	22:50	37 06:41 (1)
24	09:02	07:49	08:18 (63)	06:30	06:02	04:53	06:03 (1)	04:28	06:04 (1)
	16:37	17:53	12 08:30 (63)	18:58	21:10	22:16	29 06:32 (1)	22:50	37 06:41 (1)
25	09:00	07:46	08:17 (63)	06:27	06:00	04:51	06:02 (1)	04:28	06:05 (1)
	16:39	17:55	14 08:31 (63)	19:01	21:12	22:18	30 06:32 (1)	22:50	36 06:41 (1)
26	08:58	07:44	08:16 (63)	06:24	05:57	04:49	06:02 (1)	04:29	06:04 (1)
	16:42	17:58	15 08:31 (63)	19:03	21:14	22:20	31 06:33 (1)	22:50	37 06:41 (1)
27	08:56	07:41	08:15 (63)	06:21	05:54	04:48	06:01 (1)	04:29	06:05 (1)
	16:44	18:00	16 08:31 (63)	19:05	21:17	22:22	32 06:33 (1)	22:50	37 06:42 (1)
28	08:54	07:38	08:15 (63)	06:18	05:52	04:46	06:01 (1)	04:30	06:05 (1)
	16:47	18:02	15 08:30 (63)	19:08	21:19	22:24	33 06:34 (1)	22:50	36 06:41 (1)
29	08:52			07:16	05:49	04:44	06:01 (1)	04:31	06:05 (1)
	16:49			20:10	21:21	22:25	33 06:34 (1)	22:49	37 06:42 (1)
30	08:50			07:13	05:47	04:43	06:01 (1)	04:32	06:06 (1)
	16:51			20:12	21:24	22:27	34 06:35 (1)	22:49	36 06:42 (1)
31	08:48			07:10		04:41	06:00 (1)		
	16:54			20:14		22:29	35 06:35 (1)		
Potential sun hours	221	260	365	432	521	547		1095	
Total, worst case		80	148		385				

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)		Last time (hh:mm) with flicker	(WTG causing flicker last time)

SHADOW - Calendar

Calculation: Oppdatert layout - med nærliggende - worst case - oppdatert mottaker **Shadow receptor:** Z - Brusalivegen 217 (26)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

The sun is shining all the day, from sunrise to sunset

The rotor plane is always perpendicular to the line from the WTG to the sun

The WTG is always operating

	July	August	September	October	November	December		
1	04:32	06:06 (1)	05:24	06:33	07:39	08:21 (62)	07:51	09:00
	22:48	37 06:43 (1)	22:01	20:40	19:13	14 08:35 (62)	16:49	15:52
2	04:33	06:06 (1)	05:27	06:35	07:42	08:20 (62)	07:54	09:01
	22:48	37 06:43 (1)	21:58	20:37	19:10	14 08:34 (62)	16:47	15:50
3	04:34	06:06 (1)	05:29	06:38	07:44	08:20 (62)	07:56	09:03
	22:47	36 06:42 (1)	21:56	20:34	19:07	13 08:33 (62)	16:44	15:49
4	04:35	06:06 (1)	05:31	06:40	07:46	08:21 (62)	07:59	09:05
	22:46	36 06:42 (1)	21:54	20:31	19:05	12 08:33 (62)	16:42	15:48
5	04:37	06:06 (1)	05:33	06:42	07:48	08:22 (62)	08:01	09:07
	22:46	37 06:43 (1)	21:51	20:28	19:02	9 08:31 (62)	16:39	15:47
6	04:38	06:07 (1)	05:35	06:44	07:51		08:03	09:09
	22:45	37 06:44 (1)	21:49	20:25	18:59		16:37	15:47
7	04:39	06:08 (1)	05:38	06:47	07:53		08:06	09:10
	22:44	36 06:44 (1)	21:47	20:23	18:56		16:35	15:46
8	04:40	06:08 (1)	05:40	06:49	07:55		08:08	09:12
	22:43	35 06:43 (1)	21:44	20:20	18:53		16:32	15:45
9	04:42	06:08 (1)	05:42	06:51	07:57		08:11	09:13
	22:42	35 06:43 (1)	21:42	20:17	18:50		16:30	15:44
10	04:43	06:08 (1)	05:44	06:53	08:00		08:13	09:15
	22:40	35 06:43 (1)	21:39	20:14	18:48	8 08:53 (63)	16:28	15:44
11	04:45	06:09 (1)	05:46	06:55	08:02		08:15	09:16
	22:39	35 06:44 (1)	21:37	20:11	18:45	11 09:02 (63)	16:26	15:43
12	04:46	06:09 (1)	05:49	06:58	08:04		08:18	09:17
	22:38	34 06:43 (1)	21:34	20:08	18:42	14 09:03 (63)	16:24	15:43
13	04:48	06:09 (1)	05:51	07:00	08:07		08:20	09:19
	22:36	34 06:43 (1)	21:31	20:05	18:39	15 09:04 (63)	16:22	15:43
14	04:49	06:10 (1)	05:53	07:02	08:09		08:22	09:20
	22:35	33 06:43 (1)	21:29	20:02	18:36	15 09:03 (63)	16:19	15:43
15	04:51	06:10 (1)	05:55	07:04	08:11		08:25	09:21
	22:34	32 06:42 (1)	21:26	19:59	18:34	16 09:04 (63)	16:17	15:42
16	04:53	06:11 (1)	05:58	07:06	08:14		08:27	09:22
	22:32	32 06:43 (1)	21:24	19:57	18:31	15 09:03 (63)	16:15	15:42
17	04:54	06:11 (1)	06:00	07:09	08:16		08:29	09:23
	22:30	31 06:42 (1)	21:21	19:54	18:28	13 09:02 (63)	16:14	15:42
18	04:56	06:12 (1)	06:02	07:11	08:18		08:32	09:24
	22:29	30 06:42 (1)	21:18	19:51	18:25	10 09:00 (63)	16:12	15:42
19	04:58	06:13 (1)	06:04	07:13	08:20		08:34	09:25
	22:27	29 06:42 (1)	21:16	19:48	18:23	6 08:59 (63)	16:10	15:43
20	05:00	06:13 (1)	06:07	07:15	08:23		08:36	09:25
	22:25	27 06:40 (1)	21:13	19:45	18:20		16:08	15:43
21	05:02	06:15 (1)	06:09	07:17	08:25		08:39	09:26
	22:23	25 06:40 (1)	21:10	19:42	18:17		16:06	15:43
22	05:04	06:16 (1)	06:11	07:20	08:28		08:41	09:27
	22:22	24 06:40 (1)	21:08	19:39	18:15		16:04	15:44
23	05:06	06:17 (1)	06:13	07:22	08:30		08:43	09:27
	22:20	21 06:38 (1)	21:05	19:36	18:12		16:03	15:44
24	05:08	06:19 (1)	06:15	07:24	08:32		08:45	09:28
	22:18	18 06:37 (1)	21:02	19:33	18:09		16:01	15:45
25	05:10	06:20 (1)	06:18	07:26	07:35		08:47	09:28
	22:16	15 06:35 (1)	20:59	19:30	17:07		16:00	15:46
26	05:12	06:22 (1)	06:20	07:28	07:37		08:49	09:28
	22:14	11 06:33 (1)	20:57	19:28	17:04		15:58	15:46
27	05:14	06:27 (1)	06:22	07:31	07:39	08:26 (62)	08:52	09:28
	22:12	2 06:29 (1)	20:54	19:25	6 08:32 (62)	17:02	15:57	15:47
28	05:16		06:24	07:33	08:23 (62)	07:42	08:54	09:28
	22:10		20:51	19:22	11 08:34 (62)	16:59	15:55	15:48
29	05:18		06:27	07:35	08:22 (62)	07:44	08:56	09:28
	22:07		20:48	19:19	12 08:34 (62)	16:56	15:54	15:49
30	05:20		06:29	07:37	08:20 (62)	07:47	08:58	09:28
	22:05		20:45	19:16	15 08:35 (62)	16:54	15:53	15:50
31	05:22		06:31		07:49			09:28
	22:03		20:43		16:51			15:51
Potential sun hours	545		478	386	319		236	200
Total, worst case	794			44	185			

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Calculation: Oppdatert layout - med nærliggende - worst case - oppdatert mottaker **Shadow receptor:** AA - Buevegen 1463 (27)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

The sun is shining all the day, from sunrise to sunset

The rotor plane is always perpendicular to the line from the WTG to the sun

The WTG is always operating

	January	February	March	April	May	June
1	09:28	08:46	07:35	08:22 (23)	07:07	05:44
	15:53	16:56	18:05	22 08:44 (23)	20:17	21:26
2	09:28	08:44	07:33	08:21 (23)	07:04	05:41
	15:54	16:59	18:07	24 08:45 (23)	20:19	21:28
3	09:27	08:41	07:30	08:20 (23)	07:01	05:39
	15:56	17:01	18:10	25 08:45 (23)	20:21	21:31
4	09:27	08:39	07:27	08:20 (23)	06:58	05:36
	15:57	17:04	18:12	24 08:44 (23)	20:24	21:33
5	09:26	08:37	07:24	08:20 (23)	06:55	05:34
	15:59	17:06	18:14	24 08:44 (23)	20:26	21:35
6	09:25	08:35	07:22	08:20 (23)	06:53	05:31
	16:00	17:09	18:17	23 08:43 (23)	20:28	21:38
7	09:25	08:32	07:19	08:20 (23)	06:50	05:29
	16:02	17:11	18:19	22 08:42 (23)	20:31	21:40
8	09:24	08:30	07:16	08:20 (23)	06:47	05:27
	16:04	17:13	18:21	21 08:41 (23)	20:33	21:42
9	09:23	08:28	09:21 (3)	07:13	08:22 (23)	06:44
	16:05	17:16	1 09:22 (3)	18:24	19 08:41 (23)	20:35
10	09:22	08:25	09:18 (3)	07:10	08:23 (23)	06:41
	16:07	17:18	9 09:27 (3)	18:26	16 08:39 (23)	20:38
11	09:21	08:23	09:15 (3)	07:07	08:25 (23)	06:38
	16:09	17:21	14 09:29 (3)	18:28	11 08:36 (23)	20:40
12	09:20	08:20	09:14 (3)	07:05		06:36
	16:11	17:23	16 09:30 (3)	18:31		20:42
13	09:19	08:18	09:13 (3)	07:02		06:33
	16:13	17:26	17 09:30 (3)	18:33		20:44
14	09:17	08:15	09:13 (3)	06:59	07:38 (25)	06:30
	16:15	17:28	18 09:31 (3)	18:35	1 07:39 (25)	20:47
15	09:16	08:13	09:12 (3)	06:56	07:33 (25)	06:27
	16:17	17:31	19 09:31 (3)	18:38	11 07:44 (25)	20:49
16	09:15	08:10	09:12 (3)	06:53	07:31 (25)	06:24
	16:19	17:33	19 09:31 (3)	18:40	14 07:45 (25)	20:51
17	09:13	08:08	09:13 (3)	06:50	07:29 (25)	06:22
	16:21	17:36	19 09:32 (3)	18:42	17 07:46 (25)	20:54
18	09:12	08:05	09:13 (3)	06:47	07:28 (25)	06:19
	16:23	17:38	18 09:31 (3)	18:45	18 07:46 (25)	20:56
19	09:10	08:02	09:13 (3)	06:44	07:28 (25)	06:16
	16:26	17:41	17 09:30 (3)	18:47	18 07:46 (25)	20:58
20	09:09	08:00	09:14 (3)	06:42	07:27 (25)	06:13
	16:28	17:43	15 09:29 (3)	18:49	19 07:46 (25)	21:01
21	09:07	07:57	09:15 (3)	06:39	07:28 (25)	06:11
	16:30	17:46	12 09:27 (3)	18:52	19 07:47 (25)	21:03
22	09:05	07:54	09:18 (3)	06:36	07:28 (25)	06:08
	16:32	17:48	8 09:26 (3)	18:54	18 07:46 (25)	21:05
23	09:04	07:52		06:33	07:28 (25)	06:05
	16:35	17:50		18:56	17 07:45 (25)	21:08
24	09:02	07:49		06:30	07:29 (25)	06:02
	16:37	17:53		18:59	14 07:43 (25)	21:10
25	09:00	07:46	08:28 (23)	06:27	07:30 (25)	06:00
	16:39	17:55	11 08:39 (23)	19:01	11 07:41 (25)	21:12
26	08:58	07:44	08:25 (23)	06:24	07:34 (25)	05:57
	16:42	17:58	16 08:41 (23)	19:03	2 07:36 (25)	21:14
27	08:56	07:41	08:23 (23)	06:21		05:54
	16:44	18:00	19 08:42 (23)	19:05		21:17
28	08:54	07:38	08:23 (23)	06:18		05:52
	16:46	18:02	21 08:44 (23)	19:08		21:19
29	08:52			07:16		05:49
	16:49			20:10		21:21
30	08:50			07:13		05:47
	16:51			20:12		21:24
31	08:48			07:10		04:41
	16:54			20:15		22:29
Potential sun hours	221	260	365	410	432	521
Total, worst case		269		410		547

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)		Last time (hh:mm) with flicker	(WTG causing flicker last time)

SHADOW - Calendar

Calculation: Oppdatert layout - med nærliggende - worst case - oppdatert mottaker **Shadow receptor:** AA - Buevegen 1463 (27)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

The sun is shining all the day, from sunrise to sunset

The rotor plane is always perpendicular to the line from the WTG to the sun

The WTG is always operating

	July	August	September	October	November	December
1	04:32 22:49	05:24 22:01	06:33 20:40	07:40 19:13	07:52 16:49	08:47 (3) 15:51
2	04:33 22:48	05:26 21:59	06:35 20:37	07:42 19:10	09:05 (23) 07:54	8 08:55 (3) 09:02
3	04:34 22:47	05:29 21:56	06:38 20:34	07:44 19:07	09:01 (23) 07:56	09:04 15:49
4	04:35 22:47	05:31 21:54	06:40 20:31	07:46 19:05	09:00 (23) 07:59	09:05 15:48
5	04:36 22:46	05:33 21:52	06:42 20:28	07:48 19:02	08:58 (23) 08:01	09:07 15:47
6	04:38 22:45	05:35 21:49	06:44 20:26	07:51 18:59	08:56 (23) 08:04	09:09 15:46
7	04:39 22:44	05:37 21:47	06:47 20:23	07:53 18:56	08:56 (23) 08:06	09:10 15:46
8	04:40 22:43	05:40 21:44	06:49 20:20	07:55 18:53	08:55 (23) 08:08	09:12 15:45
9	04:41 22:42	05:42 21:42	06:51 20:17	07:58 18:50	08:54 (23) 08:11	09:14 15:44
10	04:43 22:41	05:44 21:39	06:53 20:14	08:00 18:48	08:55 (23) 08:13	09:15 15:44
11	04:44 22:39	05:46 21:37	06:55 20:11	08:02 18:45	08:54 (23) 08:16	09:16 15:43
12	04:46 22:38	05:49 21:34	06:58 20:08	08:04 18:42	08:55 (23) 08:18	09:18 15:43
13	04:48 22:37	05:51 21:32	07:00 20:05	08:07 18:39	08:55 (23) 08:20	09:19 15:43
14	04:49 22:35	05:53 21:29	07:02 20:02	08:09 18:36	08:55 (23) 08:23	09:20 15:42
15	04:51 22:34	05:55 21:26	07:04 20:00	08:11 18:34	08:57 (23) 08:25	09:21 15:42
16	04:53 22:32	05:58 21:24	07:06 19:57	08:14 18:31	08:58 (23) 08:27	09:22 15:42
17	04:54 22:31	06:00 21:21	07:09 19:54	08:16 18:28	09:01 (23) 08:30	09:23 15:42
18	04:56 22:29	06:02 21:19	07:11 19:51	08:18 (25) 08:18	09:10 (23) 16:13	08:32 09:24
19	04:58 22:27	06:04 21:16	07:13 19:48	08:20 (25) 08:21	16:11 08:34	15:42 09:25
20	05:00 22:25	06:06 21:13	07:15 19:45	08:22 (25) 08:23	16:10 09:47 (3)	15:43 09:26
21	05:02 22:24	06:09 21:10	07:17 19:42	08:25 (25) 08:25	10 09:57 (3) 16:08	15:43 09:26
22	05:04 22:22	06:11 21:08	07:20 19:39	08:28 (25) 08:28	13 09:59 (3) 16:06	15:43 09:27
23	05:06 22:20	06:13 21:05	07:22 19:36	08:31 (25) 08:15	16 10:00 (3) 16:04	15:44 09:27
24	05:08 22:18	06:15 21:02	07:24 19:33	08:32 (25) 08:30	18 10:01 (3) 16:03	15:44 09:28
25	05:10 22:16	06:18 20:59	07:26 19:31	08:33 (25) 07:35	19 08:42 (3) 08:48	15:45 09:28
26	05:12 22:14	06:20 20:57	07:28 19:28	08:34 (25) 07:37	19 09:01 (3) 15:59	15:45 09:28
27	05:14 22:12	06:22 20:54	07:31 19:25	08:35 (25) 07:40	20 09:02 (3) 15:58	15:46 09:28
28	05:16 22:10	06:24 20:51	07:33 19:22	08:36 (25) 07:42	19 09:03 (3) 15:57	15:47 09:29
29	05:18 22:08	06:27 20:48	07:35 19:19	08:37 (25) 07:44	18 09:04 (3) 15:55	15:48 09:29
30	05:20 22:05	06:29 20:45	07:37 19:16	08:38 (25) 07:47	17 09:05 (3) 15:54	15:49 09:29
31	05:22 22:03	06:31 20:43		07:49 16:51	15 08:59 (3) 15:53	15:50 09:28
Potential sun hours	545	478	386	319	236	200
Total, worst case			181	503	8	

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Calculation: Oppdatert layout - med nærliggende - worst case - oppdatert mottaker Shadow receptor: AB - Buevegen 1461 (28)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

The sun is shining all the day, from sunrise to sunset

The rotor plane is always perpendicular to the line from the WTG to the sun

The WTG is always operating

	January	February	March	April	May	June	July	August	September	October	November	December		
1	09:28 15:53	08:46 16:56	07:35 18:05	08:24 (23) 20:17	07:07 21:26	05:44 22:31	04:40 22:49	04:32 22:01	05:24 22:01	06:33 20:40	07:40 19:13	07:52 16:49	09:00 15:51	
2	09:28 15:54	08:44 16:59	07:33 18:07	08:23 (23) 20:19	07:04 21:28	05:41 22:32	04:39 22:48	04:33 22:48	05:26 21:59	06:35 20:37	07:42 19:10	07:54 16:46	09:02 15:50	
3	09:27 15:56	08:41 17:01	07:30 18:10	08:23 (23) 20:21	07:01 21:31	05:39 22:34	04:37 22:47	04:34 22:47	05:29 21:56	06:38 20:34	07:44 19:07	07:56 16:44	09:04 15:49	
4	09:27 15:57	08:39 17:04	07:27 18:12	08:23 (23) 20:24	06:58 21:33	05:36 22:35	04:36 22:47	04:35 21:54	05:31 20:31	06:40 19:05	07:46 19:05	09:05 (23) 16:42	07:59 15:48	
5	09:26 15:59	08:37 17:06	07:24 18:14	08:23 (23) 20:26	06:55 21:35	05:34 22:37	04:35 22:46	04:33 21:52	05:33 20:28	06:42 19:02	07:48 19:02	09:01 16:39	09:07 15:47	
6	09:25 16:00	08:35 17:09	07:22 18:17	08:23 (23) 20:28	06:53 21:38	05:31 22:38	04:34 22:45	04:38 22:45	05:35 21:49	06:44 20:26	07:51 18:59	09:00 (23) 16:37	09:09 15:46	
7	09:25 16:02	08:32 17:11	07:19 18:19	08:23 (23) 20:31	06:50 21:40	05:29 22:39	04:33 22:44	04:39 21:47	05:37 20:23	06:47 18:56	07:53 19:00	09:00 (23) 16:35	09:10 15:46	
8	09:24 16:04	08:30 17:13	07:16 18:21	08:24 (23) 20:33	06:47 21:42	05:27 22:41	04:32 22:43	04:40 21:44	05:40 20:20	06:49 18:53	07:55 19:02	08:58 (23) 16:32	09:12 15:45	
9	09:23 16:05	08:28 17:16	07:13 18:24	08:27 (23) 20:35	06:44 21:44	05:24 22:42	04:31 22:42	04:41 21:42	05:42 20:17	06:51 18:50	07:58 19:20	08:57 (23) 16:30	09:14 15:44	
10	09:22 16:07	08:25 17:18	07:10 18:26	08:30 (23) 20:38	06:41 21:47	05:22 22:43	04:30 22:41	04:43 22:41	05:44 21:39	06:53 20:14	08:00 18:48	08:57 (23) 16:28	09:15 15:44	
11	09:21 16:09	08:23 17:21	07:07 18:28	08:37 (23) 20:40	06:38 21:49	05:20 22:44	04:30 22:39	04:44 21:37	05:46 20:11	06:55 18:45	08:02 19:20	08:57 (23) 16:26	09:16 15:43	
12	09:20 16:11	08:20 17:23	07:05 18:31	07:05 20:42	06:36 21:51	05:17 22:45	04:29 22:38	04:46 21:34	05:49 20:08	06:58 18:42	08:04 19:20	08:57 (23) 16:24	09:18 15:43	
13	09:19 16:13	08:18 17:26	07:02 18:33	07:40 (25) 20:44	06:33 21:53	05:15 22:46	04:29 22:37	04:48 21:32	05:51 20:05	07:00 18:39	08:07 19:19	08:57 (23) 16:21	09:19 15:43	
14	09:17 16:15	08:15 17:28	06:59 18:35	07:36 (25) 20:47	06:30 21:55	05:13 22:47	04:28 22:35	04:49 21:29	05:53 20:02	07:02 18:36	08:09 19:18	08:57 (23) 16:19	09:20 15:42	
15	09:16 16:17	08:13 17:31	06:56 18:38	07:34 (25) 20:49	06:27 21:58	05:11 22:47	04:28 22:34	04:51 21:26	05:55 20:00	07:04 18:34	08:11 19:20	08:58 (23) 16:17	09:21 15:42	
16	09:15 16:19	08:10 17:33	06:53 18:40	07:33 (25) 20:51	06:24 22:00	05:08 22:48	04:27 22:32	04:53 21:24	05:58 19:57	07:06 18:31	08:14 19:21	08:58 (23) 16:15	09:22 15:42	
17	09:13 16:21	08:08 17:36	06:50 18:42	07:32 (25) 20:54	06:22 22:02	05:06 22:49	04:27 22:31	04:54 21:21	06:00 19:54	07:09 18:28	08:16 19:00	09:00 (23) 16:13	09:23 15:42	
18	09:12 16:23	08:05 17:38	06:47 18:45	07:31 (25) 20:56	06:19 22:04	05:04 22:49	04:27 22:29	04:56 21:19	06:02 19:51	07:11 18:25	08:18 19:11	09:02 (23) 16:11	09:24 15:42	
19	09:10 16:26	08:02 17:41	06:44 18:47	07:31 (25) 20:58	06:16 22:06	05:02 22:50	04:27 22:27	04:58 21:16	06:04 19:48	07:13 18:23	08:22 (25) 18:23	08:21 16:10	09:25 15:43	
20	09:09 16:28	08:00 17:43	06:42 18:49	07:30 (25) 21:01	06:13 22:08	05:00 22:50	04:27 22:25	05:00 21:13	06:06 19:45	07:15 18:20	08:19 (25) 18:20	08:23 16:08	09:26 15:43	
21	09:07 16:30	07:57 17:46	06:39 18:52	07:29 (25) 21:03	06:11 22:10	04:58 22:50	04:27 22:24	05:02 21:10	06:09 19:42	07:17 18:17	08:31 (25) 18:17	08:25 16:06	09:26 15:43	
22	09:05 16:32	07:54 17:48	06:36 18:54	07:27 (25) 21:05	06:08 22:12	04:56 22:50	04:27 22:22	05:04 21:08	06:11 19:39	07:20 18:15	08:16 (25) 18:15	08:28 16:04	09:27 15:44	
23	09:04 16:35	07:52 17:50	06:33 18:56	07:26 (25) 21:08	06:05 22:14	04:54 22:51	04:27 22:20	05:06 21:05	06:13 19:36	07:22 18:12	08:15 (25) 18:12	08:30 16:03	09:27 15:44	
24	09:02 16:37	07:49 17:53	06:30 18:59	07:25 (25) 21:10	06:02 22:16	04:53 22:51	04:28 22:18	05:08 21:02	06:15 19:33	07:24 18:33	08:14 (25) 18:09	08:32 16:01	09:28 15:45	
25	09:00 16:39	07:46 17:55	06:27 19:01	07:24 (23) 21:12	06:00 22:18	04:51 22:51	04:28 22:16	05:10 20:59	06:18 19:31	07:26 18:32	08:14 (25) 17:35	07:37 15:59	09:28 15:45	
26	08:58 16:42	07:44 17:58	06:24 19:03	07:23 (23) 21:14	06:04 22:20	04:49 22:50	04:29 22:14	05:12 20:57	06:20 19:28	07:28 18:33	08:14 (25) 17:04	07:37 15:58	09:28 15:46	
27	08:56 16:44	07:41 18:00	06:21 19:05	07:22 (23) 21:17	06:05 22:22	04:47 22:50	04:29 22:12	05:14 20:54	06:22 19:25	07:31 18:32	08:14 (25) 17:02	07:40 15:57	09:28 15:47	
28	08:54 16:46	07:38 18:02	06:18 19:08	07:21 (23) 21:19	06:06 22:24	04:46 22:50	04:30 22:10	05:16 20:51	06:24 19:22	07:33 18:59	08:15 (25) 16:59	07:42 15:55	09:29 15:48	
29	08:52 16:49		07:16 20:10	07:20 (23) 21:21	06:07 22:26	04:44 22:50	04:31 22:08	05:18 20:48	06:27 19:19	07:35 18:56	08:15 (25) 16:56	07:44 15:54	09:29 15:49	
30	08:50 16:51		07:13 20:12	07:19 (23) 21:24	06:08 22:27	04:43 22:49	04:31 22:05	05:20 20:45	06:29 19:16	07:37 18:47	08:18 (25) 16:54	07:47 15:53	09:28 15:50	
31	08:48 16:54		07:10 20:15	07:18 (23) 21:29	06:09 22:29	04:41 22:50	04:31 22:03	05:22 20:43	06:31 19:36	07:49 18:51	08:26 (25) 16:51	07:49 15:51	09:28 15:51	
Potential sun hours	221	260	365	369	432	521	547	545	478	386	178	286	236	200
Total, worst case		86												

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)		Last time (hh:mm) with flicker	(WTG causing flicker last time)

SHADOW - Calendar

Calculation: Oppdatert layout - med nærliggende - worst case - oppdatert mottaker **Shadow receptor:** AC - Buevegen 1502 (29)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

The sun is shining all the day, from sunrise to sunset

The rotor plane is always perpendicular to the line from the WTG to the sun

The WTG is always operating

	January	February	March	April	May	June		
1	09:28 15:53	08:46 16:56	09:42 (23) 09:56 (23)	07:35 18:05	08:32 (25) 08:52 (25)	07:07 20:17	05:44 21:26	04:40 22:31
2	09:28 15:54	08:44 16:59	09:40 (23) 09:57 (23)	07:33 18:07	08:32 (25) 08:52 (25)	07:04 20:19	05:41 21:28	04:39 22:32
3	09:27 15:56	08:41 17:01	09:40 (23) 09:59 (23)	07:30 18:10	08:32 (25) 08:51 (25)	07:01 20:21	05:39 21:31	04:37 22:34
4	09:27 15:57	08:39 17:04	09:38 (23) 09:59 (23)	07:27 18:12	08:32 (25) 08:50 (25)	06:58 20:24	05:36 21:33	04:36 22:35
5	09:26 15:59	08:37 17:06	09:38 (23) 10:00 (23)	07:24 18:14	08:32 (25) 08:49 (25)	06:55 20:26	05:34 21:35	04:35 22:37
6	09:25 16:00	08:35 17:08	09:38 (23) 10:00 (23)	07:22 18:17	08:33 (25) 08:47 (25)	06:53 20:28	05:31 21:38	04:34 22:38
7	09:25 16:02	08:32 17:11	09:37 (23) 10:01 (23)	07:19 18:19	08:35 (25) 08:45 (25)	06:50 20:31	05:29 21:40	04:33 22:39
8	09:24 16:04	08:30 17:13	09:37 (23) 10:01 (23)	07:16 18:21	06:47 20:33	05:27 21:42	04:32 22:41	
9	09:23 16:05	08:28 17:16	09:37 (23) 10:01 (23)	07:13 18:24	06:44 20:35	05:24 21:44	04:31 22:42	
10	09:22 16:07	08:25 17:18	09:38 (23) 10:02 (23)	07:10 18:26	06:41 20:38	05:22 21:47	04:30 22:43	
11	09:21 16:09	08:23 17:21	09:38 (23) 10:01 (23)	07:07 18:28	06:38 20:40	05:20 21:49	04:30 22:44	
12	09:20 16:11	08:20 17:23	09:38 (23) 10:00 (23)	07:05 18:31	06:36 20:42	05:17 21:51	04:29 22:45	
13	09:19 16:13	08:18 17:26	09:38 (23) 09:59 (23)	07:02 18:33	06:33 20:44	05:15 21:53	04:28 22:46	
14	09:17 16:15	08:15 17:28	09:40 (23) 09:59 (23)	06:59 18:35	06:30 20:47	05:13 21:55	04:28 22:47	
15	09:16 16:17	08:13 17:31	09:41 (23) 09:58 (23)	06:56 18:38	06:27 20:49	05:11 21:58	04:28 22:47	
16	09:15 16:19	08:10 17:33	09:43 (23) 09:55 (23)	06:53 18:40	06:24 20:51	05:08 22:00	04:27 22:48	
17	09:13 16:21	08:08 17:36	09:46 (23) 09:53 (23)	06:50 18:42	06:21 20:54	05:06 22:02	04:27 22:49	
18	09:12 16:23	08:05 17:38	08:05 18:45	06:47 18:45	06:19 20:56	05:04 22:04	04:27 22:49	
19	09:10 16:26	08:02 17:41	06:44 18:47	06:44 18:47	06:16 20:58	05:02 22:06	04:27 22:50	
20	09:09 16:28	08:00 17:43	06:42 18:49	06:42 18:49	06:13 21:01	05:00 22:08	04:27 22:50	
21	09:07 16:30	07:57 17:45	06:39 18:52	06:39 18:52	06:10 21:03	04:58 22:10	04:27 22:50	
22	09:05 16:32	07:54 17:48	06:36 18:54	06:36 18:54	06:08 21:05	04:56 22:12	04:27 22:51	
23	09:04 16:35	07:52 17:50	08:40 (25) 08:46 (25)	06:33 18:56	06:05 21:08	04:54 22:14	04:27 22:51	
24	09:02 16:37	07:49 17:53	08:36 (25) 08:48 (25)	06:30 18:59	06:02 21:10	04:53 22:16	04:28 22:51	
25	09:00 16:39	07:46 17:55	08:34 (25) 08:50 (25)	06:27 19:01	06:00 21:12	04:51 22:18	04:28 22:51	
26	08:58 16:42	07:44 17:58	08:33 (25) 08:50 (25)	06:24 19:03	05:57 21:14	04:49 22:20	04:29 22:51	
27	08:56 16:44	07:41 18:00	08:32 (25) 08:51 (25)	06:21 19:05	05:54 21:17	04:47 22:22	04:29 22:50	
28	08:54 16:46	07:38 18:02	08:32 (25) 08:52 (25)	06:18 19:08	05:52 21:19	04:46 22:24	04:30 22:50	
29	08:52 16:49		07:16 20:10	07:16 20:10	05:49 21:21	04:44 22:26	04:30 22:50	
30	08:50 16:51		07:13 20:12	07:13 20:12	05:47 21:24	04:43 22:27	04:31 22:49	
31	08:48 16:54	09:43 (23) 09:53 (23)	07:10 20:15	07:10 20:15		04:41 22:29		
Potential sun hours	221	260	365	432	521	547		
Total, worst case	10	422	118					

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Calculation: Oppdatert layout - med nærliggende - worst case - oppdatert mottaker **Shadow receptor:** AC - Buevegen 1502 (29)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

The sun is shining all the day, from sunrise to sunset

The rotor plane is always perpendicular to the line from the WTG to the sun

The WTG is always operating

	July	August	September	October		November	December		
1	04:32	05:24	06:33	07:39		07:51	09:06 (23)	09:00	
	22:49	22:01	20:40	19:13		16:49	24 09:30 (23)	15:51	
2	04:33	05:26	06:35	07:42		07:54	09:07 (23)	09:02	
	22:48	21:59	20:37	19:10		16:46	24 09:31 (23)	15:50	
3	04:34	05:29	06:38	07:44		07:56	09:07 (23)	09:04	
	22:47	21:56	20:34	19:07		16:44	24 09:31 (23)	15:49	
4	04:35	05:31	06:40	07:46		07:59	09:08 (23)	09:05	
	22:47	21:54	20:31	19:05		16:42	23 09:31 (23)	15:48	
5	04:36	05:33	06:42	07:48		08:01	09:07 (23)	09:07	
	22:46	21:52	20:28	19:02		16:39	23 09:30 (23)	15:47	
6	04:37	05:35	06:44	07:51		09:13 (25)	08:04	09:08 (23)	09:09
	22:45	21:49	20:26	18:59	6	09:19 (25)	16:37	22 09:30 (23)	15:46
7	04:39	05:37	06:47	07:53		09:11 (25)	08:06	09:09 (23)	09:10
	22:44	21:47	20:23	18:56	11	09:22 (25)	16:35	21 09:30 (23)	15:46
8	04:40	05:40	06:49	07:55		09:08 (25)	08:08	09:09 (23)	09:12
	22:43	21:44	20:20	18:53	16	09:24 (25)	16:32	19 09:28 (23)	15:45
9	04:41	05:42	06:51	07:58		09:07 (25)	08:11	09:11 (23)	09:14
	22:42	21:42	20:17	18:50	17	09:24 (25)	16:30	16 09:27 (23)	15:44
10	04:43	05:44	06:53	08:00		09:06 (25)	08:13	09:13 (23)	09:15
	22:41	21:39	20:14	18:48	19	09:25 (25)	16:28	13 09:26 (23)	15:44
11	04:44	05:46	06:55	08:02		09:05 (25)	08:16	09:14 (23)	09:16
	22:39	21:37	20:11	18:45	20	09:25 (25)	16:26	10 09:24 (23)	15:43
12	04:46	05:49	06:58	08:04		09:05 (25)	08:18		09:18
	22:38	21:34	20:08	18:42	20	09:25 (25)	16:24		15:43
13	04:47	05:51	07:00	08:07		09:05 (25)	08:20		09:19
	22:37	21:32	20:05	18:39	20	09:25 (25)	16:21		15:43
14	04:49	05:53	07:02	08:09		09:04 (25)	08:23		09:20
	22:35	21:29	20:02	18:36	20	09:24 (25)	16:19		15:42
15	04:51	05:55	07:04	08:11		09:05 (25)	08:25		09:21
	22:34	21:26	20:00	18:34	19	09:24 (25)	16:17		15:42
16	04:53	05:57	07:06	08:14		09:05 (25)	08:27		09:22
	22:32	21:24	19:57	18:31	17	09:22 (25)	16:15		15:42
17	04:54	06:00	07:09	08:16		09:07 (25)	08:30		09:23
	22:31	21:21	19:54	18:28	14	09:21 (25)	16:13		15:42
18	04:56	06:02	07:11	08:18		09:08 (25)	08:32		09:24
	22:29	21:19	19:51	18:25	11	09:19 (25)	16:11		15:42
19	04:58	06:04	07:13	08:21			08:34		09:25
	22:27	21:16	19:48	18:23			16:10		15:42
20	05:00	06:06	07:15	08:23			08:37		09:26
	22:25	21:13	19:45	18:20			16:08		15:43
21	05:02	06:09	07:17	08:25			08:39		09:26
	22:24	21:10	19:42	18:17			16:06		15:43
22	05:04	06:11	07:20	08:28			08:41		09:27
	22:22	21:08	19:39	18:15			16:04		15:44
23	05:06	06:13	07:22	08:30			08:43		09:27
	22:20	21:05	19:36	18:12			16:03		15:44
24	05:08	06:15	07:24	08:32			08:45		09:28
	22:18	21:02	19:33	18:09			16:01		15:45
25	05:10	06:18	07:26	07:35		09:15 (23)	08:48		09:28
	22:16	20:59	19:30	17:07	8	09:23 (23)	15:59		15:45
26	05:12	06:20	07:28	07:37		09:12 (23)	08:50		09:28
	22:14	20:57	19:28	17:04	14	09:26 (23)	15:58		15:46
27	05:14	06:22	07:31	07:40		09:10 (23)	08:52		09:28
	22:12	20:54	19:25	17:01	17	09:27 (23)	15:56		15:47
28	05:16	06:24	07:33	07:42		09:09 (23)	08:54		09:29
	22:10	20:51	19:22	16:59	20	09:29 (23)	15:55		15:48
29	05:18	06:27	07:35	07:44		09:09 (23)	08:56		09:29
	22:08	20:48	19:19	16:56	21	09:30 (23)	15:54		15:49
30	05:20	06:29	07:37	07:47		09:07 (23)	08:58		09:28
	22:05	20:45	19:16	16:54	23	09:30 (23)	15:53		15:50
31	05:22	06:31		07:49		09:07 (23)			09:28
	22:03	20:43		16:51	24	09:31 (23)			15:51
Potential sun hours	546	478	386	319		236		199	
Total, worst case				337		219			

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Calculation: Oppdatert layout - med nærliggende - worst case - oppdatert mottaker **Shadow receptor:** AD - Buevegen 1500 (30)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

The sun is shining all the day, from sunrise to sunset

The rotor plane is always perpendicular to the line from the WTG to the sun

The WTG is always operating

	January	February	March	April	May	June	July	August	September	October	November	December
1	09:28 15:53	08:46 16:56	09:42 (23) 18:05	07:35 18:05	08:28 (25) 20:17	07:07 21:26	05:44 22:31	04:40 22:49	04:32 22:01	05:24 20:40	06:33 19:13	07:39 19:13
2	09:28 15:54	08:44 16:59	09:37 (23) 18:07	07:33 18:07	08:27 (25) 20:19	07:04 21:28	05:41 22:32	04:39 22:48	04:33 22:48	05:26 21:59	06:35 20:37	07:42 19:10
3	09:27 15:56	08:41 17:01	09:36 (23) 18:10	07:30 18:10	08:27 (25) 20:21	07:01 21:31	05:39 22:34	04:37 22:47	04:34 21:56	05:29 20:34	06:38 19:07	07:44 19:07
4	09:27 15:57	08:39 17:04	09:34 (23) 18:12	07:27 18:12	08:27 (25) 20:24	06:58 21:33	05:36 22:35	04:36 22:47	04:35 21:54	05:31 20:31	06:40 19:05	07:46 19:05
5	09:26 15:59	08:37 17:06	09:33 (23) 18:14	07:24 18:14	08:27 (25) 20:26	06:55 21:35	05:34 22:37	04:35 22:46	04:36 21:52	05:33 20:28	06:42 19:02	07:48 19:02
6	09:25 16:00	08:35 17:08	09:32 (23) 18:17	07:22 18:17	08:28 (25) 20:28	06:53 21:38	05:31 22:38	04:34 22:45	04:37 21:49	05:35 20:26	06:44 18:59	07:51 18:59
7	09:25 16:02	08:32 17:11	09:31 (23) 18:19	07:19 18:19	08:29 (25) 20:31	06:50 21:40	05:29 22:39	04:33 22:44	04:39 21:47	05:37 20:23	06:47 18:56	07:53 18:56
8	09:24 16:04	08:30 17:13	09:32 (23) 18:21	07:16 18:21	08:31 (25) 20:33	06:47 21:42	05:27 22:41	04:32 22:43	04:40 21:44	05:40 20:20	06:49 18:53	07:55 18:53
9	09:23 16:05	08:28 17:16	09:31 (23) 18:24	07:13 18:24	08:39 (25) 20:35	06:44 21:44	05:24 22:42	04:31 22:42	04:41 21:42	05:42 20:17	06:51 18:50	07:58 18:50
10	09:22 16:07	08:25 17:18	09:32 (23) 18:26	07:10 18:26	06:41 20:38	05:22 21:47	04:30 22:43	04:43 22:41	05:44 21:39	06:53 20:14	08:00 18:48	09:00 18:48
11	09:21 16:09	08:23 17:21	09:31 (23) 18:28	07:07 18:28	06:38 20:40	05:20 21:49	04:30 22:44	04:44 22:39	05:46 21:37	06:55 20:11	08:02 18:45	09:02 18:45
12	09:20 16:11	08:20 17:23	09:31 (23) 18:31	07:05 18:31	06:36 20:42	05:17 21:51	04:29 22:45	04:46 22:38	05:49 21:34	06:58 20:08	08:04 18:42	09:04 20:08
13	09:19 16:13	08:18 17:26	09:31 (23) 18:33	07:02 18:33	06:33 20:44	05:15 21:53	04:28 22:46	04:47 22:37	05:51 21:32	07:00 20:05	08:07 18:39	09:07 18:39
14	09:17 16:15	08:15 17:28	09:33 (23) 18:35	06:59 18:35	06:30 20:47	05:13 21:55	04:28 22:47	04:49 22:35	05:53 21:29	07:02 20:02	08:09 18:36	09:09 18:36
15	09:16 16:17	08:13 17:31	09:33 (23) 18:38	06:56 18:38	06:27 20:49	05:11 21:58	04:28 22:47	04:51 22:34	05:55 21:26	07:04 20:00	08:11 18:34	09:11 18:34
16	09:15 16:19	08:10 17:33	09:34 (23) 18:40	06:53 18:40	06:24 20:51	05:08 22:00	04:27 22:48	04:53 22:32	05:57 21:24	07:06 19:57	08:14 18:31	09:14 18:31
17	09:13 16:21	08:08 17:36	09:36 (23) 18:42	06:50 18:42	06:22 20:54	05:06 22:02	04:27 22:49	04:54 22:31	06:00 21:21	07:09 19:54	08:16 18:28	09:16 18:28
18	09:12 16:23	08:05 17:38	09:39 (23) 18:45	06:47 18:45	06:19 20:56	05:04 22:04	04:27 22:49	04:56 22:29	06:02 21:19	07:11 19:51	08:18 18:25	09:18 18:25
19	09:10 16:26	08:02 17:41	09:47 (23) 18:47	06:44 18:47	06:16 20:58	05:02 22:06	04:27 22:50	04:58 22:27	06:04 21:16	07:13 19:48	08:21 18:23	09:21 18:23
20	09:09 16:28	08:00 17:43	09:47 (23) 18:49	06:42 18:49	06:13 21:01	05:00 22:08	04:27 22:50	05:00 22:25	06:06 21:13	07:15 19:45	08:23 18:20	09:23 18:20
21	09:07 16:30	07:57 17:45	09:47 (23) 18:52	06:39 18:52	06:10 21:03	04:58 22:10	04:27 22:50	05:02 22:24	06:09 21:10	07:17 19:42	08:25 18:17	09:25 18:17
22	09:05 16:32	07:54 17:48	09:33 (23) 18:54	06:36 18:54	06:08 21:05	04:56 22:12	04:27 22:51	05:04 22:22	06:11 21:08	07:20 19:39	08:28 18:15	09:28 18:15
23	09:04 16:35	07:52 17:50	09:33 (23) 18:56	06:33 18:56	06:05 21:08	04:54 22:14	04:27 22:51	05:06 22:20	06:13 21:05	07:22 19:36	08:30 18:12	09:30 18:12
24	09:02 16:37	07:49 17:53	08:36 (25) 18:59	06:30 18:59	06:02 21:10	04:53 22:16	04:28 22:51	05:08 22:18	06:15 21:02	07:24 19:33	08:32 18:09	09:32 18:09
25	09:00 16:39	07:46 17:55	08:32 (25) 19:01	06:27 19:01	06:00 21:12	04:51 22:18	04:28 22:51	05:10 22:16	06:18 20:59	07:26 19:30	08:35 17:07	09:35 17:07
26	08:58 16:42	07:44 17:58	08:30 (25) 19:03	06:24 19:03	05:57 21:14	04:49 22:20	04:29 22:51	05:12 22:14	06:20 20:57	07:28 19:28	08:37 17:04	09:37 17:04
27	08:56 16:44	07:41 18:00	08:29 (25) 19:05	06:21 19:05	05:54 21:17	04:47 22:22	04:29 22:50	05:14 22:12	06:22 20:54	07:31 19:25	08:40 17:02	09:40 17:02
28	08:54 16:46	07:38 18:02	08:29 (25) 19:08	06:18 19:08	05:52 21:19	04:46 22:24	04:30 22:50	05:16 22:10	06:24 20:51	07:33 19:22	08:42 16:59	09:42 16:59
29	08:52 16:49	07:35 18:09	08:27 (25) 19:11	06:16 19:11	05:49 21:21	04:44 22:26	04:30 22:50	05:18 22:08	06:27 20:48	07:35 19:19	08:44 16:56	09:44 16:56
30	08:50 16:51	07:32 18:12	08:25 (25) 19:13	06:13 19:13	05:47 21:24	04:43 22:27	04:31 22:49	05:20 22:05	06:29 20:45	07:37 19:16	08:47 16:54	09:47 16:54
31	08:48 16:54	07:29 18:15	08:20 (25) 19:14	06:10 19:14	05:41 21:29	04:41 22:29	04:30 22:03	05:22 20:43	06:31 20:43	07:49 19:16	08:59 16:51	09:59 16:51
Potential sun hours	221	260	365	432	521	547	546	478	386	319	236	199
Total, worst case		388	133							354	172	

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)		Last time (hh:mm) with flicker	(WTG causing flicker last time)

SHADOW - Calendar

Calculation: Oppdatert layout - med nærliggende - worst case - oppdatert mottaker **Shadow receptor:** AE - Buevegen 1498 (31)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

The sun is shining all the day, from sunrise to sunset

The rotor plane is always perpendicular to the line from the WTG to the sun

The WTG is always operating

	January	February	March	April	May	June	July	August	September	October	November	December	
1	09:28	08:46	07:35	07:07	05:44	04:40	04:32	05:24	06:33	07:40	07:52	08:41 (23)	09:00
	15:53	16:56	18:05	20:17	21:26	22:31	22:49	22:01	20:40	19:13	16:49	8 08:49 (23)	15:51
2	09:28	08:44	07:33	07:04	05:41	04:39	04:33	05:26	06:35	07:42	07:54		09:02
	15:54	16:59	18:07	20:19	21:28	22:32	22:48	21:59	20:37	19:10	16:46		15:50
3	09:27	08:41	07:30	07:01	05:39	04:37	04:34	05:29	06:38	07:44	07:56		09:04
	15:56	17:01	18:10	20:21	21:31	22:34	22:47	21:56	20:34	19:07	16:44		15:49
4	09:27	08:39	07:27	06:58	05:36	04:36	04:35	05:31	06:40	07:46	07:59		09:05
	15:57	17:04	18:12	20:24	21:33	22:35	22:47	21:54	20:31	19:05	16:42		15:48
5	09:26	08:37	07:24	06:55	05:34	04:35	04:36	05:33	06:42	07:48	08:01		09:07
	15:59	17:06	18:14	20:26	21:35	22:37	22:46	21:52	20:28	19:02	16:39		15:47
6	09:25	08:35	07:22	06:53	05:31	04:34	04:37	05:35	06:44	07:51	08:04		09:09
	16:00	17:09	18:17	20:28	21:38	22:38	22:45	21:49	20:26	18:59	16:37		15:46
7	09:25	08:32	07:19	06:50	05:29	04:33	04:39	05:37	06:47	07:53	08:06		09:10
	16:02	17:11	18:19	20:31	21:40	22:39	22:44	21:47	20:23	18:56	16:35		15:46
8	09:24	08:30	07:16	06:47	05:27	04:32	04:40	05:40	06:49	07:55	08:08		09:12
	16:04	17:13	18:21	20:33	21:42	22:41	22:43	21:44	20:20	18:53	16:32		15:45
9	09:23	08:28	07:13	06:44	05:24	04:31	04:41	05:42	06:51	07:58	08:11		09:14
	16:05	17:16	18:24	20:35	21:44	22:42	22:42	21:42	20:17	18:50	16:30		15:44
10	09:22	08:25	09:11 (23)	07:10	06:41	05:22	04:30	04:43	05:44	06:53	08:00		09:15
	16:07	17:18	9 09:20 (23)	18:26	20:38	21:47	22:43	22:41	21:39	20:14	18:48		15:44
11	09:21	08:23	09:09 (23)	07:07	06:38	05:20	04:30	04:44	05:46	06:55	08:02		09:16
	16:09	17:21	13 09:22 (23)	18:28	20:40	21:49	22:44	22:39	21:37	20:11	18:45		15:43
12	09:20	08:20	09:07 (23)	07:05	06:36	05:17	04:29	04:46	05:49	06:58	08:04		09:18
	16:11	17:23	16 09:23 (23)	18:31	20:42	21:51	22:45	22:38	21:34	20:08	18:42		15:43
13	09:19	08:18	09:07 (23)	07:02	06:33	05:15	04:28	04:48	05:51	07:00	08:07		09:19
	16:13	17:26	18 09:25 (23)	18:33	20:44	21:53	22:46	22:37	21:32	20:05	18:39		15:43
14	09:17	08:15	09:06 (23)	06:59	06:30	05:13	04:28	04:49	05:53	07:02	08:09		09:20
	16:15	17:28	19 09:25 (23)	18:35	20:47	21:56	22:47	22:35	21:29	20:02	18:36		15:42
15	09:16	08:13	09:05 (23)	06:56	06:27	05:11	04:28	04:51	05:55	07:04	08:11		09:21
	16:17	17:31	20 09:25 (23)	18:38	20:49	21:58	22:47	22:34	21:26	20:00	18:34		15:42
16	09:15	08:10	09:04 (23)	06:53	06:24	05:08	04:27	04:53	05:58	07:06	08:14		09:22
	16:19	17:33	21 09:25 (23)	18:40	20:51	22:00	22:48	22:32	21:24	19:57	18:31		15:42
17	09:13	08:08	09:05 (23)	06:50	06:22	05:06	04:27	04:54	06:00	07:09	08:16		09:23
	16:21	17:36	21 09:26 (23)	18:42	20:54	22:02	22:49	22:31	21:21	19:54	18:28		15:42
18	09:12	08:05	09:05 (23)	06:47	06:19	05:04	04:27	04:56	06:02	07:11	08:18		09:24
	16:23	17:38	21 09:26 (23)	18:45	20:56	22:04	22:49	22:29	21:19	19:51	18:25	7 09:42 (23)	16:11
19	09:10	08:02	09:05 (23)	06:44	06:16	05:02	04:27	04:58	06:04	07:13	08:21	9 09:49 (23)	16:11
	16:26	17:41	20 09:25 (23)	18:47	20:58	22:06	22:50	22:27	21:16	19:48	18:23	12 09:52 (23)	16:10
20	09:09	08:00	09:05 (23)	06:42	06:13	05:00	04:27	05:00	06:06	07:15	08:23	10 09:37 (23)	16:10
	16:28	17:43	19 09:24 (23)	18:49	21:01	22:08	22:50	22:26	21:13	19:45	18:20	16 09:53 (23)	16:08
21	09:07	07:57	09:06 (23)	06:39	06:11	04:58	04:27	05:02	06:09	07:17	08:25	14 09:37 (23)	16:08
	16:30	17:46	17 09:23 (23)	18:52	21:03	22:10	22:50	22:24	21:10	19:42	18:17	18 09:55 (23)	16:06
22	09:05	07:54	09:08 (23)	06:36	06:08	04:56	04:27	05:04	06:11	07:20	08:28	16 09:35 (23)	16:06
	16:32	17:48	14 09:22 (23)	18:54	21:05	22:12	22:51	22:22	21:08	19:39	18:15	20 09:55 (23)	16:04
23	09:04	07:52	09:09 (23)	06:33	06:05	04:54	04:27	05:06	06:13	07:22	08:30	18 09:35 (23)	16:04
	16:35	17:50	11 09:20 (23)	18:56	21:08	22:14	22:51	22:20	21:05	19:36	18:12	20 09:55 (23)	16:03
24	09:02	07:49	09:14 (23)	06:30	06:02	04:53	04:28	05:08	06:15	07:24	08:32	16 09:34 (23)	16:03
	16:37	17:53	1 09:15 (23)	18:59	21:10	22:16	22:51	22:18	21:02	19:33	18:09	21 09:55 (23)	16:01
25	09:00	07:46	06:27	06:00	04:51	04:28	05:10	06:18	07:26	07:35	08:34 (23)	18:48	09:28
	16:39	17:55	19:01	21:12	22:18	22:51	22:16	20:59	19:31	17:07	21 08:55 (23)	15:59	15:45
26	08:58	07:44	06:24	05:57	04:49	04:29	05:12	06:20	07:28	07:37	08:35 (23)	08:50	09:28
	16:42	17:58	19:03	21:15	22:20	22:51	22:14	20:57	19:28	17:04	21 08:56 (23)	15:58	15:46
27	08:56	07:41	06:21	05:54	04:47	04:29	05:14	06:22	07:31	07:40	08:34 (23)	08:52	09:29
	16:44	18:00	19:05	21:17	22:22	22:50	22:12	20:54	19:25	17:02	21 08:55 (23)	15:57	15:47
28	08:54	07:38	06:18	05:52	04:46	04:30	05:16	06:24	07:33	07:42	08:35 (23)	08:54	09:29
	16:46	18:02	19:08	21:19	22:24	22:50	22:10	20:51	19:22	16:59	19 08:54 (23)	15:55	15:48
29	08:52		07:16	05:49	04:44	04:30	05:18	06:27	07:35	07:44	08:36 (23)	08:56	09:29
	16:49		20:10	21:21	22:26	22:50	22:08	20:48	19:19	16:56	18 08:54 (23)	15:54	15:49
30	08:50		07:13	05:47	04:43	04:31	05:20	06:29	07:37	07:47	08:37 (23)	08:58	09:28
	16:51		20:12	21:24	22:27	22:49	22:05	20:45	19:16	16:54	15 08:52 (23)	15:53	15:50
31	08:48		07:10		04:41		05:22	06:31		07:49	08:39 (23)		09:28
	16:54		20:15		22:29		22:03	20:43		16:51	12 08:51 (23)		15:51
Potential sun hours	221	260	365	432	521	547	546	478	386	319	241	236	199
Total, worst case		240									8		

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)		Last time (hh:mm) with flicker	(WTG causing flicker last time)

SHADOW - Calendar

Calculation: Oppdatert layout - med nærliggende - worst case - oppdatert mottaker **Shadow receptor:** AF - Buevegen 1496 (32)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

The sun is shining all the day, from sunrise to sunset

The rotor plane is always perpendicular to the line from the WTG to the sun

The WTG is always operating

	January	February	March	April	May	June	July	August	September	October	November	December
1	09:28 15:53	08:46 16:56	07:35 18:05	07:07 20:17	05:44 21:26	04:40 22:31	04:32 22:49	05:24 22:01	06:33 20:40	07:40 19:13	07:52 16:49	09:00 15:51
2	09:27 15:54	08:44 16:59	07:33 18:07	07:04 20:19	05:41 21:28	04:39 22:32	04:33 22:48	05:26 21:59	06:35 20:37	07:42 19:10	07:54 16:46	09:02 15:50
3	09:27 15:56	08:41 17:01	07:30 18:10	07:01 20:21	05:39 21:31	04:37 22:34	04:34 22:47	05:29 21:56	06:38 20:34	07:44 19:07	07:56 16:44	09:04 15:49
4	09:27 15:57	08:39 17:04	07:27 18:12	06:58 20:24	05:36 21:33	04:36 22:35	04:35 22:47	05:31 21:54	06:40 20:31	07:46 19:05	07:59 16:42	09:05 15:48
5	09:26 15:59	08:37 17:06	07:24 18:14	06:55 20:26	05:34 21:35	04:35 22:37	04:36 22:46	05:33 21:52	06:42 20:28	07:49 19:02	08:01 16:39	09:07 15:47
6	09:25 16:00	08:35 17:09	07:22 18:17	06:53 20:28	05:31 21:38	04:34 22:38	04:38 22:45	05:35 21:49	06:44 20:26	07:51 18:59	08:04 16:37	09:09 15:46
7	09:25 16:02	08:32 17:11	07:19 18:19	06:50 20:31	05:29 21:40	04:33 22:39	04:39 22:44	05:37 21:47	06:47 20:23	07:53 18:56	08:06 16:35	09:10 15:46
8	09:24 16:04	08:30 17:13	07:16 18:21	06:47 20:33	05:27 21:42	04:32 22:41	04:40 22:43	05:40 21:44	06:49 20:20	07:55 18:53	08:08 16:32	09:12 15:45
9	09:23 16:05	08:28 17:16	07:13 18:24	06:44 20:35	05:24 21:44	04:31 22:42	04:41 22:42	05:42 21:42	06:51 20:17	07:58 18:50	08:11 16:30	09:14 15:44
10	09:22 16:07	08:25 17:18	07:10 18:26	06:41 20:38	05:22 21:47	04:30 22:43	04:43 22:41	05:44 21:39	06:53 20:14	08:00 18:48	08:13 16:28	09:15 15:44
11	09:21 16:09	08:23 17:21	09:07 (23) 07:07	07:07 18:28	06:38 20:40	05:20 21:49	04:30 22:44	04:44 22:39	05:46 21:37	06:55 20:11	08:02 18:45	09:16 15:43
12	09:20 16:11	08:20 17:23	09:04 (23) 07:05	07:05 18:31	06:36 20:42	05:17 21:51	04:29 22:45	04:46 22:38	05:49 21:34	06:58 20:08	08:04 18:42	09:18 15:43
13	09:19 16:13	08:18 17:26	09:03 (23) 07:02	07:02 18:33	06:33 20:44	05:15 21:53	04:28 22:46	04:48 22:37	05:51 21:32	07:00 20:05	08:07 18:39	09:19 15:43
14	09:17 16:15	08:15 17:28	09:02 (23) 07:01	07:01 18:35	06:30 20:47	05:13 21:56	04:28 22:47	04:49 22:35	05:53 21:29	07:02 20:02	08:09 18:36	09:20 15:42
15	09:16 16:17	08:13 17:31	09:01 (23) 07:00	07:00 18:38	06:27 20:49	05:11 21:58	04:28 22:47	04:51 22:34	05:55 21:26	07:04 20:00	08:11 18:34	09:21 15:42
16	09:15 16:19	08:10 17:33	09:00 (23) 06:59	06:59 18:40	06:24 20:51	05:08 22:00	04:27 22:48	04:53 21:24	05:58 20:57	07:06 19:57	08:14 18:31	09:22 15:42
17	09:13 16:21	08:08 17:36	09:01 (23) 06:58	06:58 18:42	06:22 20:54	05:06 22:02	04:27 22:49	04:54 22:31	06:00 21:21	07:09 19:54	08:16 18:28	09:23 15:42
18	09:12 16:23	08:05 17:38	09:00 (23) 06:47	06:47 18:45	06:19 20:56	05:04 22:04	04:27 22:49	04:56 22:29	06:02 21:19	07:11 19:51	08:18 18:25	09:24 15:42
19	09:10 16:26	08:02 17:41	09:00 (23) 06:44	06:44 18:47	06:16 20:58	05:02 22:06	04:27 22:27	04:58 21:16	06:04 19:48	07:13 18:23	08:21 18:48	09:25 15:42
20	09:09 16:28	08:00 17:43	09:00 (23) 06:42	06:42 18:49	06:13 21:01	05:00 22:08	04:27 22:26	05:00 21:13	06:06 19:45	07:15 18:20	08:23 18:59	09:26 15:43
21	09:07 16:30	07:57 17:46	09:01 (23) 06:39	06:39 18:52	06:11 21:03	04:58 22:10	04:27 22:24	05:02 21:10	06:09 19:42	07:17 18:17	08:25 18:28	09:26 15:43
22	09:05 16:32	07:55 17:48	09:02 (23) 06:36	06:36 18:54	06:08 21:05	04:56 22:12	04:27 22:51	05:04 22:22	06:11 21:08	07:20 19:39	08:28 18:15	09:27 15:44
23	09:04 16:35	07:52 17:50	09:03 (23) 06:33	06:33 18:56	06:05 21:08	04:54 22:14	04:27 22:51	05:06 22:20	06:13 21:05	07:22 19:36	08:30 18:12	09:27 15:44
24	09:02 16:37	07:49 17:53	09:06 (23) 06:30	06:30 18:59	06:02 21:10	04:53 22:16	04:28 22:51	05:08 22:18	06:15 21:02	07:24 19:33	08:32 18:09	09:28 15:45
25	09:00 16:39	07:46 17:55	09:14 (23) 06:27	06:27 19:01	06:00 21:12	04:51 22:18	04:28 22:51	05:10 22:16	06:18 20:59	07:26 19:31	07:35 17:07	09:28 15:45
26	08:58 16:42	07:44 17:58	06:24 19:03	05:57 21:15	04:49 22:20	04:29 22:51	05:12 22:14	06:20 20:57	07:28 19:28	07:37 17:04	08:30 18:20	09:28 15:46
27	08:56 16:44	07:41 18:00	06:21 19:05	05:54 21:17	04:47 22:22	04:29 22:50	05:14 22:12	06:22 20:54	07:31 19:25	07:40 17:02	08:30 18:49	09:29 15:47
28	08:54 16:46	07:38 18:02	06:18 19:08	05:52 21:19	04:46 22:24	04:30 22:50	05:16 22:10	06:24 20:51	07:33 19:22	07:42 16:59	08:31 18:48	09:29 15:48
29	08:52 16:49	07:44 17:58	07:16 19:08	05:49 21:21	04:44 22:26	04:31 22:50	05:18 22:08	06:27 20:48	07:35 19:19	07:44 16:56	08:33 18:48	09:29 15:49
30	08:50 16:51	07:44 18:00	07:13 19:05	05:47 21:17	04:43 22:27	04:31 22:49	05:20 22:05	06:29 20:45	07:37 19:16	07:47 16:54	08:34 18:45	09:28 15:50
31	08:48 16:54	07:44 18:02	07:10 19:08	05:47 21:15	04:41 22:29	04:31 22:49	05:22 22:03	06:31 20:43	07:49 16:51	07:49 16:51	08:37 18:43	09:28 15:51
Potential sun hours	221	260	365	432	521	547	546	478	386	319	236	199
Total, worst case		223								228		

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)		Last time (hh:mm) with flicker	(WTG causing flicker last time)

SHADOW - Calendar

Calculation: Oppdatert layout - med nærliggende - worst case - oppdatert mottaker **Shadow receptor:** AG - Hytte, ikke ferdig bygd. Eiendom 57/3 - Bjerkreim kommune (33)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

The sun is shining all the day, from sunrise to sunset

The rotor plane is always perpendicular to the line from the WTG to the sun

The WTG is always operating

	January		February		March		April		May		June	
1	09:28		12:11 (33)	08:45	12:16 (33)	07:35	15:43 (8)	07:07	18:42 (18)	05:44	04:39	
	15:52	49	14:26 (15)	16:56	15:37 (36)	18:04	25	17:06 (10)	20:16	18	19:00 (18)	21:26
2	09:27		12:12 (33)	08:43	12:17 (33)	07:32	15:46 (8)	07:04	18:43 (18)	05:41	04:38	
	15:54	54	14:28 (15)	16:58	15:38 (36)	18:07	35	17:10 (10)	20:19	14	18:57 (18)	21:28
3	09:27		12:11 (33)	08:41	12:19 (33)	07:30	16:31 (13)	07:01	18:47 (18)	05:38	04:37	
	15:55	58	14:29 (15)	17:01	15:38 (36)	18:09	38	17:13 (10)	20:21	8	18:55 (18)	21:30
4	09:26		12:11 (33)	08:39	12:21 (33)	07:27	16:29 (13)	06:58		05:36	04:36	
	15:57	61	14:29 (15)	17:03	15:39 (36)	18:12	46	17:15 (10)	20:23		21:33	22:35
5	09:26		12:10 (33)	08:36	12:25 (33)	07:24	16:27 (13)	06:55		05:34	04:35	
	15:58	66	14:30 (15)	17:06	15:39 (36)	18:14	48	17:15 (10)	20:26		21:35	22:36
6	09:25		12:10 (33)	08:34	12:59 (27)	07:21	16:25 (13)	06:52		05:31	04:34	
	16:00	70	14:31 (15)	17:08	15:39 (36)	18:16	50	17:15 (10)	20:28		21:37	22:38
7	09:24		12:10 (33)	08:32	12:59 (27)	07:18	16:23 (13)	06:49		05:29	04:33	
	16:01	73	14:32 (15)	17:11	15:38 (36)	18:19	52	17:15 (10)	20:30		21:39	22:39
8	09:23		12:10 (33)	08:30	12:59 (27)	07:15	16:22 (13)	06:46		05:26	04:32	
	16:03	78	14:33 (15)	17:13	15:38 (36)	18:21	52	17:14 (10)	20:32		21:42	22:40
9	09:22		12:09 (33)	08:27	13:00 (27)	07:13	16:20 (13)	06:44		05:24	04:31	
	16:05	81	14:33 (15)	17:16	15:38 (36)	18:23	54	17:14 (10)	20:35		21:44	22:41
10	09:21		12:09 (33)	08:25	12:59 (27)	07:10	16:19 (13)	06:41		05:21	04:30	
	16:07	84	14:34 (15)	17:18	15:58 (8)	18:26	54	17:13 (10)	20:37		21:46	22:42
11	09:20		12:09 (33)	08:22	12:59 (27)	07:07	16:18 (13)	06:38		05:19	04:29	
	16:09	87	14:34 (15)	17:20	16:00 (8)	18:28	54	17:12 (10)	20:39		21:48	22:44
12	09:19		12:09 (33)	08:20	13:00 (27)	07:04	16:17 (13)	06:35		05:17	04:29	
	16:11	91	14:35 (15)	17:23	16:03 (8)	18:30	54	17:11 (10)	20:42		21:51	22:44
13	09:18		12:09 (33)	08:17	13:00 (27)	07:01	16:16 (13)	06:32		05:15	04:28	
	16:13	93	14:35 (15)	17:25	16:04 (8)	18:33	53	17:09 (10)	20:44		21:53	22:45
14	09:17		12:09 (33)	08:15	13:01 (27)	06:58	16:16 (13)	06:29		05:12	04:28	
	16:15	96	14:36 (15)	17:28	16:05 (8)	18:35	50	17:06 (10)	20:46		21:55	22:46
15	09:16		12:09 (33)	08:12	13:02 (27)	06:56	16:16 (13)	06:27		05:10	04:27	
	16:17	99	14:37 (15)	17:30	16:07 (8)	18:37	46	17:02 (13)	20:49		21:57	22:47
16	09:14		12:09 (33)	08:10	13:02 (27)	06:53	16:16 (13)	06:24		05:08	04:27	
	16:19	101	14:37 (15)	17:33	16:07 (8)	18:40	46	17:02 (13)	20:51		21:59	22:48
17	09:13		12:09 (33)	08:07	13:03 (27)	06:50	16:16 (13)	06:21		05:06	04:27	
	16:21	103	14:37 (15)	17:35	16:08 (8)	18:42	45	17:01 (13)	20:53		22:02	22:48
18	09:11		12:09 (33)	08:05	13:03 (27)	06:47	16:15 (13)	06:18		05:04	04:27	
	16:23	104	14:37 (15)	17:38	16:08 (8)	18:44	48	17:56 (18)	20:56		22:04	22:49
19	09:10		12:09 (33)	08:02	13:05 (27)	06:44	16:15 (13)	06:16		05:02	04:26	
	16:25	105	14:37 (15)	17:40	16:09 (8)	18:47	57	18:01 (18)	20:58		22:06	22:49
20	09:08		12:09 (33)	07:59	13:06 (27)	06:41	16:16 (13)	06:13		05:00	04:26	
	16:27	107	14:37 (15)	17:43	16:09 (8)	18:49	60	18:03 (18)	21:00		22:08	22:50
21	09:07		12:09 (33)	07:57	13:07 (27)	06:38	16:16 (13)	06:10		04:58	04:27	
	16:30	106	14:36 (15)	17:45	16:08 (8)	18:51	63	18:04 (18)	21:02		22:10	22:50
22	09:05		12:10 (33)	07:54	13:08 (27)	06:35	16:16 (13)	06:07		04:56	04:27	
	16:32	106	14:36 (15)	17:48	16:08 (8)	18:54	63	18:05 (18)	21:05		22:12	22:50
23	09:03		12:10 (33)	07:51	13:09 (27)	06:32	16:17 (13)	06:05		04:54	04:27	
	16:34	105	14:36 (15)	17:50	16:07 (8)	18:56	63	18:05 (18)	21:07		22:14	22:50
24	09:01		12:10 (33)	07:49	13:12 (27)	06:30	16:17 (13)	06:02		04:52	04:27	
	16:37	106	14:35 (15)	17:52	16:08 (8)	18:58	63	18:05 (18)	21:09		22:16	22:50
25	08:59		12:11 (33)	07:46	13:14 (27)	06:27	16:18 (13)	05:59		04:50	04:28	
	16:39	104	15:26 (36)	17:55	16:07 (8)	19:00	61	18:05 (18)	21:12		22:18	22:50
26	08:58		12:11 (33)	07:43	13:16 (27)	06:24	16:20 (13)	05:57		04:49	04:28	
	16:41	103	15:28 (36)	17:57	16:06 (8)	19:03	59	18:06 (18)	21:14		22:20	22:50
27	08:56		12:12 (33)	07:41	13:19 (27)	06:21	16:22 (13)	05:54		04:47	04:29	
	16:44	108	15:31 (36)	18:00	16:04 (8)	19:05	55	18:06 (18)	21:16		22:22	22:50
28	08:54		12:12 (33)	07:38	13:24 (27)	06:18	16:24 (13)	05:51		04:45	04:29	
	16:46	111	15:33 (36)	18:02	17:03 (10)	19:07	49	18:05 (18)	21:19		22:23	22:50
29	08:52		12:13 (33)			07:15	17:27 (13)	05:49		04:44	04:30	
	16:48	112	15:34 (36)			20:10	42	19:04 (18)	21:21		22:25	22:49
30	08:50		12:14 (33)			07:12	17:31 (13)	05:46		04:42	04:31	
	16:51	115	15:36 (36)			20:12	32	19:03 (18)	21:23		22:27	22:49
31	08:47		12:15 (33)			07:09	18:41 (18)			04:41		
	16:53	116	15:37 (36)			20:14	20	19:01 (18)		22:29		
Potential sun hours	221		260		365		432		40		521	547
Total, worst case	2852		2464		1537							

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Calculation: Oppdatert layout - med nærliggende - worst case - oppdatert mottaker **Shadow receptor:** AG - Hytte, ikke ferdig bygd. Eiendom 57/3 - Bjerkreim kommune (33)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

The sun is shining all the day, from sunrise to sunset

The rotor plane is always perpendicular to the line from the WTG to the sun

The WTG is always operating

	July	August	September	October	November	December			
1	04:32	05:24	06:33	07:39	16:56 (13)	07:51	12:29 (27)	08:59	11:51 (33)
	22:48	22:01	20:39	19:13	17:49 (10)	16:49	15:27 (8)	15:51	14:16 (15)
2	04:33	05:26	06:35	07:41	16:57 (13)	07:53	12:29 (27)	09:01	11:52 (33)
	22:48	21:58	20:37	19:10	17:51 (10)	16:46	15:07 (36)	15:50	14:16 (15)
3	04:34	05:28	06:37	07:44	16:57 (13)	07:56	12:28 (27)	09:03	11:53 (33)
	22:47	21:56	20:34	19:07	17:51 (10)	16:44	15:07 (36)	15:49	14:17 (15)
4	04:35	05:30	06:39	07:46	16:57 (13)	07:58	12:29 (27)	09:05	11:54 (33)
	22:46	21:54	20:31	19:04	17:51 (10)	16:41	15:08 (36)	15:48	14:17 (15)
5	04:36	05:33	06:42	07:48	16:58 (13)	08:01	12:29 (27)	09:07	11:55 (33)
	22:45	21:51	20:28	19:01	17:52 (10)	16:39	15:09 (36)	15:47	14:17 (15)
6	04:37	05:35	06:44	07:50	16:59 (13)	08:03	11:55 (33)	09:08	11:56 (33)
	22:45	21:49	20:25	18:58	17:51 (10)	16:37	15:09 (36)	15:46	14:17 (15)
7	04:38	05:37	06:46	07:53	16:59 (13)	08:06	11:51 (33)	09:10	11:57 (33)
	22:44	21:46	20:22	18:56	17:50 (10)	16:34	15:09 (36)	15:45	14:17 (15)
8	04:40	05:39	06:48	07:55	17:01 (13)	08:08	11:49 (33)	09:12	11:58 (33)
	22:43	21:44	20:19	18:53	17:50 (10)	16:32	15:09 (36)	15:44	14:17 (15)
9	04:41	05:41	06:51	18:41 (18)	07:57	17:02 (13)	11:48 (33)	09:13	11:59 (33)
	22:41	21:41	20:16	18:47 (18)	18:50	17:49 (10)	15:09 (36)	15:44	14:17 (15)
10	04:42	05:44	06:53	18:37 (18)	07:59	17:04 (13)	11:46 (33)	09:15	12:01 (33)
	22:40	21:39	20:14	18:50 (18)	18:47	17:48 (10)	15:08 (36)	15:43	14:17 (15)
11	04:44	05:46	06:55	18:35 (18)	08:02	16:24 (8)	11:46 (33)	09:16	12:01 (33)
	22:39	21:36	20:11	18:53 (18)	18:44	17:46 (10)	15:08 (36)	15:43	14:17 (15)
12	04:45	05:48	06:57	18:33 (18)	08:04	16:18 (8)	11:46 (33)	09:17	12:03 (33)
	22:38	21:34	20:08	18:54 (18)	18:42	17:42 (10)	15:08 (36)	15:42	14:17 (15)
13	04:47	05:50	06:59	17:24 (13)	08:06	14:04 (27)	11:44 (33)	09:19	12:04 (33)
	22:36	21:31	20:05	18:54 (18)	18:39	17:38 (10)	15:06 (36)	15:42	14:17 (15)
14	04:49	05:53	07:02	17:18 (13)	08:09	13:55 (27)	11:44 (33)	09:20	12:06 (33)
	22:35	21:29	20:02	18:54 (18)	18:36	16:36 (8)	15:05 (36)	15:42	14:17 (15)
15	04:50	05:55	07:04	17:14 (13)	08:11	13:50 (27)	11:44 (33)	09:21	12:08 (33)
	22:33	21:26	19:59	18:54 (18)	18:33	16:37 (8)	15:03 (36)	15:42	14:17 (15)
16	04:52	05:57	07:06	17:11 (13)	08:13	13:47 (27)	11:45 (33)	09:22	13:08 (27)
	22:32	21:23	19:56	18:54 (18)	18:30	16:38 (8)	15:02 (36)	15:42	14:16 (15)
17	04:54	05:59	07:08	17:08 (13)	08:16	13:44 (27)	11:44 (33)	09:23	13:09 (27)
	22:30	21:21	19:53	18:54 (18)	18:28	16:38 (8)	14:59 (36)	15:42	14:16 (15)
18	04:56	06:02	07:10	17:07 (13)	08:18	13:42 (27)	11:44 (33)	09:24	13:11 (27)
	22:29	21:18	19:50	18:54 (18)	18:25	16:39 (8)	14:09 (15)	15:42	14:15 (15)
19	04:58	06:04	07:12	17:05 (13)	08:20	13:39 (27)	11:45 (33)	09:25	13:12 (27)
	22:27	21:15	19:47	18:53 (18)	18:22	16:39 (8)	14:11 (15)	15:42	14:16 (15)
20	04:59	06:06	07:15	17:04 (13)	08:23	13:38 (27)	11:45 (33)	09:25	13:13 (27)
	22:25	21:13	19:45	18:52 (18)	18:20	16:39 (8)	14:11 (15)	15:42	14:15 (15)
21	05:01	06:08	07:17	17:02 (13)	08:25	13:36 (27)	11:45 (33)	09:26	13:15 (27)
	22:23	21:10	19:42	18:51 (18)	18:17	16:38 (8)	14:13 (15)	15:43	14:16 (15)
22	05:03	06:11	07:19	17:01 (13)	08:27	13:35 (27)	11:45 (33)	09:26	13:16 (27)
	22:21	21:07	19:39	18:49 (18)	18:14	16:39 (8)	14:13 (15)	15:43	14:17 (15)
23	05:05	06:13	07:21	16:59 (13)	08:30	13:34 (27)	11:46 (33)	09:27	13:15 (27)
	22:19	21:05	19:36	18:47 (18)	18:12	16:38 (8)	14:14 (15)	15:44	14:17 (15)
24	05:07	06:15	07:24	16:59 (13)	08:32	13:33 (27)	11:46 (33)	09:27	13:15 (27)
	22:18	21:02	19:33	18:46 (18)	18:09	16:38 (8)	14:14 (15)	15:44	14:17 (15)
25	05:09	06:17	07:26	16:58 (13)	07:34	12:33 (27)	11:47 (33)	09:28	13:14 (27)
	22:16	20:59	19:30	18:42 (18)	17:06	15:38 (8)	14:15 (15)	15:45	14:18 (15)
26	05:11	06:19	07:28	16:58 (13)	07:37	12:31 (27)	11:47 (33)	09:28	13:13 (27)
	22:14	20:56	19:27	17:43 (13)	17:04	15:36 (8)	14:15 (15)	15:46	14:19 (15)
27	05:13	06:22	07:30	16:57 (13)	07:39	12:31 (27)	11:48 (33)	09:28	13:13 (27)
	22:11	20:53	19:24	17:43 (13)	17:01	15:36 (8)	14:16 (15)	15:47	14:20 (15)
28	05:15	06:24	07:32	16:57 (13)	07:41	12:30 (27)	11:48 (33)	09:28	12:15 (33)
	22:09	20:51	19:21	17:43 (13)	16:59	15:34 (8)	14:16 (15)	15:48	14:22 (15)
29	05:17	06:26	07:35	16:57 (13)	07:44	12:30 (27)	11:50 (33)	09:28	12:13 (33)
	22:07	20:48	19:19	17:45 (10)	16:56	15:33 (8)	14:16 (15)	15:49	14:24 (15)
30	05:20	06:28	07:37	16:56 (13)	07:46	12:30 (27)	11:50 (33)	09:28	12:13 (33)
	22:05	20:45	19:16	17:48 (10)	16:53	15:32 (8)	14:16 (15)	15:50	14:25 (15)
31	05:22	06:31		07:49		12:29 (27)		09:28	12:12 (33)
	22:03	20:42		16:51	99	15:29 (8)		15:51	14:26 (15)
Potential sun hours	546	478	386	319	236	199			
Total, worst case			1011	2094	3097	1286			

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)		Last time (hh:mm) with flicker	(WTG causing flicker last time)

SHADOW - Calendar

Calculation: Oppdatert layout - med nærliggende - worst case - oppdatert mottaker Shadow receptor: AH - Brusalivegen 201 (34)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

- The sun is shining all the day, from sunrise to sunset
- The rotor plane is always perpendicular to the line from the WTG to the sun
- The WTG is always operating

	January	February	March	April	May	June	July	August	September	October	November	December	
1	09:28	08:46	07:35		07:07	05:44	04:40	04:32	05:24	06:33			
	15:53	16:56	18:05		20:17	21:26	22:30	22:48	22:01	20:40			
2	09:27	08:43	07:33		07:04	05:42	04:39	04:33	05:27	06:35			
	15:54	16:59	18:07		20:19	21:28	22:32	22:48	21:58	20:37			
3	09:27	08:41	07:30		07:01	05:39	04:38	04:34	05:29	06:38			
	15:56	17:01	18:10		20:21	21:30	22:33	22:47	21:56	20:34			
4	09:26	08:39	07:27		07:03	06:58	05:36	04:36	04:35	06:40			
	15:57	17:04	18:12		20:24	21:33	22:35	22:46	21:54	20:31			
5	09:26	08:37	07:24		06:55	05:34	04:35	04:37	05:33	06:42			
	15:59	17:06	18:14		20:26	21:35	22:36	22:45	21:51	20:28			
6	09:25	08:34	07:21		06:53	05:32	04:34	04:38	05:35	06:44			
	16:00	17:09	18:17		20:28	21:37	22:38	22:45	21:49	20:25			
7	09:24	08:32	07:19		06:50	05:29	04:33	04:39	05:38	06:47			
	16:02	17:11	18:19		20:30	21:40	22:39	22:44	21:47	20:23			
8	09:23	08:30	07:16		06:47	05:27	04:32	04:40	05:40	06:49			
	16:04	17:14	18:21		20:33	21:42	22:40	22:43	21:44	20:20			
9	09:23	08:27	07:13		06:44	05:24	04:31	04:42	05:42	06:51			
	16:06	17:16	18:24		20:35	21:44	22:41	22:41	21:42	20:17			
10	09:22	08:25	07:10		06:41	05:22	04:31	04:43	05:44	06:53			
	16:07	17:18	18:26		20:37	21:46	22:43	22:40	21:39	20:14			
11	09:21	08:23	07:07		06:38	05:20	04:30	04:45	05:46	06:55			
	16:09	17:21	18:28		20:40	21:49	22:44	22:39	21:37	20:11			
12	09:19	08:20	07:04		06:36	05:17	04:29	04:46	05:49	06:58			
	16:11	17:23	18:31		20:42	21:51	22:45	22:38	21:34	20:08			
13	09:18	08:18	07:02		06:33	05:15	04:29	04:48	05:51	07:00			
	16:13	17:26	18:33		20:44	21:53	22:45	22:36	21:31	20:05			
14	09:17	08:15	06:59		06:30	05:13	04:28	04:49	05:53	07:02			
	16:15	17:28	18:35		20:47	21:55	22:46	22:35	21:29	20:02			
15	09:16	08:13	06:56		06:27	05:11	04:28	04:51	05:55	07:04			
	16:17	17:31	18:38		20:49	21:57	22:47	22:33	21:26	19:59			
16	09:14	08:10	06:53		06:24	05:09	04:28	04:53	05:58	07:06			
	16:19	17:33	18:40		20:51	22:00	22:48	22:32	21:24	19:57			
17	09:13	08:07	06:50		06:22	05:06	04:27	04:54	06:00	07:08			
	16:21	17:36	18:42		20:53	22:02	22:48	22:30	21:21	19:54			
18	09:12	08:05	06:47		06:19	05:04	04:27	04:56	06:02	07:11			
	16:24	17:38	18:45		20:56	22:04	22:49	22:29	21:18	19:51			
19	09:10	08:02	06:44		06:16	05:02	04:27	04:58	06:04	07:13			
	16:26	17:41	18:47		20:58	22:06	22:49	22:27	21:16	19:48			
20	09:08	08:00	06:42		06:13	05:00	04:27	05:00	06:07	07:15			
	16:28	17:43	18:49		21:00	22:08	22:50	22:25	21:13	19:45			
21	09:07	07:57	06:39		06:11	04:58	04:27	05:02	06:09	07:17			
	16:30	17:46	18:52		21:03	22:10	22:50	22:23	21:10	19:42			
22	09:05	07:54	06:36		06:08	04:56	04:27	05:04	06:11	07:19			
	16:32	17:48	18:54		21:05	22:12	22:50	22:22	21:08	19:39			
23	09:03	07:52	06:33		06:05	04:55	04:28	05:06	06:13	07:22			
	16:35	17:50	18:56		21:07	22:14	22:50	22:20	21:05	19:36			
24	09:01	07:49	06:30		06:02	04:53	04:28	05:08	06:15	07:24			
	16:37	17:53	18:58		21:10	22:16	22:50	22:18	21:02	19:33			
25	09:00	07:46	06:27		06:00	04:51	04:28	05:10	06:18	07:26			
	16:39	17:55	19:01		21:12	22:18	22:50	22:16	20:59	19:30			
26	08:58	07:44	06:24		06:02	04:49	04:29	05:12	06:20	07:28			
	16:42	17:58	19:03		21:14	22:20	22:50	22:14	20:57	19:28			
27	08:56	07:41	06:21		06:02	04:48	04:29	05:14	06:22	07:31			
	16:44	18:00	19:05		21:17	22:22	22:50	22:12	20:54	19:25			
28	08:54	07:38	06:18		06:02	04:46	04:30	05:16	06:24	07:33			
	16:47	18:02	19:08		21:19	22:23	22:50	22:09	20:51	19:22			
29	08:52		07:16		06:02	04:44	04:31	05:18	06:27	07:35			
	16:49		20:10		21:21	22:25	22:49	22:07	20:48	19:19			
30	08:50		07:13		06:02	04:43	04:32	05:20	06:29	07:37			
	16:51		20:12		21:24	22:27	22:49	22:05	20:45	19:16			
31	08:48		07:10			04:41		05:22	06:31				
	16:54		20:14			22:29		22:03	20:43				
Potential sun hours	222	260	365		432	521	547	545	478	386			
Total, worst case		92		532						281	349	236	200

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)		Last time (hh:mm) with flicker	(WTG causing flicker last time)

SHADOW - Calendar

Calculation: Oppdatert layout - med nærliggende - worst case - oppdatert mottaker **Shadow receptor:** AI - Vaule 218 (35)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

The sun is shining all the day, from sunrise to sunset

The rotor plane is always perpendicular to the line from the WTG to the sun

The WTG is always operating

	January	February	March	April	May	June		
1	09:28 15:52	08:45 16:56	13:54 (27)	07:35 18:04	07:06 20:16	05:44 21:26		
2	09:27 15:54	08:43 16:58	13:56 (27)	07:32 18:07	07:04 20:19	05:41 21:28		
3	09:27 15:55	08:41 17:01	13:58 (27)	07:29 18:09	07:01 20:21	05:38 21:30		
4	09:26 15:57	08:39 17:03		07:27 18:12	06:58 20:23	05:36 21:33		
5	09:26 15:58	08:37 17:06		07:24 18:14	06:55 20:26	05:33 21:35		
6	09:25 16:00	08:34 17:08	15:24 (13)	07:21 18:16	06:52 20:28	05:31 21:37		
7	09:24 16:01	08:32 17:11	15:21 (13)	07:18 18:19	06:49 20:30	05:29 21:39		
8	09:23 16:03	08:30 17:13	15:19 (13)	07:15 18:21	06:46 20:32	05:26 21:42		
9	09:23 16:05	08:27 17:15	15:18 (13)	07:13 18:23	06:44 20:35	05:24 21:44		
10	09:22 16:07	08:25 17:18	15:17 (13)	07:10 18:26	06:41 20:37	05:21 21:46		
11	09:20 16:09	08:22 17:20	15:16 (13)	07:07 18:28	06:38 20:39	05:19 21:48		
12	09:19 16:10	13:53 (27) 17:23	15:17 (13)	07:04 18:30	06:35 20:42	05:17 21:51		
13	09:18 16:12	13:53 (27) 17:25	15:16 (13)	07:01 18:33	06:32 20:44	05:15 21:53		
14	09:17 16:14	13:51 (27) 17:28	15:16 (13)	06:58 18:35	06:29 20:46	05:12 21:55		
15	09:16 16:17	13:50 (27) 17:30	15:17 (13)	06:56 18:37	06:27 20:49	05:10 21:57		
16	09:14 16:19	13:49 (27) 17:33	15:17 (13)	06:53 18:40	06:24 20:51	05:08 21:59	20:58 (78)	
17	09:13 16:21	11:39 (38) 17:35	15:17 (13)	06:50 18:42	06:21 20:53	05:06 22:02	4 21:02 (78)	
18	09:11 16:23	11:35 (38) 17:38	15:17 (13)	06:47 18:44	06:18 20:56	05:04 22:04	8 21:04 (78)	
19	09:10 16:25	11:32 (38) 17:40	15:19 (13)	06:44 18:47	06:16 20:58	05:02 22:06	10 21:05 (78)	
20	09:08 16:27	11:28 (38) 17:43	15:21 (13)	06:41 18:49	06:13 21:00	05:00 22:08	11 21:05 (78)	
21	09:07 16:30	11:27 (38) 17:45	15:24 (13)	06:38 18:51	06:10 21:02	04:58 22:10	13 21:07 (78)	
22	09:05 16:32	11:28 (38) 17:47		06:35 18:53	06:07 21:05	04:56 22:12	14 21:07 (78)	
23	09:03 16:34	11:29 (38) 17:50		06:32 18:56	06:05 21:07	04:54 22:14	14 21:07 (78)	
24	09:01 16:36	11:30 (38) 17:52		06:30 18:58	06:02 21:09	04:52 22:16	14 21:07 (78)	
25	08:59 16:39	11:32 (38) 17:55		06:27 19:00	05:59 21:12	04:50 22:18	14 21:07 (78)	
26	08:58 16:41	11:33 (38) 17:57		06:24 19:03	05:57 21:14	04:49 22:20	14 21:07 (78)	
27	08:56 16:44	11:36 (38) 18:00		06:21 19:05	05:54 21:16	04:47 22:22	13 21:07 (78)	
28	08:54 16:46	13:51 (27) 18:02		06:18 19:07	05:51 21:19	04:45 22:23	12 21:06 (78)	
29	08:52 16:48	13:51 (27) 18:02		07:15 20:10	05:49 21:21	04:44 22:25	11 21:06 (78)	
30	08:50 16:51	14:14 (27) 18:02		07:12 20:12	05:46 21:23	04:42 22:27	10 21:06 (78)	
31	08:48 16:53	13:54 (27) 18:02		07:09 20:14		04:41 22:29	9 21:06 (78)	
Potential sun hours	221	260	365	432	521	547		
Total, worst case	552	319			185	92		

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)		Last time (hh:mm) with flicker	(WTG causing flicker last time)

SHADOW - Calendar

Calculation: Oppdatert layout - med nærliggende - worst case - oppdatert mottaker **Shadow receptor:** AI - Vaule 218 (35)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

The sun is shining all the day, from sunrise to sunset

The rotor plane is always perpendicular to the line from the WTG to the sun

The WTG is always operating

	July	August	September	October	November	December						
1	04:32	21:31 (80)	05:24	06:33	07:39	07:51	14:47 (13)	08:59				
	22:48	1	21:32 (80)	22:01	20:39	19:13	16:48	19	15:06 (13)	15:51		
2	04:33	21:31 (80)	05:26	06:35	07:41	07:53	14:48 (13)	09:01				
	22:48	1	21:32 (80)	21:58	20:37	19:10	16:46	17	15:05 (13)	15:50		
3	04:34	21:31 (80)	05:28	06:37	07:44	07:56	14:48 (13)	09:03				
	22:47	1	21:32 (80)	21:56	20:34	19:07	16:44	16	15:04 (13)	15:49		
4	04:35		05:30	06:39	07:46	07:58	14:50 (13)	09:05				
	22:46		21:54	20:31	19:04	16:41	15:02 (13)	12	15:48			
5	04:36		05:33	06:42	07:48	08:01	14:54 (13)	09:07				
	22:45		21:51	20:28	19:01	16:39	14:59 (13)	5	15:47			
6	04:37		05:35	06:44	07:50	08:03			09:08			
	22:45		21:49	20:25	18:58	16:36			15:46			
7	04:38		05:37	06:46	07:53	08:06	13:33 (27)	09:10				
	22:44		21:46	20:22	18:56	16:34	13:36 (27)	3	15:45			
8	04:40		05:39	06:48	07:55	08:08	13:29 (27)	09:12				
	22:43		21:44	20:19	18:53	16:32	13:40 (27)	11	15:44			
9	04:41		05:41	06:50	07:57	08:10	13:27 (27)	09:13				
	22:41		21:41	20:16	18:50	16:30	13:42 (27)	15	15:44			
10	04:42	21:08 (78)	05:44	06:53	07:59	08:13	13:25 (27)	09:15				
	22:40	3	21:11 (78)	21:39	20:14	18:47	16:27	18	13:43 (27)	15:43		
11	04:44	21:06 (78)	05:46	06:55	08:02	08:15	13:24 (27)	09:16				
	22:39	6	21:12 (78)	21:36	20:11	18:44	16:25	21	13:45 (27)	15:43		
12	04:45	21:05 (78)	05:48	06:57	08:04	08:17	13:24 (27)	09:17				
	22:38	8	21:13 (78)	21:34	20:08	18:41	16:23	22	13:46 (27)	15:42		
13	04:47	21:05 (78)	05:50	06:59	08:06	08:20	13:23 (27)	09:19				
	22:36	9	21:14 (78)	21:31	20:05	18:39	16:21	23	13:46 (27)	15:42		
14	04:49	21:04 (78)	05:53	07:01	08:09	08:22	13:23 (27)	09:20				
	22:35	11	21:15 (78)	21:29	20:02	18:36	16:19	24	13:47 (27)	15:42		
15	04:50	21:04 (78)	05:55	07:04	08:11	08:25	11:08 (38)	09:21				
	22:33	12	21:16 (78)	21:26	19:59	18:33	16:17	31	13:47 (27)	15:42		
16	04:52	21:03 (78)	05:57	07:06	08:13	08:27	11:06 (38)	09:22				
	22:32	13	21:16 (78)	21:23	19:56	18:30	16:15	37	13:48 (27)	15:42		
17	04:54	21:03 (78)	05:59	07:08	08:16	08:29	11:05 (38)	09:23				
	22:30	13	21:16 (78)	21:21	19:53	18:28	16:13	39	13:48 (27)	15:42		
18	04:56	21:03 (78)	06:01	07:10	08:18	08:32	11:04 (38)	09:24				
	22:29	13	21:16 (78)	21:18	19:50	18:25	16:11	42	13:48 (27)	15:42		
19	04:57	21:03 (78)	06:04	07:12	08:20	08:34	11:04 (38)	09:25				
	22:27	14	21:17 (78)	21:15	19:47	18:22	16:09	43	13:49 (27)	15:42		
20	04:59	21:03 (78)	06:06	07:15	08:23	08:36	11:03 (38)	09:25				
	22:25	14	21:17 (78)	21:13	19:45	18:19	16:07	43	13:48 (27)	15:42		
21	05:01	21:03 (78)	06:08	07:17	08:25	08:38	11:03 (38)	09:26				
	22:23	14	21:17 (78)	21:10	19:42	18:17	9	15:53 (13)	16:06	44	13:49 (27)	15:43
22	05:03	21:03 (78)	06:10	07:19	08:27	08:41	15:51 (13)	08:41	11:04 (38)	09:27		
	22:21	14	21:17 (78)	21:07	19:39	18:14	13	16:04 (13)	16:04	43	13:48 (27)	15:43
23	05:05	21:04 (78)	06:13	07:21	08:30	08:43	15:48 (13)	08:43	11:09 (38)	09:27		
	22:20	13	21:17 (78)	21:05	19:36	18:11	17	16:05 (13)	16:02	36	13:48 (27)	15:44
24	05:07	21:05 (78)	06:15	07:23	08:32	08:45	15:47 (13)	08:45	11:13 (38)	09:27		
	22:18	12	21:17 (78)	21:02	19:33	18:09	19	16:06 (13)	16:01	33	13:49 (27)	15:44
25	05:09	21:04 (78)	06:17	07:26	07:34	08:47	14:47 (13)	08:47	11:17 (38)	09:28		
	22:16	11	21:15 (78)	20:59	19:30	17:06	20	15:07 (13)	15:59	27	13:48 (27)	15:45
26	05:11	21:05 (78)	06:19	07:28	07:37	08:49	14:46 (13)	08:49	13:28 (27)	09:28		
	22:14	10	21:15 (78)	20:56	19:27	17:04	21	15:07 (13)	15:57	20	13:48 (27)	15:46
27	05:13	21:07 (78)	06:22	07:30	07:39	08:51	14:46 (13)	08:51	13:29 (27)	09:28		
	22:11	6	21:13 (78)	20:53	19:24	17:01	22	15:08 (13)	15:56	13	13:42 (27)	15:47
28	05:15		06:24	07:32	07:41	08:53	14:45 (13)	08:53	13:30 (27)	09:28		
	22:09		20:51	19:21	16:58	22	15:07 (13)	15:55	9	13:39 (27)	15:47	
29	05:17		06:26	07:35	07:44	08:55	14:45 (13)	08:55	13:34 (27)	09:28		
	22:07		20:48	19:18	16:56	22	15:07 (13)	15:53	5	13:39 (27)	15:49	
30	05:20		06:28	07:37	07:46	08:57	14:46 (13)	08:57	13:34 (27)	09:28		
	22:05		20:45	19:16	16:53	21	15:07 (13)	15:52	2	13:36 (27)	15:50	
31	05:22		06:31		07:49		14:46 (13)				09:28	
	22:03		20:42		16:51	20	15:06 (13)				15:51	
Potential sun hours	546		478	386	319	236					199	
Total, worst case		199			206		673					

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Calculation: Oppdatert layout - med nærliggende - worst case - oppdatert mottaker **Shadow receptor:** AJ - Heiavegen 543 (36)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

The sun is shining all the day, from sunrise to sunset

The rotor plane is always perpendicular to the line from the WTG to the sun

The WTG is always operating

	January	February	March	April	May	June	July	August	September	October	November	December		
1	09:27	08:45	07:35	07:06	05:44	04:40	04:32	20:43 (2)	05:24	06:33	07:39	07:51	08:59	
	15:53	16:56	18:04	20:16	21:25	22:30	22:48	2	20:45 (2)	22:00	20:39	19:13	16:49	15:51
2	09:27	08:43	07:32	07:04	05:41	04:38	04:33	20:44 (2)	05:26	06:35	07:41	07:53	09:01	
	15:54	16:58	18:07	20:19	21:28	22:31	22:47	1	20:45 (2)	21:58	20:36	19:10	16:46	15:50
3	09:26	08:41	07:29	07:01	05:39	04:37	04:34	20:44 (2)	05:28	06:37	07:43	07:56	09:03	
	15:55	17:01	18:09	20:21	21:30	22:33	22:47	1	20:45 (2)	21:56	20:33	19:07	16:44	15:49
4	09:26	08:38	07:27	06:58	05:36	04:36	04:35		05:30	06:39	07:46	07:58	09:05	
	15:57	17:03	18:11	20:23	21:32	22:34	22:46		21:53	20:31	19:04	16:41	15:48	
5	09:25	08:36	07:24	06:55	05:34	04:35	04:36		05:33	06:42	07:48	08:00	09:06	
	15:58	17:06	18:14	20:25	21:35	22:36	22:45		21:51	20:28	19:01	16:39	15:47	
6	09:25	08:34	07:21	06:52	05:31	04:34	04:37		05:35	06:44	07:50	08:03	09:08	
	16:00	17:08	18:16	20:28	21:37	22:37	22:44		21:48	20:25	18:58	16:37	15:46	
7	09:24	08:32	07:18	06:49	05:29	04:33	04:39		05:37	06:46	07:52	08:05	09:10	
	16:02	17:11	18:19	20:30	21:39	22:38	22:43		21:46	20:22	18:56	16:34	15:45	
8	09:23	08:29	07:15	06:46	05:26	04:32	04:40		05:39	06:48	07:55	08:08	09:11	
	16:03	17:13	18:21	20:32	21:41	22:40	22:42		21:44	20:19	18:53	16:32	15:45	
9	09:22	08:27	07:12	06:44	05:24	04:31	04:41		05:41	06:50	07:57	08:10	09:13	
	16:05	17:16	18:23	20:35	21:44	22:41	22:41		21:41	20:16	18:50	16:30	15:44	
10	09:21	08:24	07:10	06:41	05:22	04:30	04:43		05:44	06:53	07:59	08:12	09:14	
	16:07	17:18	18:26	20:37	21:46	22:42	22:40		21:39	20:13	18:47	16:27	15:43	
11	09:20	08:22	07:07	06:38	05:19	04:29	20:39 (2)	04:44	05:46	06:55	08:01	08:15	09:16	
	16:09	17:20	18:28	20:39	21:48	22:43	1	20:40 (2)	21:36	20:11	18:44	16:25	15:43	
12	09:19	08:20	07:04	06:35	05:17	04:29	04:46	20:40 (2)	05:48	06:57	08:04	08:17	09:17	
	16:11	17:23	18:30	20:41	21:50	22:44	1	20:41 (2)	21:34	20:08	18:41	16:23	15:43	
13	09:18	08:17	07:01	06:32	05:15	04:28	04:47	20:39 (2)	05:50	06:59	08:06	08:20	09:18	
	16:13	17:25	18:33	20:44	21:53	22:45	2	20:41 (2)	21:31	20:05	18:39	16:21	15:42	
14	09:17	08:15	06:58	06:29	05:12	04:28	04:49	20:40 (2)	05:53	07:01	08:08	08:22	09:19	
	16:15	17:28	18:35	20:46	21:55	22:46	2	20:42 (2)	21:28	20:02	18:36	16:19	15:42	
15	09:15	08:12	06:55	06:27	05:10	04:27	04:51	20:40 (2)	05:55	07:04	08:11	08:24	09:20	
	16:17	17:30	18:37	20:48	21:57	22:47	2	20:42 (2)	21:26	19:59	18:33	16:17	15:42	
16	09:14	08:10	06:53	06:24	05:08	04:27	04:52	20:40 (2)	05:57	07:06	08:13	08:27	09:21	
	16:19	17:33	18:40	20:51	21:59	22:47	3	20:43 (2)	21:23	19:56	18:30	16:15	15:42	
17	09:12	08:07	06:50	06:21	05:06	04:27	04:54	20:40 (2)	05:59	07:08	08:15	08:29	09:22	
	16:21	17:35	18:42	20:53	22:01	22:48	4	20:44 (2)	21:20	19:53	18:28	16:13	15:42	
18	09:11	08:04	06:47	06:18	05:04	04:27	04:56	20:41 (2)	06:02	07:10	08:18	08:31	09:23	
	16:23	17:38	18:44	20:55	22:03	22:48	3	20:44 (2)	21:18	19:50	18:25	16:11	15:42	
19	09:09	08:02	06:44	06:16	05:02	04:27	04:58	20:41 (2)	06:04	07:12	08:20	08:33	09:24	
	16:25	17:40	18:46	20:58	22:05	22:49	3	20:44 (2)	21:15	19:47	18:22	16:09	15:42	
20	09:08	07:59	06:41	06:13	05:00	04:27	05:00	20:41 (2)	06:06	07:15	08:22	08:36	09:25	
	16:27	17:43	18:49	21:00	22:07	22:49	3	20:44 (2)	21:12	19:44	18:20	16:07	15:43	
21	09:06	07:56	06:38	06:10	04:58	04:27	05:01	20:41 (2)	06:08	07:17	08:25	08:38	09:25	
	16:30	17:45	18:51	21:02	22:10	22:49	3	20:44 (2)	21:10	19:42	18:17	16:06	15:43	
22	09:05	07:54	06:35	06:07	04:56	04:27	05:03	20:41 (2)	06:11	07:19	08:27	08:40	09:26	
	16:32	17:47	18:53	21:05	22:12	22:50	3	20:44 (2)	21:07	19:39	18:14	16:04	15:43	
23	09:03	07:51	06:32	06:05	04:54	04:27	05:05	20:42 (2)	06:13	07:21	08:29	08:42	09:27	
	16:34	17:50	18:56	21:07	22:14	22:50	3	20:45 (2)	21:04	19:36	18:12	16:02	15:44	
24	09:01	07:48	06:29	06:02	04:52	04:27	05:07	20:42 (2)	06:15	07:23	08:32	08:45	09:27	
	16:37	17:52	18:58	21:09	22:15	22:50	3	20:45 (2)	21:02	19:33	18:09	16:01	15:44	
25	08:59	07:46	06:27	05:59	04:51	04:28	05:09	20:42 (2)	06:17	07:26	07:34	08:47	09:27	
	16:39	17:55	19:00	21:11	22:17	22:50	3	20:45 (2)	20:59	19:30	17:06	15:59	15:45	
26	08:57	07:43	06:24	05:57	04:49	04:28	05:11	20:42 (2)	06:19	07:28	07:36	08:49	09:27	
	16:41	17:57	19:03	21:14	22:19	22:50	3	20:45 (2)	20:56	19:27	17:04	15:58	15:46	
27	08:55	07:40	06:21	05:54	04:47	04:29	05:13	20:42 (2)	06:22	07:30	07:39	08:51	09:28	
	16:44	18:00	19:05	21:16	22:21	22:49	3	20:45 (2)	20:53	19:24	17:01	15:56	15:47	
28	08:53	07:38	06:18	05:51	04:46	04:30	05:15	20:43 (2)	06:24	07:32	07:41	08:53	09:28	
	16:46	18:02	19:07	21:18	22:23	22:49	2	20:45 (2)	20:50	19:21	16:59	15:55	15:48	
29	08:51		07:15	05:49	04:44	04:30	05:18	20:42 (2)	06:26	07:34	07:44	08:55	09:28	
	16:49		20:09	21:21	22:25	22:49	2	20:45 (2)	20:48	19:18	16:56	15:54	15:49	
30	08:49		07:12	05:46	04:42	04:31	05:20	20:43 (2)	06:28	07:37	07:46	08:57	09:28	
	16:51		20:12	21:23	22:26	22:48	2	20:45 (2)	20:45	19:16	16:53	15:52	15:50	
31	08:47		07:09		04:41		05:22		06:31		07:48		09:27	
	16:53		20:14		22:28		22:02		20:42		16:51		15:51	
Potential sun hours	222	260	365	432	521	547	545	478	386	319	236	200		
Total, worst case						51	4							

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Calculation: Oppdatert layout - med nærliggende - worst case - oppdatert mottaker **Shadow receptor:** AK - Heivegen 541 (37)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

The sun is shining all the day, from sunrise to sunset

The rotor plane is always perpendicular to the line from the WTG to the sun

The WTG is always operating

	January	February	March	April	May	June	July	August	September	October	November	December
1	09:27 15:53	08:45 16:56	07:35 18:04	07:06 20:16	05:44 21:25	04:40 22:30	20:27 (2) 04:32	20:32 (2) 05:24	06:33 20:39	07:39 19:13	07:51 16:49	08:59 15:51
2	09:27 15:54	08:43 16:58	07:32 18:07	07:04 20:19	05:41 21:28	04:38 22:31	20:27 (2) 04:33	20:32 (2) 05:26	06:35 20:41	07:41 19:10	07:53 16:46	09:01 15:50
3	09:26 15:55	08:41 17:01	07:29 18:09	07:01 20:21	05:39 21:30	04:37 22:33	20:27 (2) 04:34	20:33 (2) 05:28	06:37 20:33	07:43 19:07	07:56 16:44	09:03 15:49
4	09:26 15:57	08:38 17:03	07:27 18:11	06:58 20:23	05:36 21:32	04:36 22:34	20:27 (2) 04:35	20:33 (2) 05:30	06:39 20:39	07:46 19:04	07:58 16:41	09:05 15:48
5	09:25 15:58	08:36 17:06	07:24 18:14	06:55 20:25	05:34 21:35	04:35 22:36	20:27 (2) 04:36	20:33 (2) 05:33	06:42 20:31	07:48 19:04	08:00 16:41	09:06 15:48
6	09:25 16:00	08:34 17:08	07:21 18:16	06:52 20:28	05:31 21:37	04:34 22:37	20:27 (2) 04:37	20:33 (2) 05:35	06:44 20:28	07:50 19:01	08:03 16:39	09:08 15:47
7	09:24 16:02	08:32 17:11	07:18 18:23	06:49 20:30	05:29 21:39	04:33 22:38	20:28 (2) 04:39	20:33 (2) 05:37	06:46 20:22	07:52 18:56	08:05 16:34	09:10 15:45
8	09:23 16:03	08:29 17:13	07:15 18:21	06:46 20:32	05:26 21:41	04:32 22:40	20:27 (2) 04:40	20:33 (2) 05:39	06:48 20:19	07:55 18:53	08:08 16:32	09:11 15:45
9	09:22 16:05	08:27 17:16	07:12 18:23	06:44 20:35	05:24 21:44	04:31 22:41	20:27 (2) 04:41	20:34 (2) 05:41	06:50 20:16	07:57 18:50	08:10 16:30	09:13 15:44
10	09:21 16:07	08:24 17:18	07:10 18:26	06:41 20:37	05:22 21:46	04:30 22:42	20:28 (2) 04:43	20:34 (2) 05:44	06:53 20:13	07:59 18:47	08:12 16:27	09:14 15:43
11	09:20 16:09	08:22 17:20	07:07 18:28	06:38 20:39	05:19 21:48	04:29 22:43	20:28 (2) 04:44	20:34 (2) 05:46	06:55 20:11	08:01 18:44	08:15 16:25	09:16 15:43
12	09:19 16:11	08:20 17:23	07:04 18:30	06:35 20:41	05:17 21:50	04:29 22:44	20:29 (2) 04:46	20:35 (2) 05:48	06:57 20:08	08:04 18:41	08:17 16:23	09:17 15:43
13	09:18 16:13	08:17 17:25	07:01 18:33	06:32 20:44	05:15 21:53	04:28 22:45	20:28 (2) 04:47	20:35 (2) 05:50	06:59 20:05	08:06 18:39	08:20 16:21	09:18 15:42
14	09:17 16:15	08:15 17:28	06:58 18:35	06:29 20:46	05:12 21:55	04:28 22:46	20:29 (2) 04:49	20:35 (2) 05:53	07:01 20:02	08:08 18:36	08:22 16:19	09:19 15:42
15	09:15 16:17	08:12 17:30	06:55 18:37	06:27 20:48	05:10 21:57	04:27 22:47	20:29 (2) 04:51	20:37 (2) 05:55	07:04 21:26	08:11 19:59	08:24 18:33	09:20 16:17
16	09:14 16:19	08:10 17:33	06:53 18:40	06:24 20:51	05:08 21:59	04:27 22:47	20:30 (2) 04:52	20:37 (2) 05:57	07:06 21:23	08:13 19:56	08:27 18:30	09:21 16:15
17	09:12 16:21	08:07 17:35	06:50 18:42	06:21 20:53	05:06 22:01	04:27 22:48	20:30 (2) 04:54	20:37 (2) 05:59	07:08 21:20	08:15 19:53	08:29 18:28	09:22 16:13
18	09:11 16:23	08:04 17:38	06:47 18:44	06:18 20:55	05:04 22:03	04:27 22:48	20:30 (2) 04:56	20:37 (2) 05:59	07:10 21:18	08:18 19:50	08:31 18:25	09:23 16:11
19	09:09 16:25	08:02 17:40	06:44 18:46	06:16 20:58	05:02 22:05	04:27 22:49	20:30 (2) 04:58	20:37 (2) 05:59	07:12 21:15	08:20 19:47	08:34 18:22	09:24 16:09
20	09:08 16:27	07:59 17:43	06:41 18:49	06:13 21:00	05:00 22:07	04:27 22:49	20:31 (2) 05:00	20:37 (2) 05:59	07:15 21:12	08:22 19:44	08:36 18:19	09:25 16:07
21	09:06 16:30	07:56 17:45	06:38 18:51	06:10 21:02	04:58 22:10	04:27 22:49	20:31 (2) 05:01	20:37 (2) 05:59	07:17 21:10	08:25 19:42	08:38 18:17	09:25 16:06
22	09:05 16:32	07:54 17:47	06:35 18:53	06:07 21:05	04:56 22:12	04:27 22:50	20:31 (2) 05:03	20:37 (2) 05:59	07:19 21:07	08:27 19:39	08:40 18:14	09:26 16:04
23	09:03 16:34	07:51 17:50	06:32 18:56	06:05 21:07	04:54 22:14	04:27 22:50	20:30 (2) 05:05	20:37 (2) 05:59	07:21 21:04	08:29 19:36	08:42 18:11	09:27 16:02
24	09:01 16:37	07:48 17:52	06:29 18:58	06:02 21:09	04:52 22:15	04:27 22:50	20:31 (2) 05:07	20:37 (2) 05:59	07:23 21:02	08:32 19:33	08:45 18:09	09:27 16:01
25	08:59 16:39	07:46 17:55	06:27 19:00	05:59 21:11	04:51 22:17	04:28 22:50	20:31 (2) 05:09	20:37 (2) 05:59	07:26 21:07	07:34 19:30	08:47 17:06	09:27 16:01
26	08:57 16:41	07:43 17:57	06:24 19:03	05:57 21:14	04:49 22:19	04:28 22:50	20:32 (2) 05:11	20:37 (2) 05:59	07:28 21:06	07:36 19:27	08:49 17:04	09:27 16:01
27	08:55 16:44	07:40 18:00	06:21 19:05	05:54 21:16	04:47 22:21	04:29 22:49	20:31 (2) 05:13	20:37 (2) 05:59	07:30 21:05	07:39 19:24	08:51 17:01	09:28 15:56
28	08:53 16:46	07:38 18:02	06:18 19:07	05:51 21:18	04:46 22:23	04:30 22:49	20:32 (2) 05:15	20:37 (2) 05:59	07:32 21:05	07:41 19:21	08:53 16:59	09:28 15:55
29	08:51 16:49		07:15 20:09	05:49 21:21	04:44 22:25	04:30 22:49	20:32 (2) 05:18	20:37 (2) 05:59	07:34 21:06	07:44 19:18	08:55 16:56	09:28 15:53
30	08:49 16:51		07:12 20:12	05:46 21:23	04:42 22:26	04:31 22:48	20:32 (2) 05:20	20:37 (2) 05:59	07:37 21:06	07:46 19:16	08:57 16:53	09:28 15:52
31	08:47 16:53		07:09 20:14	05:41 21:28	04:41 22:28	04:31 22:48	20:32 (2) 05:22	20:37 (2) 05:59	07:48 21:02	07:48 19:16	08:58 16:51	09:27 15:51
Potential sun hours	222	260	365	432	521	547	545	478	386	319	236	200
Total, worst case					5	483	161					

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)		Last time (hh:mm) with flicker	(WTG causing flicker last time)

SHADOW - Calendar

Calculation: Oppdatert layout - med nærliggende - worst case - oppdatert mottaker **Shadow receptor:** AL - Buevegen 2100 (38)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

The sun is shining all the day, from sunrise to sunset

The rotor plane is always perpendicular to the line from the WTG to the sun

The WTG is always operating

	January	February	March	April	May	June	July	August	September	October	November	December					
1	09:28	12:55 (13)	08:45	07:35	07:07	05:44	04:39	04:32	05:24	06:33	07:39	07:51	09:00	12:38 (13)			
	15:52	16	13:11 (13)	16:56	18:04	20:16	21:26	22:30	22:48	22:01	20:39	19:13	16:48	15:51	20	12:58 (13)	
2	09:27	12:55 (13)	08:43	07:32	07:04	05:41	04:38	04:33	05:26	06:35	07:41	07:54	09:01	12:39 (13)			
	15:54	16	13:11 (13)	16:58	18:07	20:19	21:28	22:32	22:48	21:58	20:37	19:10	16:46	15:50	20	12:59 (13)	
3	09:27	12:55 (13)	08:41	07:30	07:01	05:38	04:37	04:34	05:28	06:37	07:44	07:56	09:03	12:40 (13)			
	15:55	17	13:12 (13)	17:01	18:09	20:21	21:30	22:33	22:47	21:56	20:34	19:07	16:44	15:49	20	13:00 (13)	
4	09:26	12:55 (13)	08:39	07:27	06:58	05:36	04:36	04:35	05:30	06:39	07:46	07:58	09:05	12:40 (13)			
	15:57	17	13:12 (13)	17:03	18:12	20:23	21:33	22:35	22:46	21:54	20:31	19:04	16:41	15:48	20	13:00 (13)	
5	09:26	12:55 (13)	08:37	07:24	06:55	05:33	04:34	04:36	05:33	06:42	07:48	08:01	09:07	12:41 (13)			
	15:58	18	13:13 (13)	17:06	18:14	20:26	21:35	22:36	22:46	21:51	20:28	19:01	16:39	15:47	19	13:00 (13)	
6	09:25	12:55 (13)	08:34	07:21	06:52	05:31	04:33	04:37	05:35	06:44	07:50	08:03	09:09	12:41 (13)			
	16:00	19	13:14 (13)	17:08	18:16	20:28	21:37	22:38	22:45	21:49	20:25	18:58	16:36	15:46	19	13:00 (13)	
7	09:24	12:55 (13)	08:32	07:18	06:49	05:29	04:32	04:38	05:37	06:46	07:53	08:06	09:10	12:42 (13)			
	16:01	20	13:15 (13)	17:11	18:19	20:30	21:40	22:39	22:44	21:46	20:22	18:56	16:34	15:45	18	13:00 (13)	
8	09:24	12:56 (13)	08:30	07:16	06:46	05:26	04:31	04:40	05:39	06:48	07:55	08:08	09:12	12:43 (13)			
	16:03	19	13:15 (13)	17:13	18:21	20:33	21:42	22:40	22:43	21:44	20:19	18:53	16:32	15:44	18	13:01 (13)	
9	09:23	12:55 (13)	08:27	07:13	06:44	05:24	04:31	04:41	05:41	06:51	07:57	08:10	09:13	12:43 (13)			
	16:05	20	13:15 (13)	17:16	18:23	20:35	21:44	22:42	22:42	21:42	20:17	18:50	16:30	15:44	17	13:00 (13)	
10	09:22	12:56 (13)	08:25	07:10	06:41	05:21	04:30	04:42	05:44	06:53	07:59	08:13	09:15	12:44 (13)			
	16:07	20	13:16 (13)	17:18	18:26	20:37	21:46	22:43	22:40	21:39	20:14	18:47	16:27	15:43	16	13:00 (13)	
11	09:21	12:57 (13)	08:22	07:07	06:38	05:19	04:29	04:44	05:46	06:55	08:02	08:15	09:16	12:45 (13)			
	16:09	20	13:17 (13)	17:20	18:28	20:39	21:49	22:44	22:39	21:36	20:11	18:44	16:25	15:43	16	13:01 (13)	
12	09:19	12:57 (13)	08:20	07:04	06:35	05:17	04:29	04:45	05:48	06:57	08:04	08:18	09:17	12:45 (13)			
	16:11	20	13:17 (13)	17:23	18:30	20:42	21:51	22:45	22:38	21:34	20:08	18:42	16:23	15:42	16	13:01 (13)	
13	09:18	12:57 (13)	08:17	07:01	06:32	05:15	04:28	04:47	05:50	06:59	08:06	08:20	09:19	12:46 (13)			
	16:12	20	13:17 (13)	17:25	18:33	20:44	21:53	22:46	22:36	21:31	20:05	18:39	16:21	15:42	15	13:01 (13)	
14	09:17	12:58 (13)	08:15	06:58	06:29	05:12	04:28	04:49	05:53	07:02	08:09	08:22	09:20	12:47 (13)			
	16:14	20	13:18 (13)	17:28	18:35	20:46	21:55	22:46	22:35	21:29	20:02	18:36	16:19	15:42	14	13:01 (13)	
15	09:16	12:58 (13)	08:12	06:56	06:27	05:10	04:27	04:50	05:55	07:04	08:11	08:25	09:21	12:47 (13)			
	16:17	20	13:18 (13)	17:30	18:37	20:49	21:57	22:47	22:34	21:26	19:59	18:33	16:17	15:42	14	13:01 (13)	
16	09:14	12:58 (13)	08:10	06:53	06:24	05:08	04:27	04:52	05:57	07:06	08:13	08:27	09:22	12:48 (13)			
	16:19	20	13:18 (13)	17:33	18:40	20:51	22:00	22:48	22:32	21:23	19:56	18:30	16:15	15:42	13	13:01 (13)	
17	09:13	12:59 (13)	08:07	06:50	06:21	05:06	04:27	04:54	05:59	07:08	08:16	08:29	09:23	12:48 (13)			
	16:21	19	13:18 (13)	17:35	18:42	20:53	22:02	22:48	22:30	21:21	19:53	18:28	16:13	15:42	14	13:02 (13)	
18	09:11	12:59 (13)	08:05	06:47	06:18	05:04	04:26	04:56	06:02	07:10	08:18	08:32	09:24	12:49 (13)			
	16:23	19	13:18 (13)	17:38	18:44	20:56	22:04	22:49	22:29	21:18	19:50	18:25	16:11	15:42	13	13:02 (13)	
19	09:10	13:01 (13)	08:02	06:44	06:16	05:02	04:26	04:57	06:04	07:13	08:20	08:34	9	12:41 (13)	09:25	12:50 (13)	
	16:25	18	13:19 (13)	17:40	18:47	20:58	22:06	22:49	22:27	21:15	19:48	18:22	16:09	15:42	12	13:02 (13)	
20	09:08	13:02 (13)	07:59	06:41	06:13	05:00	04:26	04:59	06:06	07:15	08:23	08:36	9	12:50 (13)	15:42	12:50 (13)	
	16:27	16	13:18 (13)	17:43	18:49	21:00	22:08	22:50	22:25	21:13	19:45	18:20	16:07	15:42	12	13:03 (13)	
21	09:07	13:02 (13)	07:57	06:38	06:10	04:58	04:26	05:01	06:08	07:17	08:25	08:38	12	12:51 (13)	15:42	12:51 (13)	
	16:30	15	13:17 (13)	17:45	18:51	21:03	22:10	22:50	22:23	21:10	19:42	18:17	16:06	15	12:53 (13)	15:43	12:53 (13)
22	09:05	13:04 (13)	07:54	06:35	06:07	04:56	04:27	05:03	06:11	07:19	08:27	08:41	15	12:38 (13)	15:43	12:52 (13)	
	16:32	12	13:16 (13)	17:48	18:54	21:05	22:12	22:50	22:22	21:07	19:39	18:14	16:04	16	12:54 (13)	15:43	12:54 (13)
23	09:03	13:06 (13)	07:51	06:33	06:05	04:54	04:27	05:05	06:13	07:21	08:30	08:43	16	12:37 (13)	15:43	12:52 (13)	
	16:34	9	13:15 (13)	17:50	18:56	21:07	22:14	22:50	22:20	21:05	19:36	18:12	16:02	18	12:55 (13)	15:44	12:54 (13)
24	09:01	13:01 (13)	07:49	06:30	06:02	04:52	04:27	05:07	06:15	07:24	08:32	08:45	18	12:38 (13)	15:44	12:52 (13)	
	16:37	17:52	18:58	21:10	22:16	22:50	22:18	21:02	19:33	18:09	16:01	18	12:56 (13)	15:44	12	13:04 (13)	
25	09:00	13:02 (13)	07:46	06:27	05:59	04:50	04:28	05:09	06:17	07:26	08:34	08:47	19	12:37 (13)	15:44	12:53 (13)	
	16:39	17:55	19:00	21:12	22:18	22:50	22:16	20:59	19:30	17:06	15:59	19	12:56 (13)	15:45	13	13:06 (13)	
26	08:58	13:02 (13)	07:43	06:24	05:57	04:49	04:28	05:11	06:19	07:28	08:37	08:49	20	12:38 (13)	15:45	12:53 (13)	
	16:41	17:57	19:03	21:14	22:20	22:50	22:14	20:56	19:27	17:04	15:57	19	12:57 (13)	15:46	13	13:06 (13)	
27	08:56	13:02 (13)	07:41	06:21	05:54	04:47	04:29	05:13	06:22	07:30	08:39	08:52	20	12:37 (13)	15:46	12:54 (13)	
	16:44	18:00	19:05	21:16	22:22	22:50	22:12	20:54	19:24	17:01	15:56	20	12:57 (13)	15:47	13	13:07 (13)	
28	08:54	13:02 (13)	07:38	06:18	05:51	04:45	04:29	05:15	06:24	07:32	08:42	08:54	21	12:37 (13)	15:48	12:53 (13)	
	16:46	18:02	19:07	21:19	22:24	22:50	22:09	20:51	19:21	16:59	15:55	20	12:57 (13)	15:48	14	13:07 (13)	
29	08:52	13:02 (13)	07:15	05:49	04:44	04:30	05:17	06:26	07:35	08:44	09:56	10:08	21	12:38 (13)	15:49	12:54 (13)	
	16:48	20:10	21:12	22:25	22:49	22:25	20:48	19:19	17:35	16:56	15:53	20	12:58 (13)	15:49	14	13:08 (13)	
30	08:50	13:02 (13)	07:12	05:46	04:42	04:31	05:20	06:28	07:37	08:46	09:58	10:10	21	12:38 (13)	15:49	12:54 (13)	
	16:51	20:12	21:12	22:27	22:49	22:27	20:45	19:16	17:32	16:53	15:52	20	12:58 (13)	15:50	15	13:09 (13)	
31	08:48	13:02 (13)	07:09	05:41	04:41	04:41	05:22	06:31	07:40	08:49	10:01	10:13	21	12:38 (13)	15:50	12:54 (13)	
	16:53	20:14	21:14	22:29	22:49	22:29	20:42	19:13	17:34	16:51	15:51	20	12:58 (13)	15:51	15	13:09 (13)	
Potential sun hours	221	410	260	365	432	521	547	546	478	386	319	236	206	199	471		
Total, worst case																	

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Calculation: Oppdatert layout - med nærliggende - worst case - oppdatert mottaker **Shadow receptor:** AM - Eiendom 121/9 - Hå kommune (39)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

The sun is shining all the day, from sunrise to sunset

The rotor plane is always perpendicular to the line from the WTG to the sun

The WTG is always operating

	January	February	March	April	May	June		
1	09:28	08:46	07:35	07:07	05:44	07:30 (1) 04:40		
	15:53	16:56	18:05	20:17	21:26	32 08:02 (1) 22:30		
2	09:27	08:43	07:33	07:04	05:42	07:32 (1) 04:39		
	15:54	16:59	18:07	20:19	21:28	29 08:01 (1) 22:32		
3	09:27	08:41	07:30	07:01	05:39	07:32 (1) 04:37		
	15:56	17:01	18:10	20:21	21:31	27 07:59 (1) 22:34		
4	09:26	08:39	07:27	06:58	05:36	07:33 (1) 04:36		
	15:57	17:04	18:12	20:24	21:33	25 07:58 (1) 22:35		
5	09:26	08:37	07:24	06:55	05:34	07:35 (1) 04:35		
	15:59	17:06	18:14	20:26	21:35	21 07:56 (1) 22:36		
6	09:25	08:34	07:21	06:53	05:32	07:37 (1) 04:34		
	16:00	17:09	18:17	20:28	21:37	18 07:55 (1) 22:38		
7	09:24	08:32	07:19	06:50	05:29	07:39 (1) 04:33		
	16:02	17:11	18:19	20:31	21:40	12 07:51 (1) 22:39		
8	09:24	08:30	09:03 (63)	07:16	06:47	05:27	04:32	
	16:04	17:14	2 09:05 (63)	18:21	20:33	21:42	22:40	
9	09:23	08:27	09:00 (63)	07:13	06:44	05:24	04:31	
	16:06	17:16	7 09:07 (63)	18:24	20:35	21:44	22:42	
10	09:22	08:25	08:58 (63)	07:10	06:41	05:22	04:31	
	16:07	17:18	9 09:07 (63)	18:26	20:37	9 07:57 (1) 21:46	22:43	
11	09:21	08:23	08:57 (63)	07:07	06:38	07:46 (1) 05:20	04:30	
	16:09	17:21	12 09:09 (63)	18:28	20:40	15 08:01 (1) 21:49	22:44	
12	09:20	08:20	08:55 (63)	07:04	06:36	07:42 (1) 05:17	04:29	
	16:11	17:23	14 09:09 (63)	18:31	20:42	21 08:03 (1) 21:51	22:45	
13	09:18	08:18	08:55 (63)	07:02	06:33	07:38 (1) 05:15	04:29	
	16:13	17:26	14 09:09 (63)	18:33	20:44	26 08:04 (1) 21:53	22:46	
14	09:17	08:15	08:56 (63)	06:59	06:30	07:35 (1) 05:13	04:28	
	16:15	17:28	13 09:09 (63)	18:35	20:47	30 08:05 (1) 21:55	22:46	
15	09:16	08:13	08:56 (63)	06:56	06:27	07:34 (1) 05:11	04:28	
	16:17	17:31	13 09:09 (63)	18:38	20:49	32 08:06 (1) 21:57	22:47	
16	09:14	08:10	08:56 (63)	06:53	06:24	07:33 (1) 05:09	04:28	
	16:19	17:33	11 09:07 (63)	18:40	20:51	34 08:07 (1) 22:00	22:48	
17	09:13	08:07	08:58 (63)	06:50	06:22	07:32 (1) 05:06	04:27	
	16:21	17:36	7 09:05 (63)	18:42	20:54	35 08:07 (1) 22:02	22:48	
18	09:12	08:05	06:47	06:19	05:04	07:31 (1) 05:04	04:27	
	16:24	17:38	18:45	20:56	37 08:08 (1) 22:04	22:49	31 06:47 (37)	
19	09:10	08:02	06:44	06:16	05:02	07:30 (1) 05:02	04:27	06:16 (37)
	16:26	17:41	18:47	20:58	38 08:08 (1) 22:06	22:49	31 06:47 (37)	
20	09:08	08:00	06:42	06:13	05:00	07:30 (1) 05:00	04:27	06:16 (37)
	16:28	17:43	18:49	21:00	38 08:08 (1) 22:08	22:50	31 06:47 (37)	
21	09:07	07:57	06:39	06:11	04:58	07:29 (1) 04:58	04:27	06:16 (37)
	16:30	17:46	18:52	21:03	39 08:08 (1) 22:10	22:50	31 06:47 (37)	
22	09:05	07:54	06:36	06:08	04:56	07:29 (1) 04:56	04:27	06:17 (37)
	16:32	17:48	18:54	21:05	38 08:07 (1) 22:12	22:50	31 06:48 (37)	
23	09:03	07:52	06:33	06:05	04:55	07:29 (1) 04:55	04:28	06:17 (37)
	16:35	17:50	18:56	21:07	39 08:08 (1) 22:14	22:50	31 06:48 (37)	
24	09:02	07:49	06:30	06:02	04:53	07:28 (1) 04:53	04:28	06:17 (37)
	16:37	17:53	18:58	21:10	39 08:07 (1) 22:16	22:50	31 06:48 (37)	
25	09:00	07:46	06:27	06:00	04:51	07:29 (1) 04:51	04:28	06:18 (37)
	16:39	17:55	19:01	21:12	38 08:07 (1) 22:18	22:50	31 06:49 (37)	
26	08:58	07:44	06:24	05:57	04:49	07:28 (1) 04:49	06:25 (37) 04:29	06:18 (37)
	16:42	17:58	19:03	21:14	38 08:06 (1) 22:20	6 06:31 (37) 22:50	30 06:48 (37)	
27	08:56	07:41	06:21	05:54	04:48	07:29 (1) 04:48	06:22 (37) 04:29	06:18 (37)
	16:44	18:00	19:05	21:17	37 08:06 (1) 22:22	11 06:33 (37) 22:50	31 06:49 (37)	
28	08:54	07:38	06:18	05:52	04:46	07:29 (1) 04:46	06:20 (37) 04:30	06:18 (37)
	16:47	18:02	19:08	21:19	36 08:05 (1) 22:24	15 06:35 (37) 22:50	30 06:48 (37)	
29	08:52		07:16	05:49	04:44	07:30 (1) 04:44	06:20 (37) 04:31	06:19 (37)
	16:49		20:10	21:21	34 08:04 (1) 22:25	17 06:37 (37) 22:49	30 06:49 (37)	
30	08:50		07:13	05:47	04:43	07:29 (1) 04:43	06:19 (37) 04:31	06:19 (37)
	16:51		20:12	21:24	34 08:03 (1) 22:27	19 06:38 (37) 22:49	30 06:49 (37)	
31	08:48		07:10		04:41	06:17 (37)		
	16:54		20:14		22:29	21 06:38 (37)		
Potential sun hours	221	260	365	432	521	547		
Total, worst case		102		687	253	872		

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Calculation: Oppdatert layout - med nærliggende - worst case - oppdatert mottaker **Shadow receptor:** AM - Eiendom 121/9 - Hå kommune (39)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

The sun is shining all the day, from sunrise to sunset

The rotor plane is always perpendicular to the line from the WTG to the sun

The WTG is always operating

	July	August	September	October	November	December				
1	04:32	06:20 (37)	05:24	06:33	07:45 (1)	07:39	07:51	08:28 (63)	09:00	
	22:48	29 06:49 (37)	22:01	20:40	15 08:00 (1)	19:13	16:49	9 08:37 (63)	15:51	
2	04:33	06:20 (37)	05:27	06:35	07:47 (1)	07:42	07:54	08:30 (63)	09:01	
	22:48	30 06:50 (37)	21:58	20:37	9 07:56 (1)	19:10	16:47	6 08:36 (63)	15:50	
3	04:34	06:20 (37)	05:29	06:38		07:44	07:56	08:33 (63)	09:03	
	22:47	29 06:49 (37)	21:56	20:34		19:07	16:44	1 08:34 (63)	15:49	
4	04:35	06:20 (37)	05:31	06:40		07:46	07:59		09:05	
	22:46	29 06:49 (37)	21:54	20:31		19:05	16:42		15:48	
5	04:36	06:21 (37)	05:33	07:52 (1)	06:42	07:48	08:01		09:07	
	22:46	28 06:49 (37)	21:51	6 07:58 (1)	20:28	19:02	16:39		15:47	
6	04:38	06:21 (37)	05:35	07:48 (1)	06:44	07:51	08:03		09:09	
	22:45	27 06:48 (37)	21:49	14 08:02 (1)	20:25	18:59	16:37		15:47	
7	04:39	06:22 (37)	05:38	07:46 (1)	06:47	07:53	08:06		09:10	
	22:44	27 06:49 (37)	21:47	19 08:05 (1)	20:23	18:56	16:35		15:46	
8	04:40	06:23 (37)	05:40	07:44 (1)	06:49	07:55	08:08		09:12	
	22:43	26 06:49 (37)	21:44	22 08:06 (1)	20:20	18:53	16:32		15:45	
9	04:42	06:23 (37)	05:42	07:42 (1)	06:51	07:57	08:11		09:13	
	22:42	25 06:48 (37)	21:42	26 08:08 (1)	20:17	18:50	16:30		15:44	
10	04:43	06:24 (37)	05:44	07:41 (1)	06:53	08:00	08:13		09:15	
	22:40	24 06:48 (37)	21:39	28 08:09 (1)	20:14	18:48	16:28		15:44	
11	04:45	06:25 (37)	05:46	07:40 (1)	06:55	08:02	08:15		09:16	
	22:39	23 06:48 (37)	21:37	30 08:10 (1)	20:11	18:45	16:26		15:43	
12	04:46	06:25 (37)	05:49	07:39 (1)	06:58	08:04	08:18		09:17	
	22:38	22 06:47 (37)	21:34	32 08:11 (1)	20:08	18:42	16:24		15:43	
13	04:48	06:26 (37)	05:51	07:38 (1)	07:00	08:07	08:20		09:19	
	22:36	20 06:46 (37)	21:32	33 08:11 (1)	20:05	18:39	16:22		15:43	
14	04:49	06:28 (37)	05:53	07:37 (1)	07:02	08:09	08:22		09:20	
	22:35	18 06:46 (37)	21:29	35 08:12 (1)	20:02	18:36	16:19		15:43	
15	04:51	06:28 (37)	05:55	07:36 (1)	07:04	08:11	08:25		09:21	
	22:34	16 06:44 (37)	21:26	36 08:12 (1)	19:59	18:34	16:17		15:42	
16	04:53	06:30 (37)	05:58	07:35 (1)	07:06	08:14	08:27		09:22	
	22:32	14 06:44 (37)	21:24	37 08:12 (1)	19:57	18:31	16:15		15:42	
17	04:54	06:32 (37)	06:00	07:35 (1)	07:09	08:16	08:29		09:23	
	22:30	9 06:41 (37)	21:21	38 08:13 (1)	19:54	18:28	16:13		15:42	
18	04:56		06:02	07:35 (1)	07:11	08:18	08:32		09:24	
	22:29		21:18	39 08:14 (1)	19:51	18:25	16:12		15:42	
19	04:58		06:04	07:35 (1)	07:13	08:21	08:34		09:25	
	22:27		21:16	38 08:13 (1)	19:48	18:23	16:10		15:43	
20	05:00		06:07	07:35 (1)	07:15	08:23	08:36		09:25	
	22:25		21:13	38 08:13 (1)	19:45	18:20	16:08		15:43	
21	05:02		06:09	07:34 (1)	07:17	08:25	08:39		09:26	
	22:23		21:10	39 08:13 (1)	19:42	18:17	16:06		15:43	
22	05:04		06:11	07:34 (1)	07:20	08:28	08:41		09:27	
	22:22		21:08	38 08:12 (1)	19:39	18:15	16:04		15:44	
23	05:06		06:13	07:34 (1)	07:22	08:30	08:43		09:27	
	22:20		21:05	38 08:12 (1)	19:36	18:12	16:03		15:44	
24	05:08		06:15	07:34 (1)	07:24	08:32	08:45		09:28	
	22:18		21:02	37 08:11 (1)	19:33	18:09	3 09:30 (63)	08:45	09:28	
25	05:10		06:18	07:34 (1)	07:26	07:35	08:27 (63)	16:01	15:45	
	22:16		20:59	36 08:10 (1)	19:30	07:35	08:27 (63)	08:47	09:28	
26	05:12		06:20	07:34 (1)	07:28	07:37	08:26 (63)	16:00	15:46	
	22:14		20:57	35 08:09 (1)	19:28	07:37	08:26 (63)	08:50	09:28	
27	05:14		06:22	07:35 (1)	07:31	17:04	12 08:38 (63)	15:58	15:46	
	22:12		20:54	33 08:08 (1)	19:25	07:39	08:25 (63)	08:52	09:28	
28	05:16		06:24	07:35 (1)	07:33	17:02	13 08:38 (63)	15:57	15:47	
	22:10		20:51	32 08:07 (1)	19:22	07:42	08:25 (63)	08:54	09:28	
29	05:18		06:27	08:07 (1)	19:22	16:59	14 08:39 (63)	15:55	15:48	
	22:07		20:48	30 08:06 (1)	19:19	07:44	08:24 (63)	08:56	09:28	
30	05:20		06:29	07:39 (1)	07:37	16:56	14 08:38 (63)	15:54	15:49	
	22:05		20:45	26 08:05 (1)	19:16	07:47	08:25 (63)	08:58	09:28	
31	05:22		06:31	07:42 (1)		16:54	13 08:38 (63)	15:53	15:50	
	22:03		20:43	21 08:03 (1)		07:49	08:26 (63)		09:28	
Potential sun hours	545	478		386		16:51	12 08:38 (63)		15:51	
Total, worst case	396	836		24		319	90	236	16	200

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)		Last time (hh:mm) with flicker	(WTG causing flicker last time)

SHADOW - Calendar

Calculation: Oppdatert layout - med nærliggende - worst case - oppdatert mottaker **Shadow receptor:** AN - Brusallivegen 219 (40)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

The sun is shining all the day, from sunrise to sunset

The rotor plane is always perpendicular to the line from the WTG to the sun

The WTG is always operating

	January	February	March	April	May	June	
1	09:28 15:53	08:46 16:56	07:35 18:05	08:11 (62) 07:07 20:17	05:44 21:26	04:40 22:30	33
2	09:27 15:54	08:43 16:59	07:33 18:07	08:08 (62) 07:04 20:19	05:42 21:28	07:06 (1) 04:39 22:32	33
3	09:27 15:56	08:41 17:01	07:30 18:10	08:06 (62) 07:01 20:21	05:39 21:31	07:04 (1) 04:38 22:33	31
4	09:26 15:57	08:39 17:04	07:27 18:12	08:05 (62) 06:58 20:24	05:37 21:33	07:02 (1) 04:36 22:35	31
5	09:26 15:59	08:37 17:06	07:24 18:14	08:04 (62) 06:55 20:26	05:34 21:35	07:00 (1) 04:35 22:36	30
6	09:25 16:00	08:34 17:09	07:21 18:17	08:19 (62) 06:53 20:28	05:32 21:37	07:15 (1) 04:34 22:38	29
7	09:24 16:02	08:32 17:11	07:19 18:19	08:05 (62) 06:50 20:31	05:29 21:40	06:56 (1) 04:33 22:39	29
8	09:24 16:04	08:30 17:14	07:16 18:21	08:05 (62) 06:47 20:33	05:27 21:42	06:54 (1) 04:32 22:40	27
9	09:23 16:06	08:27 17:16	07:13 18:24	08:16 (62) 06:44 20:35	05:24 21:44	07:17 (1) 04:31 22:42	27
10	09:22 16:07	08:25 17:18	07:10 18:26	08:13 (62) 06:41 20:37	05:22 21:46	06:50 (1) 04:31 22:43	26
11	09:21 16:09	08:23 17:21	07:07 18:28	06:38 20:40	05:20 21:49	06:48 (1) 04:30 22:44	25
12	09:20 16:11	08:20 17:23	07:04 18:31	06:36 20:42	05:17 21:51	07:18 (1) 04:29 22:45	24
13	09:18 16:13	08:18 17:26	07:02 18:33	06:33 20:44	05:15 21:53	06:45 (1) 04:29 22:46	24
14	09:17 16:15	08:15 17:28	06:59 18:35	06:30 20:47	05:13 21:55	06:43 (1) 04:28 22:46	23
15	09:16 16:17	08:13 17:31	08:45 (63) 06:56 18:38	06:27 20:49	05:11 21:57	06:41 (1) 04:28 22:47	23
16	09:14 16:19	08:10 17:33	08:42 (63) 06:53 18:40	06:24 20:51	05:09 22:00	06:40 (1) 04:28 22:48	22
17	09:13 16:21	08:07 17:36	08:40 (63) 06:50 18:42	06:22 20:54	05:06 22:02	06:39 (1) 04:27 22:48	22
18	09:12 16:24	08:05 17:38	08:40 (63) 06:47 18:45	06:19 20:56	05:04 22:04	06:40 (1) 04:27 22:49	21
19	09:10 16:26	08:02 17:41	08:39 (63) 06:44 18:47	06:16 20:58	05:02 22:06	06:40 (1) 04:27 22:49	21
20	09:08 16:28	08:00 17:43	08:39 (63) 06:42 18:49	06:13 21:00	05:00 22:08	06:40 (1) 04:27 22:50	21
21	09:07 16:30	07:57 17:46	08:39 (63) 06:39 18:52	06:11 21:03	04:58 22:10	06:40 (1) 04:27 22:50	21
22	09:05 16:32	07:54 17:48	08:39 (63) 06:36 18:54	06:08 21:05	04:56 22:12	06:40 (1) 04:27 22:50	21
23	09:03 16:35	07:52 17:50	08:41 (63) 06:33 18:56	06:05 21:07	04:55 22:14	06:40 (1) 04:28 22:50	21
24	09:02 16:37	07:49 17:53	08:42 (63) 06:30 18:58	06:02 21:10	04:53 22:16	06:41 (1) 04:28 22:50	21
25	09:00 16:39	07:46 17:55	06:27 19:01	06:00 21:12	04:51 22:18	06:41 (1) 04:28 22:50	21
26	08:58 16:42	07:44 17:58	06:24 19:03	05:57 21:14	04:49 22:20	06:42 (1) 04:29 22:50	22
27	08:56 16:44	07:41 18:00	06:21 19:05	05:54 21:17	04:48 22:22	06:41 (1) 04:29 22:50	23
28	08:54 16:47	07:38 18:02	06:18 19:08	05:52 21:19	04:46 22:24	06:42 (1) 04:30 22:50	23
29	08:52 16:49		07:16 20:10	05:49 21:21	04:44 22:25	06:43 (1) 04:31 22:49	24
30	08:50 16:51		07:13 20:12	05:47 21:24	04:43 22:27	06:43 (1) 04:32 22:49	24
31	08:48 16:54		07:10 20:14		04:41 22:29	06:43 (1) 07:17 (1)	
Potential sun hours	221	260	365	432	521	547	743
Total, worst case		117	101		928		

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Calculation: Oppdatert layout - med nærliggende - worst case - oppdatert mottaker **Shadow receptor:** AN - Brusallivegen 219 (40)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

The sun is shining all the day, from sunrise to sunset

The rotor plane is always perpendicular to the line from the WTG to the sun

The WTG is always operating

	July		August		September		October		November		December	
1	04:32		06:54 (1)	05:24	06:57 (1)	06:33	07:39		07:51	09:00		
	22:48	25	07:19 (1)	22:01	32	07:29 (1)	20:40	19:13	16:49	15:52		
2	04:33		06:54 (1)	05:27	06:59 (1)	06:35	07:42		07:54	09:01		
	22:48	26	07:20 (1)	21:58	30	07:29 (1)	20:37	19:10	16:47	15:50		
3	04:34		06:53 (1)	05:29	07:01 (1)	06:38	07:44		07:56	09:03		
	22:47	27	07:20 (1)	21:56	27	07:28 (1)	20:34	19:07	16:44	15:49		
4	04:35		06:53 (1)	05:31	07:03 (1)	06:40	07:46		07:59	09:05		
	22:46	27	07:20 (1)	21:54	24	07:27 (1)	20:31	19:05	16:42	15:48		
5	04:37		06:53 (1)	05:33	07:05 (1)	06:42	07:48		08:43 (62)	08:01	09:07	
	22:46	28	07:21 (1)	21:51	22	07:27 (1)	20:28	19:02	9	08:52 (62)	16:39	15:47
6	04:38		06:54 (1)	05:35	07:07 (1)	06:44	07:51		08:41 (62)	08:03	09:09	
	22:45	28	07:22 (1)	21:49	19	07:26 (1)	20:25	18:59	12	08:53 (62)	16:37	15:47
7	04:39		06:53 (1)	05:38	07:09 (1)	06:47	07:53		08:41 (62)	08:06	09:10	
	22:44	30	07:23 (1)	21:47	16	07:25 (1)	20:23	18:56	13	08:54 (62)	16:35	15:46
8	04:40		06:53 (1)	05:40	07:10 (1)	06:49	07:55		08:40 (62)	08:08	09:12	
	22:43	30	07:23 (1)	21:44	13	07:23 (1)	20:20	18:53	14	08:54 (62)	16:32	15:45
9	04:42		06:52 (1)	05:42	07:12 (1)	06:51	07:57		08:39 (62)	08:11	09:13	
	22:42	32	07:24 (1)	21:42	10	07:22 (1)	20:17	18:50	15	08:54 (62)	16:30	15:44
10	04:43		06:52 (1)	05:44	07:14 (1)	06:53	08:00		08:40 (62)	08:13	09:15	
	22:40	32	07:24 (1)	21:39	6	07:20 (1)	20:14	18:48	14	08:54 (62)	16:28	15:44
11	04:45		06:52 (1)	05:46	07:15 (1)	06:55	08:02		08:40 (62)	08:15	09:16	
	22:39	33	07:25 (1)	21:37	3	07:18 (1)	20:11	18:45	12	08:52 (62)	16:26	15:43
12	04:46		06:52 (1)	05:49		06:58	08:04		08:42 (62)	08:18	09:17	
	22:38	34	07:26 (1)	21:34		20:08	18:42	8	08:50 (62)	16:24	15:43	
13	04:48		06:51 (1)	05:51		07:00	08:07		08:45 (62)	08:20	09:19	
	22:36	35	07:26 (1)	21:32		20:05	18:39	4	08:49 (62)	16:22	15:43	
14	04:49		06:52 (1)	05:53		07:02	08:09			08:22	09:20	
	22:35	35	07:27 (1)	21:29		20:02	18:36			16:19	15:43	
15	04:51		06:51 (1)	05:55		07:04	08:11			08:25	09:21	
	22:34	36	07:27 (1)	21:26		19:59	18:34			16:17	15:42	
16	04:53		06:51 (1)	05:58		07:06	08:14			08:27	09:22	
	22:32	37	07:28 (1)	21:24		19:57	18:31			16:15	15:42	
17	04:54		06:50 (1)	06:00		07:09	08:16		09:16 (63)	08:29	09:23	
	22:30	38	07:28 (1)	21:21		19:54	18:28	3	09:19 (63)	16:13	15:42	
18	04:56		06:51 (1)	06:02		07:11	08:18		09:12 (63)	08:32	09:24	
	22:29	37	07:28 (1)	21:18		19:51	18:25	10	09:22 (63)	16:12	15:42	
19	04:58		06:51 (1)	06:04		07:13	08:21		09:11 (63)	08:34	09:25	
	22:27	38	07:29 (1)	21:16		19:48	18:23	12	09:23 (63)	16:10	15:43	
20	05:00		06:50 (1)	06:07		07:15	08:23		09:10 (63)	08:36	09:25	
	22:25	39	07:29 (1)	21:13		19:45	18:20	14	09:24 (63)	16:08	15:43	
21	05:02		06:50 (1)	06:09		07:17	08:25		09:10 (63)	08:39	09:26	
	22:23	39	07:29 (1)	21:10		19:42	18:17	14	09:24 (63)	16:06	15:43	
22	05:04		06:51 (1)	06:11		07:19	08:28		09:09 (63)	08:41	09:27	
	22:22	39	07:30 (1)	21:08		19:39	18:15	15	09:24 (63)	16:04	15:44	
23	05:06		06:50 (1)	06:13		07:22	08:30		09:09 (63)	08:43	09:27	
	22:20	39	07:29 (1)	21:05		19:36	18:12	15	09:24 (63)	16:03	15:44	
24	05:08		06:50 (1)	06:15		07:24	08:32		09:09 (63)	08:45	09:28	
	22:18	40	07:30 (1)	21:02		19:33	18:09	14	09:23 (63)	16:01	15:45	
25	05:10		06:50 (1)	06:18		07:26	07:35		08:10 (63)	08:47	09:28	
	22:16	40	07:30 (1)	20:59		19:30	17:07	12	08:22 (63)	16:00	15:46	
26	05:12		06:50 (1)	06:20		07:28	07:37		08:13 (63)	08:49	09:28	
	22:14	40	07:30 (1)	20:57		19:28	17:04	8	08:21 (63)	15:58	15:46	
27	05:14		06:51 (1)	06:22		07:31	07:39		08:15 (63)	08:52	09:28	
	22:12	39	07:30 (1)	20:54		19:25	17:02	3	08:18 (63)	15:57	15:47	
28	05:16		06:51 (1)	06:24		07:33	07:42		08:54	09:28		
	22:10	40	07:31 (1)	20:51		19:22	16:59		15:55	15:48		
29	05:18		06:52 (1)	06:27		07:35	07:44		08:56	09:28		
	22:07	38	07:30 (1)	20:48		19:19	16:56		15:54	15:49		
30	05:20		06:54 (1)	06:29		07:37	07:47		08:58	09:28		
	22:05	35	07:29 (1)	20:45		19:16	16:54		15:53	15:50		
31	05:22		06:56 (1)	06:31			07:49			09:28		
	22:03	33	07:29 (1)	20:43			16:51			15:51		
Potential sun hours	545		478			386	319		236	200		
Total, worst case	1069		202			221						

Table layout: For each day in each month the following matrix apply

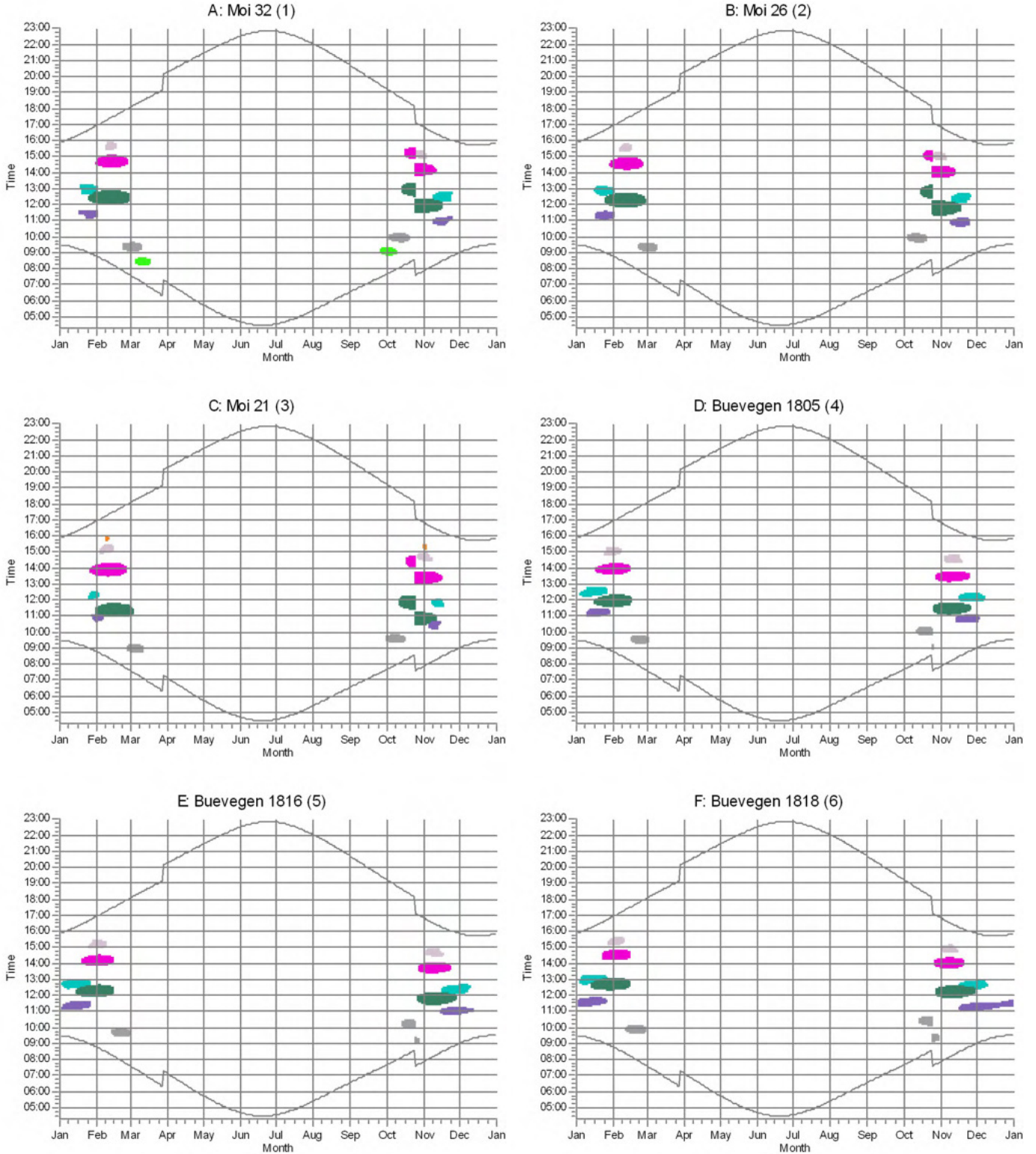
Day in month	Sun rise (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)		Last time (hh:mm) with flicker	(WTG causing flicker last time)



Vedlegg 3.2

SHADOW - Calendar, graphical

Calculation: Oppdatert layout - med nærliggende - worst case - oppdatert mottaker



WTC
 16: VESTAS V162-7.2 7000 362.0 101 hub: 119.0 m (T01: 200.0 m) (258)
 18: VESTAS V162-7.2 7000 362.0 101 hub: 119.0 m (T01: 200.0 m) (250)

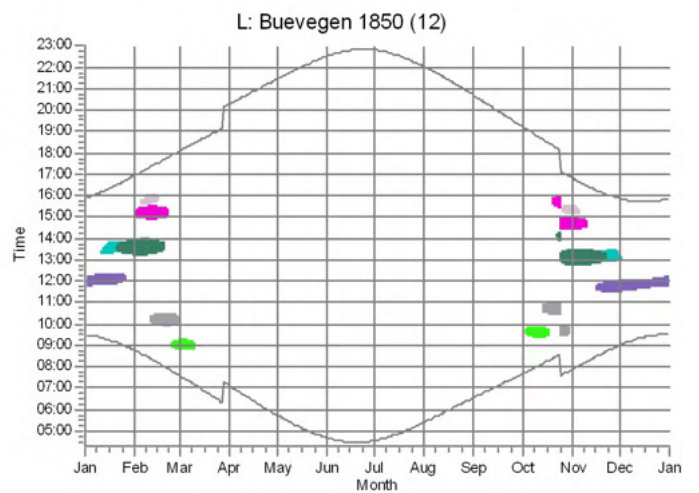
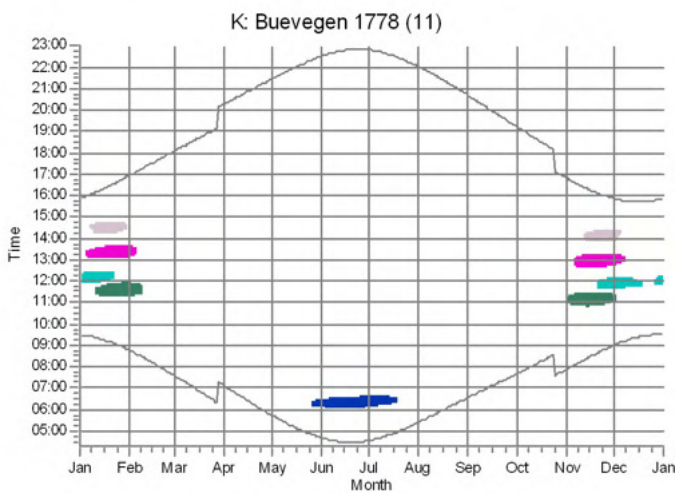
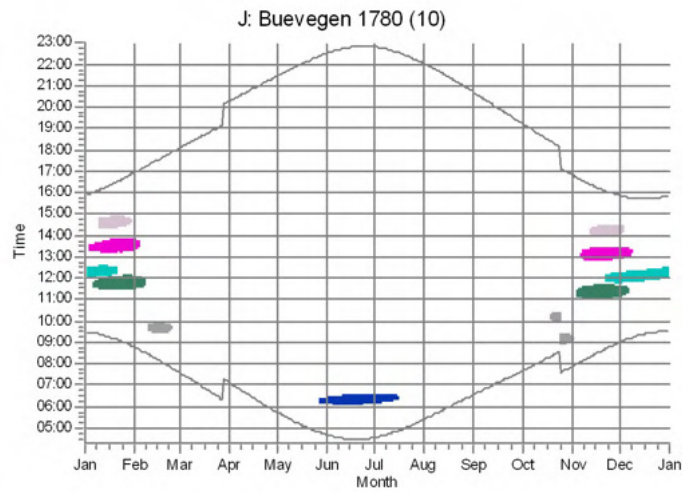
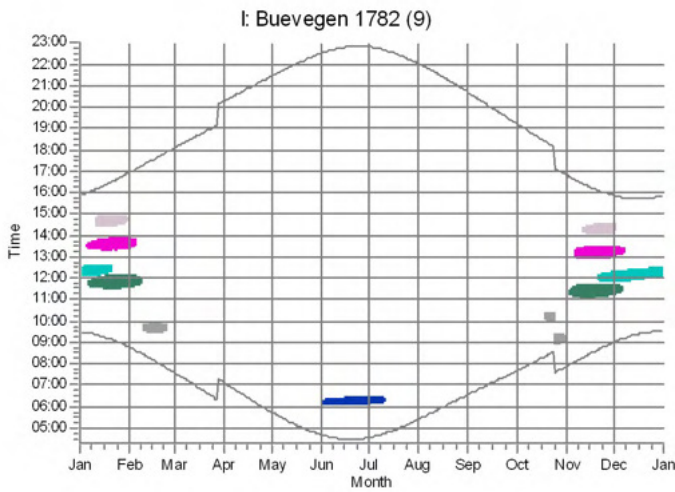
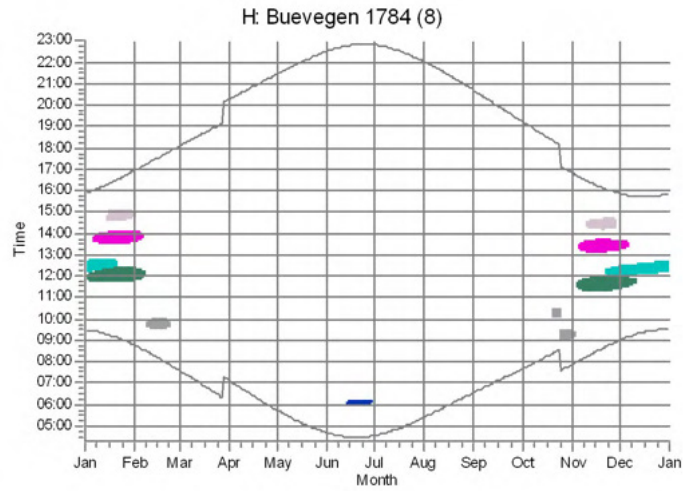
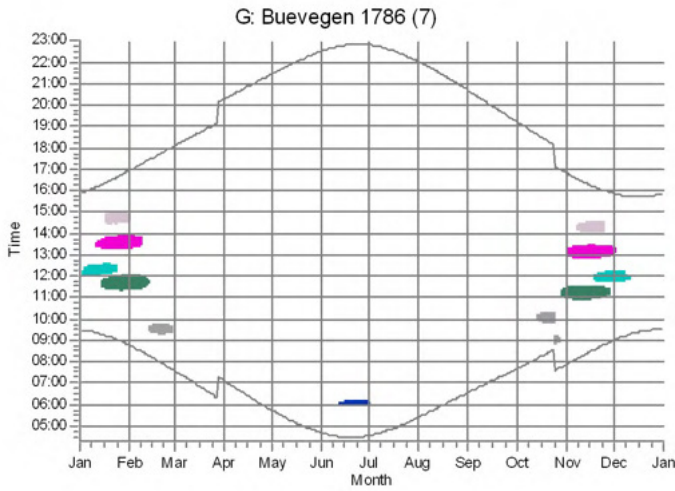
21: VESTAS V162-7.2 7000 362.0 101 hub: 119.0 m (T01: 200.0 m) (255)
 23: VESTAS V162-7.2 7000 362.0 101 hub: 119.0 m (T01: 200.0 m) (256)

24: VESTAS V162-7.2 7000 362.0 101 hub: 119.0 m (T01: 200.0 m) (256)
 25: VESTAS V162-7.2 7000 362.0 101 hub: 119.0 m (T01: 200.0 m) (257)

26: VESTAS V162-7.2 7000 362.0 101 hub: 119.0 m (T01: 200.0 m) (257)
 28: VESTAS V162-7.2 7000 362.0 101 hub: 119.0 m (T01: 200.0 m) (258)

SHADOW - Calendar, graphical

Calculation: Oppdatert layout - med nærliggende - worst case - oppdatert mottaker



HTK:
 16: VESTAS V162-7.2 7000 362.0 10' hub: 119.0 m (T01: 200.0 m) (258)
 18: VESTAS V162-7.2 7000 362.0 10' hub: 119.0 m (T01: 200.0 m) (250)

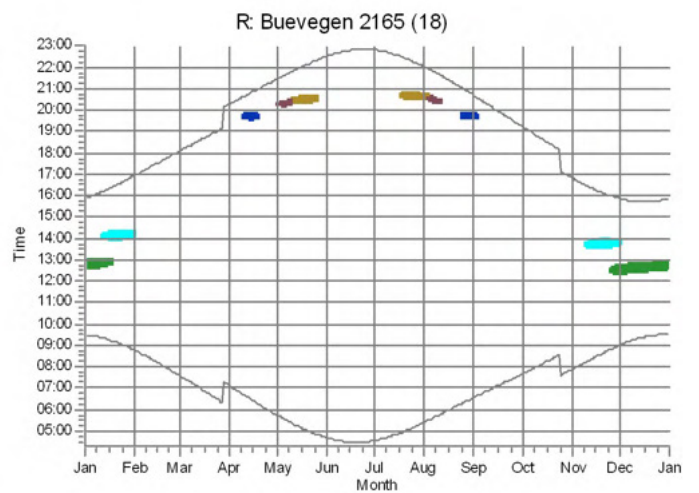
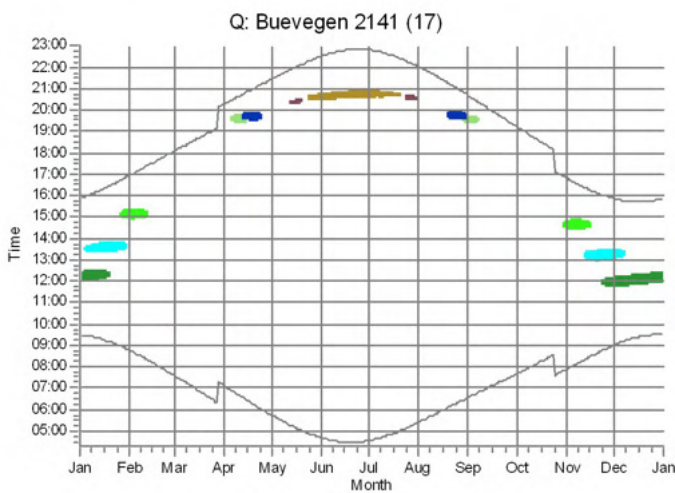
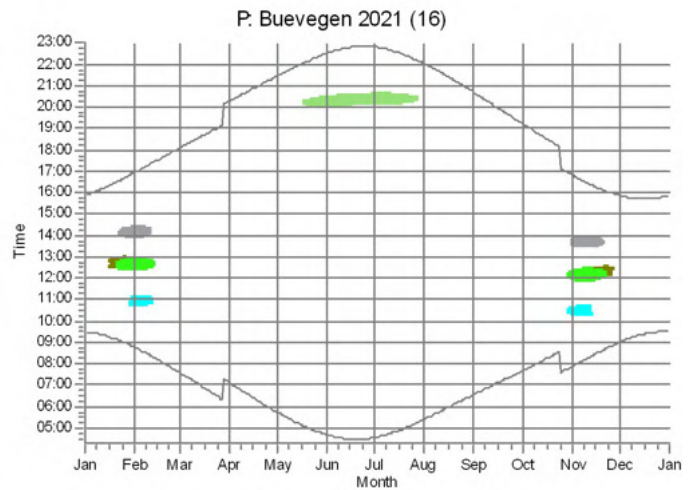
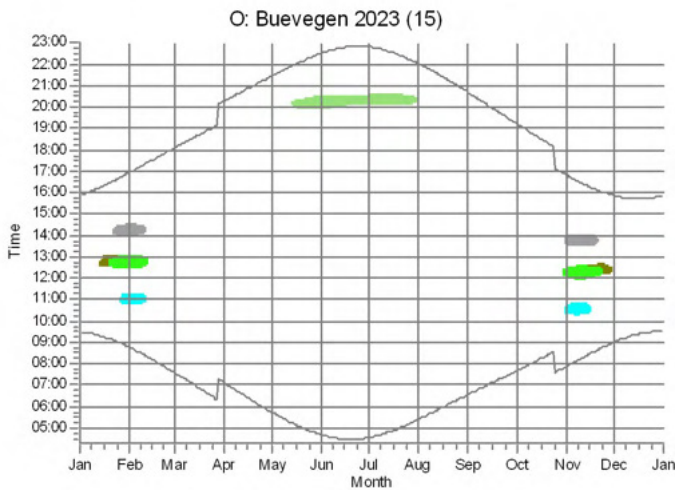
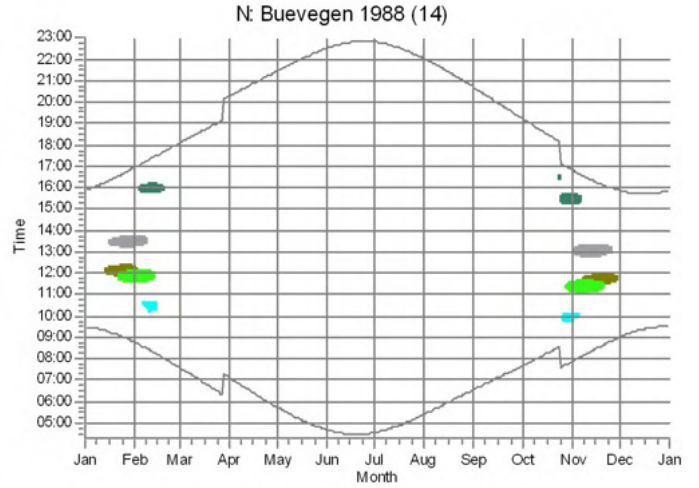
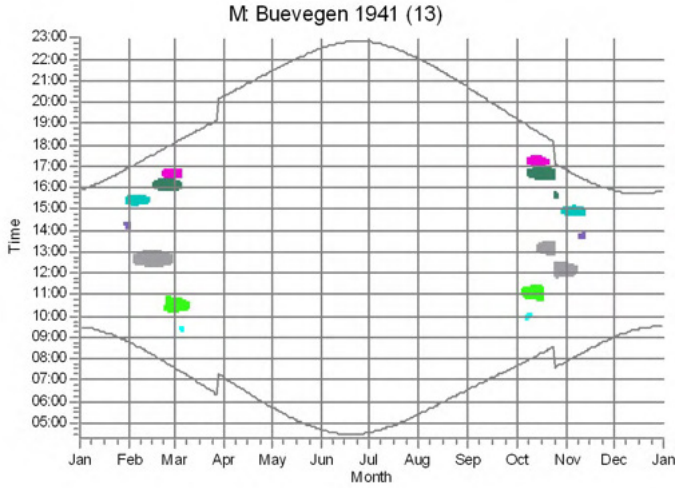
21: VESTAS V162-7.2 7000 362.0 10' hub: 119.0 m (T01: 200.0 m) (265)
 24: VESTAS V162-7.2 7000 362.0 10' hub: 119.0 m (T01: 200.0 m) (256)

25: VESTAS V162-7.2 7000 362.0 10' hub: 119.0 m (T01: 200.0 m) (267)
 26: VESTAS V162-7.2 7000 362.0 10' hub: 119.0 m (T01: 200.0 m) (257)

24: VESTAS V162-7.2 7000 362.0 10' hub: 119.0 m (T01: 200.0 m) (259)
 77: Siemens Gamesa 95 S 5.0-132 MK60 3000 132.0 10' hub: 115.0 m (T01: 181.0 m) (270)

SHADOW - Calendar, graphical

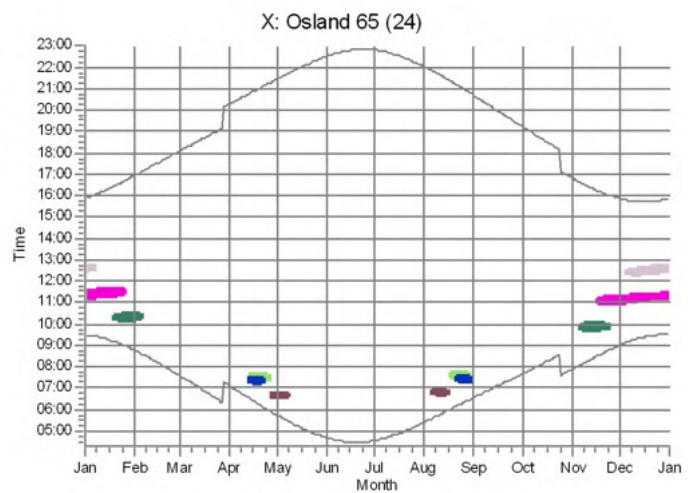
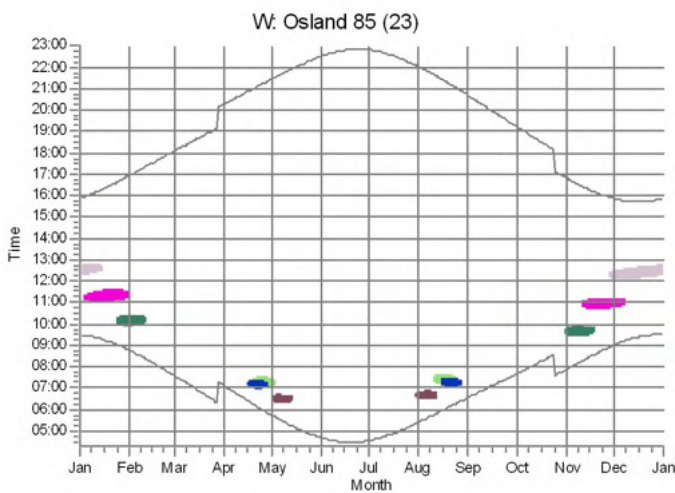
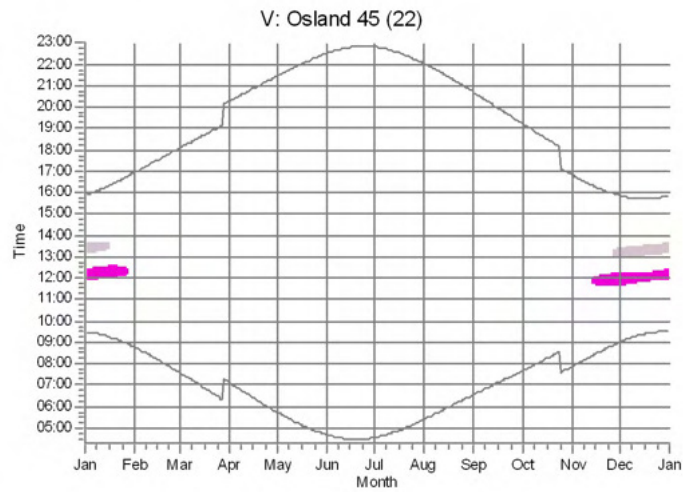
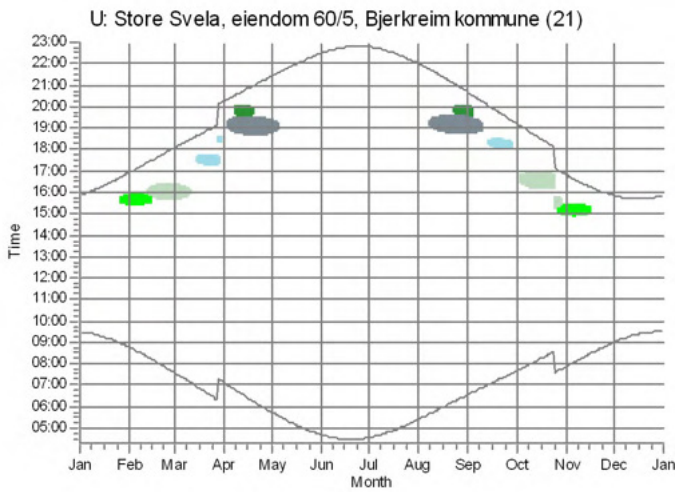
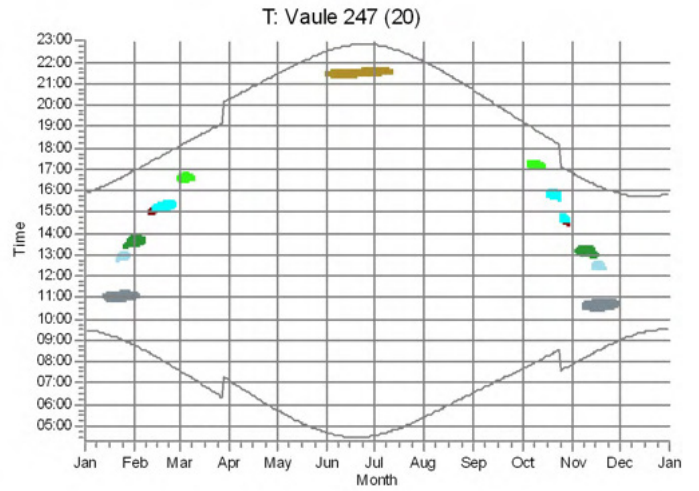
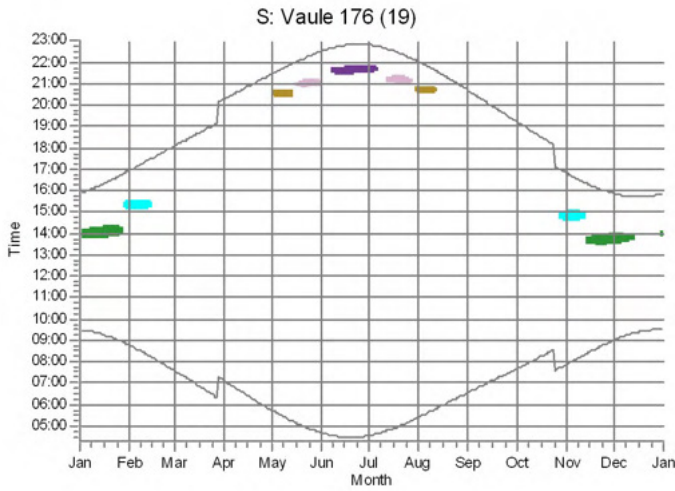
Calculation: Oppdatert layout - med nærliggende - worst case - oppdatert mottaker



- 10: Vestas V162-7.2 7000 162.0 101 hub: 119.0 m (T01: 200.0 m) (2512)
- 11: Vestas V162-7.2 7000 162.0 101 hub: 119.0 m (T01: 200.0 m) (2505)
- 16: Vestas V162-7.2 7000 162.0 101 hub: 119.0 m (T01: 200.0 m) (2508)
- 18: Vestas V162-7.2 7000 162.0 101 hub: 119.0 m (T01: 200.0 m) (2500)
- 21: Vestas V162-7.2 7000 162.0 101 hub: 119.0 m (T01: 200.0 m) (2563)
- 24: Vestas V162-7.2 7000 162.0 101 hub: 119.0 m (T01: 200.0 m) (2566)
- 27: Vestas V162-7.2 7000 162.0 101 hub: 119.0 m (T01: 200.0 m) (2569)
- 30: Vestas V162-7.2 7000 162.0 101 hub: 119.0 m (T01: 200.0 m) (2571)
- 34: Vestas V162-7.2 7000 162.0 101 hub: 119.0 m (T01: 200.0 m) (2574)
- 36: Siemens Gamesa SG 5.0-132 1965 132.0 101 hub: 115.0 m (T01: 181.0 m) (71)
- 37: Siemens Gamesa SG 5.0-132 1965 132.0 101 hub: 115.0 m (T01: 181.0 m) (72)
- 38: Siemens Gamesa SG 5.0-132 1965 132.0 101 hub: 115.0 m (T01: 181.0 m) (73)
- 70: Siemens Gamesa SG 5.0-132 1965 132.0 101 hub: 115.0 m (T01: 181.0 m) (74)

SHADOW - Calendar, graphical

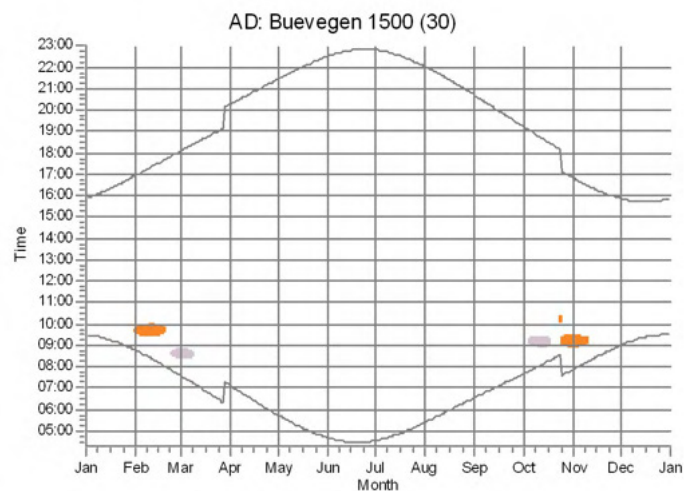
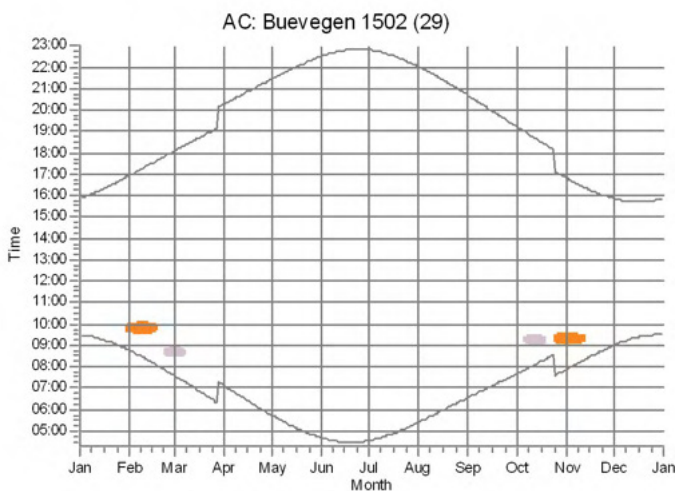
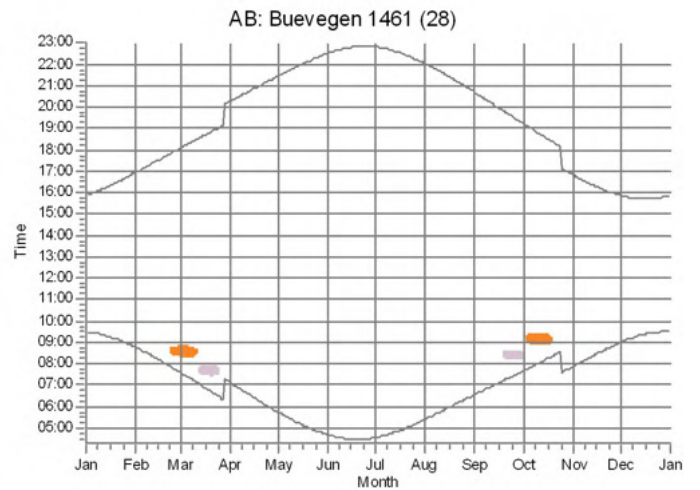
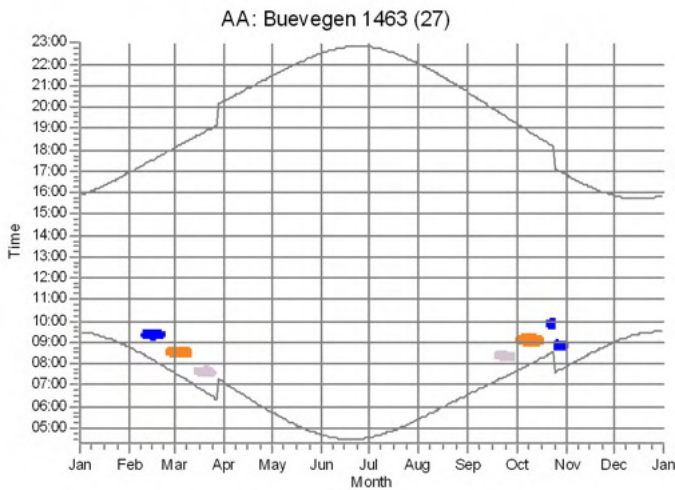
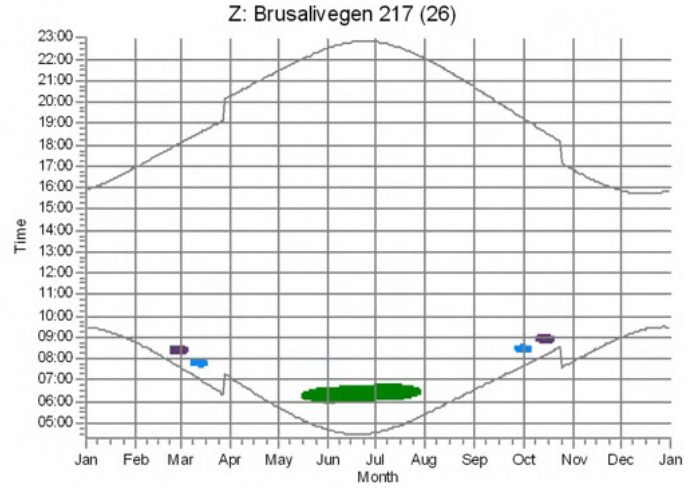
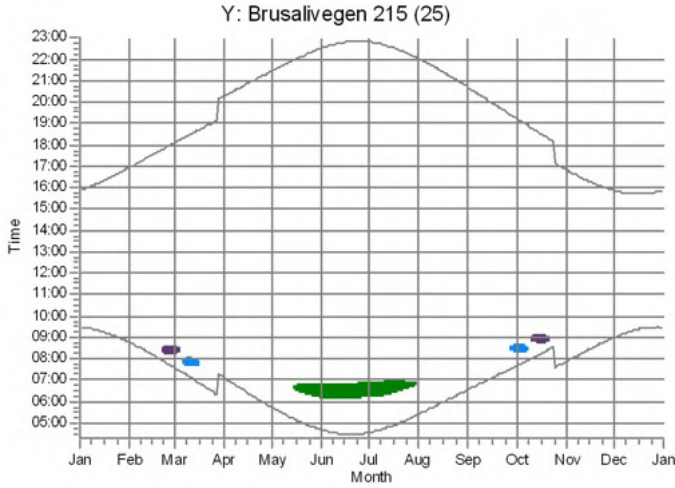
Calculation: Oppdatert layout - med nærliggende - worst case - oppdatert mottaker



- | | | | |
|---|---|--|--|
| 8: VESTAS V162-7.2 7200 162.0 101 hub: 110.0 m (T01: 200.0 m) (2550) | 24: VESTAS V162-7.2 7200 162.0 101 hub: 110.0 m (T01: 200.0 m) (2566) | 38: VESTAS V162-7.2 7200 162.0 101 hub: 110.0 m (T01: 200.0 m) (2589) | 80: Siemens Gamesa SG 5.0-132 1665 5000 132.0 101 hub: 115.0 m (T01: 181.0 m) (75) |
| 9: VESTAS V162-7.2 7200 162.0 101 hub: 110.0 m (T01: 200.0 m) (2551) | 25: VESTAS V162-7.2 7200 162.0 101 hub: 110.0 m (T01: 200.0 m) (2567) | 39: Siemens Gamesa SG 5.0-132 1665 5000 132.0 101 hub: 115.0 m (T01: 181.0 m) (76) | 81: Siemens Gamesa SG 5.0-132 1665 5000 132.0 101 hub: 115.0 m (T01: 181.0 m) (76) |
| 13: VESTAS V162-7.2 7200 162.0 101 hub: 110.0 m (T01: 200.0 m) (2555) | 27: VESTAS V162-7.2 7200 162.0 101 hub: 110.0 m (T01: 200.0 m) (2569) | 77: Siemens Gamesa SG 5.0-132 1665 5000 132.0 101 hub: 115.0 m (T01: 181.0 m) (72) | |
| 14: VESTAS V162-7.2 7200 162.0 101 hub: 110.0 m (T01: 200.0 m) (2556) | 28: VESTAS V162-7.2 7200 162.0 101 hub: 110.0 m (T01: 200.0 m) (2571) | 78: Siemens Gamesa SG 5.0-132 1665 5000 132.0 101 hub: 115.0 m (T01: 181.0 m) (73) | |
| 16: VESTAS V162-7.2 7200 162.0 101 hub: 110.0 m (T01: 200.0 m) (2560) | 31: VESTAS V162-7.2 7200 162.0 101 hub: 110.0 m (T01: 200.0 m) (2575) | 79: Siemens Gamesa SG 5.0-132 1665 5000 132.0 101 hub: 115.0 m (T01: 181.0 m) (74) | |

SHADOW - Calendar, graphical

Calculation: Oppdatert layout - med nærliggende - worst case - oppdatert mottaker



WFS

1: VESTAS V152-7.2 2300 162.0 01 hub: 110.0 m (T01: 200.0 m) (254)

2: VESTAS V152-7.2 2300 162.0 01 hub: 110.0 m (T01: 200.0 m) (254)

21: VESTAS V152-7.2 2300 162.0 01 hub: 110.0 m (T01: 200.0 m) (254)

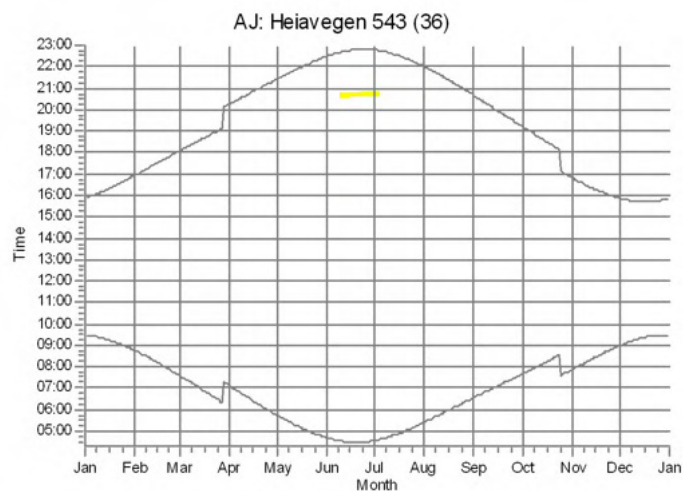
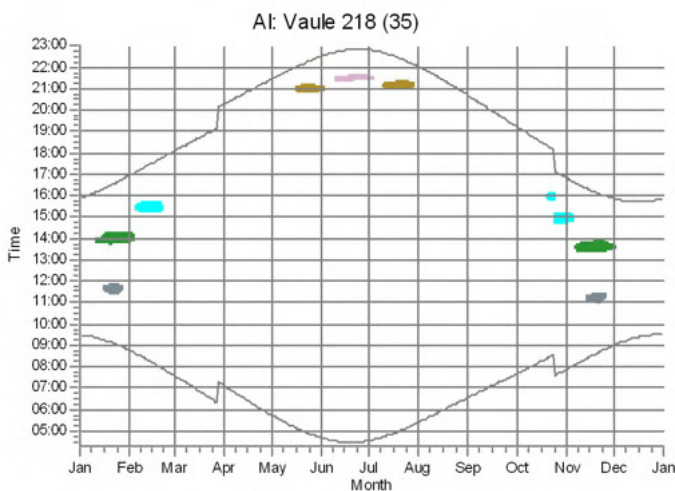
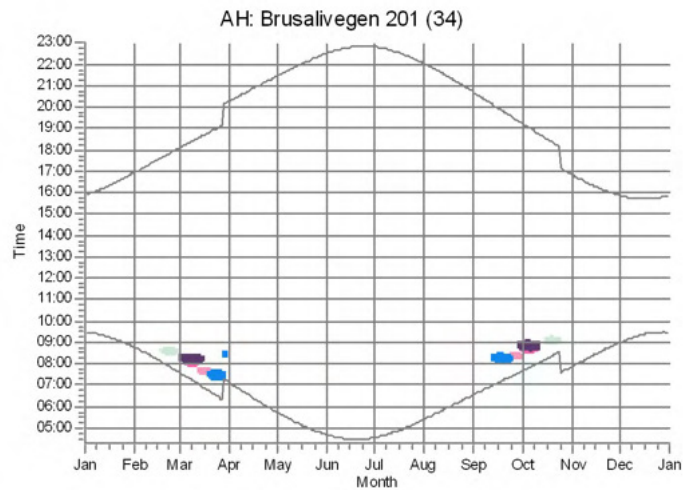
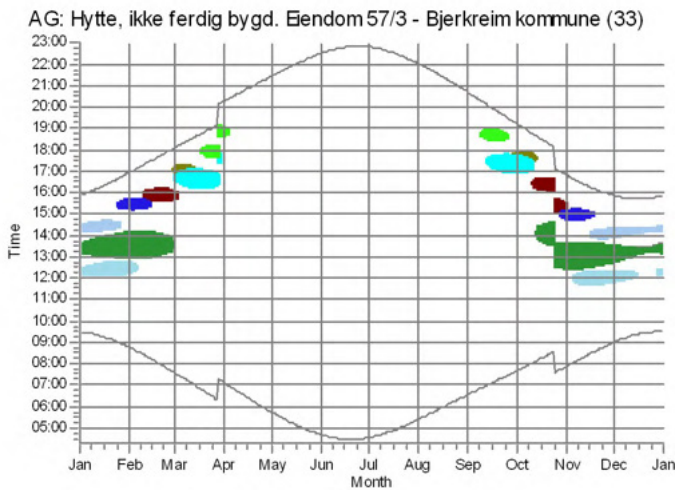
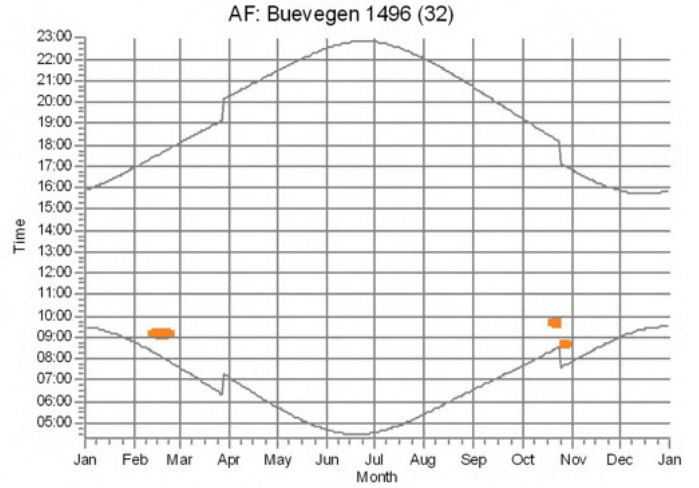
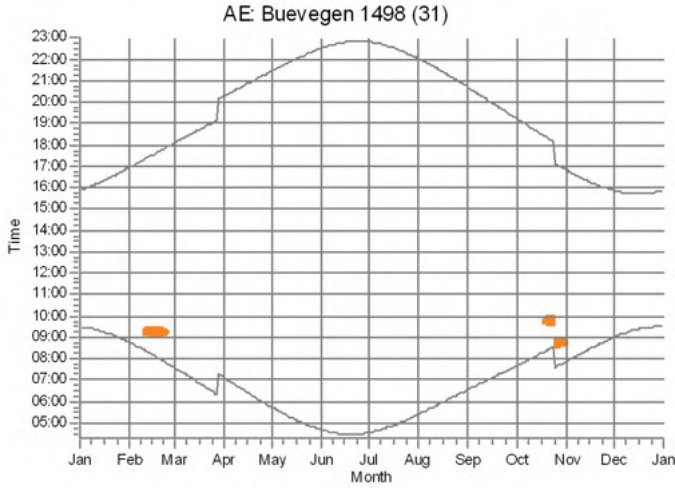
25: VESTAS V152-7.2 2300 162.0 01 hub: 110.0 m (T01: 200.0 m) (257)

42: Siemens Gamesa 5C 5.0-132 1965 5000 122.0 101 hub: 125.0 m (T01: 110.0 m) (24)

43: Siemens Gamesa 5C 5.0-132 1965 5000 122.0 101 hub: 125.0 m (T01: 110.0 m) (25)

SHADOW - Calendar, graphical

Calculation: Oppdatert layout - med nærliggende - worst case - oppdatert mottaker



- 2: VESTFAS V162-7.2 7200 162.0 101 hub: 110.0 m (T01: 200.0 m) (2594)
- 4: VESTFAS V162-7.2 7200 162.0 101 hub: 110.0 m (T01: 200.0 m) (2596)
- 6: VESTFAS V162-7.2 7200 162.0 101 hub: 110.0 m (T01: 200.0 m) (2598)
- 10: VESTFAS V162-7.2 7200 162.0 101 hub: 110.0 m (T01: 200.0 m) (2599)
- 11: VESTFAS V162-7.2 7200 162.0 101 hub: 110.0 m (T01: 200.0 m) (2599)

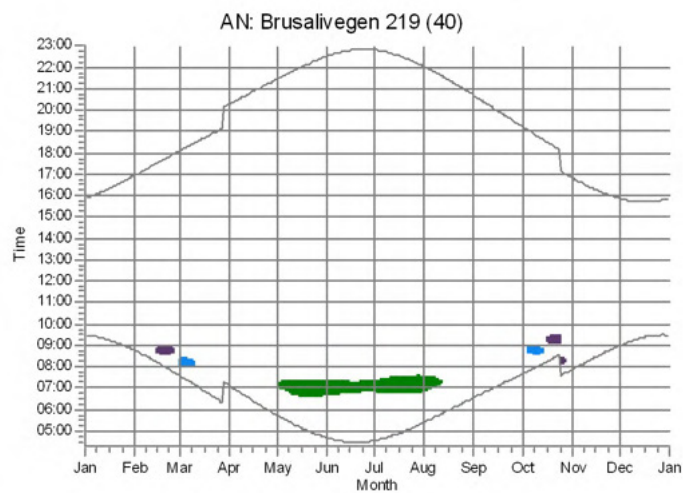
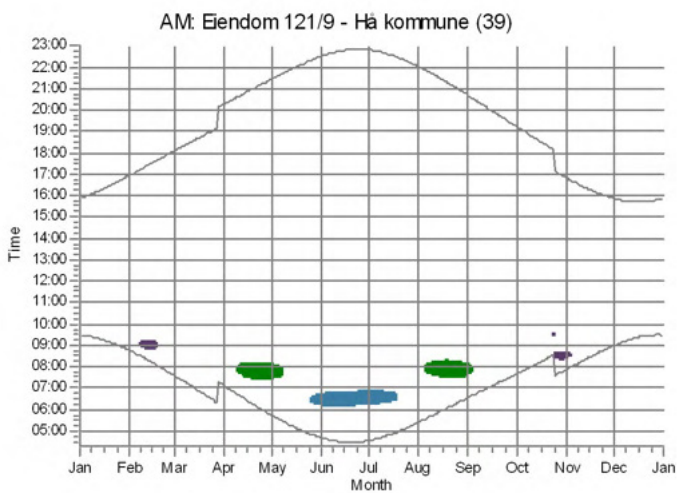
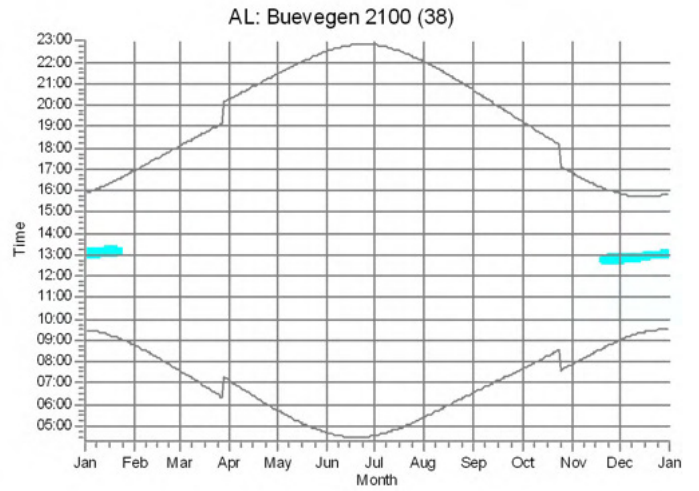
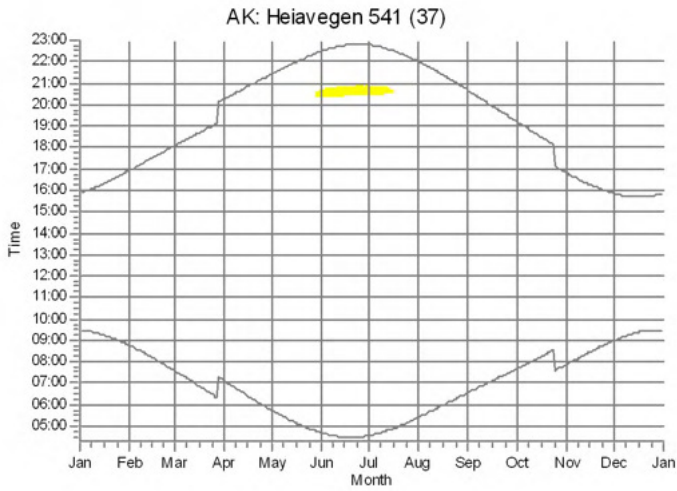
- 11: VESTFAS V162-7.2 7200 162.0 101 hub: 110.0 m (T01: 200.0 m) (2597)
- 16: VESTFAS V162-7.2 7200 162.0 101 hub: 110.0 m (T01: 200.0 m) (2598)
- 21: VESTFAS V162-7.2 7200 162.0 101 hub: 110.0 m (T01: 200.0 m) (2599)
- 27: VESTFAS V162-7.2 7200 162.0 101 hub: 110.0 m (T01: 200.0 m) (2599)
- 31: VESTFAS V162-7.2 7200 162.0 101 hub: 110.0 m (T01: 200.0 m) (2597)

- 36: VESTFAS V162-7.2 7200 162.0 101 hub: 110.0 m (T01: 200.0 m) (2578)
- 38: VESTFAS V162-7.2 7200 162.0 101 hub: 110.0 m (T01: 200.0 m) (2580)
- 39: Siemens Gamesa SC 5.0-132 1965 5000 132.0 101 hub: 125.0 m (T01: 195.0 m) (21)
- 40: Siemens Gamesa SC 5.0-132 1965 5000 132.0 101 hub: 125.0 m (T01: 195.0 m) (21)
- 41: Siemens Gamesa SC 5.0-132 1965 5000 132.0 101 hub: 125.0 m (T01: 195.0 m) (21)

- 42: Siemens Gamesa SC 5.0-132 1965 5000 132.0 101 hub: 125.0 m (T01: 195.0 m) (24)
- 43: Siemens Gamesa SC 5.0-132 1965 5000 132.0 101 hub: 125.0 m (T01: 195.0 m) (25)
- 78: Siemens Gamesa SC 5.0-132 1965 5000 132.0 101 hub: 125.0 m (T01: 195.0 m) (79)
- 80: Siemens Gamesa SC 5.0-132 1965 5000 132.0 101 hub: 125.0 m (T01: 195.0 m) (79)

SHADOW - Calendar, graphical

Calculation: Oppdatert layout - med nærliggende - worst case - oppdatert mottaker



WFS:

1: Vestfås V162-7.2 7200 162.0 01 hub: 110.0 m (TOT: 200.0 m) (254)

2: Vestfås V162-7.2 7200 162.0 01 hub: 110.0 m (TOT: 200.0 m) (254)

11: Vestfås V162-7.2 7200 162.0 01 hub: 110.0 m (TOT: 200.0 m) (255)

31: Vestfås V162-7.2 7200 162.0 01 hub: 110.0 m (TOT: 200.0 m) (259)

41: Siemens Gamesa 95 5.0-132 1965 5000 132.0 101 hub: 125.0 m (TOT: 191.0 m) (24)

61: Siemens Gamesa 95 5.0-132 1965 5000 132.0 101 hub: 125.0 m (TOT: 191.0 m) (25)



Vedlegg 4.1

SHADOW - Calendar

Calculation: Oppdatert layout - real case med vindrose - med nærliggende - oppdatert mottaker **Shadow receptor:** A - Moi 32 (1)
Assumptions for shadow calculations Sunshine probability S/S0 (Sun hours/Possible sun hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
 644 231 315 644 959 714 721 455 378 420 574 938 6 993

	January	February	March	April	May	June	
1	09:28	08:46	11:21 (34) 07:35	09:10 (16) 07:07	05:44	04:40	
	15:53	16:56	14:37 (24) 18:05	09:34 (16) 20:17	21:26	22:30	
2	09:27	08:43	12:08 (29) 07:33	09:10 (16) 07:04	05:41	04:38	
	15:54	16:58	14:44 (24) 18:07	09:34 (16) 20:19	21:28	22:32	
3	09:27	08:41	12:06 (29) 07:30	09:10 (16) 07:01	05:39	04:37	
	15:55	17:01	14:50 (24) 18:09	09:34 (16) 20:21	21:30	22:34	
4	09:26	08:39	12:06 (29) 07:27	09:10 (16) 06:58	05:36	04:36	
	15:57	17:03	14:52 (24) 18:12	09:33 (16) 20:24	21:33	22:35	
5	09:26	08:37	12:05 (29) 07:24	09:10 (16) 06:55	05:34	04:35	
	15:58	17:06	14:53 (24) 18:14	09:32 (16) 20:26	21:35	22:37	
6	09:25	08:34	12:05 (29) 07:21	08:23 (18) 06:52	05:31	04:34	
	16:00	17:08	14:55 (24) 18:17	09:31 (16) 20:28	21:37	22:38	
7	09:24	08:32	12:04 (29) 07:19	08:20 (18) 06:50	05:29	04:33	
	16:02	17:11	14:56 (24) 18:19	09:30 (16) 20:30	21:40	22:39	
8	09:24	08:30	12:04 (29) 07:16	08:19 (18) 06:47	05:26	04:32	
	16:03	17:13	14:57 (24) 18:21	09:28 (16) 20:33	21:42	22:40	
9	09:23	08:27	12:04 (29) 07:13	08:18 (18) 06:44	05:24	04:31	
	16:05	17:16	15:36 (25) 18:24	09:25 (16) 20:35	21:44	22:42	
10	09:22	08:25	12:03 (29) 07:10	08:17 (18) 06:41	05:22	04:30	
	16:07	17:18	15:42 (25) 18:26	08:35 (18) 20:37	21:46	22:43	
11	09:21	08:23	12:04 (29) 07:07	08:16 (18) 06:38	05:19	04:29	
	16:09	17:21	15:47 (25) 18:28	08:35 (18) 20:40	21:49	22:44	
12	09:20	08:20	12:03 (29) 07:04	08:17 (18) 06:35	05:17	04:29	
	16:11	17:23	15:49 (25) 18:31	08:36 (18) 20:42	21:51	22:45	
13	09:18	08:18	12:03 (29) 07:01	08:17 (18) 06:32	05:15	04:28	
	16:13	17:26	15:48 (25) 18:33	08:35 (18) 20:44	21:53	22:46	
14	09:17	08:15	12:04 (29) 06:59	08:17 (18) 06:30	05:13	04:28	
	16:15	17:28	15:48 (25) 18:35	08:34 (18) 20:47	21:55	22:47	
15	09:16	08:13	12:04 (29) 06:56	08:18 (18) 06:27	05:10	04:27	
	16:17	17:31	15:46 (25) 18:38	08:32 (18) 20:49	21:58	22:47	
16	09:15	08:10	12:03 (29) 06:53	08:20 (18) 06:24	05:08	04:27	
	16:19	17:33	15:43 (25) 18:40	08:30 (18) 20:51	22:00	22:48	
17	09:13	08:07	12:04 (29) 06:50		06:21	05:06	04:27
	16:21	17:36	14:58 (24) 18:42		20:53	22:02	22:49
18	09:12	11:27 (34) 08:05	12:05 (29) 06:47		06:19	05:04	04:27
	16:23	11:33 (34) 17:38	14:58 (24) 18:45		20:56	22:04	22:49
19	09:10	11:28 (34) 08:02	12:05 (29) 06:44		06:16	05:02	04:27
	16:25	13:07 (21) 17:40	14:58 (24) 18:47		20:58	22:06	22:50
20	09:08	11:28 (34) 08:00	12:05 (29) 06:41		06:13	05:00	04:27
	16:28	13:08 (21) 17:43	14:57 (24) 18:49		21:00	22:08	22:50
21	09:07	11:26 (34) 07:57	12:06 (29) 06:38		06:10	04:58	04:27
	16:30	13:08 (21) 17:45	14:55 (24) 18:51		21:03	22:10	22:50
22	09:05	11:22 (34) 07:54	12:07 (29) 06:36		06:08	04:56	04:27
	16:32	13:07 (21) 17:48	14:54 (24) 18:54		21:05	22:12	22:50
23	09:03	11:17 (34) 07:52	09:18 (16) 06:33		06:05	04:54	04:27
	16:34	13:08 (21) 17:50	14:53 (24) 18:56		21:07	22:14	22:50
24	09:02	11:11 (34) 07:49	09:15 (16) 06:30		06:02	04:52	04:27
	16:37	13:08 (21) 17:53	14:51 (24) 18:58		21:10	22:16	22:51
25	09:00	11:12 (34) 07:46	09:14 (16) 06:27		05:59	04:51	04:28
	16:39	13:08 (21) 17:55	14:47 (24) 19:01		21:12	22:18	22:50
26	08:58	11:13 (34) 07:44	09:12 (16) 06:24		05:57	04:49	04:28
	16:41	13:08 (21) 17:57	12:35 (29) 19:03		21:14	22:20	22:50
27	08:56	11:13 (34) 07:41	09:11 (16) 06:21		05:54	04:47	04:29
	16:44	13:07 (21) 18:00	12:30 (29) 19:05		21:17	22:22	22:50
28	08:54	11:14 (34) 07:38	09:10 (16) 06:18		05:52	04:46	04:30
	16:46	13:07 (21) 18:02	09:33 (16) 19:07		21:19	22:24	22:50
29	08:52	11:15 (34)	07:15		05:49	04:44	04:30
	16:49	13:06 (21)	20:10		21:21	22:25	22:50
30	08:50	11:16 (34)	07:12		05:46	04:43	04:31
	16:51	13:04 (21)	20:12		21:24	22:27	22:49
31	08:48	11:18 (34)	07:10			04:41	
	16:54	13:03 (21)	20:14			22:29	
Potential sun hours	221	260	365	432	521	547	
Total, worst case	577	1972	352				
Sun reduction	0,50	0,50	0,50				
Oper. time red.	0,80	0,80	0,80				
Wind dir. red.	0,65	0,61	0,73				
Total reduction	0,26	0,24	0,29				
Total, real	149	479	103				

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Calculation: Oppdatert layout - real case med vindrose - med nærliggende - oppdatert mottaker **Shadow receptor:** A - Moi 32 (1)

Assumptions for shadow calculations

Sunshine probability S/S0 (Sun hours/Possible sun hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
644 231 315 644 959 714 721 455 378 420 574 938 6 993

	July	August	September	October	November	December				
1	04:32	05:24	06:33	07:39	08:56 (18)	07:51	11:33 (29)	09:00		
	22:49	22:01	20:40	19:13	18	09:14 (18)	16:49	91	15:09 (25)	15:51
2	04:33	05:26	06:35	07:42	08:55 (18)	07:54	11:33 (29)	09:02		
	22:48	21:58	20:37	19:10	19	09:14 (18)	16:46	79	15:05 (25)	15:50
3	04:34	05:28	06:37	07:44	08:55 (18)	07:56	11:34 (29)	09:03		
	22:47	21:56	20:34	19:07	18	09:13 (18)	16:44	73	14:26 (24)	15:49
4	04:35	05:31	06:40	07:46	08:55 (18)	07:59	11:34 (29)	09:05		
	22:47	21:54	20:31	19:04	24	10:00 (16)	16:41	71	14:25 (24)	15:48
5	04:36	05:33	06:42	07:48	08:56 (18)	08:01	11:35 (29)	09:07		
	22:46	21:51	20:28	19:02	29	10:04 (16)	16:39	68	14:24 (24)	15:47
6	04:37	05:35	06:44	07:51	08:56 (18)	08:03	11:36 (29)	09:09		
	22:45	21:49	20:25	18:59	32	10:05 (16)	16:37	66	14:24 (24)	15:46
7	04:39	05:37	06:46	07:53	08:57 (18)	08:06	11:36 (29)	09:10		
	22:44	21:47	20:22	18:56	32	10:06 (16)	16:34	61	14:22 (24)	15:45
8	04:40	05:39	06:49	07:55	09:00 (18)	08:08	11:37 (29)	09:12		
	22:43	21:44	20:20	18:53	27	10:07 (16)	16:32	56	14:20 (24)	15:45
9	04:41	05:42	06:51	07:57	09:45 (16)	08:11	11:38 (29)	09:13		
	22:42	21:42	20:17	18:50	22	10:07 (16)	16:30	46	14:15 (24)	15:44
10	04:43	05:44	06:53	08:00	09:45 (16)	08:13	10:52 (34)	09:15		
	22:40	21:39	20:14	18:47	23	10:08 (16)	16:28	47	14:09 (24)	15:44
11	04:44	05:46	06:55	08:02	09:44 (16)	08:15	10:49 (34)	09:16		
	22:39	21:37	20:11	18:45	24	10:08 (16)	16:25	55	12:34 (21)	15:43
12	04:46	05:48	06:57	08:04	09:43 (16)	08:18	10:48 (34)	09:18		
	22:38	21:34	20:08	18:42	24	10:07 (16)	16:23	60	12:36 (21)	15:43
13	04:47	05:51	07:00	08:07	09:44 (16)	08:20	10:47 (34)	09:19		
	22:37	21:31	20:05	18:39	23	10:07 (16)	16:21	60	12:38 (21)	15:42
14	04:49	05:53	07:02	08:09	09:43 (16)	08:22	10:46 (34)	09:20		
	22:35	21:29	20:02	18:36	23	10:06 (16)	16:19	61	12:39 (21)	15:42
15	04:51	05:55	07:04	08:11	09:44 (16)	08:25	10:46 (34)	09:21		
	22:34	21:26	19:59	18:33	37	13:05 (29)	16:17	58	12:40 (21)	15:42
16	04:52	05:57	07:06	08:13	09:45 (16)	08:27	10:46 (34)	09:22		
	22:32	21:24	19:56	18:31	42	13:08 (29)	16:15	46	12:41 (21)	15:42
17	04:54	06:00	07:08	08:16	09:46 (16)	08:29	10:45 (34)	09:23		
	22:30	21:21	19:54	18:28	61	15:21 (24)	16:13	48	12:41 (21)	15:42
18	04:56	06:02	07:11	08:18	09:47 (16)	08:32	10:45 (34)	09:24		
	22:29	21:18	19:51	18:25	66	15:23 (24)	16:11	48	12:42 (21)	15:42
19	04:58	06:04	07:13	08:20	09:50 (16)	08:34	10:52 (34)	09:25		
	22:27	21:16	19:48	18:22	68	15:25 (24)	16:09	43	12:43 (21)	15:42
20	05:00	06:06	07:15	08:23	12:38 (29)	08:36	10:57 (34)	09:26		
	22:25	21:13	19:45	18:20	64	15:25 (24)	16:08	38	12:42 (21)	15:43
21	05:01	06:08	07:17	08:25	12:37 (29)	08:39	11:01 (34)	09:26		
	22:24	21:10	19:42	18:17	68	15:27 (24)	16:06	24	12:43 (21)	15:43
22	05:03	06:11	07:19	08:27	12:35 (29)	08:41	11:04 (34)	09:27		
	22:22	21:08	19:39	18:14	72	15:27 (24)	16:04	22	12:44 (21)	15:43
23	05:05	06:13	07:22	08:30	12:35 (29)	08:43	11:04 (34)	09:27		
	22:20	21:05	19:36	18:12	75	15:28 (24)	16:02	9	12:44 (21)	15:44
24	05:07	06:15	07:24	08:32	12:34 (29)	08:45	11:04 (34)	09:28		
	22:18	21:02	19:33	18:09	77	15:28 (24)	16:01	6	11:10 (34)	15:44
25	05:09	06:17	07:26	07:35	11:34 (29)	08:47		09:28		
	22:16	20:59	19:30	17:06	78	14:28 (24)	15:59		15:45	
26	05:11	06:20	07:28	07:37	11:33 (29)	08:50		09:28		
	22:14	20:56	19:27	17:04	91	15:13 (25)	15:58		15:46	
27	05:13	06:22	07:30	07:39	11:33 (29)	08:52		09:28		
	22:12	20:54	19:25	8	09:03 (18)	07:39		15:47		
28	05:16	06:24	07:33	09:00 (18)	07:42	11:33 (29)	08:54		09:28	
	22:10	20:51	19:22	12	09:12 (18)	16:59	99	15:17 (25)	15:55	15:48
29	05:18	06:26	07:35	08:58 (18)	07:44	11:32 (29)	08:56		09:28	
	22:07	20:48	19:19	15	09:13 (18)	16:56	102	15:18 (25)	15:54	15:49
30	05:20	06:29	07:37	08:56 (18)	07:47	11:33 (29)	08:58		09:28	
	22:05	20:45	19:16	18	09:14 (18)	16:54	102	15:19 (25)	15:52	15:50
31	05:22	06:31		07:49	11:33 (29)			09:28		
	22:03	20:42		16:51	98	15:16 (25)		15:51		
Potential sun hours	546	478	386	319		236		199		
Total, worst case			53	1635		1236				
Sun reduction			0,50	0,50		0,50				
Oper. time red.			0,80	0,80		0,80				
Wind dir. red.			0,72	0,63		0,62				
Total reduction			0,29	0,25		0,25				
Total, real			15	413		308				

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Calculation: Oppdatert layout - real case med vindrose - med nærliggende - oppdatert mottaker **Shadow receptor:** B - Moi 26 (2)

Assumptions for shadow calculations

Sunshine probability S/S0 (Sun hours/Possible sun hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
644 231 315 644 959 714 721 455 378 420 574 938 6 993

	January	February	March	April	May	June	
1 09:28		08:46	11:18 (34) 07:35	09:09 (16) 07:07	05:44	04:40	
15:53		16:56	14:41 (24) 18:05	09:32 (16) 20:17	21:26	22:30	
2 09:27		08:43	11:58 (29) 07:33	09:09 (16) 07:04	05:41	04:38	
15:54		16:58	14:43 (24) 18:07	09:33 (16) 20:19	21:28	22:32	
3 09:27		08:41	11:57 (29) 07:30	09:09 (16) 07:01	05:39	04:37	
15:55		17:01	14:44 (24) 18:09	09:32 (16) 20:21	21:30	22:34	
4 09:26		08:39	11:57 (29) 07:27	09:09 (16) 06:58	05:36	04:36	
15:57		17:03	14:46 (24) 18:12	09:31 (16) 20:24	21:33	22:35	
5 09:26		08:37	11:56 (29) 07:24	09:10 (16) 06:55	05:34	04:35	
15:58		17:06	14:47 (24) 18:14	09:30 (16) 20:26	21:35	22:37	
6 09:25		08:34	11:56 (29) 07:21	09:10 (16) 06:52	05:31	04:34	
16:00		17:08	14:48 (24) 18:17	09:29 (16) 20:28	21:37	22:38	
7 09:24		08:32	11:55 (29) 07:19	09:11 (16) 06:50	05:29	04:33	
16:02		17:11	15:29 (25) 18:19	09:27 (16) 20:30	21:40	22:39	
8 09:24		08:30	11:56 (29) 07:16	09:13 (16) 06:47	05:26	04:32	
16:03		17:13	15:35 (25) 18:21	09:25 (16) 20:33	21:42	22:40	
9 09:23		08:27	11:55 (29) 07:13		06:44	05:24	04:31
16:05		17:16	15:40 (25) 18:24		20:35	21:44	22:42
10 09:22		08:25	11:55 (29) 07:10		06:41	05:22	04:30
16:07		17:18	15:44 (25) 18:26		20:37	21:46	22:43
11 09:21		08:23	11:55 (29) 07:07		06:38	05:19	04:29
16:09		17:21	15:44 (25) 18:28		20:40	21:49	22:44
12 09:20		08:20	11:55 (29) 07:04		06:35	05:17	04:29
16:11		17:23	15:43 (25) 18:31		20:42	21:51	22:45
13 09:18		08:18	11:55 (29) 07:01		06:32	05:15	04:28
16:13		17:26	15:41 (25) 18:33		20:44	21:53	22:46
14 09:17		08:15	11:55 (29) 06:59		06:30	05:13	04:28
16:15		17:28	15:40 (25) 18:35		20:47	21:55	22:47
15 09:16		08:13	11:55 (29) 06:56		06:27	05:10	04:27
16:17		17:31	15:37 (25) 18:38		20:49	21:58	22:47
16 09:15		08:10	11:55 (29) 06:53		06:24	05:08	04:27
16:19		17:33	14:50 (24) 18:40		20:51	22:00	22:48
17 09:13		12:54 (21) 08:07	11:56 (29) 06:50		06:21	05:06	04:27
16:21	1	12:55 (21) 17:36	14:49 (24) 18:42		20:53	22:02	22:49
18 09:12		11:10 (34) 08:05	11:57 (29) 06:47		06:19	05:04	04:27
16:23	27	13:01 (21) 17:38	14:49 (24) 18:45		20:56	22:04	22:49
19 09:10		11:10 (34) 08:02	11:57 (29) 06:44		06:16	05:02	04:27
16:25	34	13:02 (21) 17:40	14:48 (24) 18:47		20:58	22:06	22:50
20 09:08		11:10 (34) 08:00	11:58 (29) 06:41		06:13	05:00	04:27
16:28	39	13:02 (21) 17:43	14:47 (24) 18:49		21:00	22:08	22:50
21 09:07		11:09 (34) 07:57	11:59 (29) 06:38		06:10	04:58	04:27
16:30	47	13:02 (21) 17:45	14:45 (24) 18:51		21:03	22:10	22:50
22 09:05		11:07 (34) 07:54	09:19 (16) 06:36		06:08	04:56	04:27
16:32	49	13:02 (21) 17:48	14:43 (24) 18:54		21:05	22:12	22:50
23 09:03		11:07 (34) 07:52	09:16 (16) 06:33		06:05	04:54	04:27
16:34	48	13:02 (21) 17:50	14:41 (24) 18:56		21:07	22:14	22:50
24 09:02		11:08 (34) 07:49	09:14 (16) 06:30		06:02	04:52	04:27
16:37	47	13:02 (21) 17:53	14:36 (24) 18:58		21:10	22:16	22:51
25 09:00		11:08 (34) 07:46	09:12 (16) 06:27		05:59	04:51	04:28
16:39	47	13:02 (21) 17:55	12:25 (29) 19:01		21:12	22:18	22:50
26 08:58		11:09 (34) 07:44	09:11 (16) 06:24		05:57	04:49	04:28
16:41	59	13:02 (21) 17:57	12:18 (29) 19:03		21:14	22:20	22:50
27 08:56		11:09 (34) 07:41	09:10 (16) 06:21		05:54	04:47	04:29
16:44	61	13:01 (21) 18:00	09:32 (16) 19:05		21:17	22:22	22:50
28 08:54		11:10 (34) 07:38	09:09 (16) 06:18		05:52	04:46	04:30
16:46	62	13:00 (21) 18:02	09:32 (16) 19:07		21:19	22:24	22:50
29 08:52		11:12 (34)	07:15		05:49	04:44	04:30
16:49	61	13:00 (21)	20:10		21:21	22:25	22:50
30 08:50		11:13 (34)	07:12		05:46	04:43	04:31
16:51	61	14:31 (24)	20:12		21:24	22:27	22:49
31 08:48		11:15 (34)	07:10			04:41	
16:54	65	14:39 (24)	20:14			22:29	
Potential sun hours	221	260	365	432	521	547	
Total, worst case	708	1924	159				
Sun reduction	0,50	0,50	0,50				
Oper. time red.	0,80	0,80	0,80				
Wind dir. red.	0,65	0,61	0,74				
Total reduction	0,26	0,24	0,29				
Total, real	183	468	47				

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Calculation: Oppdatert layout - real case med vindrose - med nærliggende - oppdatert mottaker **Shadow receptor:** B - Moi 26 (2)

Assumptions for shadow calculations

Sunshine probability S/S0 (Sun hours/Possible sun hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
644 231 315 644 959 714 721 455 378 420 574 938 6 993

	July	August	September	October	November	December
1	04:32	05:24	06:33	07:39	07:51	11:24 (29) 09:00
	22:49	22:01	20:40	19:13	16:49	101 15:13 (25) 15:51
2	04:33	05:26	06:35	07:42	07:54	11:25 (29) 09:02
	22:48	21:58	20:37	19:10	16:46	96 15:09 (25) 15:50
3	04:34	05:28	06:37	07:44	07:56	11:25 (29) 09:03
	22:47	21:56	20:34	19:07	16:44	90 15:04 (25) 15:49
4	04:35	05:31	06:40	07:46	07:59	11:25 (29) 09:05
	22:47	21:54	20:31	19:04	16:41	81 14:58 (25) 15:48
5	04:36	05:33	06:42	07:48	09:52 (16) 08:01	11:26 (29) 09:07
	22:46	21:51	20:28	19:02	8 10:00 (16) 16:39	72 14:18 (24) 15:47
6	04:37	05:35	06:44	07:51	09:48 (16) 08:03	11:27 (29) 09:09
	22:45	21:49	20:25	18:59	15 10:03 (16) 16:37	69 14:17 (24) 15:46
7	04:39	05:37	06:46	07:53	09:46 (16) 08:06	11:27 (29) 09:10
	22:44	21:47	20:22	18:56	18 10:04 (16) 16:34	67 14:16 (24) 15:45
8	04:40	05:39	06:49	07:55	09:45 (16) 08:08	11:28 (29) 09:12
	22:43	21:44	20:20	18:53	20 10:05 (16) 16:32	62 14:15 (24) 15:45
9	04:41	05:42	06:51	07:57	09:44 (16) 08:11	11:29 (29) 09:13
	22:42	21:42	20:17	18:50	22 10:06 (16) 16:30	58 14:14 (24) 15:44
10	04:43	05:44	06:53	08:00	09:44 (16) 08:13	10:49 (34) 09:15
	22:40	21:39	20:14	18:47	22 10:06 (16) 16:28	59 14:13 (24) 15:44
11	04:44	05:46	06:55	08:02	09:43 (16) 08:15	10:46 (34) 09:16
	22:39	21:37	20:11	18:45	23 10:06 (16) 16:25	66 14:10 (24) 15:43
12	04:46	05:48	06:57	08:04	09:42 (16) 08:18	10:44 (34) 09:18
	22:38	21:34	20:08	18:42	24 10:06 (16) 16:23	61 14:02 (24) 15:43
13	04:47	05:51	07:00	08:07	09:42 (16) 08:20	10:44 (34) 09:19
	22:37	21:31	20:05	18:39	24 10:06 (16) 16:21	60 12:31 (21) 15:42
14	04:49	05:53	07:02	08:09	09:42 (16) 08:22	10:42 (34) 09:20
	22:35	21:29	20:02	18:36	23 10:05 (16) 16:19	62 12:32 (21) 15:42
15	04:51	05:55	07:04	08:11	09:43 (16) 08:25	10:42 (34) 09:21
	22:34	21:26	19:59	18:33	22 10:05 (16) 16:17	62 12:34 (21) 15:42
16	04:52	05:57	07:06	08:13	09:43 (16) 08:27	10:42 (34) 09:22
	22:32	21:24	19:56	18:31	32 12:54 (29) 16:15	59 12:35 (21) 15:42
17	04:54	06:00	07:08	08:16	09:44 (16) 08:29	10:41 (34) 09:23
	22:30	21:21	19:54	18:28	39 12:58 (29) 16:13	47 12:35 (21) 15:42
18	04:56	06:02	07:11	08:18	09:45 (16) 08:32	10:42 (34) 09:24
	22:29	21:18	19:51	18:25	53 15:09 (24) 16:11	47 12:36 (21) 15:42
19	04:58	06:04	07:13	08:20	09:48 (16) 08:34	10:42 (34) 09:25
	22:27	21:16	19:48	18:22	58 15:13 (24) 16:09	48 12:37 (21) 15:42
20	05:00	06:06	07:15	08:23	12:31 (29) 08:36	10:42 (34) 09:26
	22:25	21:13	19:45	18:20	55 15:15 (24) 16:08	49 12:37 (21) 15:43
21	05:01	06:08	07:17	08:25	12:30 (29) 08:39	10:44 (34) 09:26
	22:24	21:10	19:42	18:17	61 15:17 (24) 16:06	47 12:37 (21) 15:43
22	05:03	06:11	07:19	08:27	12:28 (29) 08:41	10:46 (34) 09:27
	22:22	21:08	19:39	18:14	66 15:17 (24) 16:04	39 12:38 (21) 15:43
23	05:05	06:13	07:22	08:30	12:27 (29) 08:43	10:46 (34) 09:27
	22:20	21:05	19:36	18:12	71 15:19 (24) 16:02	34 12:38 (21) 15:44
24	05:07	06:15	07:24	08:32	12:26 (29) 08:45	10:47 (34) 09:28
	22:18	21:02	19:33	18:09	73 15:19 (24) 16:01	27 12:38 (21) 15:44
25	05:09	06:17	07:26	07:35	11:26 (29) 08:47	12:32 (21) 09:28
	22:16	20:59	19:30	17:06	76 14:20 (24) 15:59	2 12:34 (21) 15:45
26	05:11	06:20	07:28	07:37	11:25 (29) 08:50	09:28
	22:14	20:56	19:27	17:04	77 14:19 (24) 15:58	15:46
27	05:13	06:22	07:30	07:39	11:25 (29) 08:52	09:28
	22:12	20:54	19:25	17:01	87 15:07 (25) 15:56	15:47
28	05:16	06:24	07:33	07:42	11:25 (29) 08:54	09:28
	22:10	20:51	19:22	16:59	93 15:10 (25) 15:55	15:48
29	05:18	06:26	07:35	07:44	11:24 (29) 08:56	09:28
	22:07	20:48	19:19	16:56	98 15:11 (25) 15:54	15:49
30	05:20	06:29	07:37	07:47	11:24 (29) 08:58	09:28
	22:05	20:45	19:16	16:54	100 15:12 (25) 15:52	15:50
31	05:22	06:31	07:39	07:49	11:25 (29)	09:28
	22:03	20:42	19:15	16:51	100 15:13 (25)	15:51
Potential sun hours	546	478	386	319	236	199
Total, worst case				1360	1465	
Sun reduction				0,50	0,50	
Oper. time red.				0,80	0,80	
Wind dir. red.				0,63	0,62	
Total reduction				0,25	0,25	
Total, real				342	365	

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)		Last time (hh:mm) with flicker	(WTG causing flicker last time)

SHADOW - Calendar

Calculation: Oppdatert layout - real case med vindrose - med nærliggende - oppdatert mottaker **Shadow receptor:** C - Moi 21 (3)

Assumptions for shadow calculations

Sunshine probability S/S0 (Sun hours/Possible sun hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
644 231 315 644 959 714 721 455 378 420 574 938 6 993

	January	February	March	April	May	June		
1	09:28	08:46	10:42 (34)	07:35	08:50 (16)	07:07	05:44	04:40
	15:53	16:56	72 14:06 (24)	18:05	39 11:29 (29)	20:17	21:26	22:30
2	09:27	08:43	10:44 (34)	07:33	08:50 (16)	07:04	05:41	04:38
	15:54	16:58	70 14:08 (24)	18:07	31 11:25 (29)	20:19	21:28	22:32
3	09:27	08:41	10:46 (34)	07:30	08:49 (16)	07:01	05:39	04:37
	15:55	17:01	72 14:10 (24)	18:09	21 09:10 (16)	20:21	21:31	22:34
4	09:26	08:39	10:47 (34)	07:27	08:48 (16)	06:58	05:36	04:36
	15:57	17:03	77 15:02 (25)	18:12	22 09:10 (16)	20:24	21:33	22:35
5	09:26	08:37	10:50 (34)	07:24	08:48 (16)	06:55	05:34	04:35
	15:58	17:06	77 15:05 (25)	18:14	21 09:09 (16)	20:26	21:35	22:37
6	09:25	08:34	11:05 (29)	07:21	08:48 (16)	06:52	05:31	04:34
	16:00	17:08	82 15:12 (25)	18:17	21 09:09 (16)	20:28	21:37	22:38
7	09:24	08:32	11:03 (29)	07:19	08:48 (16)	06:50	05:29	04:33
	16:02	17:11	92 15:18 (25)	18:19	20 09:08 (16)	20:30	21:40	22:39
8	09:24	08:30	11:03 (29)	07:16	08:48 (16)	06:47	05:26	04:32
	16:03	17:13	101 15:25 (25)	18:21	19 09:07 (16)	20:33	21:42	22:40
9	09:23	08:27	11:02 (29)	07:13	08:48 (16)	06:44	05:24	04:31
	16:05	17:16	112 15:55 (23)	18:24	18 09:06 (16)	20:35	21:44	22:42
10	09:22	08:25	11:01 (29)	07:10	08:49 (16)	06:41	05:22	04:30
	16:07	17:18	104 15:51 (23)	18:26	15 09:04 (16)	20:37	21:46	22:43
11	09:21	08:23	11:01 (29)	07:07	08:51 (16)	06:38	05:19	04:29
	16:09	17:21	101 15:23 (25)	18:28	11 09:02 (16)	20:40	21:49	22:44
12	09:20	08:20	11:00 (29)	07:04		06:35	05:17	04:29
	16:11	17:23	98 15:21 (25)	18:31		20:42	21:51	22:45
13	09:18	08:18	10:59 (29)	07:02		06:33	05:15	04:28
	16:13	17:26	94 15:18 (25)	18:33		20:44	21:53	22:46
14	09:17	08:15	11:00 (29)	06:59		06:30	05:13	04:28
	16:15	17:28	83 14:14 (24)	18:35		20:47	21:55	22:47
15	09:16	08:13	10:59 (29)	06:56		06:27	05:10	04:27
	16:17	17:31	83 14:13 (24)	18:38		20:49	21:58	22:47
16	09:15	08:10	10:59 (29)	06:53		06:24	05:08	04:27
	16:19	17:33	81 14:12 (24)	18:40		20:51	22:00	22:48
17	09:13	08:07	10:59 (29)	06:50		06:21	05:06	04:27
	16:21	17:36	81 14:12 (24)	18:42		20:53	22:02	22:49
18	09:12	08:05	10:59 (29)	06:47		06:19	05:04	04:27
	16:23	17:38	80 14:12 (24)	18:45		20:56	22:04	22:49
19	09:10	08:02	10:59 (29)	06:44		06:16	05:02	04:27
	16:25	17:40	78 14:11 (24)	18:47		20:58	22:06	22:50
20	09:08	08:00	10:59 (29)	06:41		06:13	05:00	04:27
	16:28	17:43	74 14:09 (24)	18:49		21:00	22:08	22:50
21	09:07	07:57	10:59 (29)	06:39		06:10	04:58	04:27
	16:30	17:45	71 14:08 (24)	18:51		21:03	22:10	22:50
22	09:05	07:54	11:00 (29)	06:36		06:08	04:56	04:27
	16:32	17:48	66 14:06 (24)	18:54		21:05	22:12	22:50
23	09:03	07:52	11:01 (29)	06:33		06:05	04:54	04:27
	16:34	17:50	60 14:04 (24)	18:56		21:07	22:14	22:50
24	09:02	07:49	11:01 (29)	06:30		06:02	04:52	04:27
	16:37	17:53	50 14:00 (24)	18:58		21:10	22:16	22:51
25	09:00	07:46	11:02 (29)	06:27		06:00	04:51	04:28
	16:39	17:55	36 11:38 (29)	19:01		21:12	22:18	22:50
26	08:58	12:05 (21)	07:44	11:03 (29)	06:24	05:57	04:49	04:28
	16:41	5 12:10 (21)	17:57	33 11:36 (29)	19:03	21:14	22:20	22:50
27	08:56	12:05 (21)	07:41	08:54 (16)	06:21	05:54	04:47	04:29
	16:44	19 13:53 (24)	18:00	41 11:34 (29)	19:05	21:17	22:22	22:50
28	08:54	11:00 (34)	07:38	08:52 (16)	06:18	05:52	04:46	04:30
	16:46	40 13:59 (24)	18:02	41 11:32 (29)	19:08	21:19	22:24	22:50
29	08:52	10:56 (34)		07:15		05:49	04:44	04:30
	16:49	47 14:02 (24)		20:10		21:21	22:25	22:50
30	08:50	10:50 (34)		07:13		05:46	04:43	04:31
	16:51	55 14:03 (24)		20:12		21:24	22:27	22:49
31	08:48	10:44 (34)		07:10			04:41	
	16:54	61 14:05 (24)		20:14			22:29	
Potential sun hours	221	260	365		432	521	547	
Total, worst case	227		2110		238			
Sun reduction	0,50		0,50		0,50			
Oper. time red.	0,80		0,80		0,80			
Wind dir. red.	0,62		0,63		0,73			
Total reduction	0,25		0,25		0,29			
Total, real	56		529		69			

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Calculation: Oppdatert layout - real case med vindrose - med nærliggende - oppdatert mottaker **Shadow receptor:** C - Moi 21 (3)

Assumptions for shadow calculations

Sunshine probability S/S0 (Sun hours/Possible sun hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
644 231 315 644 959 714 721 455 378 420 574 938 6 993

	July	August	September	October	November	December
1	04:32	05:24	06:33	07:39	07:51	10:30 (29) 09:00
	22:49	22:01	20:40	19:13	16:49	15:21 (23) 15:51
2	04:33	05:26	06:35	07:42	09:32 (16) 07:54	10:31 (29) 09:02
	22:48	21:58	20:37	19:10	09:39 (16) 16:46	15:25 (23) 15:50
3	04:34	05:28	06:37	07:44	09:28 (16) 07:56	10:33 (29) 09:03
	22:47	21:56	20:34	19:07	09:42 (16) 16:44	14:53 (25) 15:49
4	04:35	05:31	06:40	07:46	09:26 (16) 07:59	10:33 (29) 09:05
	22:47	21:54	20:31	19:04	09:43 (16) 16:41	14:46 (25) 15:48
5	04:36	05:33	06:42	07:48	09:25 (16) 08:01	10:34 (29) 09:07
	22:46	21:51	20:28	19:02	09:44 (16) 16:39	14:41 (25) 15:47
6	04:37	05:35	06:44	07:51	09:24 (16) 08:03	10:20 (34) 09:09
	22:45	21:49	20:25	18:59	09:44 (16) 16:37	14:35 (25) 15:46
7	04:39	05:37	06:46	07:53	09:23 (16) 08:06	10:16 (34) 09:10
	22:44	21:47	20:22	18:56	09:44 (16) 16:34	14:32 (25) 15:45
8	04:40	05:39	06:49	07:55	09:23 (16) 08:08	10:15 (34) 09:12
	22:43	21:44	20:20	18:53	09:45 (16) 16:32	13:39 (24) 15:45
9	04:41	05:42	06:51	07:57	09:23 (16) 08:11	10:15 (34) 09:13
	22:42	21:42	20:17	18:50	09:44 (16) 16:30	13:39 (24) 15:44
10	04:43	05:44	06:53	08:00	09:23 (16) 08:13	10:14 (34) 09:15
	22:40	21:39	20:14	18:47	09:44 (16) 16:28	13:38 (24) 15:44
11	04:44	05:46	06:55	08:02	09:23 (16) 08:15	10:15 (34) 09:16
	22:39	21:37	20:11	18:45	09:43 (16) 16:25	13:36 (24) 15:43
12	04:46	05:48	06:57	08:04	09:23 (16) 08:18	10:24 (34) 09:18
	22:38	21:34	20:08	18:42	12:00 (29) 16:23	13:35 (24) 15:43
13	04:47	05:51	07:00	08:07	09:25 (16) 08:20	10:28 (34) 09:19
	22:37	21:31	20:05	18:39	12:04 (29) 16:21	13:33 (24) 15:42
14	04:49	05:53	07:02	08:09	09:25 (16) 08:22	10:32 (34) 09:20
	22:35	21:29	20:02	18:36	12:06 (29) 16:19	13:30 (24) 15:42
15	04:51	05:55	07:04	08:11	09:28 (16) 08:25	11:38 (21) 09:21
	22:34	21:26	19:59	18:33	12:08 (29) 16:17	13:26 (24) 15:42
16	04:52	05:57	07:06	08:13	11:35 (29) 08:27	11:38 (21) 09:22
	22:32	21:24	19:56	18:31	12:09 (29) 16:15	11:42 (21) 15:42
17	04:54	06:00	07:08	08:16	11:34 (29) 08:29	09:23
	22:30	21:21	19:54	18:28	12:10 (29) 16:13	15:42
18	04:56	06:02	07:11	08:18	11:32 (29) 08:32	09:24
	22:29	21:18	19:51	18:25	14:33 (24) 16:11	15:42
19	04:58	06:04	07:13	08:20	11:32 (29) 08:34	09:25
	22:27	21:16	19:48	18:22	14:36 (24) 16:09	15:42
20	05:00	06:06	07:15	08:23	11:31 (29) 08:36	09:26
	22:25	21:13	19:45	18:20	14:37 (24) 16:08	15:43
21	05:01	06:09	07:17	08:25	11:30 (29) 08:39	09:26
	22:24	21:10	19:42	18:17	14:39 (24) 16:06	15:43
22	05:03	06:11	07:19	08:27	11:29 (29) 08:41	09:27
	22:22	21:08	19:39	18:14	14:40 (24) 16:04	15:43
23	05:05	06:13	07:22	08:30	11:29 (29) 08:43	09:27
	22:20	21:05	19:36	18:12	14:41 (24) 16:02	15:44
24	05:07	06:15	07:24	08:32	11:29 (29) 08:45	09:28
	22:18	21:02	19:33	18:09	14:41 (24) 16:01	15:45
25	05:09	06:17	07:26	07:35	10:29 (29) 08:47	09:28
	22:16	20:59	19:30	17:07	13:42 (24) 15:59	15:45
26	05:11	06:20	07:28	07:37	10:29 (29) 08:50	09:28
	22:14	20:57	19:27	17:04	13:43 (24) 15:58	15:46
27	05:13	06:22	07:30	07:39	10:29 (29) 08:52	09:28
	22:12	20:54	19:25	17:01	13:42 (24) 15:56	15:47
28	05:16	06:24	07:33	07:42	10:29 (29) 08:54	09:28
	22:10	20:51	19:22	16:59	14:45 (25) 15:55	15:48
29	05:18	06:26	07:35	07:44	10:29 (29) 08:56	09:28
	22:07	20:48	19:19	16:56	14:48 (25) 15:54	15:49
30	05:20	06:29	07:37	07:47	10:30 (29) 08:58	09:28
	22:05	20:45	19:16	16:54	14:51 (25) 15:52	15:50
31	05:22	06:31		07:49	10:30 (29)	09:28
	22:03	20:42		16:51	14:52 (25)	15:51
Potential sun hours	546	478	386	319	236	199
Total, worst case				1520	1074	
Sun reduction				0,50	0,50	
Oper. time red.				0,80	0,80	
Wind dir. red.				0,65	0,62	
Total reduction				0,26	0,25	
Total, real				395	264	

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)		Last time (hh:mm) with flicker	(WTG causing flicker last time)

SHADOW - Calendar

Calculation: Oppdatert layout - real case med vindrose - med nærliggende - oppdatert mottaker **Shadow receptor:** D - Buevegen 1805 (4)
Assumptions for shadow calculations Sunshine probability S/S0 (Sun hours/Possible sun hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
 644 231 315 644 959 714 721 455 378 420 574 938 6 993

	January	February	March	April	May	June		
1	09:28	08:46	11:39 (29)	07:35	09:25 (16)	07:07	05:44	04:40
	15:53	16:56	88 15:12 (25)	18:05	9 09:34 (16)	20:17	21:26	22:31
2	09:27	08:43	11:39 (29)	07:33		07:04	05:41	04:38
	15:54	16:58	88 15:13 (25)	18:07		20:19	21:28	22:32
3	09:27	08:41	11:40 (29)	07:30		07:01	05:39	04:37
	15:55	17:01	85 15:12 (25)	18:09		20:21	21:31	22:34
4	09:27	08:39	11:39 (29)	07:27		06:58	05:36	04:36
	15:57	17:03	83 15:11 (25)	18:12		20:24	21:33	22:35
5	09:26	12:20 (21)	08:37	11:39 (29)	07:24	06:55	05:34	04:35
	15:58	1 12:21 (21)	17:06	80 15:09 (25)	18:14	20:26	21:35	22:37
6	09:25	12:19 (21)	08:34	11:40 (29)	07:21	06:52	05:31	04:34
	16:00	5 12:24 (21)	17:08	74 15:08 (25)	18:17	20:28	21:37	22:38
7	09:24	12:17 (21)	08:32	11:40 (29)	07:19	06:50	05:29	04:33
	16:02	11 12:28 (21)	17:11	62 14:11 (24)	18:19	20:30	21:40	22:39
8	09:24	12:17 (21)	08:30	11:41 (29)	07:16	06:47	05:26	04:32
	16:03	13 12:30 (21)	17:13	61 14:11 (24)	18:21	20:33	21:42	22:40
9	09:23	12:18 (21)	08:27	11:42 (29)	07:13	06:44	05:24	04:31
	16:05	16 12:34 (21)	17:16	57 14:10 (24)	18:24	20:35	21:44	22:42
10	09:22	11:06 (34)	08:25	11:42 (29)	07:10	06:41	05:22	04:30
	16:07	25 12:39 (21)	17:18	54 14:09 (24)	18:26	20:37	21:46	22:43
11	09:21	11:02 (34)	08:23	11:44 (29)	07:07	06:38	05:19	04:29
	16:09	31 12:41 (21)	17:21	48 14:08 (24)	18:28	20:40	21:49	22:44
12	09:20	11:01 (34)	08:20	11:45 (29)	07:04	06:35	05:17	04:29
	16:11	40 12:41 (21)	17:23	42 14:06 (24)	18:31	20:42	21:51	22:45
13	09:18	11:02 (34)	08:18	11:46 (29)	07:02	06:32	05:15	04:28
	16:13	42 12:42 (21)	17:26	32 14:02 (24)	18:33	20:44	21:53	22:46
14	09:17	11:02 (34)	08:15	11:49 (29)	06:59	06:30	05:13	04:28
	16:15	42 12:42 (21)	17:28	18 12:07 (29)	18:35	20:47	21:55	22:47
15	09:16	11:02 (34)	08:13	11:52 (29)	06:56	06:27	05:10	04:27
	16:17	43 12:42 (21)	17:31	12 12:04 (29)	18:38	20:49	21:58	22:47
16	09:15	11:02 (34)	08:10	09:29 (16)	06:53	06:24	05:08	04:27
	16:19	43 12:42 (21)	17:33	5 09:34 (16)	18:40	20:51	22:00	22:48
17	09:13	11:02 (34)	08:07	09:26 (16)	06:50	06:21	05:06	04:27
	16:21	47 12:42 (21)	17:36	11 09:37 (16)	18:42	20:53	22:02	22:49
18	09:12	11:03 (34)	08:05	09:25 (16)	06:47	06:19	05:04	04:27
	16:23	58 13:55 (24)	17:38	14 09:39 (16)	18:45	20:56	22:04	22:49
19	09:10	11:03 (34)	08:02	09:23 (16)	06:44	06:16	05:02	04:27
	16:25	69 13:59 (24)	17:40	17 09:40 (16)	18:47	20:58	22:06	22:50
20	09:08	11:04 (34)	08:00	09:22 (16)	06:41	06:13	05:00	04:27
	16:28	75 14:01 (24)	17:43	19 09:41 (16)	18:49	21:00	22:08	22:50
21	09:07	11:04 (34)	07:57	09:21 (16)	06:39	06:10	04:58	04:27
	16:30	79 14:03 (24)	17:45	20 09:41 (16)	18:51	21:03	22:10	22:50
22	09:05	11:05 (34)	07:54	09:20 (16)	06:36	06:08	04:56	04:27
	16:32	82 14:05 (24)	17:48	21 09:41 (16)	18:54	21:05	22:12	22:50
23	09:03	11:05 (34)	07:52	09:21 (16)	06:33	06:05	04:54	04:27
	16:34	83 14:05 (24)	17:50	21 09:42 (16)	18:56	21:07	22:14	22:51
24	09:02	11:06 (34)	07:49	09:21 (16)	06:30	06:02	04:52	04:27
	16:37	84 14:07 (24)	17:53	21 09:42 (16)	18:58	21:10	22:16	22:51
25	09:00	11:07 (34)	07:46	09:21 (16)	06:27	05:59	04:51	04:28
	16:39	82 14:52 (25)	17:55	20 09:41 (16)	19:01	21:12	22:18	22:51
26	08:58	11:09 (34)	07:44	09:21 (16)	06:24	05:57	04:49	04:28
	16:41	78 14:57 (25)	17:57	19 09:40 (16)	19:03	21:14	22:20	22:50
27	08:56	11:10 (34)	07:41	09:22 (16)	06:21	05:54	04:47	04:29
	16:44	86 15:12 (25)	18:00	17 09:39 (16)	19:05	21:17	22:22	22:50
28	08:54	11:13 (34)	07:38	09:23 (16)	06:18	05:52	04:46	04:30
	16:46	90 15:13 (25)	18:02	14 09:37 (16)	19:08	21:19	22:24	22:50
29	08:52	11:40 (29)			07:15	05:49	04:44	04:30
	16:49	88 15:14 (25)			20:10	21:21	22:25	22:50
30	08:50	11:39 (29)			07:12	05:46	04:42	04:31
	16:51	88 15:13 (25)			20:12	21:24	22:27	22:49
31	08:48	11:39 (29)			07:10		04:41	
	16:54	88 15:13 (25)			20:14		22:29	
Potential sun hours	221	260	365		432	521	547	
Total, worst case	1489	1103		9				
Sun reduction	0,50	0,50		0,50				
Oper. time red.	0,80	0,80		0,80				
Wind dir. red.	0,62	0,63		0,73				
Total reduction	0,25	0,25		0,29				
Total, real	371	276		3				

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Calculation: Oppdatert layout - real case med vindrose - med nærliggende - oppdatert mottaker **Shadow receptor:** D - Buevegen 1805 (4)

Assumptions for shadow calculations

Sunshine probability S/S0 (Sun hours/Possible sun hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
644 231 315 644 959 714 721 455 378 420 574 938 6 993

	July	August	September	October	November	December
1	04:32	05:24	06:33	07:39	07:51	11:12 (29) 09:00
	22:49	22:01	20:40	19:13	16:49	53 13:38 (24) 15:51
2	04:33	05:26	06:35	07:42	07:54	11:11 (29) 09:02
	22:48	21:58	20:37	19:10	16:46	58 13:40 (24) 15:50
3	04:34	05:28	06:37	07:44	07:56	11:11 (29) 09:03
	22:47	21:56	20:34	19:07	16:44	60 13:41 (24) 15:49
4	04:35	05:31	06:40	07:46	07:59	11:10 (29) 09:05
	22:47	21:54	20:31	19:04	16:41	63 13:41 (24) 15:48
5	04:36	05:33	06:42	07:48	08:01	11:10 (29) 09:07
	22:46	21:51	20:28	19:02	16:39	75 14:38 (25) 15:47
6	04:37	05:35	06:44	07:51	08:03	11:10 (29) 09:09
	22:45	21:49	20:25	18:59	16:37	79 14:40 (25) 15:46
7	04:39	05:37	06:46	07:53	08:06	11:09 (29) 09:10
	22:44	21:47	20:22	18:56	16:34	84 14:41 (25) 15:45
8	04:40	05:39	06:49	07:55	08:08	11:09 (29) 09:12
	22:43	21:44	20:20	18:53	16:32	87 14:42 (25) 15:45
9	04:41	05:42	06:51	07:57	08:11	11:10 (29) 09:13
	22:42	21:42	20:17	18:50	16:30	87 14:43 (25) 15:44
10	04:43	05:44	06:53	08:00	08:13	11:10 (29) 09:15
	22:41	21:39	20:14	18:47	16:28	88 14:44 (25) 15:43
11	04:44	05:46	06:55	08:02	08:15	11:10 (29) 09:16
	22:39	21:37	20:11	18:45	16:25	88 14:44 (25) 15:43
12	04:46	05:48	06:57	08:04	10:01 (16) 08:18	11:11 (29) 09:18
	22:38	21:34	20:08	18:42	4 10:05 (16) 16:23	88 14:45 (25) 15:43
13	04:47	05:51	07:00	08:07	09:58 (16) 08:20	11:11 (29) 09:19
	22:37	21:32	20:05	18:39	11 10:09 (16) 16:21	87 14:45 (25) 15:42
14	04:49	05:53	07:02	08:09	09:55 (16) 08:22	10:45 (34) 09:20
	22:35	21:29	20:02	18:36	16 10:11 (16) 16:19	89 14:45 (25) 15:42
15	04:51	05:55	07:04	08:11	09:54 (16) 08:25	10:42 (34) 09:21
	22:34	21:26	19:59	18:33	18 10:12 (16) 16:17	87 14:45 (25) 15:42
16	04:52	05:57	07:06	08:13	09:53 (16) 08:27	10:41 (34) 09:22
	22:32	21:24	19:56	18:31	19 10:12 (16) 16:15	79 14:30 (25) 15:42
17	04:54	06:00	07:08	08:16	09:53 (16) 08:30	10:41 (34) 09:23
	22:30	21:21	19:54	18:28	20 10:13 (16) 16:13	81 14:25 (25) 15:42
18	04:56	06:02	07:11	08:18	09:52 (16) 08:32	10:40 (34) 09:24
	22:29	21:18	19:51	18:25	21 10:13 (16) 16:11	84 13:41 (24) 15:42
19	04:58	06:04	07:13	08:20	09:52 (16) 08:34	10:40 (34) 09:25
	22:27	21:16	19:48	18:22	21 10:13 (16) 16:09	83 13:40 (24) 15:42
20	05:00	06:06	07:15	08:23	09:52 (16) 08:36	10:39 (34) 09:26
	22:25	21:13	19:45	18:20	20 10:12 (16) 16:08	82 13:39 (24) 15:43
21	05:01	06:08	07:17	08:25	09:52 (16) 08:39	10:39 (34) 09:26
	22:24	21:10	19:42	18:17	20 10:12 (16) 16:06	79 13:38 (24) 15:43
22	05:03	06:11	07:19	08:27	09:52 (16) 08:41	10:40 (34) 09:27
	22:22	21:08	19:39	18:14	19 10:11 (16) 16:04	75 13:37 (24) 15:43
23	05:05	06:13	07:22	08:30	09:54 (16) 08:43	10:39 (34) 09:27
	22:20	21:05	19:36	18:12	16 10:10 (16) 16:02	69 13:35 (24) 15:44
24	05:07	06:15	07:24	08:32	09:54 (16) 08:45	10:40 (34) 09:28
	22:18	21:02	19:33	18:09	14 10:08 (16) 16:01	58 13:32 (24) 15:44
25	05:09	06:17	07:26	07:35	08:57 (16) 08:47	10:40 (34) 09:28
	22:16	20:59	19:30	17:06	10 09:07 (16) 15:59	46 12:20 (21) 15:45
26	05:11	06:20	07:28	07:37	08:50	10:41 (34) 09:28
	22:14	20:57	19:27	17:04	15:58	43 12:21 (21) 15:46
27	05:13	06:22	07:30	07:39	11:20 (29) 08:52	10:41 (34) 09:28
	22:12	20:54	19:25	17:01	14 11:34 (29) 15:56	43 12:21 (21) 15:47
28	05:16	06:24	07:33	07:42	11:18 (29) 08:54	10:42 (34) 09:28
	22:10	20:51	19:22	16:59	19 11:37 (29) 15:55	42 12:22 (21) 15:48
29	05:18	06:26	07:35	07:44	11:15 (29) 08:56	10:42 (34) 09:28
	22:07	20:48	19:19	16:56	34 13:32 (24) 15:54	42 12:22 (21) 15:49
30	05:20	06:29	07:37	07:47	11:14 (29) 08:58	10:42 (34) 09:28
	22:05	20:45	19:16	16:54	42 13:35 (24) 15:52	40 12:22 (21) 15:50
31	05:22	06:31	07:40	07:49	11:13 (29) 08:59	10:43 (34) 09:29
	22:03	20:42	19:15	16:51	50 13:38 (24) 15:51	15:51
Potential sun hours	546	478	386	319	236	199
Total, worst case				388	2119	106
Sun reduction				0,50	0,50	0,50
Oper. time red.				0,80	0,80	0,80
Wind dir. red.				0,69	0,61	0,64
Total reduction				0,27	0,25	0,25
Total, real				106	519	27

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Calculation: Oppdatert layout - real case med vindrose - med nærliggende - oppdatert mottaker **Shadow receptor:** E - Buevegen 1816 (5)

Assumptions for shadow calculations

Sunshine probability S/S0 (Sun hours/Possible sun hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
644 231 315 644 959 714 721 455 378 420 574 938 6 993

	January	February	March	April	May	June
1	09:28	11:12 (34) 08:46	11:58 (29) 07:35	07:07	05:44	04:40
	15:53	2 11:14 (34) 16:56	87 15:21 (25) 18:05	20:17	21:26	22:30
2	09:27	11:12 (34) 08:43	11:59 (29) 07:33	07:04	05:41	04:38
	15:54	2 11:14 (34) 16:58	85 15:21 (25) 18:07	20:19	21:28	22:32
3	09:27	11:11 (34) 08:41	12:00 (29) 07:30	07:01	05:39	04:37
	15:55	4 12:42 (21) 17:01	84 15:21 (25) 18:09	20:21	21:31	22:34
4	09:27	11:11 (34) 08:39	11:59 (29) 07:27	06:58	05:36	04:36
	15:57	12 12:45 (21) 17:03	83 15:20 (25) 18:12	20:24	21:33	22:35
5	09:26	11:11 (34) 08:37	11:59 (29) 07:24	06:55	05:34	04:35
	15:58	18 12:46 (21) 17:06	81 15:19 (25) 18:14	20:26	21:35	22:37
6	09:25	11:11 (34) 08:34	12:00 (29) 07:21	06:52	05:31	04:34
	16:00	29 12:50 (21) 17:08	76 15:18 (25) 18:17	20:28	21:37	22:38
7	09:24	11:11 (34) 08:32	12:01 (29) 07:19	06:50	05:29	04:33
	16:02	35 12:50 (21) 17:11	67 15:15 (25) 18:19	20:30	21:40	22:39
8	09:24	11:12 (34) 08:30	12:02 (29) 07:16	06:47	05:26	04:32
	16:03	38 12:51 (21) 17:13	57 14:25 (24) 18:21	20:33	21:42	22:40
9	09:23	11:12 (34) 08:27	12:03 (29) 07:13	06:44	05:24	04:31
	16:05	40 12:52 (21) 17:16	54 14:24 (24) 18:24	20:35	21:44	22:42
10	09:22	11:11 (34) 08:25	12:03 (29) 07:10	06:41	05:22	04:30
	16:07	41 12:52 (21) 17:18	51 14:23 (24) 18:26	20:37	21:46	22:43
11	09:21	11:12 (34) 08:23	12:05 (29) 07:07	06:38	05:19	04:29
	16:09	42 12:53 (21) 17:21	45 14:22 (24) 18:28	20:40	21:49	22:44
12	09:20	11:12 (34) 08:20	12:07 (29) 07:04	06:35	05:17	04:29
	16:11	43 12:53 (21) 17:23	37 14:20 (24) 18:31	20:42	21:51	22:45
13	09:18	11:12 (34) 08:18	12:09 (29) 07:02	06:32	05:15	04:28
	16:13	44 12:54 (21) 17:26	26 14:17 (24) 18:33	20:44	21:53	22:46
14	09:17	11:12 (34) 08:15	09:39 (16) 06:59	06:30	05:13	04:28
	16:15	44 12:54 (21) 17:28	12 12:21 (29) 18:35	20:47	21:55	22:47
15	09:16	11:12 (34) 08:13	09:36 (16) 06:56	06:27	05:10	04:27
	16:17	51 12:54 (21) 17:31	11 09:47 (16) 18:38	20:49	21:58	22:47
16	09:15	11:13 (34) 08:10	09:33 (16) 06:53	06:24	05:08	04:27
	16:19	54 12:54 (21) 17:33	16 09:49 (16) 18:40	20:51	22:00	22:48
17	09:13	11:13 (34) 08:07	09:32 (16) 06:50	06:21	05:06	04:27
	16:21	58 12:54 (21) 17:36	17 09:49 (16) 18:42	20:53	22:02	22:49
18	09:12	11:14 (34) 08:05	09:32 (16) 06:47	06:19	05:04	04:27
	16:23	61 12:55 (21) 17:38	19 09:51 (16) 18:45	20:56	22:04	22:49
19	09:10	11:15 (34) 08:02	09:31 (16) 06:44	06:16	05:02	04:27
	16:25	63 12:55 (21) 17:40	20 09:51 (16) 18:47	20:58	22:06	22:50
20	09:08	11:15 (34) 08:00	09:30 (16) 06:41	06:13	05:00	04:27
	16:28	73 14:13 (24) 17:43	21 09:51 (16) 18:49	21:00	22:08	22:50
21	09:07	11:16 (34) 07:57	09:30 (16) 06:38	06:10	04:58	04:27
	16:30	76 14:15 (24) 17:45	21 09:51 (16) 18:51	21:03	22:10	22:50
22	09:05	11:16 (34) 07:54	09:30 (16) 06:36	06:08	04:56	04:27
	16:32	78 14:16 (24) 17:48	21 09:51 (16) 18:54	21:05	22:12	22:50
23	09:03	11:17 (34) 07:52	09:31 (16) 06:33	06:05	04:54	04:27
	16:34	79 14:18 (24) 17:50	20 09:51 (16) 18:56	21:07	22:14	22:51
24	09:02	11:18 (34) 07:49	09:31 (16) 06:30	06:02	04:52	04:27
	16:37	79 14:20 (24) 17:53	20 09:51 (16) 18:58	21:10	22:16	22:51
25	09:00	11:20 (34) 07:46	09:31 (16) 06:27	05:59	04:51	04:28
	16:39	73 14:21 (24) 17:55	18 09:49 (16) 19:01	21:12	22:18	22:51
26	08:58	11:23 (34) 07:44	09:32 (16) 06:24	05:57	04:49	04:28
	16:41	69 15:03 (25) 17:57	16 09:48 (16) 19:03	21:14	22:20	22:50
27	08:56	11:58 (29) 07:41	09:33 (16) 06:21	05:54	04:47	04:29
	16:44	66 15:04 (25) 18:00	13 09:46 (16) 19:05	21:17	22:22	22:50
28	08:54	11:58 (29) 07:38	09:36 (16) 06:18	05:52	04:46	04:30
	16:46	74 15:10 (25) 18:02	6 09:42 (16) 19:07	21:19	22:24	22:50
29	08:52	11:59 (29)	07:15	05:49	04:44	04:30
	16:49	82 15:17 (25)	20:10	21:21	22:25	22:50
30	08:50	11:58 (29)	07:12	05:46	04:42	04:31
	16:51	86 15:21 (25)	20:12	21:24	22:27	22:49
31	08:48	11:59 (29)	07:10		04:41	
	16:54	87 15:22 (25)	20:14		22:29	
Potential sun hours	221	260	365	432	521	547
Total, worst case	1603	1084				
Sun reduction	0,50	0,50				
Oper. time red.	0,80	0,80				
Wind dir. red.	0,63	0,62				
Total reduction	0,25	0,25				
Total, real	401	270				

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)		Last time (hh:mm) with flicker	(WTG causing flicker last time)

SHADOW - Calendar

Calculation: Oppdatert layout - real case med vindrose - med nærliggende - oppdatert mottaker **Shadow receptor:** E - Buevegen 1816 (5)

Assumptions for shadow calculations

Sunshine probability S/S0 (Sun hours/Possible sun hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
644 231 315 644 959 714 721 455 378 420 574 938 6 993

	July	August	September	October	November	December
1	04:32	05:24	06:33	07:39	07:51	11:33 (29)
	22:49	22:01	20:40	19:13	16:49	50 13:53 (24)
2	04:33	05:26	06:35	07:42	07:54	11:32 (29)
	22:48	21:58	20:37	19:10	16:46	55 13:54 (24)
3	04:34	05:28	06:37	07:44	07:56	11:31 (29)
	22:47	21:56	20:34	19:07	16:44	59 13:55 (24)
4	04:35	05:31	06:40	07:46	07:59	11:30 (29)
	22:47	21:54	20:31	19:04	16:41	69 14:45 (25)
5	04:36	05:33	06:42	07:48	08:01	11:30 (29)
	22:46	21:51	20:28	19:02	16:39	76 14:48 (25)
6	04:37	05:35	06:44	07:51	08:03	11:30 (29)
	22:45	21:49	20:25	18:59	16:37	79 14:50 (25)
7	04:39	05:37	06:46	07:53	08:06	11:29 (29)
	22:44	21:47	20:22	18:56	16:34	83 14:50 (25)
8	04:40	05:39	06:49	07:55	08:08	11:29 (29)
	22:43	21:44	20:20	18:53	16:32	87 14:51 (25)
9	04:41	05:42	06:51	07:57	08:11	11:30 (29)
	22:42	21:42	20:17	18:50	16:30	86 14:52 (25)
10	04:43	05:44	06:53	08:00	08:13	11:30 (29)
	22:41	21:39	20:14	18:47	16:28	88 14:53 (25)
11	04:44	05:46	06:55	08:02	08:15	11:29 (29)
	22:39	21:37	20:11	18:45	16:25	87 14:52 (25)
12	04:46	05:48	06:57	08:04	08:18	11:30 (29)
	22:38	21:34	20:08	18:42	16:23	87 14:53 (25)
13	04:47	05:51	07:00	08:07	08:20	11:31 (29)
	22:37	21:31	20:05	18:39	16:21	81 14:49 (25)
14	04:49	05:53	07:02	08:09	10:08 (16)	08:22
	22:35	21:29	20:02	18:36	9 10:17 (16)	16:19
15	04:51	05:55	07:04	08:11	10:06 (16)	08:25
	22:34	21:26	19:59	18:33	14 10:20 (16)	16:17
16	04:52	05:57	07:06	08:13	10:04 (16)	08:27
	22:32	21:24	19:56	18:31	16 10:20 (16)	16:15
17	04:54	06:00	07:08	08:16	10:03 (16)	08:30
	22:30	21:21	19:54	18:28	19 10:22 (16)	16:13
18	04:56	06:02	07:11	08:18	10:02 (16)	08:32
	22:29	21:18	19:51	18:25	20 10:22 (16)	16:11
19	04:58	06:04	07:13	08:20	10:02 (16)	08:34
	22:27	21:16	19:48	18:22	21 10:23 (16)	16:09
20	05:00	06:06	07:15	08:23	10:01 (16)	08:36
	22:25	21:13	19:45	18:20	21 10:22 (16)	16:08
21	05:01	06:08	07:17	08:25	10:01 (16)	08:39
	22:24	21:10	19:42	18:17	21 10:22 (16)	16:06
22	05:03	06:11	07:19	08:27	10:01 (16)	08:41
	22:22	21:08	19:39	18:14	21 10:22 (16)	16:04
23	05:05	06:13	07:22	08:30	10:01 (16)	08:43
	22:20	21:05	19:36	18:12	20 10:21 (16)	16:02
24	05:07	06:15	07:24	08:32	10:01 (16)	08:45
	22:18	21:02	19:33	18:09	19 10:20 (16)	16:01
25	05:09	06:17	07:26	07:35	09:02 (16)	08:47
	22:16	20:59	19:30	17:06	17 09:19 (16)	15:59
26	05:11	06:20	07:28	07:37	09:03 (16)	08:50
	22:14	20:57	19:27	17:04	14 09:17 (16)	15:58
27	05:13	06:22	07:30	07:39	09:06 (16)	08:52
	22:12	20:54	19:25	17:01	10 09:16 (16)	15:56
28	05:16	06:24	07:33	07:42	11:42 (29)	08:54
	22:10	20:51	19:22	16:59	10 11:52 (29)	15:55
29	05:18	06:26	07:35	07:44	11:38 (29)	08:56
	22:07	20:48	19:19	16:56	28 13:47 (24)	15:54
30	05:20	06:29	07:37	07:47	11:36 (29)	08:58
	22:05	20:45	19:16	16:54	39 13:50 (24)	15:52
31	05:22	06:31		07:49	11:35 (29)	
	22:03	20:42		16:51	45 13:52 (24)	
Potential sun hours	546	478	386	319	236	199
Total, worst case				364	2072	268
Sun reduction				0,50	0,50	0,50
Oper. time red.				0,80	0,80	0,80
Wind dir. red.				0,69	0,61	0,65
Total reduction				0,27	0,24	0,26
Total, real				100	505	70

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Calculation: Oppdatert layout - real case med vindrose - med nærliggende - oppdatert mottaker **Shadow receptor:** F - Buevegen 1818 (6)

Assumptions for shadow calculations

Sunshine probability S/S0 (Sun hours/Possible sun hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
644 231 315 644 959 714 721 455 378 420 574 938 6 993

	January	February	March	April	May	June		
1	09:28 15:53	11:23 (34) 11:40 (34)	08:46 16:56	12:23 (29) 15:30 (25)	07:35 18:05	07:07 20:17	05:44 21:26	04:40 22:30
2	09:27 15:54	11:23 (34) 11:40 (34)	08:43 16:58	12:24 (29) 15:34 (25)	07:33 18:07	07:04 20:19	05:41 21:28	04:38 22:32
3	09:27 15:55	11:23 (34) 11:41 (34)	08:41 17:01	12:25 (29) 15:34 (25)	07:30 18:09	07:01 20:21	05:39 21:31	04:37 22:34
4	09:26 15:57	11:23 (34) 12:52 (21)	08:39 17:03	12:25 (29) 15:34 (25)	07:27 18:12	06:58 20:24	05:36 21:33	04:36 22:35
5	09:26 15:58	11:23 (34) 12:53 (21)	08:37 17:06	12:25 (29) 15:33 (25)	07:24 18:14	06:55 20:26	05:34 21:35	04:35 22:37
6	09:25 16:00	11:24 (34) 13:06 (21)	08:34 17:08	12:26 (29) 15:33 (25)	07:21 18:17	06:52 20:28	05:31 21:37	04:34 22:38
7	09:24 16:02	11:24 (34) 13:07 (21)	08:32 17:11	12:26 (29) 15:31 (25)	07:19 18:19	06:50 20:30	05:29 21:40	04:33 22:39
8	09:24 16:03	11:24 (34) 13:07 (21)	08:30 17:13	12:28 (29) 15:30 (25)	07:16 18:21	06:47 20:33	05:26 21:42	04:32 22:40
9	09:23 16:05	11:24 (34) 13:07 (21)	08:27 17:16	12:28 (29) 15:26 (25)	07:13 18:24	06:44 20:35	05:24 21:44	04:31 22:42
10	09:22 16:07	11:25 (34) 13:08 (21)	08:25 17:18	12:29 (29) 14:44 (24)	07:10 18:26	06:41 20:37	05:22 21:46	04:30 22:43
11	09:21 16:09	11:25 (34) 13:09 (21)	08:23 17:21	12:32 (29) 14:43 (24)	07:07 18:28	06:38 20:40	05:19 21:49	04:29 22:44
12	09:20 16:11	11:25 (34) 13:09 (21)	08:20 17:23	09:50 (16) 14:42 (24)	07:04 18:31	06:35 20:42	05:17 21:51	04:29 22:45
13	09:18 16:13	11:26 (34) 13:10 (21)	08:18 17:26	09:46 (16) 14:40 (24)	07:01 18:33	06:32 20:44	05:15 21:53	04:28 22:46
14	09:17 16:15	11:26 (34) 13:10 (21)	08:15 17:28	09:45 (16) 14:38 (24)	06:59 18:35	06:30 20:47	05:13 21:55	04:28 22:47
15	09:16 16:17	11:26 (34) 13:10 (21)	08:13 17:31	09:43 (16) 10:01 (16)	06:56 18:38	06:27 20:49	05:10 21:58	04:27 22:47
16	09:15 16:19	11:27 (34) 13:10 (21)	08:10 17:33	09:42 (16) 10:02 (16)	06:53 18:40	06:24 20:51	05:08 22:00	04:27 22:48
17	09:13 16:21	11:27 (34) 13:10 (21)	08:07 17:35	09:41 (16) 10:02 (16)	06:50 18:42	06:21 20:53	05:06 22:02	04:27 22:49
18	09:12 16:23	11:28 (34) 13:11 (21)	08:05 17:38	09:41 (16) 10:03 (16)	06:47 18:45	06:19 20:56	05:04 22:04	04:27 22:49
19	09:10 16:25	11:29 (34) 13:11 (21)	08:02 17:40	09:41 (16) 10:03 (16)	06:44 18:47	06:16 20:58	05:02 22:06	04:27 22:50
20	09:08 16:28	11:30 (34) 13:11 (21)	08:00 17:43	09:40 (16) 10:03 (16)	06:41 18:49	06:13 21:00	05:00 22:08	04:27 22:50
21	09:07 16:30	11:31 (34) 13:10 (21)	07:57 17:45	09:40 (16) 10:02 (16)	06:38 18:51	06:10 21:03	04:58 22:10	04:27 22:50
22	09:05 16:32	11:31 (34) 13:09 (21)	07:54 17:48	09:40 (16) 10:02 (16)	06:36 18:54	06:08 21:05	04:56 22:12	04:27 22:50
23	09:03 16:34	11:33 (34) 14:33 (24)	07:52 17:50	09:42 (16) 10:02 (16)	06:33 18:56	06:05 21:07	04:54 22:14	04:27 22:50
24	09:02 16:37	11:35 (34) 14:36 (24)	07:49 17:53	09:42 (16) 10:01 (16)	06:30 18:58	06:02 21:10	04:52 22:16	04:27 22:51
25	09:00 16:39	11:39 (34) 14:38 (24)	07:46 17:55	09:43 (16) 09:59 (16)	06:27 19:01	05:59 21:12	04:51 22:18	04:28 22:50
26	08:58 16:41	12:24 (29) 14:40 (24)	07:44 17:57	09:45 (16) 09:57 (16)	06:24 19:03	05:57 21:14	04:49 22:20	04:28 22:50
27	08:56 16:44	12:23 (29) 14:40 (24)	07:41 18:00	09:48 (16) 09:53 (16)	06:21 19:05	05:54 21:17	04:47 22:22	04:29 22:50
28	08:54 16:46	12:23 (29) 15:15 (25)	07:38 18:02	06:18 19:07	05:52 21:19	04:46 22:24	04:30 22:50	04:30 22:50
29	08:52 16:49	12:24 (29) 15:19 (25)	07:35 18:02	07:15 20:10	05:49 21:21	04:44 22:25	04:30 22:50	04:30 22:50
30	08:50 16:51	12:23 (29) 15:23 (25)	07:32 18:02	07:12 20:12	05:46 21:24	04:42 22:27	04:31 22:49	04:31 22:49
31	08:48 16:53	12:24 (29) 15:26 (25)	07:30 18:02	07:10 20:14	05:44 21:26	04:41 22:29	04:30 22:49	04:30 22:49
Potential sun hours	221	260	365	432	521	547		
Total, worst case	1549	1147						
Sun reduction	0,50	0,50						
Oper. time red.	0,80	0,80						
Wind dir. red.	0,62	0,62						
Total reduction	0,25	0,25						
Total, real	386	283						

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Calculation: Oppdatert layout - real case med vindrose - med nærliggende - oppdatert mottaker **Shadow receptor:** F - Buevegen 1818 (6)

Assumptions for shadow calculations

Sunshine probability S/S0 (Sun hours/Possible sun hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
644 231 315 644 959 714 721 455 378 420 574 938 6 993

	July	August	September	October	November	December	
1	04:32	05:24	06:33	07:39	07:51	11:59 (29) 09:00	11:07 (34)
	22:49	22:01	20:40	19:13	16:49	51 14:13 (24) 15:51	43 12:51 (21)
2	04:33	05:26	06:35	07:42	07:54	11:58 (29) 09:02	11:08 (34)
	22:48	21:58	20:37	19:10	16:46	61 14:57 (25) 15:50	42 12:51 (21)
3	04:34	05:28	06:37	07:44	07:56	11:57 (29) 09:03	11:08 (34)
	22:47	21:56	20:34	19:07	16:44	71 15:00 (25) 15:49	42 12:51 (21)
4	04:35	05:31	06:40	07:46	07:59	11:56 (29) 09:05	11:09 (34)
	22:47	21:54	20:31	19:04	16:41	76 15:01 (25) 15:48	41 12:52 (21)
5	04:36	05:33	06:42	07:48	08:01	11:55 (29) 09:07	11:09 (34)
	22:46	21:51	20:28	19:02	16:39	80 15:02 (25) 15:47	35 12:52 (21)
6	04:37	05:35	06:44	07:51	08:03	11:55 (29) 09:09	11:10 (34)
	22:45	21:49	20:25	18:59	16:37	82 15:03 (25) 15:46	31 12:52 (21)
7	04:38	05:37	06:46	07:53	08:06	11:54 (29) 09:10	11:11 (34)
	22:44	21:47	20:22	18:56	16:34	84 15:03 (25) 15:45	24 12:40 (21)
8	04:40	05:39	06:49	07:55	08:08	11:54 (29) 09:12	11:11 (34)
	22:43	21:44	20:20	18:53	16:32	87 15:04 (25) 15:45	24 12:41 (21)
9	04:41	05:42	06:51	07:57	08:11	11:55 (29) 09:13	11:12 (34)
	22:42	21:42	20:17	18:50	16:30	87 15:05 (25) 15:44	20 12:37 (21)
10	04:43	05:44	06:53	08:00	08:13	11:55 (29) 09:15	11:12 (34)
	22:40	21:39	20:14	18:47	16:28	81 15:01 (25) 15:43	17 11:29 (34)
11	04:44	05:46	06:55	08:02	08:15	11:54 (29) 09:16	11:14 (34)
	22:39	21:37	20:11	18:45	16:25	78 14:57 (25) 15:43	16 11:30 (34)
12	04:46	05:48	06:57	08:04	08:18	11:55 (29) 09:18	11:14 (34)
	22:38	21:34	20:08	18:42	16:23	74 14:55 (25) 15:43	15 11:29 (34)
13	04:47	05:51	07:00	08:07	08:20	11:55 (29) 09:19	11:15 (34)
	22:37	21:31	20:05	18:39	16:21	68 14:51 (25) 15:42	15 11:30 (34)
14	04:49	05:53	07:02	08:09	08:22	11:55 (29) 09:20	11:16 (34)
	22:35	21:29	20:02	18:36	16:19	62 14:47 (25) 15:42	14 11:30 (34)
15	04:51	05:55	07:04	08:11	10:19 (16)	08:25 11:56 (29) 09:21	11:16 (34)
	22:34	21:26	19:59	18:33	8 10:27 (16)	16:17 14:13 (24) 15:42	14 11:30 (34)
16	04:52	05:57	07:06	08:13	10:16 (16)	08:27 11:57 (29) 09:22	11:17 (34)
	22:32	21:24	19:56	18:31	14 10:30 (16)	16:15 14:12 (24) 15:42	12 11:29 (34)
17	04:54	06:00	07:08	08:16	10:15 (16)	08:29 11:12 (34) 09:23	11:17 (34)
	22:30	21:21	19:54	18:28	17 10:32 (16)	16:13 14:11 (24) 15:42	12 11:29 (34)
18	04:56	06:02	07:11	08:18	10:13 (16)	08:32 11:09 (34) 09:24	11:18 (34)
	22:29	21:18	19:51	18:25	19 10:32 (16)	16:11 14:10 (24) 15:42	11 11:29 (34)
19	04:58	06:04	07:13	08:20	10:12 (16)	08:34 11:08 (34) 09:25	11:19 (34)
	22:27	21:16	19:48	18:22	21 10:33 (16)	16:09 14:08 (24) 15:42	11 11:30 (34)
20	05:00	06:06	07:15	08:23	10:11 (16)	08:36 11:06 (34) 09:26	11:20 (34)
	22:25	21:13	19:45	18:20	22 10:33 (16)	16:08 12:44 (21) 15:43	10 11:30 (34)
21	05:01	06:08	07:17	08:25	10:11 (16)	08:39 11:06 (34) 09:26	11:20 (34)
	22:24	21:10	19:42	18:17	23 10:34 (16)	16:06 12:45 (21) 15:43	10 11:30 (34)
22	05:03	06:11	07:19	08:27	10:10 (16)	08:41 11:06 (34) 09:27	11:21 (34)
	22:22	21:08	19:39	18:14	23 10:33 (16)	16:04 12:47 (21) 15:43	10 11:31 (34)
23	05:05	06:13	07:22	08:30	10:11 (16)	08:43 11:05 (34) 09:27	11:21 (34)
	22:20	21:05	19:36	18:12	22 10:33 (16)	16:02 12:47 (21) 15:44	10 11:31 (34)
24	05:07	06:15	07:24	08:32	10:10 (16)	08:45 11:05 (34) 09:28	11:22 (34)
	22:18	21:02	19:33	18:09	22 10:32 (16)	16:01 12:48 (21) 15:44	10 11:32 (34)
25	05:09	06:17	07:26	07:35	09:11 (16)	08:47 11:05 (34) 09:28	11:22 (34)
	22:16	20:59	19:30	17:06	21 09:32 (16)	15:59 12:48 (21) 15:45	11 11:33 (34)
26	05:11	06:20	07:28	07:37	09:11 (16)	08:50 11:06 (34) 09:28	11:22 (34)
	22:14	20:56	19:27	17:04	20 09:31 (16)	15:58 12:49 (21) 15:46	12 11:34 (34)
27	05:13	06:22	07:30	07:39	09:13 (16)	08:52 11:05 (34) 09:28	11:23 (34)
	22:12	20:54	19:25	17:01	17 09:30 (16)	15:56 12:49 (21) 15:47	11 11:34 (34)
28	05:16	06:24	07:33	07:42	09:14 (16)	08:54 11:06 (34) 09:28	11:23 (34)
	22:10	20:51	19:22	16:59	28 14:08 (24)	15:55 12:50 (21) 15:48	13 11:36 (34)
29	05:18	06:26	07:35	07:44	09:16 (16)	08:56 11:06 (34) 09:28	11:22 (34)
	22:07	20:48	19:19	16:56	42 14:10 (24)	15:54 12:50 (21) 15:49	14 11:36 (34)
30	05:20	06:29	07:37	07:47	12:02 (29)	08:58 11:06 (34) 09:28	11:23 (34)
	22:05	20:45	19:16	16:54	40 14:11 (24)	15:52 12:50 (21) 15:50	15 11:38 (34)
31	05:22	06:31	07:49	07:49	12:01 (29)	08:58 11:06 (34) 09:28	11:23 (34)
	22:03	20:42	16:51	46 14:13 (24)	236	199	15 11:38 (34)
Potential sun hours	546	478	386	319			
Total, worst case				405	1977		580
Sun reduction				0,50	0,50		0,50
Oper. time red.				0,80	0,80		0,80
Wind dir. red.				0,68	0,61		0,65
Total reduction				0,27	0,24		0,26
Total, real				110	478		151

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Calculation: Oppdatert layout - real case med vindrose - med nærliggende - oppdatert mottaker **Shadow receptor:** G - Buevegen 1786 (7)

Assumptions for shadow calculations

Sunshine probability S/S0 (Sun hours/Possible sun hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
644 231 315 644 959 714 721 455 378 420 574 938 6 993

	January	February	March	April	May	June	
1	09:28	08:46	11:27 (29)	07:35	07:07	05:44	04:40
	15:53	16:56	16:56	16:56	16:56	16:56	22:31
2	09:27	12:04 (21)	08:43	11:27 (29)	07:33	07:04	05:41
	15:54	12:05 (21)	16:58	13:50 (24)	18:07	20:19	21:28
3	09:27	12:04 (21)	08:41	11:28 (29)	07:30	07:01	05:39
	15:55	12:08 (21)	17:01	13:50 (24)	18:09	20:21	21:31
4	09:27	12:04 (21)	08:39	11:28 (29)	07:27	06:58	05:36
	15:57	12:11 (21)	17:03	13:48 (24)	18:12	20:24	21:33
5	09:26	12:04 (21)	08:37	11:28 (29)	07:24	06:55	05:34
	15:58	12:21 (21)	17:06	13:47 (24)	18:14	20:26	21:35
6	09:25	12:04 (21)	08:34	11:29 (29)	07:21	06:52	05:31
	16:00	12:21 (21)	17:08	13:47 (24)	18:17	20:28	21:37
7	09:24	12:05 (21)	08:32	11:29 (29)	07:19	06:50	05:29
	16:02	12:26 (21)	17:11	13:44 (24)	18:19	20:30	21:40
8	09:24	12:05 (21)	08:30	11:31 (29)	07:16	06:47	05:26
	16:03	12:27 (21)	17:13	13:42 (24)	18:21	20:33	21:42
9	09:23	12:06 (21)	08:27	11:32 (29)	07:13	06:44	05:24
	16:05	12:28 (21)	17:16	11:54 (29)	18:24	20:35	21:44
10	09:22	12:06 (21)	08:25	11:34 (29)	07:10	06:41	05:22
	16:07	12:28 (21)	17:18	11:52 (29)	18:26	20:37	21:46
11	09:21	12:07 (21)	08:23	11:37 (29)	07:07	06:38	05:19
	16:09	12:29 (21)	17:21	11:50 (29)	18:28	20:40	21:49
12	09:20	12:07 (21)	08:20	11:42 (29)	07:04	06:35	05:17
	16:11	13:33 (24)	17:23	11:44 (29)	18:31	20:42	21:51
13	09:18	12:08 (21)	08:18		07:02	06:32	05:15
	16:13	13:37 (24)	17:26		18:33	20:44	21:53
14	09:17	12:08 (21)	08:15	09:31 (16)	06:59	06:30	05:13
	16:15	13:38 (24)	17:28	09:34 (16)	18:35	20:47	21:55
15	09:16	11:34 (29)	08:13	09:27 (16)	06:56	06:27	05:10
	16:17	13:40 (24)	17:31	09:37 (16)	18:38	20:49	21:58
16	09:15	11:31 (29)	08:10	09:25 (16)	06:53	06:24	05:08
	16:19	13:41 (24)	17:33	09:39 (16)	18:40	20:51	22:00
17	09:13	11:31 (29)	08:07	09:23 (16)	06:50	06:21	05:06
	16:21	13:43 (24)	17:36	09:40 (16)	18:42	20:53	22:02
18	09:12	11:30 (29)	08:05	09:23 (16)	06:47	06:19	05:04
	16:23	14:53 (25)	17:38	09:41 (16)	18:45	20:56	22:04
19	09:10	11:29 (29)	08:02	09:23 (16)	06:44	06:16	05:02
	16:25	14:53 (25)	17:40	09:41 (16)	18:47	20:58	22:06
20	09:09	11:28 (29)	08:00	09:22 (16)	06:41	06:13	05:00
	16:28	14:54 (25)	17:43	09:41 (16)	18:49	21:00	22:08
21	09:07	11:28 (29)	07:57	09:22 (16)	06:39	06:10	04:58
	16:30	14:54 (25)	17:45	09:41 (16)	18:51	21:03	22:10
22	09:05	11:27 (29)	07:54	09:22 (16)	06:36	06:08	04:56
	16:32	14:55 (25)	17:48	09:41 (16)	18:54	21:05	22:12
23	09:03	11:26 (29)	07:52	09:23 (16)	06:33	06:05	04:54
	16:34	14:54 (25)	17:50	09:41 (16)	18:56	21:07	22:14
24	09:02	11:26 (29)	07:49	09:23 (16)	06:30	06:02	04:52
	16:37	14:55 (25)	17:53	09:40 (16)	18:58	21:10	22:16
25	09:00	11:26 (29)	07:46	09:24 (16)	06:27	05:59	04:51
	16:39	14:55 (25)	17:55	09:38 (16)	19:01	21:12	22:18
26	08:58	11:26 (29)	07:44	09:25 (16)	06:24	05:57	04:49
	16:41	14:55 (25)	17:57	09:36 (16)	19:03	21:14	22:20
27	08:56	11:25 (29)	07:41	09:29 (16)	06:21	05:54	04:47
	16:44	14:54 (25)	18:00	09:32 (16)	19:05	21:17	22:22
28	08:54	11:26 (29)	07:38		06:18	05:52	04:46
	16:46	14:54 (25)	18:02		19:08	21:19	22:24
29	08:52	11:26 (29)			07:15	05:49	04:44
	16:49	14:54 (25)			20:10	21:21	22:25
30	08:50	11:26 (29)			07:13	05:46	04:42
	16:51	14:53 (25)			20:12	21:24	22:27
31	08:48	11:26 (29)			07:10		04:41
	16:54	14:52 (25)			20:14		22:29
Potential sun hours	221	260	365	432	521	547	
Total, worst case	1565	676					112
Sun reduction	0,50	0,50					0,50
Oper. time red.	0,80	0,80					0,80
Wind dir. red.	0,61	0,66					0,56
Total reduction	0,24	0,26					0,22
Total, real	383	178					25

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Calculation: Oppdatert layout - real case med vindrose - med nærliggende - oppdatert mottaker **Shadow receptor:** G - Buevegen 1786 (7)

Assumptions for shadow calculations

Sunshine probability S/S0 (Sun hours/Possible sun hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
644 231 315 644 959 714 721 455 378 420 574 938 6 993

	July	August	September	October	November	December
1	04:32	05:24	06:33	07:39	07:51	11:03 (29) 09:00
	22:49	22:01	20:40	19:13	16:49	19 11:22 (29) 15:51
2	04:33	05:26	06:35	07:42	07:54	11:01 (29) 09:02
	22:48	21:59	20:37	19:10	16:46	23 11:24 (29) 15:50
3	04:34	05:28	06:37	07:44	07:56	11:01 (29) 09:03
	22:47	21:56	20:34	19:07	16:44	36 13:12 (24) 15:49
4	04:35	05:31	06:40	07:46	07:59	10:59 (29) 09:05
	22:47	21:54	20:31	19:04	16:41	43 13:14 (24) 15:48
5	04:36	05:33	06:42	07:48	08:01	10:59 (29) 09:07
	22:46	21:51	20:28	19:02	16:39	48 13:16 (24) 15:47
6	04:37	05:35	06:44	07:51	08:03	10:58 (29) 09:09
	22:45	21:49	20:25	18:59	16:37	53 13:18 (24) 15:46
7	04:39	05:37	06:46	07:53	08:06	10:57 (29) 09:10
	22:44	21:47	20:23	18:56	16:34	55 13:18 (24) 15:45
8	04:40	05:39	06:49	07:55	08:08	10:57 (29) 09:12
	22:43	21:44	20:20	18:53	16:32	58 13:19 (24) 15:45
9	04:41	05:42	06:51	07:57	08:11	10:57 (29) 09:13
	22:42	21:42	20:17	18:50	16:30	63 14:18 (25) 15:44
10	04:43	05:44	06:53	08:00	08:13	10:58 (29) 09:15
	22:41	21:39	20:14	18:47	16:28	71 14:22 (25) 15:43
11	04:44	05:46	06:55	08:02	08:15	10:57 (29) 09:16
	22:39	21:37	20:11	18:45	16:25	76 14:23 (25) 15:43
12	04:46	05:48	06:57	08:04	08:18	10:57 (29) 09:18
	22:38	21:34	20:08	18:42	16:23	80 14:25 (25) 15:43
13	04:47	05:51	07:00	08:07	08:20	10:58 (29) 09:19
	22:37	21:32	20:05	18:39	16:21	81 14:26 (25) 15:42
14	04:49	05:53	07:02	08:09	08:22	10:58 (29) 09:20
	22:35	21:29	20:02	18:36	16:19	82 14:26 (25) 15:42
15	04:51	05:55	07:04	08:11	10:00 (16) 08:25	10:58 (29) 09:21
	22:34	21:26	19:59	18:33	7 10:07 (16) 16:17	83 14:27 (25) 15:42
16	04:52	05:57	07:06	08:13	09:57 (16) 08:27	10:59 (29) 09:22
	22:32	21:24	19:56	18:31	12 10:09 (16) 16:15	83 14:28 (25) 15:42
17	04:54	06:00	07:08	08:16	09:55 (16) 08:30	11:00 (29) 09:23
	22:31	21:21	19:54	18:28	16 10:11 (16) 16:13	83 14:29 (25) 15:42
18	04:56	06:02	07:11	08:18	09:54 (16) 08:32	11:00 (29) 09:24
	22:29	21:18	19:51	18:25	17 10:11 (16) 16:11	81 14:29 (25) 15:42
19	04:58	06:04	07:13	08:20	09:54 (16) 08:34	11:01 (29) 09:25
	22:27	21:16	19:48	18:22	18 10:12 (16) 16:09	87 14:29 (25) 15:42
20	05:00	06:06	07:15	08:23	09:53 (16) 08:36	11:01 (29) 09:26
	22:25	21:13	19:45	18:20	19 10:12 (16) 16:08	89 14:29 (25) 15:43
21	05:01	06:08	07:17	08:25	09:53 (16) 08:39	11:03 (29) 09:26
	22:24	21:10	19:42	18:17	19 10:12 (16) 16:06	88 14:29 (25) 15:43
22	05:03	06:11	07:19	08:27	09:52 (16) 08:41	11:04 (29) 09:27
	22:22	21:08	19:39	18:14	20 10:12 (16) 16:04	88 14:30 (25) 15:43
23	05:05	06:13	07:22	08:30	09:53 (16) 08:43	11:05 (29) 09:27
	22:20	21:05	19:36	18:12	19 10:12 (16) 16:02	84 14:29 (25) 15:44
24	05:07	06:15	07:24	08:32	09:53 (16) 08:45	11:07 (29) 09:28
	22:18	21:02	19:33	18:09	17 10:10 (16) 16:01	72 14:30 (25) 15:44
25	05:09	06:17	07:26	07:35	08:54 (16) 08:47	11:08 (29) 09:28
	22:16	20:59	19:30	17:06	16 09:10 (16) 15:59	58 13:20 (24) 15:45
26	05:11	06:20	07:28	07:37	08:56 (16) 08:50	11:10 (29) 09:28
	22:14	20:57	19:27	17:04	13 09:09 (16) 15:58	54 13:20 (24) 15:46
27	05:13	06:22	07:30	07:39	08:57 (16) 08:52	11:12 (29) 09:28
	22:12	20:54	19:25	17:01	9 09:06 (16) 15:56	49 13:19 (24) 15:47
28	05:16	06:24	07:33	07:42	08:54	11:48 (21) 09:28
	22:10	20:51	19:22	16:59	15:55	35 13:18 (24) 15:48
29	05:18	06:26	07:35	07:44	08:56	11:48 (21) 09:28
	22:07	20:48	19:19	16:56	15:54	33 13:17 (24) 15:49
30	05:20	06:29	07:37	07:47	11:09 (29) 08:58	11:48 (21) 09:28
	22:05	20:45	19:16	16:54	7 11:16 (29) 15:52	30 13:15 (24) 15:50
31	05:22	06:31	07:49	07:49	11:06 (29) 08:57	09:28
	22:03	20:42	16:51	14 11:20 (29) 15:51	199	
Potential sun hours	546	478	386	319	236	
Total, worst case				223	1885	154
Sun reduction				0,50	0,50	0,50
Oper. time red.				0,80	0,80	0,80
Wind dir. red.				0,73	0,61	0,64
Total reduction				0,29	0,25	0,25
Total, real				65	462	39

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Calculation: Oppdatert layout - real case med vindrose - med nærliggende - oppdatert mottaker **Shadow receptor:** H - Buevegen 1784 (8)
Assumptions for shadow calculations Sunshine probability S/S0 (Sun hours/Possible sun hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
 644 231 315 644 959 714 721 455 378 420 574 938 6 993

	January	February	March	April	May	June		
1	09:28	12:18 (21)	08:46	11:54 (29)	07:35	07:07	05:44	04:40
	15:53	21 12:39 (21)	16:56	47 14:04 (24)	18:05	20:17	21:26	22:31
2	09:27	11:56 (29)	08:43	11:54 (29)	07:33	07:04	05:41	04:38
	15:54	22 12:39 (21)	16:58	44 14:02 (24)	18:07	20:19	21:28	22:32
3	09:27	11:53 (29)	08:41	11:56 (29)	07:30	07:01	05:39	04:37
	15:55	28 12:39 (21)	17:01	38 14:01 (24)	18:09	20:21	21:31	22:34
4	09:27	11:52 (29)	08:39	11:57 (29)	07:27	06:58	05:36	04:36
	15:57	32 12:40 (21)	17:03	31 13:59 (24)	18:12	20:24	21:33	22:35
5	09:26	11:51 (29)	08:37	11:59 (29)	07:24	06:55	05:34	04:35
	15:58	34 12:40 (21)	17:06	18 13:54 (24)	18:14	20:26	21:35	22:37
6	09:25	11:50 (29)	08:34	12:05 (29)	07:21	06:52	05:31	04:34
	16:00	36 12:40 (21)	17:08	3 12:08 (29)	18:17	20:28	21:37	22:38
7	09:24	11:50 (29)	08:32		07:19	06:50	05:29	04:33
	16:02	43 13:47 (24)	17:11		18:19	20:30	21:40	22:39
8	09:24	11:50 (29)	08:30		07:16	06:47	05:26	04:32
	16:03	49 13:50 (24)	17:13		18:21	20:33	21:42	22:40
9	09:23	11:50 (29)	08:27	09:43 (16)	07:13	06:44	05:24	04:31
	16:05	54 13:52 (24)	17:16	6 09:49 (16)	18:24	20:35	21:44	22:42
10	09:22	11:49 (29)	08:25	09:40 (16)	07:10	06:41	05:22	04:30
	16:07	57 13:53 (24)	17:18	11 09:51 (16)	18:26	20:37	21:46	22:43
11	09:21	11:49 (29)	08:23	09:39 (16)	07:07	06:38	05:19	04:29
	16:09	60 13:55 (24)	17:21	15 09:54 (16)	18:28	20:40	21:49	22:44
12	09:20	11:48 (29)	08:20	09:38 (16)	07:04	06:35	05:17	04:29
	16:11	61 13:55 (24)	17:23	16 09:54 (16)	18:31	20:42	21:51	22:45
13	09:18	11:49 (29)	08:18	09:37 (16)	07:02	06:32	05:15	04:28
	16:13	64 13:57 (24)	17:26	18 09:55 (16)	18:33	20:44	21:53	22:46
14	09:17	11:48 (29)	08:15	09:37 (16)	06:59	06:30	05:13	04:28
	16:15	64 13:58 (24)	17:28	19 09:56 (16)	18:35	20:47	21:55	22:47
15	09:16	11:48 (29)	08:13	09:36 (16)	06:56	06:27	05:10	04:27
	16:17	74 14:47 (25)	17:31	20 09:56 (16)	18:38	20:49	21:58	22:47
16	09:15	11:47 (29)	08:10	09:36 (16)	06:53	06:24	05:08	04:27
	16:19	83 14:59 (25)	17:33	20 09:56 (16)	18:40	20:51	22:00	22:48
17	09:13	11:48 (29)	08:07	09:36 (16)	06:50	06:21	05:06	04:27
	16:21	88 15:01 (25)	17:36	19 09:55 (16)	18:42	20:53	22:02	22:49
18	09:12	11:48 (29)	08:05	09:37 (16)	06:47	06:19	05:04	04:27
	16:23	87 15:01 (25)	17:38	19 09:56 (16)	18:45	20:56	22:04	22:49
19	09:10	11:48 (29)	08:02	09:37 (16)	06:44	06:16	05:02	04:27
	16:25	84 15:02 (25)	17:40	18 09:55 (16)	18:47	20:58	22:06	22:50
20	09:08	11:48 (29)	08:00	09:38 (16)	06:41	06:13	05:00	04:27
	16:28	79 15:02 (25)	17:43	16 09:54 (16)	18:49	21:00	22:08	22:50
21	09:07	11:48 (29)	07:57	09:39 (16)	06:39	06:10	04:58	04:27
	16:30	80 15:02 (25)	17:45	13 09:52 (16)	18:51	21:03	22:10	22:50
22	09:05	11:48 (29)	07:54	09:41 (16)	06:36	06:08	04:56	04:27
	16:32	82 15:03 (25)	17:48	8 09:49 (16)	18:54	21:05	22:12	22:50
23	09:03	11:48 (29)	07:52		06:33	06:05	04:54	04:27
	16:34	80 15:02 (25)	17:50		18:56	21:07	22:14	22:51
24	09:02	11:48 (29)	07:49		06:30	06:02	04:52	04:27
	16:37	80 15:02 (25)	17:53		18:58	21:10	22:16	22:51
25	09:00	11:49 (29)	07:46		06:27	05:59	04:51	04:28
	16:39	80 15:02 (25)	17:55		19:01	21:12	22:18	22:51
26	08:58	11:49 (29)	07:44		06:24	05:57	04:49	04:28
	16:41	79 15:02 (25)	17:57		19:03	21:14	22:20	22:50
27	08:56	11:49 (29)	07:41		06:21	05:54	04:47	04:29
	16:44	75 15:01 (25)	18:00		19:05	21:17	22:22	22:50
28	08:54	11:50 (29)	07:38		06:18	05:52	04:46	04:30
	16:46	73 15:01 (25)	18:02		19:08	21:19	22:24	22:50
29	08:52	11:51 (29)			07:15	05:49	04:44	04:30
	16:49	69 15:00 (25)			20:10	21:21	22:25	22:50
30	08:50	11:51 (29)			07:12	05:46	04:42	04:31
	16:51	64 14:58 (25)			20:12	21:24	22:27	22:49
31	08:48	11:52 (29)			07:10		04:41	
	16:54	54 14:55 (25)			20:14		22:29	
Potential sun hours	221	260	365	432	521	547		
Total, worst case	1936		399					67
Sun reduction	0,50		0,50					0,50
Oper. time red.	0,80		0,80					0,80
Wind dir. red.	0,60		0,67					0,56
Total reduction	0,24		0,27					0,23
Total, real	466	107						15

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Calculation: Oppdatert layout - real case med vindrose - med nærliggende - oppdatert mottaker **Shadow receptor:** H - Buevegen 1784 (8)

Assumptions for shadow calculations

Sunshine probability S/S0 (Sun hours/Possible sun hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
644 231 315 644 959 714 721 455 378 420 574 938 6 993

	July	August	September	October	November	December
1	04:32	05:24	06:33	07:39	07:51	09:10 (16) 09:00
	22:49	22:01	20:40	19:13	16:49	11 09:21 (16) 15:51
2	04:33	05:26	06:35	07:42	07:54	09:13 (16) 09:02
	22:48	21:59	20:37	19:10	16:46	5 09:18 (16) 15:50
3	04:34	05:28	06:37	07:44	07:56	09:03
	22:47	21:56	20:34	19:07	16:44	53 13:35 (24)
4	04:35	05:31	06:40	07:46	07:59	09:05
	22:47	21:54	20:31	19:04	16:41	49 13:34 (24)
5	04:36	05:33	06:42	07:48	08:01	11:33 (29) 09:07
	22:46	21:51	20:28	19:02	16:39	6 11:39 (29) 15:47
6	04:37	05:35	06:44	07:51	08:03	11:30 (29) 09:09
	22:45	21:49	20:25	18:59	16:37	20 13:26 (24) 15:46
7	04:38	05:37	06:46	07:53	08:06	11:27 (29) 09:10
	22:44	21:47	20:22	18:56	16:34	31 13:29 (24) 15:45
8	04:40	05:39	06:49	07:55	08:08	11:26 (29) 09:12
	22:43	21:44	20:20	18:53	16:32	38 13:31 (24) 15:45
9	04:41	05:42	06:51	07:57	08:11	11:25 (29) 09:13
	22:42	21:42	20:17	18:50	16:30	44 13:33 (24) 15:44
10	04:43	05:44	06:53	08:00	08:13	11:24 (29) 09:15
	22:41	21:39	20:14	18:47	16:28	48 13:34 (24) 15:43
11	04:44	05:46	06:55	08:02	08:15	11:23 (29) 09:16
	22:39	21:37	20:11	18:45	16:25	55 14:27 (25) 15:43
12	04:46	05:48	06:57	08:04	08:18	11:23 (29) 09:18
	22:38	21:34	20:08	18:42	16:23	63 14:30 (25) 15:43
13	04:47	05:51	07:00	08:07	08:20	11:23 (29) 09:19
	22:37	21:32	20:05	18:39	16:21	69 14:32 (25) 15:42
14	04:49	05:53	07:02	08:09	08:22	11:22 (29) 09:20
	22:35	21:29	20:02	18:36	16:19	73 14:33 (25) 15:42
15	04:51	05:55	07:04	08:11	08:25	11:22 (29) 09:21
	22:34	21:26	19:59	18:33	16:17	76 14:34 (25) 15:42
16	04:52	05:57	07:06	08:13	08:27	11:22 (29) 09:22
	22:32	21:24	19:56	18:31	16:15	79 14:35 (25) 15:42
17	04:54	06:00	07:08	08:16	08:30	11:23 (29) 09:23
	22:31	21:21	19:54	18:28	16:13	80 14:36 (25) 15:42
18	04:56	06:02	07:11	08:18	08:32	11:22 (29) 09:24
	22:29	21:18	19:51	18:25	16:11	80 14:36 (25) 15:42
19	04:58	06:04	07:13	08:20	08:34	11:23 (29) 09:25
	22:27	21:16	19:48	18:22	16:09	80 14:37 (25) 15:42
20	05:00	06:06	07:15	08:23	10:11 (16) 08:36	11:22 (29) 09:26
	22:25	21:13	19:45	18:20	10 10:21 (16) 16:08	82 14:37 (25) 15:43
21	05:01	06:08	07:17	08:25	10:09 (16) 08:39	11:23 (29) 09:26
	22:24	21:10	19:42	18:17	15 10:24 (16) 16:06	80 14:37 (25) 15:43
22	05:03	06:11	07:19	08:27	10:08 (16) 08:41	11:24 (29) 09:27
	22:22	21:08	19:39	18:14	16 10:24 (16) 16:04	79 14:38 (25) 15:43
23	05:05	06:13	07:22	08:30	10:07 (16) 08:43	11:24 (29) 09:27
	22:20	21:05	19:36	18:12	18 10:25 (16) 16:02	83 14:38 (25) 15:44
24	05:07	06:15	07:24	08:32	10:06 (16) 08:45	11:25 (29) 09:28
	22:18	21:02	19:33	18:09	19 10:25 (16) 16:01	87 14:38 (25) 15:44
25	05:09	06:17	07:26	07:35	09:06 (16) 08:47	11:25 (29) 09:28
	22:16	20:59	19:30	17:06	20 09:26 (16) 15:59	87 14:38 (25) 15:45
26	05:11	06:20	07:28	07:37	09:06 (16) 08:50	11:26 (29) 09:28
	22:14	20:57	19:27	17:04	20 09:26 (16) 15:58	83 14:38 (25) 15:46
27	05:13	06:22	07:30	07:39	09:06 (16) 08:52	11:27 (29) 09:28
	22:12	20:54	19:25	17:01	19 09:25 (16) 15:56	75 14:34 (25) 15:47
28	05:16	06:24	07:33	07:42	09:06 (16) 08:54	11:28 (29) 09:28
	22:10	20:51	19:22	16:59	19 09:25 (16) 15:55	65 13:38 (24) 15:48
29	05:18	06:26	07:35	07:44	09:06 (16) 08:56	11:29 (29) 09:28
	22:07	20:48	19:19	16:56	18 09:24 (16) 15:54	64 13:37 (24) 15:49
30	05:20	06:29	07:37	07:47	09:07 (16) 08:58	11:29 (29) 09:28
	22:05	20:45	19:16	16:54	17 09:24 (16) 15:52	62 13:37 (24) 15:50
31	05:22	06:31	07:49	07:49	09:09 (16)	09:28
	22:03	20:42	16:51	14 09:23 (16)	15:51	21 12:37 (21)
Potential sun hours	546	478	386	319	236	199
Total, worst case				205	1705	847
Sun reduction				0,50	0,50	0,50
Oper. time red.				0,80	0,80	0,80
Wind dir. red.				0,73	0,60	0,63
Total reduction				0,29	0,24	0,25
Total, real				60	408	212

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Calculation: Oppdatert layout - real case med vindrose - med nærliggende - oppdatert mottaker **Shadow receptor:** I - Buevegen 1782 (9)

Assumptions for shadow calculations

Sunshine probability S/S0 (Sun hours/Possible sun hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
644 231 315 644 959 714 721 455 378 420 574 938 6 993

	January	February	March	April	May	June
1	09:28	12:08 (21) 08:46	11:39 (29) 07:35	07:07	05:44	04:40
	15:53	21 12:29 (21) 16:56	48 13:50 (24) 18:05	20:17	21:26	22:31
2	09:27	12:08 (21) 08:43	11:40 (29) 07:33	07:04	05:41	04:38
	15:54	21 12:29 (21) 16:58	44 13:48 (24) 18:07	20:19	21:28	22:32
3	09:27	12:09 (21) 08:41	11:41 (29) 07:30	07:01	05:39	04:37
	15:55	20 12:29 (21) 17:01	39 13:47 (24) 18:09	20:21	21:31	22:34
4	09:27	12:09 (21) 08:39	11:42 (29) 07:27	06:58	05:36	04:36
	15:57	21 12:30 (21) 17:03	31 13:44 (24) 18:12	20:24	21:33	22:35
5	09:26	12:09 (21) 08:37	11:43 (29) 07:24	06:55	05:34	04:35
	15:58	21 12:30 (21) 17:06	18 12:01 (29) 18:14	20:26	21:35	22:37
6	09:25	12:10 (21) 08:34	11:46 (29) 07:21	06:52	05:31	04:34
	16:00	26 13:33 (24) 17:08	14 12:00 (29) 18:17	20:28	21:37	22:38
7	09:24	11:42 (29) 08:32	11:51 (29) 07:19	06:50	05:29	04:33
	16:02	37 13:36 (24) 17:11	3 11:54 (29) 18:19	20:30	21:40	22:39
8	09:24	11:40 (29) 08:30	11:50 (29) 07:16	06:47	05:26	04:32
	16:03	45 13:38 (24) 17:13	18:21	20:33	21:42	22:41
9	09:23	11:39 (29) 08:27	11:51 (29) 07:13	06:44	05:24	04:31
	16:05	50 13:40 (24) 17:16	18:24	20:35	21:44	22:42
10	09:22	11:38 (29) 08:25	09:40 (16) 07:10	06:41	05:22	04:30
	16:07	52 13:40 (24) 17:18	2 09:42 (16) 18:26	20:37	21:46	22:43
11	09:21	11:38 (29) 08:23	09:36 (16) 07:07	06:38	05:19	04:29
	16:09	56 13:42 (24) 17:21	10 09:46 (16) 18:28	20:40	21:49	22:44
12	09:20	11:37 (29) 08:20	09:34 (16) 07:04	06:35	05:17	04:29
	16:11	63 14:47 (25) 17:23	14 09:48 (16) 18:31	20:42	21:51	22:45
13	09:18	11:37 (29) 08:18	09:33 (16) 07:02	06:32	05:15	04:28
	16:13	74 14:49 (25) 17:26	16 09:49 (16) 18:33	20:44	21:53	22:46
14	09:17	11:36 (29) 08:15	09:33 (16) 06:59	06:30	05:13	04:28
	16:15	82 14:49 (25) 17:28	17 09:50 (16) 18:35	20:47	21:55	22:47
15	09:16	11:36 (29) 08:13	09:32 (16) 06:56	06:27	05:10	04:27
	16:17	87 14:50 (25) 17:31	18 09:50 (16) 18:38	20:49	21:58	22:47
16	09:15	11:35 (29) 08:10	09:31 (16) 06:53	06:24	05:08	04:27
	16:19	87 14:50 (25) 17:33	19 09:50 (16) 18:40	20:51	22:00	22:48
17	09:13	11:36 (29) 08:07	09:31 (16) 06:50	06:21	05:06	04:27
	16:21	87 14:52 (25) 17:36	19 09:50 (16) 18:42	20:53	22:02	22:49
18	09:12	11:36 (29) 08:05	09:32 (16) 06:47	06:19	05:04	04:27
	16:23	89 14:52 (25) 17:38	19 09:51 (16) 18:45	20:56	22:04	22:49
19	09:10	11:35 (29) 08:02	09:32 (16) 06:44	06:16	05:02	04:27
	16:25	86 14:52 (25) 17:40	18 09:50 (16) 18:47	20:58	22:06	22:50
20	09:09	11:35 (29) 08:00	09:32 (16) 06:41	06:13	05:00	04:27
	16:28	83 14:53 (25) 17:43	17 09:49 (16) 18:49	21:00	22:08	22:50
21	09:07	11:35 (29) 07:57	09:33 (16) 06:39	06:10	04:58	04:27
	16:30	79 14:53 (25) 17:45	15 09:48 (16) 18:51	21:03	22:10	22:50
22	09:05	11:35 (29) 07:54	09:34 (16) 06:36	06:08	04:56	04:27
	16:32	80 14:53 (25) 17:48	12 09:46 (16) 18:54	21:05	22:12	22:50
23	09:03	11:35 (29) 07:52	09:37 (16) 06:33	06:05	04:54	04:27
	16:34	79 14:52 (25) 17:50	7 09:44 (16) 18:56	21:07	22:14	22:51
24	09:02	11:35 (29) 07:49	06:30	06:02	04:52	04:27
	16:37	79 14:52 (25) 17:53	18:58	21:10	22:16	22:51
25	09:00	11:35 (29) 07:46	06:27	05:59	04:51	04:28
	16:39	78 14:52 (25) 17:55	19:01	21:12	22:18	22:51
26	08:58	11:36 (29) 07:44	06:24	05:57	04:49	04:28
	16:41	77 14:52 (25) 17:57	19:03	21:14	22:20	22:50
27	08:56	11:36 (29) 07:41	06:21	05:54	04:47	04:29
	16:44	73 14:51 (25) 18:00	19:05	21:17	22:22	22:50
28	08:54	11:36 (29) 07:38	06:18	05:52	04:46	04:30
	16:46	71 14:50 (25) 18:02	19:08	21:19	22:24	22:50
29	08:52	11:37 (29)	07:15	05:49	04:44	04:30
	16:49	66 14:49 (25)	20:10	21:21	22:25	22:50
30	08:50	11:37 (29)	07:13	05:46	04:42	04:31
	16:51	54 14:44 (25)	20:12	21:24	22:27	22:49
31	08:48	11:38 (29)	07:10		04:41	
	16:54	51 13:50 (24)	20:14		22:29	
Potential sun hours	221	260	365	432	521	547
Total, worst case	1895	400				360
Sun reduction	0,50	0,50				0,50
Oper. time red.	0,80	0,80				0,80
Wind dir. red.	0,61	0,68				0,57
Total reduction	0,24	0,27				0,23
Total, real	460	108				82

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Calculation: Oppdatert layout - real case med vindrose - med nærliggende - oppdatert mottaker **Shadow receptor:** I - Buevegen 1782 (9)
Assumptions for shadow calculations Sunshine probability S/S0 (Sun hours/Possible sun hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
 644 231 315 644 959 714 721 455 378 420 574 938 6 993

	July	August	September	October	November	December		
1	04:32	06:11 (77)	05:24	06:33	07:39	07:51	09:00	11:20 (29)
	22:49	06:24 (77)	22:01	20:40	19:13	16:49	15:51	56 13:24 (24)
2	04:33	06:12 (77)	05:26	06:35	07:42	07:54	09:02	11:21 (29)
	22:48	06:24 (77)	21:59	20:37	19:10	16:46	15:50	52 13:23 (24)
3	04:34	06:13 (77)	05:28	06:37	07:44	07:56	09:03	11:22 (29)
	22:47	06:24 (77)	21:56	20:34	19:07	16:44	15:49	50 13:23 (24)
4	04:35	06:13 (77)	05:31	06:40	07:46	07:59	09:05	11:24 (29)
	22:47	06:24 (77)	21:54	20:31	19:04	16:41	6 11:25 (29)	15:48 45 13:22 (24)
5	04:36	06:14 (77)	05:33	06:42	07:48	08:01	11:16 (29)	09:07 11:26 (29)
	22:46	06:23 (77)	21:51	20:28	19:02	16:39	14 11:30 (29)	15:47 38 13:21 (24)
6	04:37	06:14 (77)	05:35	06:44	07:51	08:03	11:14 (29)	09:09 11:56 (21)
	22:45	06:23 (77)	21:49	20:25	18:59	16:37	18 11:32 (29)	15:46 26 13:19 (24)
7	04:38	06:15 (77)	05:37	06:46	07:53	08:06	11:12 (29)	09:10 11:56 (21)
	22:44	06:22 (77)	21:47	20:23	18:56	16:34	32 13:14 (24)	15:45 21 12:17 (21)
8	04:40	06:15 (77)	05:39	06:49	07:55	08:08	11:11 (29)	09:12 11:57 (21)
	22:43	06:22 (77)	21:44	20:20	18:53	16:32	40 13:17 (24)	15:45 21 12:18 (21)
9	04:41	06:16 (77)	05:42	06:51	07:57	08:11	11:10 (29)	09:13 11:58 (21)
	22:42	06:22 (77)	21:42	20:17	18:50	16:30	45 13:19 (24)	15:44 20 12:18 (21)
10	04:43	06:16 (77)	05:44	06:53	08:00	08:13	11:10 (29)	09:15 11:57 (21)
	22:41	06:20 (77)	21:39	20:14	18:47	16:28	49 13:21 (24)	15:43 21 12:18 (21)
11	04:44		05:46	06:55	08:02	08:15	11:09 (29)	09:16 11:58 (21)
	22:39		21:37	20:11	18:45	16:25	51 13:21 (24)	15:43 21 12:19 (21)
12	04:46		05:48	06:57	08:04	08:18	11:09 (29)	09:18 11:58 (21)
	22:38		21:34	20:08	18:42	16:23	57 14:17 (25)	15:43 21 12:19 (21)
13	04:47		05:51	07:00	08:07	08:20	11:09 (29)	09:19 12:00 (21)
	22:37		21:32	20:05	18:39	16:21	66 14:21 (25)	15:42 20 12:20 (21)
14	04:49		05:53	07:02	08:09	08:23	11:08 (29)	09:20 12:00 (21)
	22:35		21:29	20:02	18:36	16:19	72 14:22 (25)	15:42 20 12:20 (21)
15	04:51		05:55	07:04	08:11	08:25	11:08 (29)	09:21 12:00 (21)
	22:34		21:26	19:59	18:33	16:17	75 14:24 (25)	15:42 20 12:20 (21)
16	04:52		05:57	07:06	08:13	08:27	11:09 (29)	09:22 12:00 (21)
	22:32		21:24	19:56	18:31	16:15	77 14:25 (25)	15:42 20 12:20 (21)
17	04:54		06:00	07:08	08:16	08:30	11:09 (29)	09:23 12:01 (21)
	22:31		21:21	19:54	18:28	16:13	78 14:26 (25)	15:42 20 12:21 (21)
18	04:56		06:02	07:11	08:18	08:32	11:09 (29)	09:24 12:02 (21)
	22:29		21:18	19:51	18:25	16:11	79 14:26 (25)	15:42 19 12:21 (21)
19	04:58		06:04	07:13	08:20	08:34	11:10 (29)	09:25 12:02 (21)
	22:27		21:16	19:48	18:22	9 10:16 (16)	16:09 79 14:27 (25)	15:42 20 12:22 (21)
20	05:00		06:06	07:15	08:23	10:05 (16)	08:36 11:10 (29)	09:26 12:03 (21)
	22:25		21:13	19:45	18:20	13 10:18 (16)	16:08 79 14:27 (25)	15:43 19 12:22 (21)
21	05:01		06:08	07:17	08:25	10:04 (16)	08:39 11:10 (29)	09:26 12:03 (21)
	22:24		21:10	19:42	18:17	15 10:19 (16)	16:06 79 14:28 (25)	15:43 19 12:22 (21)
22	05:03		06:11	07:19	08:27	10:02 (16)	08:41 11:11 (29)	09:27 12:04 (21)
	22:22		21:08	19:39	18:14	18 10:20 (16)	16:04 83 14:29 (25)	15:43 19 12:23 (21)
23	05:05		06:13	07:22	08:30	10:02 (16)	08:43 11:11 (29)	09:27 12:04 (21)
	22:20		21:05	19:36	18:12	18 10:20 (16)	16:02 86 14:28 (25)	15:44 19 12:23 (21)
24	05:07		06:15	07:24	08:32	10:01 (16)	08:45 11:13 (29)	09:28 12:05 (21)
	22:18		21:02	19:33	18:09	19 10:20 (16)	16:01 88 14:29 (25)	15:44 20 12:25 (21)
25	05:09		06:17	07:26	07:35	09:01 (16)	08:47 11:13 (29)	09:28 12:05 (21)
	22:16		20:59	19:30	17:06	19 09:20 (16)	15:59 88 14:29 (25)	15:45 20 12:25 (21)
26	05:11		06:20	07:28	07:37	09:02 (16)	08:50 11:14 (29)	09:28 12:06 (21)
	22:14		20:57	19:27	17:04	19 09:21 (16)	15:58 87 14:29 (25)	15:46 19 12:25 (21)
27	05:13		06:22	07:30	07:39	09:01 (16)	08:52 11:15 (29)	09:28 12:06 (21)
	22:12		20:54	19:25	17:01	19 09:20 (16)	15:56 86 14:29 (25)	15:47 20 12:26 (21)
28	05:16		06:24	07:33	07:42	09:02 (16)	08:54 11:16 (29)	09:28 12:07 (21)
	22:10		20:51	19:22	16:59	17 09:19 (16)	15:55 82 14:29 (25)	15:48 20 12:27 (21)
29	05:18		06:26	07:35	07:44	09:02 (16)	08:56 11:17 (29)	09:28 12:06 (21)
	22:07		20:48	19:19	16:56	16 09:18 (16)	15:54 75 14:29 (25)	15:49 20 12:26 (21)
30	05:20		06:29	07:37	07:47	09:04 (16)	08:58 11:18 (29)	09:28 12:07 (21)
	22:05		20:45	19:16	16:54	13 09:17 (16)	15:52 62 14:28 (25)	15:50 20 12:27 (21)
31	05:22		06:31		07:49	09:06 (16)		09:28 12:07 (21)
	22:03		20:42		16:51	9 09:15 (16)		15:51 20 12:27 (21)
Potential sun hours	546	478	386	319	236		199	
Total, worst case	89				204	1733		766
Sun reduction	0,50				0,50	0,50		0,50
Oper. time red.	0,80				0,80	0,80		0,80
Wind dir. red.	0,57				0,73	0,61		0,63
Total reduction	0,23				0,29	0,24		0,25
Total, real	20				59	420		193

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Calculation: Oppdatert layout - real case med vindrose - med nærliggende - oppdatert mottaker **Shadow receptor:** J - Buevegen 1780 (10)
Assumptions for shadow calculations Sunshine probability S/S0 (Sun hours/Possible sun hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
 644 231 315 644 959 714 721 455 378 420 574 938 6 993

	January		February		March		April		May		June					
1	09:28		12:05 (21)	08:46		11:36 (29)	07:35		07:07		05:44		04:40		06:13 (77)	
	15:53	21	12:26 (21)	16:56	45	13:44 (24)	18:05		20:17		21:26		22:31	8	06:21 (77)	
2	09:27		12:06 (21)	08:43		11:37 (29)	07:33		07:04		05:41		04:38		06:13 (77)	
	15:54	20	12:26 (21)	16:58	40	13:42 (24)	18:07		20:19		21:28		22:32	9	06:22 (77)	
3	09:27		12:06 (21)	08:41		11:38 (29)	07:30		07:01		05:39		04:37		06:12 (77)	
	15:55	20	12:26 (21)	17:01	34	13:40 (24)	18:09		20:21		21:31		22:34	11	06:23 (77)	
4	09:27		12:06 (21)	08:39		11:39 (29)	07:27		06:58		05:36		04:36		06:12 (77)	
	15:57	21	12:27 (21)	17:03	20	11:59 (29)	18:12		20:24		21:33		22:35	11	06:23 (77)	
5	09:26		12:06 (21)	08:37		11:41 (29)	07:24		06:55		05:34		04:35		06:11 (77)	
	15:58	28	13:28 (24)	17:06	16	11:57 (29)	18:14		20:26		21:35		22:37	13	06:24 (77)	
6	09:25		12:07 (21)	08:34		11:44 (29)	07:21		06:52		05:31		04:34		06:10 (77)	
	16:00	31	13:30 (24)	17:08	10	11:54 (29)	18:17		20:28		21:37		22:38	14	06:24 (77)	
7	09:24		11:38 (29)	08:32			07:19		06:50		05:29		04:33		06:11 (77)	
	16:02	39	13:32 (24)	17:11			18:19		20:30		21:40		22:39	14	06:25 (77)	
8	09:24		11:37 (29)	08:30			07:16		06:47		05:26		04:32		06:10 (77)	
	16:03	46	13:34 (24)	17:13			18:21		20:33		21:42		22:41	15	06:25 (77)	
9	09:23		11:36 (29)	08:27			07:13		06:44		05:24		04:31		06:10 (77)	
	16:05	50	13:36 (24)	17:16			18:24		20:35		21:44		22:42	15	06:25 (77)	
10	09:22		11:35 (29)	08:25		09:38 (16)	07:10		06:41		05:22		04:30		06:10 (77)	
	16:07	58	14:41 (25)	17:18	5	09:43 (16)	18:26		20:37		21:46		22:43	16	06:26 (77)	
11	09:21		11:34 (29)	08:23		09:36 (16)	07:07		06:38		05:19		04:29		06:09 (77)	
	16:09	71	14:43 (25)	17:21	10	09:46 (16)	18:28		20:40		21:49		22:44	17	06:26 (77)	
12	09:20		11:33 (29)	08:20		09:34 (16)	07:04		06:35		05:17		04:29		06:09 (77)	
	16:11	79	14:44 (25)	17:23	14	09:48 (16)	18:31		20:42		21:51		22:45	18	06:27 (77)	
13	09:18		11:34 (29)	08:18		09:32 (16)	07:02		06:32		05:15		04:28		06:09 (77)	
	16:13	81	14:45 (25)	17:26	16	09:48 (16)	18:33		20:44		21:53		22:46	17	06:26 (77)	
14	09:17		11:33 (29)	08:15		09:32 (16)	06:59		06:30		05:13		04:28		06:09 (77)	
	16:15	84	14:45 (25)	17:28	18	09:50 (16)	18:35		20:47		21:55		22:47	18	06:27 (77)	
15	09:16		11:32 (29)	08:13		09:32 (16)	06:56		06:27		05:10		04:27		06:09 (77)	
	16:17	86	14:46 (25)	17:31	18	09:50 (16)	18:38		20:49		21:58		22:47	19	06:28 (77)	
16	09:15		11:32 (29)	08:10		09:31 (16)	06:53		06:24		05:08		04:27		06:09 (77)	
	16:19	87	14:46 (25)	17:33	19	09:50 (16)	18:40		20:51		22:00		22:48	19	06:28 (77)	
17	09:13		11:32 (29)	08:07		09:31 (16)	06:50		06:21		05:06		04:27		06:10 (77)	
	16:21	87	14:47 (25)	17:36	19	09:50 (16)	18:42		20:53		22:02		22:49	18	06:28 (77)	
18	09:12		11:32 (29)	08:05		09:32 (16)	06:47		06:19		05:04		04:27		06:10 (77)	
	16:23	88	14:48 (25)	17:38	18	09:50 (16)	18:45		20:56		22:04		22:49	19	06:29 (77)	
19	09:10		11:32 (29)	08:02		09:32 (16)	06:44		06:16		05:02		04:27		06:10 (77)	
	16:25	86	14:48 (25)	17:40	17	09:49 (16)	18:47		20:58		22:06		22:50	19	06:29 (77)	
20	09:09		11:32 (29)	08:00		09:32 (16)	06:41		06:13		05:00		04:27		06:10 (77)	
	16:28	77	14:48 (25)	17:43	16	09:48 (16)	18:49		21:00		22:08		22:50	19	06:29 (77)	
21	09:07		11:32 (29)	07:57		09:33 (16)	06:39		06:10		04:58		04:27		06:10 (77)	
	16:30	77	14:48 (25)	17:45	14	09:47 (16)	18:51		21:03		22:10		22:50	19	06:29 (77)	
22	09:05		11:32 (29)	07:54		09:35 (16)	06:36		06:08		04:56		04:27		06:10 (77)	
	16:32	79	14:49 (25)	17:48	10	09:45 (16)	18:54		21:05		22:12		22:50	19	06:29 (77)	
23	09:03		11:31 (29)	07:52		09:39 (16)	06:33		06:05		04:54		04:27		06:11 (77)	
	16:34	78	14:48 (25)	17:50	2	09:41 (16)	18:56		21:07		22:14		22:51	19	06:30 (77)	
24	09:02		11:32 (29)	07:49			06:30		06:02		04:52		04:27		06:11 (77)	
	16:37	77	14:48 (25)	17:53			18:58		21:10		22:16		22:51	19	06:30 (77)	
25	09:00		11:32 (29)	07:46			06:27		05:59		04:51		04:28		06:11 (77)	
	16:39	75	14:47 (25)	17:55			19:01		21:12		22:18		22:51	18	06:29 (77)	
26	08:58		11:33 (29)	07:44			06:24		05:57		04:49		04:28		06:12 (77)	
	16:41	73	14:47 (25)	17:57			19:03		21:14		22:20		22:50	18	06:30 (77)	
27	08:56		11:32 (29)	07:41			06:21		05:54		04:47		04:29		06:11 (77)	
	16:44	70	14:45 (25)	18:00			19:05		21:17		22:22		22:50	19	06:30 (77)	
28	08:54		11:33 (29)	07:38			06:18		05:52		04:46		04:30		06:12 (77)	
	16:46	66	14:44 (25)	18:02			19:08		21:19		22:24		22:50	18	06:30 (77)	
29	08:52		11:34 (29)				07:15		05:49		04:44		04:30		06:13 (77)	
	16:49	57	14:41 (25)				20:10		21:21		22:25	2	06:16 (77)	22:50	18	06:31 (77)
30	08:50		11:34 (29)				07:13		05:46		04:42		04:31		06:13 (77)	
	16:51	52	13:45 (24)				20:12		21:24		22:27	4	06:18 (77)	22:49	17	06:30 (77)
31	08:48		11:35 (29)				07:10				04:41		06:14 (77)			
	16:54	48	13:44 (24)				20:14				22:29	6	06:20 (77)			
Potential sun hours	221		260			365		432		521		547				
Total, worst case		1912		361						12			493			
Sun reduction		0,50		0,50						0,50			0,50			
Oper. time red.		0,80		0,80						0,80			0,80			
Wind dir. red.		0,61		0,69						0,57			0,57			
Total reduction		0,24		0,27						0,23			0,23			
Total, real		466		99						3			113			

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Calculation: Oppdatert layout - real case med vindrose - med nærliggende - oppdatert mottaker **Shadow receptor:** J - Buevegen 1780 (10)
Assumptions for shadow calculations Sunshine probability S/S0 (Sun hours/Possible sun hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
 644 231 315 644 959 714 721 455 378 420 574 938 6 993

	July	August	September	October	November	December
1	04:32	06:13 (77)	05:24	06:33	07:39	07:51
	22:49	17 06:30 (77)	22:01	20:40	19:13	09:09 (16)
2	04:33	06:14 (77)	05:26	06:35	07:42	09:11 (16)
	22:48	17 06:31 (77)	21:59	20:37	19:10	15:50
3	04:34	06:15 (77)	05:28	06:37	07:44	15:50
	22:47	16 06:31 (77)	21:56	20:34	19:07	09:03
4	04:35	06:15 (77)	05:31	06:40	07:46	15:49
	22:47	16 06:31 (77)	21:54	20:31	19:04	09:05
5	04:36	06:16 (77)	05:33	06:42	07:48	15:48
	22:46	15 06:31 (77)	21:51	20:28	19:02	46 13:18 (24)
6	04:37	06:17 (77)	05:35	06:44	07:51	11:13 (29)
	22:45	13 06:30 (77)	21:49	20:25	18:59	11:25 (29)
7	04:38	06:17 (77)	05:37	06:46	07:53	11:29 (29)
	22:44	13 06:30 (77)	21:47	20:23	18:56	11:47 (29)
8	04:40	06:18 (77)	05:39	06:49	07:55	11:11 (29)
	22:43	12 06:30 (77)	21:44	20:20	18:53	09:09
9	04:41	06:19 (77)	05:42	06:51	07:57	16:37
	22:42	11 06:30 (77)	21:42	20:17	18:50	11:10 (29)
10	04:43	06:20 (77)	05:44	06:53	08:00	11:10 (29)
	22:41	10 06:30 (77)	21:39	20:14	18:47	11:28 (29)
11	04:44	06:20 (77)	05:46	06:55	08:02	11:10 (29)
	22:39	9 06:29 (77)	21:37	20:11	18:45	09:10
12	04:46	06:22 (77)	05:48	06:57	08:04	13:06 (24)
	22:38	7 06:29 (77)	21:34	20:08	18:42	15:45
13	04:47	06:22 (77)	05:51	07:00	08:07	11:06 (29)
	22:37	6 06:28 (77)	21:32	20:05	18:39	09:18
14	04:49	06:23 (77)	05:53	07:02	08:09	13:17 (24)
	22:35	3 06:26 (77)	21:29	20:02	18:36	15:43
15	04:51	06:24 (77)	05:55	07:04	08:11	11:06 (29)
	22:34	2 06:27 (77)	21:26	19:59	18:33	09:19
16	04:52	06:25 (77)	05:57	07:06	08:13	14:18 (25)
	22:32	1 06:28 (77)	21:24	19:56	18:31	15:42
17	04:54	06:26 (77)	06:00	07:08	08:16	11:06 (29)
	22:31	0 06:30 (77)	21:21	19:54	18:28	09:23
18	04:56	06:27 (77)	06:02	07:11	08:18	16:13
	22:29	0 06:33 (77)	21:18	19:51	18:25	14:21 (25)
19	04:58	06:28 (77)	06:04	07:13	08:20	11:06 (29)
	22:27	0 06:36 (77)	21:16	19:48	18:22	09:25
20	05:00	06:29 (77)	06:06	07:15	08:23	14:23 (25)
	22:25	0 06:40 (77)	21:13	19:45	18:20	15:42
21	05:01	06:30 (77)	06:08	07:17	08:25	11:06 (29)
	22:24	0 06:43 (77)	21:10	19:42	18:17	09:26
22	05:03	06:31 (77)	06:11	07:19	08:27	11:07 (29)
	22:22	0 06:46 (77)	21:08	19:39	18:14	09:26
23	05:05	06:32 (77)	06:13	07:22	08:30	14:22 (25)
	22:20	0 06:50 (77)	21:05	19:36	18:12	15:42
24	05:07	06:33 (77)	06:15	07:24	08:32	11:08 (29)
	22:18	0 06:53 (77)	21:02	19:33	18:09	09:28
25	05:09	06:34 (77)	06:17	07:26	07:35	14:25 (25)
	22:16	0 06:56 (77)	20:59	19:30	17:06	15:44
26	05:11	06:35 (77)	06:20	07:28	07:37	11:09 (29)
	22:14	0 06:59 (77)	20:57	19:27	17:04	09:28
27	05:13	06:36 (77)	06:22	07:30	07:39	14:25 (25)
	22:12	0 07:02 (77)	20:54	19:25	17:01	15:46
28	05:16	06:37 (77)	06:24	07:33	07:42	11:11 (29)
	22:10	0 07:05 (77)	20:51	19:22	16:59	09:28
29	05:18	06:38 (77)	06:26	07:35	07:44	14:26 (25)
	22:07	0 07:08 (77)	20:48	19:19	16:56	15:48
30	05:20	06:39 (77)	06:29	07:37	07:47	11:14 (29)
	22:05	0 07:12 (77)	20:45	19:16	16:54	09:28
31	05:22	06:40 (77)	06:31	07:49	09:06	15:50
	22:03	0 07:16 (77)	20:42	16:51	09:15	15:51
Potential sun hours	546	478	386	319	236	199
Total, worst case	165				200	800
Sun reduction	0,50				0,50	0,50
Oper. time red.	0,80				0,80	0,80
Wind dir. red.	0,57				0,61	0,63
Total reduction	0,23				0,29	0,25
Total, real	38				58	201

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)		Last time (hh:mm) with flicker	(WTG causing flicker last time)

SHADOW - Calendar

Calculation: Oppdatert layout - real case med vindrose - med nærliggende - oppdatert mottaker **Shadow receptor:** K - Buevegen 1778 (11)
 Sunshine probability S/S0 (Sun hours/Possible sun hours) []

Assumptions for shadow calculations

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
 644 231 315 644 959 714 721 455 378 420 574 938 6 993

	January	February	March	April	May	June
1	09:28	11:58 (21) 08:46	11:24 (29) 07:35	07:07	05:44	04:40
	15:53	12:14 (21) 16:56	13:35 (24) 18:05	20:17	21:26	22:31
2	09:28	11:58 (21) 08:43	11:24 (29) 07:33	07:04	05:41	04:38
	15:54	12:16 (21) 16:58	13:34 (24) 18:07	20:19	21:28	22:32
3	09:27	11:58 (21) 08:41	11:25 (29) 07:30	07:01	05:39	04:37
	15:55	12:18 (21) 17:01	13:33 (24) 18:09	20:21	21:31	22:34
4	09:27	11:58 (21) 08:39	11:26 (29) 07:27	06:58	05:36	04:36
	15:57	12:19 (21) 17:03	13:30 (24) 18:12	20:24	21:33	22:35
5	09:26	11:59 (21) 08:37	11:26 (29) 07:24	06:55	05:34	04:35
	15:58	12:19 (21) 17:06	11:49 (29) 18:14	20:26	21:35	22:37
6	09:25	11:59 (21) 08:34	11:28 (29) 07:21	06:52	05:31	04:34
	16:00	13:18 (24) 17:08	11:48 (29) 18:17	20:28	21:37	22:38
7	09:25	12:00 (21) 08:32	11:30 (29) 07:19	06:50	05:29	04:33
	16:02	13:21 (24) 17:11	11:46 (29) 18:19	20:30	21:40	22:39
8	09:24	12:00 (21) 08:30	11:33 (29) 07:16	06:47	05:26	04:32
	16:03	14:35 (25) 17:13	11:44 (29) 18:21	20:33	21:42	22:41
9	09:23	12:01 (21) 08:27	07:13	06:44	05:24	04:31
	16:05	14:36 (25) 17:16	18:24	20:35	21:44	22:42
10	09:22	12:01 (21) 08:25	07:10	06:41	05:22	04:30
	16:07	14:36 (25) 17:18	18:26	20:37	21:46	22:43
11	09:21	12:02 (21) 08:23	07:07	06:38	05:19	04:29
	16:09	14:37 (25) 17:21	18:28	20:40	21:49	22:44
12	09:20	11:27 (29) 08:20	07:04	06:35	05:17	04:29
	16:11	14:38 (25) 17:23	18:31	20:42	21:51	22:45
13	09:18	11:26 (29) 08:18	07:02	06:32	05:15	04:28
	16:13	14:39 (25) 17:26	18:33	20:44	21:53	22:46
14	09:17	11:25 (29) 08:15	06:59	06:30	05:13	04:28
	16:15	14:39 (25) 17:28	18:35	20:47	21:55	22:47
15	09:16	11:24 (29) 08:13	06:56	06:27	05:10	04:27
	16:17	14:40 (25) 17:31	18:38	20:49	21:58	22:47
16	09:15	11:23 (29) 08:10	06:53	06:24	05:08	04:27
	16:19	14:40 (25) 17:33	18:40	20:51	22:00	22:48
17	09:13	11:23 (29) 08:07	06:50	06:21	05:06	04:27
	16:21	14:41 (25) 17:36	18:42	20:54	22:02	22:49
18	09:12	11:23 (29) 08:05	06:47	06:19	05:04	04:27
	16:23	14:42 (25) 17:38	18:45	20:56	22:04	22:49
19	09:10	11:22 (29) 08:02	06:44	06:16	05:02	04:27
	16:25	14:42 (25) 17:40	18:47	20:58	22:06	22:50
20	09:09	11:22 (29) 08:00	06:41	06:13	05:00	04:27
	16:28	14:42 (25) 17:43	18:49	21:00	22:08	22:50
21	09:07	11:22 (29) 07:57	06:39	06:10	04:58	04:27
	16:30	14:42 (25) 17:45	18:51	21:03	22:10	22:50
22	09:05	11:22 (29) 07:54	06:36	06:08	04:56	04:27
	16:32	14:42 (25) 17:48	18:54	21:05	22:12	22:50
23	09:03	11:21 (29) 07:52	06:33	06:05	04:54	04:27
	16:34	14:41 (25) 17:50	18:56	21:07	22:14	22:51
24	09:02	11:21 (29) 07:49	06:30	06:02	04:52	04:27
	16:37	14:41 (25) 17:53	18:58	21:10	22:16	22:51
25	09:00	11:21 (29) 07:46	06:27	05:59	04:51	04:28
	16:39	14:41 (25) 17:55	19:01	21:12	22:18	22:51
26	08:58	11:21 (29) 07:44	06:24	05:57	04:49	04:28
	16:41	14:41 (25) 17:57	19:03	21:14	22:20	22:50
27	08:56	11:21 (29) 07:41	06:21	05:54	04:47	04:29
	16:44	14:39 (25) 18:00	19:05	21:17	22:22	22:50
28	08:54	11:21 (29) 07:38	06:18	05:52	04:46	04:30
	16:46	14:38 (25) 18:02	19:08	21:19	22:24	22:50
29	08:52	11:22 (29)	07:15	05:49	04:44	06:14 (77) 04:30
	16:49	14:36 (25)	20:10	21:21	22:25	7 06:21 (77) 22:50
30	08:50	11:22 (29)	07:13	05:46	04:42	06:13 (77) 04:31
	16:51	13:36 (24)	20:12	21:24	22:27	9 06:22 (77) 22:49
31	08:48	11:23 (29)	07:10	04:41	06:13 (77)	
	16:54	13:36 (24)	20:14	22:29	10 06:23 (77)	
Potential sun hours	221	260	365	432	521	547
Total, worst case	1840	243			36	587
Sun reduction	0,50	0,50			0,50	0,50
Oper. time red.	0,80	0,80			0,80	0,80
Wind dir. red.	0,62	0,65			0,58	0,58
Total reduction	0,25	0,26			0,23	0,23
Total, real	452	63			8	135

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)		Last time (hh:mm) with flicker	(WTG causing flicker last time)

SHADOW - Calendar

Calculation: Oppdatert layout - real case med vindrose - med nærliggende - oppdatert mottaker **Shadow receptor:** K - Buevegen 1778 (11)

Assumptions for shadow calculations

Sunshine probability S/S0 (Sun hours/Possible sun hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
644 231 315 644 959 714 721 455 378 420 574 938 6 993

		July	August	September	October	November	December	
1	04:32	06:13 (77)	05:24	06:33	07:39	07:51	09:00	11:13 (29)
	22:49	19 06:32 (77)	22:01	20:40	19:13	16:49	15:51	59 14:20 (25)
2	04:33	06:14 (77)	05:26	06:35	07:42	07:54	09:02	11:44 (21)
	22:48	18 06:32 (77)	21:59	20:37	19:10	16:46	15:50	50 14:19 (25)
3	04:34	06:14 (77)	05:28	06:37	07:44	07:56	11:02 (29)	09:03 11:44 (21)
	22:47	18 06:32 (77)	21:56	20:34	19:07	16:44	12 11:14 (29)	15:49 40 14:19 (25)
4	04:35	06:15 (77)	05:31	06:40	07:46	07:59	10:59 (29)	09:05 11:44 (21)
	22:47	18 06:33 (77)	21:54	20:31	19:04	16:41	17 11:16 (29)	15:48 34 14:19 (25)
5	04:36	06:15 (77)	05:33	06:42	07:48	08:01	10:58 (29)	09:07 11:45 (21)
	22:46	18 06:33 (77)	21:51	20:28	19:02	16:39	20 11:18 (29)	15:47 31 13:06 (24)
6	04:37	06:16 (77)	05:35	06:44	07:51	08:03	10:57 (29)	09:09 11:45 (21)
	22:45	16 06:32 (77)	21:49	20:25	18:59	16:37	22 11:19 (29)	15:46 27 13:05 (24)
7	04:39	06:16 (77)	05:37	06:46	07:53	08:06	10:56 (29)	09:10 11:46 (21)
	22:44	16 06:32 (77)	21:47	20:23	18:56	16:34	37 13:01 (24)	15:45 20 12:06 (21)
8	04:40	06:17 (77)	05:39	06:49	07:55	08:08	10:55 (29)	09:12 11:47 (21)
	22:43	15 06:32 (77)	21:44	20:20	18:53	16:32	43 13:03 (24)	15:45 20 12:07 (21)
9	04:41	06:18 (77)	05:42	06:51	07:57	08:11	10:55 (29)	09:13 11:47 (21)
	22:42	15 06:33 (77)	21:42	20:17	18:50	16:30	47 13:05 (24)	15:44 20 12:07 (21)
10	04:43	06:19 (77)	05:44	06:53	08:00	08:13	10:54 (29)	09:15 11:47 (21)
	22:41	13 06:32 (77)	21:39	20:14	18:47	16:28	51 13:06 (24)	15:43 19 12:07 (21)
11	04:44	06:19 (77)	05:46	06:55	08:02	08:15	10:54 (29)	09:16 11:48 (21)
	22:39	13 06:32 (77)	21:37	20:11	18:45	16:25	52 13:06 (24)	15:43 16 12:04 (21)
12	04:46	06:21 (77)	05:48	06:57	08:04	08:18	10:54 (29)	09:18 11:48 (21)
	22:38	11 06:32 (77)	21:34	20:08	18:42	16:23	55 13:08 (24)	15:43 11 11:59 (21)
13	04:47	06:21 (77)	05:51	07:00	08:07	08:20	10:54 (29)	09:19 11:49 (21)
	22:37	10 06:31 (77)	21:32	20:05	18:39	16:21	62 14:08 (25)	15:42 11 12:00 (21)
14	04:49	06:22 (77)	05:53	07:02	08:09	08:23	10:53 (29)	09:20 11:50 (21)
	22:35	8 06:30 (77)	21:29	20:02	18:36	16:19	69 14:10 (25)	15:42 7 12:00 (21)
15	04:51	06:23 (77)	05:55	07:04	08:11	08:25	10:54 (29)	09:21 11:50 (21)
	22:34	7 06:30 (77)	21:26	19:59	18:33	16:17	71 14:12 (25)	15:42 3 11:53 (21)
16	04:52	06:24 (77)	05:57	07:06	08:13	08:27	10:54 (29)	09:22 11:50 (21)
	22:32	4 06:28 (77)	21:24	19:56	18:31	16:15	75 14:14 (25)	15:42 3 11:53 (21)
17	04:54	06:25 (77)	06:00	07:08	08:16	08:30	10:55 (29)	09:23 11:51 (21)
	22:31	2 06:27 (77)	21:21	19:54	18:28	16:13	77 14:15 (25)	15:42 1 11:52 (21)
18	04:56	06:02	07:11	08:18	08:32	10:55 (29)	09:24	
	22:29	21:18	19:51	18:25	16:11	76 14:15 (25)	15:42	
19	04:58	06:04	07:13	08:20	08:34	10:56 (29)	09:25	
	22:27	21:16	19:48	18:22	16:09	77 14:16 (25)	15:42	
20	05:00	06:06	07:15	08:23	08:36	10:56 (29)	09:26	
	22:25	21:13	19:45	18:20	16:08	77 14:16 (25)	15:43	
21	05:01	06:08	07:17	08:25	08:39	10:57 (29)	09:26	
	22:24	21:10	19:42	18:17	16:06	81 14:17 (25)	15:43	
22	05:03	06:11	07:19	08:27	08:41	10:58 (29)	09:27	
	22:22	21:08	19:39	18:14	16:04	85 14:18 (25)	15:43	
23	05:05	06:13	07:22	08:30	08:43	10:58 (29)	09:27	
	22:20	21:05	19:36	18:12	16:02	88 14:18 (25)	15:44	
24	05:07	06:15	07:24	08:32	08:45	11:00 (29)	09:28	
	22:18	21:02	19:33	18:09	16:01	87 14:19 (25)	15:44	
25	05:09	06:17	07:26	08:35	08:47	11:00 (29)	09:28	
	22:16	20:59	19:30	17:06	15:59	86 14:18 (25)	15:45	
26	05:11	06:20	07:28	08:37	08:50	11:02 (29)	09:28	
	22:14	20:57	19:27	17:04	15:58	85 14:19 (25)	15:46	
27	05:13	06:22	07:30	08:39	08:52	11:03 (29)	09:28	11:56 (21)
	22:12	20:54	19:25	17:01	15:56	82 14:19 (25)	15:47	3 11:59 (21)
28	05:16	06:24	07:33	08:42	08:54	11:05 (29)	09:28	11:57 (21)
	22:10	20:51	19:22	16:59	15:55	79 14:19 (25)	15:48	3 12:00 (21)
29	05:18	06:26	07:35	08:44	08:56	11:06 (29)	09:28	11:56 (21)
	22:07	20:48	19:19	16:56	15:54	74 14:19 (25)	15:49	5 12:07 (21)
30	05:20	06:29	07:37	08:46	08:58	11:08 (29)	09:28	11:57 (21)
	22:05	20:45	19:16	16:54	15:52	69 14:19 (25)	15:50	11 12:08 (21)
31	05:22	06:31	07:40	08:49	09:01	11:10 (29)	09:28	11:57 (21)
	22:03	20:42	19:11	16:51	15:51	11 12:08 (21)		
Potential sun hours	546	478	386	319	236	1756	405	
Total, worst case	221					0,50	0,50	
Sun reduction	0,50					0,80	0,80	
Oper. time red.	0,80					0,62	0,62	
Wind dir. red.	0,58					0,25	0,25	
Total reduction	0,23							
Total, real	51					434	101	

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)		Last time (hh:mm) with flicker	(WTG causing flicker last time)

SHADOW - Calendar

Calculation: Oppdatert layout - real case med vindrose - med nærliggende - oppdatert mottaker **Shadow receptor:** L - Buevegen 1850 (12)

Assumptions for shadow calculations

Sunshine probability S/S0 (Sun hours/Possible sun hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
644 231 315 644 959 714 721 455 378 420 574 938 6 993

	January		February		March		April		May		June	
1	09:28		11:52 (34)	08:46		13:17 (29)	07:35		08:53 (18)	07:07	05:44	04:40
	15:53	17	12:09 (34)	16:56	36	13:53 (29)	18:05	19	09:12 (18)	20:17	21:26	22:30
2	09:27		11:51 (34)	08:43		13:18 (29)	07:32		08:53 (18)	07:04	05:41	04:38
	15:54	19	12:10 (34)	16:58	43	15:13 (24)	18:07	20	09:13 (18)	20:19	21:28	22:32
3	09:27		11:51 (34)	08:41		13:17 (29)	07:30		08:52 (18)	07:01	05:39	04:37
	15:55	19	12:10 (34)	17:01	52	15:18 (24)	18:09	21	09:13 (18)	20:21	21:30	22:34
4	09:26		11:51 (34)	08:39		13:18 (29)	07:27		08:52 (18)	06:58	05:36	04:36
	15:57	20	12:11 (34)	17:03	54	15:20 (24)	18:12	20	09:12 (18)	20:24	21:33	22:35
5	09:26		11:52 (34)	08:37		13:17 (29)	07:24		08:52 (18)	06:55	05:34	04:35
	15:58	20	12:12 (34)	17:06	58	15:21 (24)	18:14	20	09:12 (18)	20:26	21:35	22:37
6	09:25		11:52 (34)	08:34		13:18 (29)	07:21		08:52 (18)	06:52	05:31	04:34
	16:00	20	12:12 (34)	17:08	63	15:44 (25)	18:16	19	09:11 (18)	20:28	21:37	22:38
7	09:24		11:52 (34)	08:32		13:17 (29)	07:19		08:53 (18)	06:49	05:29	04:33
	16:02	21	12:13 (34)	17:11	68	15:46 (25)	18:19	17	09:10 (18)	20:30	21:40	22:39
8	09:24		11:53 (34)	08:30		13:18 (29)	07:16		08:54 (18)	06:47	05:26	04:32
	16:03	21	12:14 (34)	17:13	73	15:51 (25)	18:21	14	09:08 (18)	20:33	21:42	22:40
9	09:23		11:52 (34)	08:27		13:18 (29)	07:13		08:55 (18)	06:44	05:24	04:31
	16:05	22	12:14 (34)	17:16	79	15:59 (25)	18:24	10	09:05 (18)	20:35	21:44	22:42
10	09:22		11:53 (34)	08:25		13:18 (29)	07:10			06:41	05:22	04:30
	16:07	22	12:15 (34)	17:18	82	16:00 (25)	18:26			20:37	21:46	22:43
11	09:21		11:54 (34)	08:23		13:20 (29)	07:07			06:38	05:19	04:29
	16:09	22	12:16 (34)	17:21	80	16:00 (25)	18:28			20:40	21:49	22:44
12	09:20		11:53 (34)	08:20		10:07 (16)	07:04			06:35	05:17	04:29
	16:11	24	13:22 (21)	17:23	88	15:59 (25)	18:31			20:42	21:51	22:45
13	09:18		11:53 (34)	08:18		10:04 (16)	07:01			06:32	05:15	04:28
	16:13	30	13:28 (21)	17:26	90	15:58 (25)	18:33			20:44	21:53	22:46
14	09:17		11:54 (34)	08:15		10:03 (16)	06:59			06:30	05:13	04:28
	16:15	38	13:37 (21)	17:28	87	15:57 (25)	18:35			20:47	21:55	22:46
15	09:16		11:55 (34)	08:13		10:02 (16)	06:56			06:27	05:10	04:27
	16:17	44	13:43 (21)	17:31	80	15:54 (25)	18:38			20:49	21:57	22:47
16	09:15		11:55 (34)	08:10		10:01 (16)	06:53			06:24	05:08	04:27
	16:19	45	13:44 (21)	17:33	72	15:24 (24)	18:40			20:51	22:00	22:48
17	09:13		11:55 (34)	08:07		10:00 (16)	06:50			06:21	05:06	04:27
	16:21	45	13:44 (21)	17:35	66	15:23 (24)	18:42			20:53	22:02	22:49
18	09:12		11:57 (34)	08:05		10:00 (16)	06:47			06:19	05:04	04:27
	16:23	44	13:46 (21)	17:38	60	15:23 (24)	18:45			20:56	22:04	22:49
19	09:10		11:57 (34)	08:02		10:00 (16)	06:44			06:16	05:02	04:27
	16:25	44	13:46 (21)	17:40	43	15:21 (24)	18:47			20:58	22:06	22:50
20	09:08		11:58 (34)	08:00		09:59 (16)	06:41			06:13	05:00	04:27
	16:28	43	13:46 (21)	17:43	41	15:19 (24)	18:49			21:00	22:08	22:50
21	09:07		11:59 (34)	07:57		09:59 (16)	06:38			06:10	04:58	04:27
	16:30	40	13:46 (21)	17:45	33	15:15 (24)	18:51			21:03	22:10	22:50
22	09:05		11:59 (34)	07:54		09:59 (16)	06:36			06:08	04:56	04:27
	16:32	40	13:46 (21)	17:48	25	10:24 (16)	18:54			21:05	22:12	22:50
23	09:03		12:01 (34)	07:52		10:00 (16)	06:33			06:05	04:54	04:27
	16:34	36	13:46 (21)	17:50	24	10:24 (16)	18:56			21:07	22:14	22:50
24	09:02		12:03 (34)	07:49		10:01 (16)	06:30			06:02	04:52	04:27
	16:37	34	13:46 (21)	17:53	22	10:23 (16)	18:58			21:10	22:16	22:51
25	09:00		12:05 (34)	07:46		09:00 (18)	06:27			05:59	04:51	04:28
	16:39	32	13:46 (29)	17:55	27	10:22 (16)	19:01			21:12	22:18	22:50
26	08:58		13:21 (29)	07:43		08:57 (18)	06:24			05:57	04:49	04:28
	16:41	27	13:48 (29)	17:57	30	10:20 (16)	19:03			21:14	22:20	22:50
27	08:56		13:20 (29)	07:41		08:55 (18)	06:21			05:54	04:47	04:29
	16:44	28	13:48 (29)	18:00	29	10:18 (16)	19:05			21:17	22:22	22:50
28	08:54		13:19 (29)	07:38		08:54 (18)	06:18			05:52	04:46	04:30
	16:46	31	13:50 (29)	18:02	24	10:14 (16)	19:07			21:19	22:24	22:50
29	08:52		13:19 (29)			07:15				05:49	04:44	04:30
	16:49	32	13:51 (29)			20:10				21:21	22:25	22:50
30	08:50		13:18 (29)			07:12				05:46	04:42	04:31
	16:51	33	13:51 (29)			20:12				21:24	22:27	22:49
31	08:48		13:18 (29)			07:10					04:41	
	16:53	35	13:53 (29)			20:14				22:29		
Potential sun hours	221		260			365			432	521	547	
Total, worst case	948		1529			160						
Sun reduction	0,50		0,50			0,50						
Oper. time red.	0,80		0,80			0,80						
Wind dir. red.	0,61		0,61			0,74						
Total reduction	0,24		0,24			0,29						
Total, real	231		369			47						

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)		Last time (hh:mm) with flicker	(WTG causing flicker last time)

SHADOW - Calendar

Calculation: Oppdatert layout - real case med vindrose - med nærliggende - oppdatert mottaker **Shadow receptor:** L - Buevegen 1850 (12)

Assumptions for shadow calculations

Sunshine probability S/S0 (Sun hours/Possible sun hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
644 231 315 644 959 714 721 455 378 420 574 938 6 993

	July	August	September	October	November	December	
1	04:32	05:24	06:33	07:39	07:51	12:48 (29) 09:00	
	22:49	22:01	20:40	19:13	16:49	83 15:30 (25) 15:51	
2	04:33	05:26	06:35	07:42	07:54	12:48 (29) 09:02	
	22:48	21:58	20:37	19:10	16:46	76 15:28 (25) 15:50	
3	04:34	05:28	06:37	07:44	07:56	12:48 (29) 09:03	
	22:47	21:56	20:34	19:07	16:44	71 15:20 (25) 15:49	
4	04:35	05:31	06:40	07:46	09:34 (18) 07:59	12:47 (29) 09:05	
	22:47	21:54	20:31	19:04	7 09:41 (18) 16:41	66 15:15 (25) 15:48	
5	04:36	05:33	06:42	07:48	09:32 (18) 08:01	12:47 (29) 09:07	
	22:46	21:51	20:28	19:01	12 09:44 (18) 16:39	62 15:13 (25) 15:47	
6	04:37	05:35	06:44	07:51	09:30 (18) 08:03	12:48 (29) 09:09	
	22:45	21:49	20:25	18:59	15 09:45 (18) 16:37	58 14:52 (24) 15:46	
7	04:38	05:37	06:46	07:53	09:28 (18) 08:06	12:47 (29) 09:10	
	22:44	21:47	20:22	18:56	18 09:46 (18) 16:34	55 14:50 (24) 15:45	
8	04:40	05:39	06:48	07:55	09:28 (18) 08:08	12:48 (29) 09:12	
	22:43	21:44	20:20	18:53	19 09:47 (18) 16:32	50 14:48 (24) 15:45	
9	04:41	05:42	06:51	07:57	09:27 (18) 08:11	12:48 (29) 09:13	
	22:42	21:42	20:17	18:50	20 09:47 (18) 16:30	42 14:43 (24) 15:44	
10	04:43	05:44	06:53	08:00	09:27 (18) 08:13	12:49 (29) 09:15	
	22:40	21:39	20:14	18:47	20 09:47 (18) 16:28	35 13:24 (29) 15:43	
11	04:44	05:46	06:55	08:02	09:26 (18) 08:15	12:49 (29) 09:16	
	22:39	21:37	20:11	18:45	20 09:46 (18) 16:25	34 13:23 (29) 15:43	
12	04:46	05:48	06:57	08:04	09:26 (18) 08:18	12:50 (29) 09:18	
	22:38	21:34	20:08	18:42	19 09:45 (18) 16:23	33 13:23 (29) 15:43	
13	04:47	05:51	07:00	08:06	09:27 (18) 08:20	12:51 (29) 09:19	
	22:37	21:31	20:05	18:39	18 09:45 (18) 16:21	32 13:23 (29) 15:42	
14	04:49	05:53	07:02	08:09	09:27 (18) 08:22	12:51 (29) 09:20	
	22:35	21:29	20:02	18:36	28 10:49 (16) 16:19	31 13:22 (29) 15:42	
15	04:51	05:55	07:04	08:11	09:29 (18) 08:25	12:53 (29) 09:21	
	22:34	21:26	19:59	18:33	30 10:52 (16) 16:17	28 13:21 (29) 15:42	
16	04:52	05:57	07:06	08:13	09:30 (18) 08:27	12:54 (29) 09:22	
	22:32	21:24	19:56	18:31	29 10:53 (16) 16:15	27 13:21 (29) 15:42	
17	04:54	05:59	07:08	08:16	10:33 (16) 08:29	11:38 (34) 09:23	
	22:30	21:21	19:54	18:28	21 10:54 (16) 16:13	32 13:19 (29) 15:42	
18	04:56	06:02	07:10	08:18	10:31 (16) 08:32	11:37 (34) 09:24	
	22:29	21:18	19:51	18:25	24 10:55 (16) 16:11	34 13:20 (21) 15:42	
19	04:58	06:04	07:13	08:20	10:31 (16) 08:34	11:36 (34) 09:25	
	22:27	21:16	19:48	18:22	24 10:55 (16) 16:09	36 13:21 (21) 15:42	
20	05:00	06:06	07:15	08:23	10:30 (16) 08:36	11:34 (34) 09:26	
	22:25	21:13	19:45	18:20	25 10:55 (16) 16:08	39 13:21 (21) 15:42	
21	05:01	06:08	07:17	08:25	10:30 (16) 08:39	11:34 (34) 09:26	
	22:24	21:10	19:42	18:17	36 15:48 (24) 16:06	40 13:21 (21) 15:43	
22	05:03	06:11	07:19	08:27	10:30 (16) 08:41	11:34 (34) 09:27	
	22:22	21:08	19:39	18:14	41 15:50 (24) 16:04	43 13:22 (21) 15:43	
23	05:05	06:13	07:22	08:30	10:30 (16) 08:43	11:33 (34) 09:27	
	22:20	21:05	19:36	18:12	48 15:52 (24) 16:02	44 13:22 (21) 15:44	
24	05:07	06:15	07:24	08:32	10:30 (16) 08:45	11:34 (34) 09:28	
	22:18	21:02	19:33	18:09	61 15:52 (24) 16:01	44 13:23 (21) 15:44	
25	05:09	06:17	07:26	07:35	09:30 (16) 08:47	11:33 (34) 09:28	
	22:16	20:59	19:30	17:06	69 14:54 (24) 15:59	44 13:22 (21) 15:45	
26	05:11	06:20	07:28	07:37	09:30 (16) 08:50	11:34 (34) 09:28	
	22:14	20:56	19:27	17:04	73 14:54 (24) 15:58	44 13:23 (21) 15:46	
27	05:13	06:22	07:30	07:39	09:32 (16) 08:52	11:34 (34) 09:28	
	22:12	20:54	19:24	17:01	81 15:24 (25) 15:56	44 13:23 (21) 15:47	
28	05:16	06:24	07:33	07:42	09:33 (16) 08:54	11:35 (34) 09:28	
	22:10	20:51	19:22	16:59	88 15:27 (25) 15:55	38 13:18 (21) 15:48	
29	05:18	06:26	07:35	07:44	09:34 (16) 08:56	11:35 (34) 09:28	
	22:07	20:48	19:19	16:56	90 15:28 (25) 15:54	29 13:09 (21) 15:49	
30	05:20	06:29	07:37	07:47	09:37 (16) 08:58	11:35 (34) 09:28	
	22:05	20:45	19:16	16:54	89 15:29 (25) 15:52	23 13:03 (21) 15:50	
31	05:22	06:31	07:40	07:49	12:49 (29)	09:28	11:51 (34)
	22:03	20:42	16:51	15:30 (25)	15:51	17	12:08 (34)
Potential sun hours	546	478	386	319	236	199	
Total, worst case				1106	1317	531	
Sun reduction				0,50	0,50	0,50	
Oper. time red.				0,80	0,80	0,80	
Wind dir. red.				0,64	0,59	0,64	
Total reduction				0,26	0,23	0,26	
Total, real				285	308	136	

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Calculation: Oppdatert layout - real case med vindrose - med nærliggende - oppdatert mottaker **Shadow receptor:** M - Buevegen 1941 (13)

Assumptions for shadow calculations

Sunshine probability S/S0 (Sun hours/Possible sun hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
644 231 315 644 959 714 721 455 378 420 574 938 6 993

	January	February	March	April	May	June				
1	09:28	08:46	14:11 (34)	07:35	10:14 (18)	07:07	05:44	04:40		
	15:53	16:56	18	15:31 (21)	18:05	73	16:49 (24)	20:17	21:26	22:30
2	09:27	08:43	15:15 (21)	07:32	10:15 (18)	07:04	05:41	04:38		
	15:54	16:58	17	15:32 (21)	18:07	70	16:50 (24)	20:19	21:28	22:32
3	09:27	08:41	15:14 (21)	07:30	10:16 (18)	07:01	05:39	04:37		
	15:55	17:01	19	15:33 (21)	18:09	62	16:48 (24)	20:21	21:30	22:34
4	09:26	08:39	12:34 (16)	07:27	10:16 (18)	06:58	05:36	04:36		
	15:57	17:03	30	15:33 (21)	18:12	54	16:47 (24)	20:23	21:33	22:35
5	09:26	08:37	12:30 (16)	07:24	09:25 (13)	06:55	05:34	04:35		
	15:58	17:06	36	15:33 (21)	18:14	36	16:44 (24)	20:26	21:35	22:36
6	09:25	08:34	12:29 (16)	07:21	09:21 (13)	06:52	05:31	04:34		
	16:00	17:08	40	15:34 (21)	18:16	27	10:42 (18)	20:28	21:37	22:38
7	09:24	08:32	12:27 (16)	07:18	10:19 (18)	06:49	05:29	04:33		
	16:02	17:11	42	15:33 (21)	18:19	20	10:39 (18)	20:30	21:40	22:39
8	09:24	08:30	12:27 (16)	07:16	10:21 (18)	06:47	05:26	04:32		
	16:03	17:13	44	15:34 (21)	18:21	15	10:36 (18)	20:33	21:42	22:40
9	09:23	08:27	12:25 (16)	07:13	10:25 (18)	06:44	05:24	04:31		
	16:05	17:16	46	15:33 (21)	18:24	7	10:32 (18)	20:35	21:44	22:42
10	09:22	08:25	12:24 (16)	07:10		06:41	05:22	04:30		
	16:07	17:18	45	15:31 (21)	18:26		20:37	21:46	22:43	
11	09:21	08:22	12:24 (16)	07:07		06:38	05:19	04:29		
	16:09	17:21	43	15:30 (21)	18:28		20:40	21:49	22:44	
12	09:20	08:20	12:23 (16)	07:04		06:35	05:17	04:29		
	16:11	17:23	38	15:27 (21)	18:31		20:42	21:51	22:45	
13	09:18	08:18	12:22 (16)	07:01		06:32	05:15	04:28		
	16:13	17:26	34	12:56 (16)	18:33		20:44	21:53	22:46	
14	09:17	08:15	12:23 (16)	06:59		06:30	05:12	04:28		
	16:15	17:28	34	12:57 (16)	18:35		20:46	21:55	22:46	
15	09:16	08:12	12:22 (16)	06:56		06:27	05:10	04:27		
	16:17	17:30	35	12:57 (16)	18:38		20:49	21:57	22:47	
16	09:14	08:10	12:22 (16)	06:53		06:24	05:08	04:27		
	16:19	17:33	43	16:12 (29)	18:40		20:51	22:00	22:48	
17	09:13	08:07	12:22 (16)	06:50		06:21	05:06	04:27		
	16:21	17:35	49	16:15 (29)	18:42		20:53	22:02	22:48	
18	09:12	08:05	12:23 (16)	06:47		06:18	05:04	04:27		
	16:23	17:38	51	16:17 (29)	18:44		20:56	22:04	22:49	
19	09:10	08:02	12:23 (16)	06:44		06:16	05:02	04:27		
	16:25	17:40	54	16:18 (29)	18:47		20:58	22:06	22:49	
20	09:08	08:00	12:23 (16)	06:41		06:13	05:00	04:27		
	16:28	17:43	55	16:19 (29)	18:49		21:00	22:08	22:50	
21	09:07	07:57	12:23 (16)	06:38		06:10	04:58	04:27		
	16:30	17:45	56	16:20 (29)	18:51		21:03	22:10	22:50	
22	09:05	07:54	12:24 (16)	06:36		06:07	04:56	04:27		
	16:32	17:48	61	16:42 (24)	18:54		21:05	22:12	22:50	
23	09:03	07:52	12:26 (16)	06:33		06:05	04:54	04:27		
	16:34	17:50	67	16:48 (24)	18:56		21:07	22:14	22:50	
24	09:01	07:49	10:20 (18)	06:30		06:02	04:52	04:27		
	16:37	17:52	68	16:49 (24)	18:58		21:10	22:16	22:50	
25	09:00	07:46	10:16 (18)	06:27		05:59	04:51	04:28		
	16:39	17:55	91	16:50 (24)	19:01		21:12	22:18	22:50	
26	08:58	07:43	10:15 (18)	06:24		05:57	04:49	04:28		
	16:41	17:57	92	16:50 (24)	19:03		21:14	22:20	22:50	
27	08:56	07:41	10:15 (18)	06:21		05:54	04:47	04:29		
	16:44	18:00	82	16:50 (24)	19:05		21:17	22:22	22:50	
28	08:54	07:38	10:15 (18)	06:18		05:51	04:45	04:29		
	16:46	18:02	75	16:50 (24)	19:07		21:19	22:24	22:50	
29	08:52			07:15		05:49	04:44	04:30		
	16:49			20:10		21:21	22:25	22:49		
30	08:50	14:16 (34)		07:12		05:46	04:42	04:31		
	16:51	3	14:19 (34)	20:12		21:23	22:27	22:49		
31	08:48	14:08 (34)		07:10			04:41			
	16:53	21	15:27 (21)	20:14			22:29			
Potential sun hours	221	260	365		432	521	547			
Total, worst case	24	1365	364							
Sun reduction	0,50	0,50	0,50							
Oper. time red.	0,80	0,80	0,80							
Wind dir. red.	0,55	0,60	0,65							
Total reduction	0,22	0,24	0,26							
Total, real	5	328	95							

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Calculation: Oppdatert layout - real case med vindrose - med nærliggende - oppdatert mottaker **Shadow receptor:** M - Buevegen 1941 (13)
 Sunshine probability S/S0 (Sun hours/Possible sun hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
 644 231 315 644 959 714 721 455 378 420 574 938 6 993

	July	August	September	October	November	December
1	04:32	05:24	06:33	07:39	07:51	11:54 (16) 09:00
	22:48	22:01	20:40	19:13	16:49	45 15:01 (21) 15:51
2	04:33	05:26	06:35	07:41	07:54	11:55 (16) 09:01
	22:48	21:58	20:37	19:10	16:46	44 15:02 (21) 15:50
3	04:34	05:28	06:37	07:44	07:56	11:56 (16) 09:03
	22:47	21:56	20:34	19:07	16:44	45 15:03 (21) 15:49
4	04:35	05:31	06:40	07:46	07:58	11:57 (16) 09:05
	22:46	21:54	20:31	19:04	16:41	43 15:03 (21) 15:48
5	04:36	05:33	06:42	07:48	10:59 (18) 08:01	11:59 (16) 09:07
	22:46	21:51	20:28	19:01	11:12 (18) 16:39	39 15:03 (21) 15:47
6	04:37	05:35	06:44	07:50	10:56 (18) 08:03	12:01 (16) 09:09
	22:45	21:49	20:25	18:59	11:15 (18) 16:37	36 15:04 (21) 15:46
7	04:38	05:37	06:46	07:53	09:54 (13) 08:06	12:04 (16) 09:10
	22:44	21:47	20:22	18:56	11:16 (18) 16:34	29 15:03 (21) 15:45
8	04:40	05:39	06:48	07:55	09:58 (13) 08:08	14:45 (21) 09:12
	22:43	21:44	20:20	18:53	17:18 (24) 16:32	18 15:03 (21) 15:45
9	04:41	05:42	06:51	07:57	10:01 (13) 08:10	14:46 (21) 09:13
	22:42	21:42	20:17	18:50	17:20 (24) 16:30	17 15:03 (21) 15:44
10	04:43	05:44	06:53	08:00	10:49 (18) 08:13	13:42 (34) 09:15
	22:40	21:39	20:14	18:47	17:21 (24) 16:28	20 15:03 (21) 15:43
11	04:44	05:46	06:55	08:02	10:49 (18) 08:15	13:39 (34) 09:16
	22:39	21:37	20:11	18:44	17:23 (24) 16:25	20 14:58 (21) 15:43
12	04:46	05:48	06:57	08:04	10:48 (18) 08:18	13:48 (34) 09:17
	22:38	21:34	20:08	18:42	17:23 (24) 16:23	3 13:51 (34) 15:43
13	04:47	05:50	06:59	08:06	10:48 (18) 08:20	13:48 (34) 09:19
	22:36	21:31	20:05	18:39	17:23 (24) 16:21	15:42
14	04:49	05:53	07:02	08:09	10:47 (18) 08:22	09:20
	22:35	21:29	20:02	18:36	17:23 (24) 16:19	15:42
15	04:50	05:55	07:04	08:11	10:48 (18) 08:25	09:21
	22:34	21:26	19:59	18:33	17:23 (24) 16:17	15:42
16	04:52	05:57	07:06	08:13	10:47 (18) 08:27	09:22
	22:32	21:24	19:56	18:31	17:22 (24) 16:15	15:42
17	04:54	05:59	07:08	08:16	10:48 (18) 08:29	09:23
	22:30	21:21	19:53	18:28	17:22 (24) 16:13	15:42
18	04:56	06:02	07:10	08:18	12:57 (16) 08:32	09:24
	22:29	21:18	19:51	18:25	17:20 (24) 16:11	15:42
19	04:58	06:04	07:13	08:20	12:56 (16) 08:34	09:25
	22:27	21:16	19:48	18:22	17:17 (24) 16:09	15:42
20	04:59	06:06	07:15	08:23	12:55 (16) 08:36	09:25
	22:25	21:13	19:45	18:20	17:12 (24) 16:07	15:42
21	05:01	06:08	07:17	08:25	12:54 (16) 08:39	09:26
	22:23	21:10	19:42	18:17	16:51 (29) 16:06	15:43
22	05:03	06:11	07:19	08:27	12:53 (16) 08:41	09:27
	22:22	21:07	19:39	18:14	16:49 (29) 16:04	15:43
23	05:05	06:13	07:21	08:30	12:53 (16) 08:43	09:27
	22:20	21:05	19:36	18:12	16:48 (29) 16:02	15:44
24	05:07	06:15	07:24	08:32	12:52 (16) 08:45	09:28
	22:18	21:02	19:33	18:09	16:46 (29) 16:01	15:44
25	05:09	06:17	07:26	07:34	11:52 (16) 08:47	09:28
	22:16	20:59	19:30	17:06	15:44 (29) 15:59	15:45
26	05:11	06:20	07:28	07:37	11:51 (16) 08:49	09:28
	22:14	20:56	19:27	17:04	15:40 (29) 15:58	15:46
27	05:13	06:22	07:30	07:39	11:52 (16) 08:52	09:28
	22:12	20:54	19:24	17:01	12:27 (16) 15:56	15:47
28	05:15	06:24	07:33	07:42	11:52 (16) 08:54	09:28
	22:10	20:51	19:22	16:59	12:27 (16) 15:55	15:48
29	05:18	06:26	07:35	07:44	11:52 (16) 08:56	09:28
	22:07	20:48	19:19	16:56	12:26 (16) 15:53	15:49
30	05:20	06:29	07:37	07:46	11:53 (16) 08:58	09:28
	22:05	20:45	19:16	16:54	14:57 (21) 15:52	15:50
31	05:22	06:31		07:49	11:54 (16)	09:28
	22:03	20:42		16:51	15:00 (21)	15:51
Potential sun hours	546	478	386	319	236	199
Total, worst case				1431	359	
Sun reduction				0,50	0,50	
Oper. time red.				0,80	0,80	
Wind dir. red.				0,62	0,58	
Total reduction				0,25	0,23	
Total, real				354	84	

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)		Last time (hh:mm) with flicker	(WTG causing flicker last time)

SHADOW - Calendar

Calculation: Oppdatert layout - real case med vindrose - med nærliggende - oppdatert mottaker **Shadow receptor:** N - Buevegen 1988 (14)
Assumptions for shadow calculations Sunshine probability S/S0 (Sun hours/Possible sun hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
 644 231 315 644 959 714 721 455 378 420 574 938 6 993

	January	February	March	April	May	June	July	August	September	October	November	December
1 09:28		08:46	11:38 (18) 07:35	07:07	05:44	04:40	04:32	05:24	06:33	07:39	07:51	09:44 (13) 09:00
15:53		16:56	62 13:43 (16) 18:05	20:17	21:26	22:30	22:48	22:01	20:40	19:13	16:49	55 15:37 (29) 15:51
2 09:27		08:43	11:39 (18) 07:32	07:04	05:41	04:38	04:33	05:26	06:35	07:41	07:54	09:56 (13) 09:01
15:54		16:58	57 13:43 (16) 18:07	20:19	21:28	22:32	22:48	21:58	20:37	19:10	16:46	51 15:37 (29) 15:50
3 09:27		08:41	11:38 (18) 07:30	07:01	05:39	04:37	04:34	05:28	06:37	07:44	07:56	09:57 (13) 09:03
15:55		17:01	51 13:42 (16) 18:09	20:21	21:30	22:34	22:47	21:56	20:34	19:07	16:44	57 15:36 (29) 15:49
4 09:26		08:39	11:39 (18) 07:27	06:58	05:36	04:36	04:35	05:30	06:40	07:46	07:58	10:02 (13) 09:05
15:57		17:03	51 15:59 (29) 18:12	20:23	21:33	22:35	22:46	21:54	20:31	19:04	16:41	58 15:35 (29) 15:48
5 09:26		08:37	11:39 (18) 07:24	06:55	05:34	04:35	04:36	05:33	06:42	07:48	08:01	11:09 (18) 09:07
15:58		17:06	57 16:02 (29) 18:14	20:26	21:35	22:36	22:46	21:51	20:28	19:01	16:39	57 15:34 (29) 15:47
6 09:25		08:34	11:40 (18) 07:21	06:52	05:31	04:34	04:37	05:35	06:44	07:50	08:03	11:10 (18) 09:09
16:00		17:08	57 16:05 (29) 18:16	20:28	21:37	22:38	22:45	21:49	20:25	18:59	16:37	56 15:33 (29) 15:46
7 09:24		08:32	10:32 (13) 07:18	06:49	05:29	04:33	04:38	05:37	06:46	07:53	08:06	11:09 (18) 09:10
16:02		17:11	56 16:05 (29) 18:19	20:30	21:40	22:39	22:44	21:47	20:22	18:56	16:34	49 13:12 (16) 15:45
8 09:24		08:30	10:27 (13) 07:16	06:47	05:26	04:32	04:40	05:39	06:48	07:55	08:08	11:09 (18) 09:12
16:03		17:13	56 16:07 (29) 18:21	20:33	21:42	22:40	22:43	21:44	20:20	18:53	16:32	50 13:13 (16) 15:45
9 09:23		08:27	10:26 (13) 07:13	06:44	05:24	04:31	04:41	05:42	06:51	07:57	08:10	11:09 (18) 09:13
16:05		17:16	49 16:07 (29) 18:23	20:35	21:44	22:42	22:42	21:42	20:17	18:50	16:30	59 13:14 (16) 15:44
10 09:22		08:25	10:15 (13) 07:10	06:41	05:22	04:30	04:43	05:44	06:53	08:00	08:13	11:10 (18) 09:15
16:07		17:18	57 16:07 (29) 18:26	20:37	21:46	22:43	22:40	21:39	20:14	18:47	16:28	62 13:15 (16) 15:43
11 09:21		08:22	10:16 (13) 07:07	06:38	05:19	04:29	04:44	05:46	06:55	08:02	08:15	11:10 (18) 09:16
16:09		17:21	55 16:08 (29) 18:28	20:40	21:49	22:44	22:39	21:37	20:11	18:44	16:25	63 13:14 (16) 15:43
12 09:20		08:20	10:17 (13) 07:04	06:35	05:17	04:29	04:46	05:48	06:57	08:04	08:18	11:10 (18) 09:17
16:11		17:23	48 16:08 (29) 18:31	20:42	21:51	22:45	22:38	21:34	20:08	18:42	16:23	65 13:15 (16) 15:43
13 09:18		08:17	10:18 (13) 07:01	06:32	05:15	04:28	04:47	05:50	06:59	08:06	08:20	11:11 (18) 09:19
16:13		17:26	33 16:07 (29) 18:33	20:44	21:53	22:46	22:36	21:31	20:05	18:39	16:21	65 13:15 (16) 15:42
14 09:17		08:15	10:21 (13) 06:59	06:30	05:12	04:28	04:49	05:53	07:02	08:09	08:22	11:11 (18) 09:20
16:15	8	12:11 (10) 17:28	28 16:08 (29) 18:35	20:46	21:55	22:46	22:35	21:29	20:02	18:36	16:19	66 13:15 (16) 15:42
15 09:16		08:12	15:50 (29) 06:56	06:27	05:10	04:27	04:50	05:55	07:04	08:11	08:25	11:13 (18) 09:21
16:17	10	12:12 (10) 17:30	17 16:07 (29) 18:37	20:49	21:57	22:47	22:34	21:26	19:59	18:33	16:17	64 13:15 (16) 15:42
16 09:14		08:10	15:51 (29) 06:53	06:24	05:08	04:27	04:52	05:57	07:06	08:13	08:27	11:14 (18) 09:22
16:19	11	12:13 (10) 17:33	14 16:05 (29) 18:40	20:51	22:00	22:48	22:32	21:24	19:56	18:31	16:15	62 13:15 (16) 15:42
17 09:13		08:07	15:52 (29) 06:50	06:21	05:06	04:27	04:54	05:59	07:08	08:16	08:29	11:15 (18) 09:23
16:21	18	13:29 (16) 17:35	12 16:04 (29) 18:42	20:53	22:02	22:48	22:30	21:21	19:53	18:28	16:13	61 13:14 (16) 15:42
18 09:12		08:05	15:56 (29) 06:47	06:18	05:04	04:27	04:56	06:02	07:10	08:18	08:32	11:17 (18) 09:24
16:23	29	13:33 (16) 17:38	6 16:02 (29) 18:44	20:56	22:04	22:49	22:29	21:18	19:51	18:25	16:11	59 13:14 (16) 15:42
19 09:10		08:02	06:44	06:16	05:02	04:26	04:58	06:04	07:13	08:20	08:34	11:19 (18) 09:25
16:25	32	13:35 (16) 17:40	18:47	20:58	22:06	22:49	22:27	21:16	19:48	18:22	16:09	54 13:14 (16) 15:42
20 09:08		08:00	06:41	06:13	05:00	04:26	04:59	06:06	07:15	08:23	08:36	11:21 (18) 09:25
16:27	37	13:37 (16) 17:43	18:49	21:00	22:08	22:50	22:25	21:13	19:45	18:20	16:07	48 13:13 (16) 15:42
21 09:07		07:57	06:38	06:10	04:58	04:27	05:01	06:08	07:17	08:25	08:39	11:32 (10) 09:26
16:30	40	13:38 (16) 17:45	18:51	21:03	22:10	22:50	22:23	21:10	19:42	18:17	16:06	40 13:13 (16) 15:43
22 09:05		07:54	06:36	06:07	04:56	04:27	05:03	06:11	07:19	08:27	08:41	11:33 (10) 09:27
16:32	48	13:38 (16) 17:48	18:54	21:05	22:12	22:50	22:22	21:07	19:39	18:14	16:04	37 13:13 (16) 15:43
23 09:03		07:52	06:33	06:05	04:54	04:27	05:05	06:13	07:21	08:30	08:43	11:34 (10) 09:27
16:34	54	13:39 (16) 17:50	18:56	21:07	22:14	22:50	22:20	21:05	19:36	18:12	16:02	33 13:11 (16) 15:44
24 09:01		07:49	06:30	06:02	04:52	04:27	05:07	06:15	07:24	08:32	8	16:24 (29) 08:45
16:37	59	13:40 (16) 17:52	18:58	21:10	22:16	22:50	22:18	21:02	19:33	18:09	8	16:32 (29) 16:01
25 09:00		07:46	06:27	05:59	04:50	04:28	05:09	06:17	07:26	08:34	8	16:32 (29) 16:01
16:39	60	13:41 (16) 17:55	19:01	21:12	22:18	22:50	22:16	20:59	19:30	17:06	12	15:34 (29) 15:59
26 08:58		07:43	06:24	05:57	04:49	04:28	05:11	06:20	07:28	08:37	15:20 (29) 08:49	18 13:08 (16) 15:45
16:41	62	13:42 (16) 17:57	19:03	21:14	22:20	22:50	22:14	20:56	19:27	17:04	15	15:35 (29) 15:58
27 08:56		07:41	06:21	05:54	04:47	04:29	05:13	06:22	07:30	08:39	15	15:35 (29) 15:58
16:44	64	13:42 (16) 18:00	19:05	21:17	22:22	22:50	22:12	20:54	19:24	17:01	20	15:36 (29) 15:56
28 08:54		07:38	06:18	05:51	04:45	04:29	05:15	06:24	07:33	08:42	20	15:36 (29) 15:56
16:46	65	13:43 (16) 18:02	19:07	21:19	22:24	22:50	22:10	20:51	19:22	16:59	29	15:37 (29) 15:55
29 08:52		07:35	07:15	05:49	04:44	04:30	05:18	06:26	07:35	08:44	29	15:37 (29) 15:55
16:49	64	13:43 (16) 18:05	20:10	21:21	22:25	22:49	22:07	20:48	19:19	16:56	38	15:37 (29) 15:53
30 08:50		07:30	07:12	05:46	04:42	04:31	05:20	06:28	07:37	08:46	49	15:37 (29) 15:52
16:51	65	13:43 (16) 18:07	20:12	21:23	22:27	22:49	22:05	20:45	19:16	16:54	49	15:37 (29) 15:52
31 08:48		07:28	07:09	05:41	04:41	04:31	05:22	06:31	07:49	08:58	49	15:37 (29) 15:52
16:53	63	13:43 (16) 18:09	20:14	22:29	22:29	22:29	22:03	20:42	16:51	56	15:38 (29) 15:51	
Potential sun hours	221	260	365	432	521	547	546	478	386	319	236	199
Total, worst case	789	766								227	1347	
Sun reduction	0,50	0,50								0,50	0,50	
Oper. time red.	0,80	0,80								0,80	0,80	
Wind dir. red.	0,62	0,61								0,60	0,62	
Total reduction	0,25	0,24								0,24	0,25	
Total, real	196	187								54	334	

Table layout: For each day in each month the following matrix apply

Day in month Sun rise (hh:mm) Sun set (hh:mm) Minutes with flicker First time (hh:mm) with flicker Last time (hh:mm) with flicker (WTG causing flicker first time) (WTG causing flicker last time)

SHADOW - Calendar

Calculation: Oppdatert layout - real case med vindrose - med nærliggende - oppdatert mottaker **Shadow receptor:** O - Buevegen 2023 (15)

Assumptions for shadow calculations

Sunshine probability S/S0 (Sun hours/Possible sun hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
644 231 315 644 959 714 721 455 378 420 574 938 6 993

	January	February	March	April	May	June		
1	09:28	08:46	10:50 (13)	07:35	07:07	05:44	04:39	20:01 (76)
	15:53	16:56	14:26 (16)	18:04	20:17	21:26	22:30	25 20:26 (76)
2	09:27	08:43	10:51 (13)	07:32	07:04	05:41	04:38	20:02 (76)
	15:54	16:58	14:27 (16)	18:07	20:19	21:28	22:32	24 20:26 (76)
3	09:27	08:41	10:50 (13)	07:30	07:01	05:39	04:37	20:02 (76)
	15:55	17:01	14:27 (16)	18:09	20:21	21:30	22:34	24 20:26 (76)
4	09:26	08:39	10:51 (13)	07:27	06:58	05:36	04:36	20:02 (76)
	15:57	17:03	14:27 (16)	18:12	20:23	21:33	22:35	23 20:25 (76)
5	09:26	08:37	10:51 (13)	07:24	06:55	05:34	04:35	20:02 (76)
	15:58	17:06	14:26 (16)	18:14	20:26	21:35	22:36	23 20:25 (76)
6	09:25	08:34	10:52 (13)	07:21	06:52	05:31	04:34	20:03 (76)
	16:00	17:08	14:26 (16)	18:16	20:28	21:37	22:38	22 20:25 (76)
7	09:24	08:32	10:53 (13)	07:18	06:49	05:29	04:33	20:03 (76)
	16:02	17:11	14:25 (16)	18:19	20:30	21:40	22:39	22 20:25 (76)
8	09:24	08:30	10:55 (13)	07:16	06:47	05:26	04:32	20:04 (76)
	16:03	17:13	14:25 (16)	18:21	20:33	21:42	22:40	21 20:25 (76)
9	09:23	08:27	10:56 (13)	07:13	06:44	05:24	04:31	20:04 (76)
	16:05	17:16	14:23 (16)	18:23	20:35	21:44	22:42	21 20:25 (76)
10	09:22	08:25	10:57 (13)	07:10	06:41	05:22	04:30	20:05 (76)
	16:07	17:18	14:20 (16)	18:26	20:37	21:46	22:43	21 20:26 (76)
11	09:21	08:22	12:43 (18)	07:07	06:38	05:19	04:29	20:05 (76)
	16:09	17:21	12:51 (18)	18:28	20:40	21:49	22:44	20 20:25 (76)
12	09:20	08:20		07:04	06:35	05:17	04:29	20:06 (76)
	16:11	17:23		18:30	20:42	21:51	22:45	19 20:25 (76)
13	09:18	08:17		07:01	06:32	05:15	04:28	20:06 (76)
	16:13	17:25		18:33	20:44	21:53	22:46	19 20:25 (76)
14	09:17	12:39 (10)	08:15	06:59	06:30	05:12	20:08 (76)	04:28
	16:15	12:45 (10)	17:28	18:35	20:46	21:55	4 20:12 (76)	22:46 19 20:25 (76)
15	09:16	12:39 (10)	08:12	06:56	06:27	05:10	20:06 (76)	04:27
	16:17	7 12:46 (10)	17:30	18:37	20:49	21:57	7 20:13 (76)	22:47 18 20:25 (76)
16	09:14	12:38 (10)	08:10	06:53	06:24	05:08	20:04 (76)	04:27
	16:19	17 12:55 (10)	17:33	18:40	20:51	22:00	9 20:13 (76)	22:48 18 20:26 (76)
17	09:13	12:38 (10)	08:07	06:50	06:21	05:06	20:03 (76)	04:27
	16:21	18 12:56 (10)	17:35	18:42	20:53	22:02	11 20:14 (76)	22:48 18 20:26 (76)
18	09:12	12:37 (10)	08:05	06:47	06:18	05:04	20:02 (76)	04:27
	16:23	19 12:56 (10)	17:38	18:44	20:56	22:04	13 20:15 (76)	22:49 18 20:26 (76)
19	09:10	12:38 (10)	08:02	06:44	06:16	05:02	20:01 (76)	04:26
	16:25	20 12:58 (10)	17:40	18:47	20:58	22:06	14 20:15 (76)	22:49 17 20:26 (76)
20	09:08	12:38 (18)	07:59	06:41	06:13	05:00	20:01 (76)	04:26
	16:27	21 12:59 (10)	17:43	18:49	21:00	22:08	16 20:17 (76)	22:50 17 20:26 (76)
21	09:07	12:35 (18)	07:57	06:38	06:10	04:58	20:01 (76)	04:27
	16:30	23 12:58 (10)	17:45	18:51	21:03	22:10	16 20:17 (76)	22:50 17 20:26 (76)
22	09:05	12:34 (18)	07:54	06:35	06:07	04:56	20:00 (76)	04:27
	16:32	29 14:14 (16)	17:48	18:54	21:05	22:12	18 20:18 (76)	22:50 17 20:26 (76)
23	09:03	12:34 (18)	07:52	06:33	06:05	04:54	20:00 (76)	04:27
	16:34	36 14:18 (16)	17:50	18:56	21:07	22:14	20 20:20 (76)	22:50 17 20:26 (76)
24	09:01	12:33 (18)	07:49	06:30	06:02	04:52	20:00 (76)	04:27
	16:37	41 14:20 (16)	17:52	18:58	21:10	22:16	20 20:20 (76)	22:50 18 20:27 (76)
25	09:00	12:33 (18)	07:46	06:27	05:59	04:50	20:00 (76)	04:28
	16:39	44 14:22 (16)	17:55	19:00	21:12	22:18	22 20:22 (76)	22:50 18 20:27 (76)
26	08:58	12:32 (18)	07:43	06:24	05:57	04:49	20:00 (76)	04:28
	16:41	46 14:23 (16)	17:57	19:03	21:14	22:20	22 20:22 (76)	22:50 18 20:28 (76)
27	08:56	10:54 (13)	07:41	06:21	05:54	04:47	20:00 (76)	04:29
	16:44	54 14:24 (16)	18:00	19:05	21:17	22:22	23 20:23 (76)	22:50 18 20:27 (76)
28	08:54	10:52 (13)	07:38	06:18	05:51	04:45	20:00 (76)	04:29
	16:46	67 14:25 (16)	18:02	19:07	21:19	22:24	24 20:24 (76)	22:50 18 20:28 (76)
29	08:52	10:51 (13)		07:15	05:49	04:44	20:00 (76)	04:30
	16:49	70 14:26 (16)		20:10	21:21	22:25	25 20:25 (76)	22:49 19 20:29 (76)
30	08:50	10:51 (13)		07:12	05:46	04:42	20:00 (76)	04:31
	16:51	71 14:26 (16)		20:12	21:23	22:27	25 20:25 (76)	22:49 20 20:29 (76)
31	08:48	10:51 (13)		07:09		04:41	20:01 (76)	
	16:53	74 14:27 (16)		20:14		22:29	24 20:25 (76)	
Potential sun hours	221	260	365	432	521	547		
Total, worst case	663	630					589	
Sun reduction	0,50	0,50					0,50	
Oper. time red.	0,80	0,80					0,80	
Wind dir. red.	0,62	0,63					0,71	
Total reduction	0,25	0,25					0,28	
Total, real	164	158					167	

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Calculation: Oppdatert layout - real case med vindrose - med nærliggende - oppdatert mottaker **Shadow receptor:** O - Buevegen 2023 (15)

Assumptions for shadow calculations

Sunshine probability S/S0 (Sun hours/Possible sun hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
644 231 315 644 959 714 721 455 378 420 574 938 6 993

	July	August	September	October	November	December
1	04:32	20:09 (76)	05:24	06:33	07:39	10:26 (13)
	22:48	20:29 (76)	22:01	20:40	19:13	13:50 (16)
2	04:33	20:09 (76)	05:26	06:35	07:41	10:25 (13)
	22:48	20:30 (76)	21:58	20:37	19:10	13:53 (16)
3	04:34	20:10 (76)	05:28	06:37	07:44	10:24 (13)
	22:47	20:30 (76)	21:56	20:34	19:07	13:55 (16)
4	04:35	20:09 (76)	05:30	06:40	07:46	10:22 (13)
	22:46	20:31 (76)	21:54	20:31	19:04	13:55 (16)
5	04:36	20:09 (76)	05:33	06:42	07:48	10:22 (13)
	22:46	20:31 (76)	21:51	20:28	19:01	13:56 (16)
6	04:37	20:09 (76)	05:35	06:44	07:50	10:22 (13)
	22:45	20:31 (76)	21:49	20:25	18:59	13:57 (16)
7	04:38	20:09 (76)	05:37	06:46	07:53	10:21 (13)
	22:44	20:32 (76)	21:46	20:22	18:56	13:57 (16)
8	04:40	20:09 (76)	05:39	06:48	07:55	10:21 (13)
	22:43	20:32 (76)	21:44	20:19	18:53	13:57 (16)
9	04:41	20:10 (76)	05:41	06:51	07:57	10:22 (13)
	22:42	20:33 (76)	21:42	20:17	18:50	13:58 (16)
10	04:42	20:09 (76)	05:44	06:53	08:00	10:22 (13)
	22:40	20:33 (76)	21:39	20:14	18:47	13:58 (16)
11	04:44	20:09 (76)	05:46	06:55	08:02	10:22 (13)
	22:39	20:33 (76)	21:37	20:11	18:44	13:57 (16)
12	04:46	20:08 (76)	05:48	06:57	08:04	10:22 (13)
	22:38	20:33 (76)	21:34	20:08	18:42	13:58 (16)
13	04:47	20:09 (76)	05:50	06:59	08:06	10:23 (13)
	22:36	20:34 (76)	21:31	20:05	18:39	13:58 (16)
14	04:49	20:09 (76)	05:53	07:02	08:09	10:23 (13)
	22:35	20:34 (76)	21:29	20:02	18:36	13:57 (16)
15	04:50	20:09 (76)	05:55	07:04	08:11	10:27 (13)
	22:34	20:33 (76)	21:26	19:59	18:33	13:56 (16)
16	04:52	20:09 (76)	05:57	07:06	08:13	12:05 (18)
	22:32	20:32 (76)	21:24	19:56	18:31	13:56 (16)
17	04:54	20:09 (76)	05:59	07:08	08:16	12:06 (18)
	22:30	20:32 (76)	21:21	19:53	18:28	13:55 (16)
18	04:56	20:10 (76)	06:02	07:10	08:18	12:07 (18)
	22:29	20:32 (76)	21:18	19:51	18:25	13:54 (16)
19	04:58	20:09 (76)	06:04	07:13	08:20	12:09 (18)
	22:27	20:30 (76)	21:16	19:48	18:22	13:53 (16)
20	04:59	20:10 (76)	06:06	07:15	08:23	12:09 (18)
	22:25	20:30 (76)	21:13	19:45	18:20	13:49 (16)
21	05:01	20:10 (76)	06:08	07:17	08:25	12:11 (18)
	22:23	20:28 (76)	21:10	19:42	18:17	13:48 (16)
22	05:03	20:10 (76)	06:11	07:19	08:27	12:14 (18)
	22:22	20:28 (76)	21:07	19:39	18:14	13:47 (16)
23	05:05	20:11 (76)	06:13	07:21	08:30	12:14 (10)
	22:20	20:27 (76)	21:05	19:36	18:12	13:46 (16)
24	05:07	20:12 (76)	06:15	07:24	08:32	12:15 (10)
	22:18	20:27 (76)	21:02	19:33	18:09	13:45 (16)
25	05:09	20:13 (76)	06:17	07:26	08:34	12:16 (10)
	22:16	20:26 (76)	20:59	19:30	17:06	13:44 (16)
26	05:11	20:12 (76)	06:20	07:28	08:37	12:17 (10)
	22:14	20:25 (76)	20:56	19:27	17:04	13:43 (16)
27	05:13	20:14 (76)	06:22	07:30	08:39	12:18 (10)
	22:12	20:24 (76)	20:54	19:24	17:01	13:42 (16)
28	05:15	20:15 (76)	06:24	07:32	08:42	12:19 (10)
	22:09	20:23 (76)	20:51	19:21	16:59	13:41 (16)
29	05:18	20:17 (76)	06:26	07:35	08:44	12:20 (10)
	22:07	20:23 (76)	20:48	19:19	16:56	13:40 (16)
30	05:20	20:20 (76)	06:28	07:37	08:47	12:21 (10)
	22:05	20:22 (76)	20:45	19:16	16:54	13:39 (16)
31	05:22		06:31		07:49	12:11 (18)
	22:03		20:42		16:51	12:21 (18)
Potential sun hours	546	478	386	319	10	236
Total, worst case	571				10	1294
Sun reduction	0,50				0,50	0,50
Oper. time red.	0,80				0,80	0,80
Wind dir. red.	0,71				0,63	0,62
Total reduction	0,28				0,25	0,25
Total, real	162				3	321

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Calculation: Oppdatert layout - real case med vindrose - med nærliggende - oppdatert mottaker **Shadow receptor:** P - Buevegen 2021 (16)

Assumptions for shadow calculations

Sunshine probability S/S0 (Sun hours/Possible sun hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
644 231 315 644 959 714 721 455 378 420 574 938 6 993

	January	February	March	April	May	June		
1	09:28	08:46	10:45 (13)	07:35	07:07	05:44	04:40	20:04 (76)
	15:53	16:56	14:22 (16)	18:04	20:17	21:26	22:30	22:26 (76)
2	09:27	08:43	10:46 (13)	07:32	07:04	05:41	04:38	20:04 (76)
	15:54	16:58	14:23 (16)	18:07	20:19	21:28	22:32	23 20:27 (76)
3	09:27	08:41	10:45 (13)	07:30	07:01	05:39	04:37	20:04 (76)
	15:55	17:01	14:22 (16)	18:09	20:21	21:30	22:34	24 20:28 (76)
4	09:26	08:39	10:46 (13)	07:27	06:58	05:36	04:36	20:04 (76)
	15:57	17:03	14:23 (16)	18:12	20:23	21:33	22:35	24 20:28 (76)
5	09:26	08:37	10:46 (13)	07:24	06:55	05:34	04:35	20:04 (76)
	15:58	17:06	14:22 (16)	18:14	20:26	21:35	22:36	25 20:29 (76)
6	09:25	08:34	10:47 (13)	07:21	06:52	05:31	04:34	20:04 (76)
	16:00	17:08	14:22 (16)	18:16	20:28	21:37	22:38	25 20:29 (76)
7	09:24	08:32	10:47 (13)	07:18	06:49	05:29	04:33	20:04 (76)
	16:02	17:11	14:21 (16)	18:19	20:30	21:40	22:39	25 20:29 (76)
8	09:24	08:30	10:48 (13)	07:16	06:47	05:26	04:32	20:05 (76)
	16:03	17:13	14:21 (16)	18:21	20:33	21:42	22:40	26 20:31 (76)
9	09:23	08:27	10:49 (13)	07:13	06:44	05:24	04:31	20:05 (76)
	16:05	17:16	14:19 (16)	18:23	20:35	21:44	22:42	25 20:30 (76)
10	09:22	08:25	10:50 (13)	07:10	06:41	05:22	04:30	20:06 (76)
	16:07	17:18	14:16 (16)	18:26	20:37	21:46	22:43	25 20:31 (76)
11	09:21	08:22	10:53 (13)	07:07	06:38	05:19	04:29	20:06 (76)
	16:09	17:21	12:47 (18)	18:28	20:40	21:49	22:44	25 20:31 (76)
12	09:20	08:20	12:38 (18)	07:04	06:35	05:17	04:29	20:06 (76)
	16:11	17:23	12:41 (18)	18:30	20:42	21:51	22:45	25 20:31 (76)
13	09:18	08:17	07:01	06:32	05:15	04:28	20:06 (76)	
	16:13	17:25	18:33	20:44	21:53	22:46	25 20:31 (76)	
14	09:17	08:15	06:59	06:30	05:12	04:28	20:07 (76)	
	16:15	17:28	18:35	20:46	21:55	22:46	24 20:31 (76)	
15	09:16	08:12	06:56	06:27	05:10	04:27	20:07 (76)	
	16:17	17:30	18:37	20:49	21:57	22:47	24 20:31 (76)	
16	09:14	12:49 (10)	08:10	06:53	06:24	05:08	04:27	20:08 (76)
	16:19	12:50 (10)	17:33	18:40	20:51	22:00	22:48	24 20:32 (76)
17	09:13	12:33 (10)	08:07	06:50	06:21	05:06	04:27	20:08 (76)
	16:21	12:50 (10)	17:35	18:42	20:53	22:02	22:48	24 20:32 (76)
18	09:12	12:33 (10)	08:05	06:47	06:18	05:04	20:10 (76)	04:27
	16:23	12:51 (10)	17:38	18:44	20:56	22:04	5 20:15 (76)	22:49 24 20:32 (76)
19	09:10	12:34 (10)	08:02	06:44	06:16	05:02	20:08 (76)	04:26 20:08 (76)
	16:25	12:53 (10)	17:40	18:47	20:58	22:06	8 20:16 (76)	22:49 24 20:32 (76)
20	09:08	12:33 (10)	07:59	06:41	06:13	05:00	20:07 (76)	04:26 20:09 (76)
	16:27	12:54 (10)	17:43	18:49	21:00	22:08	10 20:17 (76)	22:50 23 20:32 (76)
21	09:07	12:31 (18)	07:57	06:38	06:10	04:58	20:06 (76)	04:27 20:09 (76)
	16:30	12:53 (10)	17:45	18:51	21:03	22:10	12 20:18 (76)	22:50 23 20:32 (76)
22	09:05	12:29 (18)	07:54	06:35	06:07	04:56	20:05 (76)	04:27 20:09 (76)
	16:32	14:06 (16)	17:48	18:54	21:05	22:12	13 20:18 (76)	22:50 23 20:32 (76)
23	09:03	12:28 (18)	07:52	06:33	06:05	04:54	20:05 (76)	04:27 20:09 (76)
	16:34	14:13 (16)	17:50	18:56	21:07	22:14	15 20:20 (76)	22:50 23 20:32 (76)
24	09:01	12:27 (18)	07:49	06:30	06:02	04:52	20:04 (76)	04:27 20:09 (76)
	16:37	14:15 (16)	17:52	18:58	21:10	22:16	16 20:20 (76)	22:50 24 20:33 (76)
25	09:00	12:27 (18)	07:46	06:27	05:59	04:50	20:04 (76)	04:28 20:09 (76)
	16:39	14:17 (16)	17:55	19:00	21:12	22:18	17 20:21 (76)	22:50 24 20:33 (76)
26	08:58	12:26 (18)	07:43	06:24	05:57	04:49	20:03 (76)	04:28 20:10 (76)
	16:41	14:19 (16)	17:57	19:03	21:14	22:20	18 20:21 (76)	22:50 24 20:34 (76)
27	08:56	12:25 (18)	07:41	06:21	05:54	04:47	20:04 (76)	04:29 20:09 (76)
	16:44	14:19 (16)	18:00	19:05	21:17	22:22	18 20:22 (76)	22:50 24 20:33 (76)
28	08:54	12:25 (18)	07:38	06:18	05:51	04:45	20:04 (76)	04:29 20:10 (76)
	16:46	14:20 (16)	18:02	19:07	21:19	22:24	20 20:24 (76)	22:50 24 20:34 (76)
29	08:52	10:48 (13)		07:15	05:49	04:44	20:03 (76)	04:30 20:10 (76)
	16:49	14:21 (16)		20:10	21:21	22:25	21 20:24 (76)	22:49 25 20:35 (76)
30	08:50	10:46 (13)		07:12	05:46	04:42	20:03 (76)	04:31 20:10 (76)
	16:51	14:21 (16)		20:12	21:23	22:27	22 20:25 (76)	22:49 24 20:34 (76)
31	08:48	10:46 (13)		07:09		04:41	20:03 (76)	
	16:53	14:22 (16)		20:14		22:29	22 20:25 (76)	
Potential sun hours	221	260	365	432	521	547		
Total, worst case	561	676					724	
Sun reduction	0,50	0,50					0,50	
Oper. time red.	0,80	0,80					0,80	
Wind dir. red.	0,61	0,63					0,71	
Total reduction	0,24	0,25					0,29	
Total, real	137	170					206	

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)		Last time (hh:mm) with flicker	(WTG causing flicker last time)

SHADOW - Calendar

Calculation: Oppdatert layout - real case med vindrose - med nærliggende - oppdatert mottaker **Shadow receptor:** P - Buevegen 2021 (16)

Assumptions for shadow calculations

Sunshine probability S/S0 (Sun hours/Possible sun hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
644 231 315 644 959 714 721 455 378 420 574 938 6 993

	July	August	September	October	November	December
1	04:32	20:10 (76)	05:24	06:33	07:39	10:19 (13)
	22:48	20:35 (76)	22:01	20:40	19:13	13:46 (16)
2	04:33	20:10 (76)	05:26	06:35	07:41	10:18 (13)
	22:48	20:35 (76)	21:58	20:37	19:10	13:49 (16)
3	04:34	20:10 (76)	05:28	06:37	07:44	10:18 (13)
	22:47	20:36 (76)	21:56	20:34	19:07	13:50 (16)
4	04:35	20:11 (76)	05:30	06:40	07:46	10:16 (13)
	22:46	20:36 (76)	21:54	20:31	19:04	13:51 (16)
5	04:36	20:11 (76)	05:33	06:42	07:48	10:16 (13)
	22:46	20:36 (76)	21:51	20:28	19:01	13:52 (16)
6	04:37	20:11 (76)	05:35	06:44	07:50	10:16 (13)
	22:45	20:36 (76)	21:49	20:25	18:59	13:53 (16)
7	04:38	20:11 (76)	05:37	06:46	07:53	10:16 (13)
	22:44	20:35 (76)	21:46	20:22	18:56	13:52 (16)
8	04:40	20:11 (76)	05:39	06:48	07:55	10:16 (13)
	22:43	20:35 (76)	21:44	20:19	18:53	13:53 (16)
9	04:41	20:11 (76)	05:41	06:51	07:57	10:16 (13)
	22:42	20:35 (76)	21:42	20:17	18:50	13:53 (16)
10	04:42	20:11 (76)	05:44	06:53	08:00	10:17 (13)
	22:40	20:35 (76)	21:39	20:14	18:47	13:54 (16)
11	04:44	20:11 (76)	05:46	06:55	08:02	10:17 (13)
	22:39	20:34 (76)	21:37	20:11	18:44	13:53 (16)
12	04:46	20:11 (76)	05:48	06:57	08:04	10:18 (13)
	22:38	20:33 (76)	21:34	20:08	18:42	13:53 (16)
13	04:47	20:12 (76)	05:50	06:59	08:06	10:20 (13)
	22:36	20:33 (76)	21:31	20:05	18:39	13:53 (16)
14	04:49	20:12 (76)	05:53	07:02	08:09	11:57 (18)
	22:35	20:33 (76)	21:29	20:02	18:36	13:52 (16)
15	04:50	20:12 (76)	05:55	07:04	08:11	11:58 (18)
	22:34	20:33 (76)	21:26	19:59	18:33	13:52 (16)
16	04:52	20:12 (76)	05:57	07:06	08:13	11:59 (18)
	22:32	20:32 (76)	21:24	19:56	18:31	13:52 (16)
17	04:54	20:13 (76)	05:59	07:08	08:16	12:00 (18)
	22:30	20:31 (76)	21:21	19:53	18:28	13:50 (16)
18	04:56	20:14 (76)	06:02	07:10	08:18	12:01 (18)
	22:29	20:31 (76)	21:18	19:51	18:25	13:49 (16)
19	04:58	20:14 (76)	06:04	07:13	08:20	12:03 (18)
	22:27	20:30 (76)	21:16	19:48	18:22	13:48 (16)
20	04:59	20:15 (76)	06:06	07:15	08:23	12:04 (18)
	22:25	20:30 (76)	21:13	19:45	18:20	13:41 (16)
21	05:01	20:15 (76)	06:08	07:17	08:25	12:07 (18)
	22:23	20:28 (76)	21:10	19:42	18:17	12:29 (10)
22	05:03	20:16 (76)	06:11	07:19	08:27	12:10 (10)
	22:22	20:28 (76)	21:07	19:39	18:14	12:30 (10)
23	05:05	20:17 (76)	06:13	07:21	08:30	12:10 (10)
	22:20	20:27 (76)	21:05	19:36	18:12	12:29 (10)
24	05:07	20:18 (76)	06:15	07:24	08:32	12:11 (10)
	22:18	20:27 (76)	21:02	19:33	18:09	12:29 (10)
25	05:09	20:20 (76)	06:17	07:26	08:34	12:11 (10)
	22:16	20:26 (76)	20:59	19:30	17:06	12:29 (10)
26	05:11	20:21 (76)	06:20	07:28	08:37	12:28 (10)
	22:14	20:25 (76)	20:56	19:27	17:04	12:29 (10)
27	05:13		06:22	07:30	08:39	
	22:12		20:54	19:24	17:01	
28	05:15		06:24	07:32	08:41	
	22:09		20:51	19:22	16:59	
29	05:18		06:26	07:35	08:43	
	22:07		20:48	19:19	16:56	
30	05:20		06:28	07:37	08:45	10:26 (13)
	22:05		20:45	19:16	16:54	12:13 (18)
31	05:22		06:31	07:49	08:47	10:22 (13)
	22:03		20:42	16:51	25	12:17 (18)
Potential sun hours	546	478	386	319	236	199
Total, worst case	495				33	1222
Sun reduction	0,50				0,50	
Oper. time red.	0,80				0,80	
Wind dir. red.	0,71				0,66	
Total reduction	0,29				0,26	
Total, real	141				9	303

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Calculation: Oppdatert layout - real case med vindrose - med nærliggende - oppdatert mottaker **Shadow receptor:** Q - Buevegen 2141 (17)

Assumptions for shadow calculations

Sunshine probability S/S0 (Sun hours/Possible sun hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
644 231 315 644 959 714 721 455 378 420 574 938 6 993

	January		February		March		April		May		June		
1	09:28		12:03 (27)	08:45	14:59 (18)	07:35	07:07		05:44		04:39	20:33 (78)	
	15:52	20	12:23 (27)	16:56	15:17 (18)	18:04	20:16		21:26		22:30	8 20:41 (78)	
2	09:27		12:03 (27)	08:43	14:59 (18)	07:32	07:04		05:41		04:38	20:33 (78)	
	15:54	20	12:23 (27)	16:58	15:18 (18)	18:07	20:19		21:28		22:32	9 20:42 (78)	
3	09:27		12:03 (27)	08:41	14:58 (18)	07:30	07:01		05:38		04:37	20:33 (78)	
	15:55	20	12:23 (27)	17:01	15:17 (18)	18:09	20:21		21:30		22:33	9 20:42 (78)	
4	09:26		12:03 (27)	08:39	14:59 (18)	07:27	06:58		05:36		04:36	20:33 (78)	
	15:57	21	12:24 (27)	17:03	15:18 (18)	18:12	20:23		21:33		22:35	10 20:43 (78)	
5	09:26		12:04 (27)	08:37	14:59 (18)	07:24	06:55		05:33		04:34	20:33 (78)	
	15:58	25	13:33 (13)	17:06	15:18 (18)	18:14	20:26		21:35		22:36	11 20:44 (78)	
6	09:25		12:04 (27)	08:34	15:00 (18)	07:21	06:52		05:31		04:33	20:33 (78)	
	16:00	29	13:35 (13)	17:08	15:18 (18)	18:16	20:28	2	19:35 (76)	21:37	22:38	11 20:44 (78)	
7	09:24		12:05 (27)	08:32	15:00 (18)	07:18	06:49		05:29		04:32	20:33 (78)	
	16:01	31	13:37 (13)	17:11	15:17 (18)	18:19	20:30	9	19:40 (76)	21:39	22:39	12 20:45 (78)	
8	09:23		12:06 (27)	08:30	15:00 (18)	07:16	06:46		05:26		04:31	20:34 (78)	
	16:03	32	13:38 (13)	17:13	15:16 (18)	18:21	20:33	11	19:42 (76)	21:42	22:40	12 20:46 (78)	
9	09:23		12:06 (27)	08:27	15:02 (18)	07:13	06:44		05:24		04:31	20:34 (78)	
	16:05	33	13:39 (13)	17:15	15:16 (18)	18:23	20:35	13	19:42 (76)	21:44	22:42	12 20:46 (78)	
10	09:22		12:07 (27)	08:25	15:03 (18)	07:10	06:41		05:21		04:30	20:35 (78)	
	16:07	34	13:40 (13)	17:18	15:14 (18)	18:26	20:37	13	19:42 (76)	21:46	22:43	12 20:47 (78)	
11	09:21		12:07 (27)	08:22	15:07 (18)	07:07	06:38		05:19		04:29	20:35 (78)	
	16:09	35	13:41 (13)	17:20	15:12 (18)	18:28	20:39	13	19:41 (76)	21:49	22:44	13 20:48 (78)	
12	09:19		12:08 (27)	08:20		07:04	06:35		05:17		04:29	20:35 (78)	
	16:11	35	13:42 (13)	17:23		18:30	20:42	12	19:40 (76)	21:51	22:45	13 20:48 (78)	
13	09:18		12:08 (27)	08:17		07:01	06:32		05:15	20:19 (79)	04:28	20:35 (78)	
	16:12	36	13:43 (13)	17:25		18:33	20:44	16	19:46 (77)	21:53	1 20:20 (79)	22:46	13 20:48 (78)
14	09:17		12:10 (27)	08:15		06:58	06:29		05:12		04:28	20:36 (78)	
	16:14	35	13:44 (13)	17:28		18:35	20:46	16	19:47 (77)	21:55	1 20:21 (79)	22:46	13 20:49 (78)
15	09:16		12:11 (27)	08:12		06:56	06:27		05:10		04:27	20:36 (78)	
	16:17	34	13:45 (13)	17:30		18:37	20:49	10	19:47 (77)	21:57	2 20:23 (79)	22:47	14 20:50 (78)
16	09:14		12:12 (27)	08:10		06:53	06:24		05:08		04:27	20:37 (78)	
	16:19	32	13:45 (13)	17:33		18:40	20:51	12	19:49 (77)	22:00	2 20:24 (79)	22:48	13 20:50 (78)
17	09:13		12:14 (27)	08:07		06:50	06:21		05:06		04:27	20:36 (78)	
	16:21	29	13:45 (13)	17:35		18:42	20:53	14	19:50 (77)	22:02	3 20:25 (79)	22:48	14 20:50 (78)
18	09:11		12:16 (27)	08:05		06:47	06:18		05:04		04:26	20:36 (78)	
	16:23	26	13:46 (13)	17:38		18:44	20:56	16	19:51 (77)	22:04	3 20:27 (79)	22:49	14 20:50 (78)
19	09:10		13:25 (13)	08:02		06:44	06:16		05:02		04:26	20:37 (78)	
	16:25	21	13:46 (13)	17:40		18:47	20:58	16	19:51 (77)	22:06	3 20:28 (79)	22:49	14 20:51 (78)
20	09:08		13:25 (13)	07:59		06:41	06:13		05:00		04:26	20:38 (78)	
	16:27	22	13:47 (13)	17:43		18:49	21:00	15	19:50 (77)	22:08	22:50	14 20:52 (78)	
21	09:07		13:26 (13)	07:57		06:38	06:10		04:58		04:26	20:38 (78)	
	16:30	21	13:47 (13)	17:45		18:51	21:03	13	19:48 (77)	22:10	22:50	14 20:52 (78)	
22	09:05		13:26 (13)	07:54		06:35	06:07		04:56		04:27	20:38 (78)	
	16:32	21	13:47 (13)	17:48		18:54	21:05	11	19:48 (77)	22:12	22:50	14 20:52 (78)	
23	09:03		13:27 (13)	07:51		06:33	06:05		04:54		04:27	20:38 (78)	
	16:34	20	13:47 (13)	17:50		18:56	21:07	7	19:45 (77)	22:14	22:50	14 20:52 (78)	
24	09:01		13:28 (13)	07:49		06:30	06:02		04:52		04:27	20:38 (78)	
	16:37	19	13:47 (13)	17:52		18:58	21:09		22:16		22:50	14 20:52 (78)	
25	09:00		13:29 (13)	07:46		06:27	05:59		04:50	20:33 (78)	04:28	20:38 (78)	
	16:39	18	13:47 (13)	17:55		19:00	21:12		22:18	2 20:35 (78)	22:50	14 20:52 (78)	
26	08:58		13:30 (13)	07:43		06:24	05:57		04:49		04:28	20:39 (78)	
	16:41	17	13:47 (13)	17:57		19:03	21:14		22:20	3 20:35 (78)	22:50	14 20:53 (78)	
27	08:56		13:30 (13)	07:41		06:21	05:54		04:47		04:29	20:38 (78)	
	16:44	21	15:09 (18)	18:00		19:05	21:16		22:22	3 20:36 (78)	22:50	14 20:52 (78)	
28	08:54		13:32 (13)	07:38		06:18	05:51		04:45		04:29	20:39 (78)	
	16:46	23	15:12 (18)	18:02		19:07	21:19		22:23	4 20:37 (78)	22:50	13 20:52 (78)	
29	08:52		13:35 (13)			07:15	05:49		04:44		04:30	20:38 (78)	
	16:48	21	15:14 (18)			20:10	21:21		22:25	5 20:37 (78)	22:49	14 20:52 (78)	
30	08:50		15:00 (18)			07:12	05:46		04:42		04:31	20:39 (78)	
	16:51	15	15:15 (18)			20:12	21:23		22:27	7 20:39 (78)	22:49	13 20:52 (78)	
31	08:48		15:00 (18)			07:09			04:41		20:32 (78)		
	16:53	16	15:16 (18)			20:14			22:29	8 20:40 (78)			
Potential sun hours	221		260			365	432		521		547		
Total, worst case	782		175				219		47		379		
Sun reduction	0,50		0,50				0,50		0,50		0,50		
Oper. time red.	0,80		0,80				0,80		0,80		0,80		
Wind dir. red.	0,60		0,55				0,68		0,72		0,73		
Total reduction	0,24		0,22				0,27		0,29		0,29		
Total, real	187		39				60		14		110		

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Calculation: Oppdatert layout - real case med vindrose - med nærliggende - oppdatert mottaker **Shadow receptor:** Q - Buevegen 2141 (17)

Assumptions for shadow calculations

Sunshine probability S/S0 (Sun hours/Possible sun hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
644 231 315 644 959 714 721 455 378 420 574 938 6 993

	July		August		September		October		November		December	
1	04:32	20:39 (78)	05:24		06:33	19:27 (76)	07:39		07:51	14:32 (18)	08:59	11:49 (27)
	22:48	13 20:52 (78)	22:01		20:39	13 19:40 (76)	19:13		16:48	12 14:44 (18)	15:51	34 13:23 (13)
2	04:33	20:39 (78)	05:26		06:35	19:27 (76)	07:41		07:54	14:31 (18)	09:01	11:50 (27)
	22:48	13 20:52 (78)	21:58		20:37	13 19:40 (76)	19:10		16:46	15 14:46 (18)	15:50	35 13:24 (13)
3	04:34	20:39 (78)	05:28		06:37	19:27 (76)	07:44		07:56	14:31 (18)	09:03	11:50 (27)
	22:47	13 20:52 (78)	21:56		20:34	13 19:40 (76)	19:07		16:44	16 14:47 (18)	15:49	33 13:23 (13)
4	04:35	20:39 (78)	05:30		06:39	19:28 (76)	07:46		07:58	14:29 (18)	09:05	11:50 (27)
	22:46	13 20:52 (78)	21:54		20:31	11 19:39 (76)	19:04		16:41	18 14:47 (18)	15:48	33 13:23 (13)
5	04:36	20:40 (78)	05:33		06:42	19:28 (76)	07:48		08:01	14:29 (18)	09:07	11:50 (27)
	22:46	11 20:51 (78)	21:51		20:28	9 19:37 (76)	19:01		16:39	19 14:48 (18)	15:47	31 13:22 (13)
6	04:37	20:40 (78)	05:35		06:44	19:31 (76)	07:50		08:03	14:29 (18)	09:08	11:50 (27)
	22:45	11 20:51 (78)	21:49		20:25	2 19:33 (76)	18:58		16:36	19 14:48 (18)	15:46	29 13:21 (13)
7	04:38	20:40 (78)	05:37		06:46		07:53		08:06	14:29 (18)	09:10	11:51 (27)
	22:44	10 20:50 (78)	21:46		20:22		18:56		16:34	19 14:48 (18)	15:45	25 13:20 (13)
8	04:40	20:39 (78)	05:39		06:48		07:55		08:08	14:29 (18)	09:12	11:51 (27)
	22:43	11 20:50 (78)	21:44		20:19		18:53		16:32	19 14:48 (18)	15:44	21 12:12 (27)
9	04:41	20:39 (78)	05:41		06:51		07:57		08:10	14:30 (18)	09:13	11:51 (27)
	22:42	10 20:49 (78)	21:41		20:17		18:50		16:30	18 14:48 (18)	15:44	21 12:12 (27)
10	04:42	20:40 (78)	05:44		06:53		07:59		08:13	14:29 (18)	09:15	11:52 (27)
	22:40	9 20:49 (78)	21:39		20:14		18:47		16:27	18 14:47 (18)	15:43	20 12:12 (27)
11	04:44	20:40 (78)	05:46		06:55		08:02		08:15	14:30 (18)	09:16	11:53 (27)
	22:39	9 20:49 (78)	21:36		20:11		18:44		16:25	17 14:47 (18)	15:43	20 12:13 (27)
12	04:45	20:40 (78)	05:48		06:57		08:04		08:18	14:32 (18)	09:17	11:53 (27)
	22:38	8 20:48 (78)	21:34		20:08		18:42		16:23	15 14:47 (18)	15:42	20 12:13 (27)
13	04:47	20:41 (78)	05:50		06:59		08:06		08:20	13:07 (13)	09:19	11:54 (27)
	22:36	7 20:48 (78)	21:31		20:05		18:39		16:21	21 14:46 (18)	15:42	20 12:14 (27)
14	04:49	20:41 (78)	05:53		07:02		08:09		08:22	13:04 (13)	09:20	11:54 (27)
	22:35	6 20:47 (78)	21:29		20:02		18:36		16:19	23 14:44 (18)	15:42	20 12:14 (27)
15	04:50	20:41 (78)	05:55		07:04		08:11		08:25	13:03 (13)	09:21	11:54 (27)
	22:33	5 20:46 (78)	21:26		19:59		18:33		16:17	21 14:42 (18)	15:42	20 12:14 (27)
16	04:52	20:41 (78)	05:57		07:06		08:13		08:27	13:03 (13)	09:22	11:55 (27)
	22:32	4 20:45 (78)	21:23		19:56		18:30		16:15	17 13:20 (13)	15:42	20 12:15 (27)
17	04:54	20:42 (78)	05:59		07:08		08:16		08:29	13:02 (13)	09:23	11:55 (27)
	22:30	3 20:45 (78)	21:21		19:53		18:28		16:13	18 13:20 (13)	15:42	20 12:15 (27)
18	04:56	20:42 (78)	06:02		07:10		08:18		08:32	13:02 (13)	09:24	11:56 (27)
	22:29	2 20:44 (78)	21:18		19:50		18:25		16:11	19 13:21 (13)	15:42	19 12:15 (27)
19	04:57	20:43 (78)	06:04		07:13		08:20		08:34	13:02 (13)	09:25	11:56 (27)
	22:27	1 20:44 (78)	21:15		19:48		18:22		16:09	20 13:22 (13)	15:42	20 12:16 (27)
20	04:59		06:06	19:44 (77)	07:15		08:23		08:36	13:01 (13)	09:25	11:57 (27)
	22:25		21:13	7 19:51 (77)	19:45		18:20		16:07	21 13:22 (13)	15:42	20 12:17 (27)
21	05:01		06:08	19:41 (77)	07:17		08:25		08:38	13:02 (13)	09:26	11:57 (27)
	22:23		21:10	11 19:52 (77)	19:42		18:17		16:06	21 13:23 (13)	15:43	20 12:17 (27)
22	05:03		06:10	19:40 (77)	07:19		08:27		08:41	13:02 (13)	09:27	11:58 (27)
	22:22		21:07	13 19:53 (77)	19:39		18:14		16:04	22 13:24 (13)	15:43	20 12:18 (27)
23	05:05		06:13	19:39 (77)	07:21		08:30		08:43	13:02 (13)	09:27	11:58 (27)
	22:20		21:05	15 19:54 (77)	19:36		18:12		16:02	21 13:23 (13)	15:44	20 12:18 (27)
24	05:07		06:15	19:39 (77)	07:24		08:32		08:45	11:54 (27)	09:27	11:58 (27)
	22:18		21:02	16 19:55 (77)	19:33		18:09		16:01	26 13:24 (13)	15:44	20 12:18 (27)
25	05:09	20:34 (79)	06:17	19:39 (77)	07:26		07:34		08:47	11:52 (27)	09:28	11:59 (27)
	22:16	3 20:37 (79)	20:59	15 19:54 (77)	19:30		17:06		15:59	30 13:24 (13)	15:45	20 12:19 (27)
26	05:11	20:33 (79)	06:19	19:38 (77)	07:28		07:37		08:49	11:51 (27)	09:28	12:00 (27)
	22:14	3 20:36 (79)	20:56	14 19:52 (77)	19:27		17:04		15:57	32 13:24 (13)	15:46	20 12:20 (27)
27	05:13	20:32 (79)	06:22	19:38 (77)	07:30		07:39		08:51	11:50 (27)	09:28	12:00 (27)
	22:12	3 20:35 (79)	20:54	12 19:50 (77)	19:24		17:01		15:56	34 13:24 (13)	15:47	20 12:20 (27)
28	05:15	20:31 (79)	06:24	19:39 (77)	07:32		07:42		08:54	11:49 (27)	09:28	12:00 (27)
	22:09	3 20:34 (79)	20:51	10 19:49 (77)	19:21		16:59		15:55	35 13:23 (13)	15:48	20 12:20 (27)
29	05:17	20:31 (79)	06:26	19:31 (76)	07:35		07:44		08:56	11:50 (27)	09:28	12:01 (27)
	22:07	2 20:33 (79)	20:48	17 19:48 (77)	19:19		16:56		15:53	35 13:24 (13)	15:49	20 12:21 (27)
30	05:20	20:31 (79)	06:28	19:29 (76)	07:37		07:46		08:58	11:49 (27)	09:28	12:01 (27)
	22:05	1 20:32 (79)	20:45	16 19:46 (77)	19:16		16:53		15:52	35 13:23 (13)	15:50	21 12:22 (27)
31	05:22		06:31	19:28 (76)			07:49	14:35 (18)			09:28	12:01 (27)
	22:03		20:42	12 19:40 (76)			16:51	6 14:41 (18)			15:51	21 12:22 (27)
Potential sun hours	546		478		386		319		236		199	
Total, worst case	174		158		61		6		656		703	
Sun reduction	0,50		0,50		0,50		0,50		0,50		0,50	
Oper. time red.	0,80		0,80		0,80		0,80		0,80		0,80	
Wind dir. red.	0,73		0,68		0,68		0,55		0,58		0,63	
Total reduction	0,29		0,27		0,27		0,22		0,23		0,25	
Total, real	51		43		16		1		151		177	

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)		Last time (hh:mm) with flicker	(WTG causing flicker last time)

SHADOW - Calendar

Calculation: Oppdatert layout - real case med vindrose - med nærliggende - oppdatert mottaker **Shadow receptor:** R - Buevegen 2165 (18)

Assumptions for shadow calculations

Sunshine probability S/S0 (Sun hours/Possible sun hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
644 231 315 644 959 714 721 455 378 420 574 938 6 993

	January		February		March		April		May		June	
1	09:28	12:35 (27)	08:45	14:09 (13)	07:35	07:06	05:44	20:15 (79)	04:39			
	15:52	20 12:55 (27)	16:56	5 14:14 (13)	18:04	20:16	21:26	1 20:16 (79)	22:30			
2	09:27	12:36 (27)	08:43		07:32	07:04	05:41	20:14 (79)	04:38			
	15:54	21 12:57 (27)	16:58		18:07	20:19	21:28	2 20:16 (79)	22:32			
3	09:27	12:36 (27)	08:41		07:30	07:01	05:38	20:14 (79)	04:37			
	15:55	21 12:57 (27)	17:01		18:09	20:21	21:30	4 20:18 (79)	22:33			
4	09:26	12:37 (27)	08:39		07:27	06:58	05:36	20:14 (79)	04:36			
	15:57	20 12:57 (27)	17:03		18:12	20:23	21:33	5 20:19 (79)	22:35			
5	09:26	12:37 (27)	08:37		07:24	06:55	05:33	20:13 (79)	04:34			
	15:58	20 12:57 (27)	17:06		18:14	20:26	21:35	7 20:20 (79)	22:36			
6	09:25	12:38 (27)	08:34		07:21	06:52	05:31	20:14 (79)	04:33			
	16:00	20 12:58 (27)	17:08		18:16	20:28	21:37	7 20:21 (79)	22:38			
7	09:24	12:38 (27)	08:32		07:18	06:49	05:29	20:15 (79)	04:32			
	16:01	20 12:58 (27)	17:11		18:19	20:30	21:39	8 20:23 (79)	22:39			
8	09:23	12:39 (27)	08:30		07:16	06:46	05:26	20:16 (79)	04:31			
	16:03	20 12:59 (27)	17:13		18:21	20:33	21:42	10 20:26 (79)	22:40			
9	09:23	12:39 (27)	08:27		07:13	06:44	05:24	20:17 (79)	04:31			
	16:05	19 12:58 (27)	17:15		18:23	20:35	21:44	11 20:29 (78)	22:41			
10	09:22	12:40 (27)	08:25		07:10	06:41	19:41 (77)	05:21	20:24 (78)	04:30		
	16:07	19 12:59 (27)	17:18		18:26	20:37	19:46 (77)	21:46	7 20:31 (78)	22:43		
11	09:21	12:40 (27)	08:22		07:07	06:38	19:38 (77)	05:19	20:22 (78)	04:29		
	16:09	19 12:59 (27)	17:20		18:28	20:39	19:48 (77)	21:49	9 20:31 (78)	22:44		
12	09:19	12:42 (27)	08:20		07:04	06:35	19:37 (77)	05:17	20:22 (78)	04:29		
	16:10	23 14:09 (13)	17:23		18:30	20:42	19:49 (77)	21:51	9 20:31 (78)	22:45		
13	09:18	12:42 (27)	08:17		07:01	06:32	19:37 (77)	05:15	20:21 (78)	04:28		
	16:12	27 14:11 (13)	17:25		18:33	20:44	19:50 (77)	21:53	11 20:32 (78)	22:46		
14	09:17	12:44 (27)	08:15		06:58	06:29	19:36 (77)	05:12	20:21 (78)	04:27		
	16:14	27 14:13 (13)	17:28		18:35	20:46	19:50 (77)	21:55	12 20:33 (78)	22:46		
15	09:16	12:45 (27)	08:12		06:56	06:27	19:35 (77)	05:10	20:21 (78)	04:27		
	16:17	27 14:14 (13)	17:30		18:37	20:49	19:49 (77)	21:57	14 20:35 (78)	22:47		
16	09:14	12:46 (27)	08:10		06:53	06:24	19:36 (77)	05:08	20:21 (78)	04:27		
	16:19	26 14:15 (13)	17:33		18:40	20:51	19:49 (77)	21:59	14 20:35 (78)	22:48		
17	09:13	12:48 (27)	08:07		06:50	06:21	19:36 (77)	05:06	20:21 (78)	04:27		
	16:21	25 14:16 (13)	17:35		18:42	20:53	19:48 (77)	22:02	14 20:35 (78)	22:48		
18	09:11	13:59 (13)	08:05		06:47	06:18	19:37 (77)	05:04	20:21 (78)	04:26		
	16:23	18 14:17 (13)	17:38		18:44	20:56	19:46 (77)	22:04	15 20:36 (78)	22:49		
19	09:10	13:59 (13)	08:02		06:44	06:16	19:40 (77)	05:02	20:21 (78)	04:26		
	16:25	18 14:17 (13)	17:40		18:47	20:58	19:43 (77)	22:06	16 20:37 (78)	22:49		
20	09:08	13:59 (13)	07:59		06:41	06:13		05:00	20:22 (78)	04:26		
	16:27	19 14:18 (13)	17:43		18:49	21:00		22:08	16 20:38 (78)	22:50		
21	09:07	13:59 (13)	07:57		06:38	06:10		04:58	20:23 (78)	04:26		
	16:30	20 14:19 (13)	17:45		18:51	21:03		22:10	15 20:38 (78)	22:50		
22	09:05	13:59 (13)	07:54		06:35	06:07		04:56	20:23 (78)	04:27		
	16:32	20 14:19 (13)	17:47		18:54	21:05		22:12	15 20:38 (78)	22:50		
23	09:03	13:59 (13)	07:51		06:32	06:05		04:54	20:24 (78)	04:27		
	16:34	21 14:20 (13)	17:50		18:56	21:07		22:14	14 20:38 (78)	22:50		
24	09:01	14:00 (13)	07:49		06:30	06:02		04:52	20:25 (78)	04:27		
	16:36	20 14:20 (13)	17:52		18:58	21:09		22:16	11 20:36 (78)	22:50		
25	09:00	14:00 (13)	07:46		06:27	05:59		04:50	20:26 (78)	04:28		
	16:39	21 14:21 (13)	17:55		19:00	21:12		22:18	10 20:36 (78)	22:50		
26	08:58	14:01 (13)	07:43		06:24	05:57		04:49	20:28 (78)	04:28		
	16:41	20 14:21 (13)	17:57		19:03	21:14		22:20	6 20:34 (78)	22:50		
27	08:56	14:01 (13)	07:41		06:21	05:54		04:47		04:29		
	16:44	19 14:20 (13)	18:00		19:05	21:16		22:22		22:50		
28	08:54	14:02 (13)	07:38		06:18	05:51		04:45		04:29		
	16:46	18 14:20 (13)	18:02		19:07	21:19		22:23		22:50		
29	08:52	14:04 (13)			07:15	05:49		04:44		04:30		
	16:48	16 14:20 (13)			20:10	21:21		22:25		22:49		
30	08:50	14:04 (13)			07:12	05:46		04:42		04:31		
	16:51	14 14:18 (13)			20:12	21:23		22:27		22:49		
31	08:48	14:06 (13)			07:09			04:41				
	16:53	11 14:17 (13)			20:14			22:29				
Potential sun hours	221		260		365	432		521		547		
Total, worst case	629		5			105		263				
Sun reduction	0,50		0,50			0,50		0,50				
Oper. time red.	0,80		0,80			0,80		0,80				
Wind dir. red.	0,58		0,55			0,68		0,72				
Total reduction	0,23		0,22			0,27		0,29				
Total, real	146		1			29		75				

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Calculation: Oppdatert layout - real case med vindrose - med nærliggende - oppdatert mottaker **Shadow receptor:** R - Buevegen 2165 (18)

Assumptions for shadow calculations

Sunshine probability S/S0 (Sun hours/Possible sun hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
644 231 315 644 959 714 721 455 378 420 574 938 6 993

	July	August	September	October	November	December				
1	04:32	05:24	20:33 (78)	06:33	19:37 (77)	07:39	07:51	08:59	12:22 (27)	
	22:48	22:01	9 20:42 (78)	20:39	10 19:47 (77)	19:13	16:48	15:51	19 12:41 (27)	
2	04:33	05:26	20:34 (78)	06:35	19:39 (77)	07:41	07:54	09:01	12:23 (27)	
	22:48	21:58	8 20:42 (78)	20:37	5 19:44 (77)	19:10	16:46	15:50	19 12:42 (27)	
3	04:34	05:28	20:30 (79)	06:37		07:44	07:56	09:03	12:23 (27)	
	22:47	21:56	8 20:40 (78)	20:34		19:07	16:44	15:49	20 12:43 (27)	
4	04:35	05:30	20:26 (79)	06:39		07:46	07:58	09:05	12:23 (27)	
	22:46	21:54	10 20:37 (78)	20:31		19:04	16:41	15:48	20 12:43 (27)	
5	04:36	05:33	20:25 (79)	06:42		07:48	08:01	09:07	12:24 (27)	
	22:46	21:51	9 20:35 (79)	20:28		19:01	16:39	15:47	20 12:44 (27)	
6	04:37	05:35	20:24 (79)	06:44		07:50	08:03	09:08	12:24 (27)	
	22:45	21:49	8 20:32 (79)	20:25		18:58	16:36	15:46	20 12:44 (27)	
7	04:38	05:37	20:23 (79)	06:46		07:53	08:06	09:10	12:24 (27)	
	22:44	21:46	7 20:30 (79)	20:22		18:56	16:34	15:45	21 12:45 (27)	
8	04:40	05:39	20:23 (79)	06:48		07:55	08:08	09:12	12:25 (27)	
	22:43	21:44	6 20:29 (79)	20:19		18:53	16:32	15:44	20 12:45 (27)	
9	04:41	05:41	20:23 (79)	06:50		07:57	08:10	09:13	12:24 (27)	
	22:42	21:41	5 20:28 (79)	20:17		18:50	16:30	15:44	21 12:45 (27)	
10	04:42	05:44	20:23 (79)	06:53		07:59	08:13	09:15	12:25 (27)	
	22:40	21:39	4 20:27 (79)	20:14		18:47	16:27	7 13:39 (13)	15:43	21 12:46 (27)
11	04:44	05:46	20:23 (79)	06:55		08:02	08:15	13:37 (13)	09:16	12:26 (27)
	22:39	21:36	2 20:25 (79)	20:11		18:44	16:25	11 13:48 (13)	15:43	21 12:47 (27)
12	04:45	05:48		06:57		08:04	08:18	13:36 (13)	09:17	12:26 (27)
	22:38	21:34		20:08		18:42	16:23	14 13:50 (13)	15:42	20 12:46 (27)
13	04:47	05:50		06:59		08:06	08:20	13:35 (13)	09:19	12:27 (27)
	22:36	21:31		20:05		18:39	16:21	17 13:52 (13)	15:42	20 12:47 (27)
14	04:49	05:53		07:01		08:09	08:22	13:34 (13)	09:20	12:27 (27)
	22:35	21:29		20:02		18:36	16:19	18 13:52 (13)	15:42	21 12:48 (27)
15	04:50	05:55		07:04		08:11	08:25	13:34 (13)	09:21	12:27 (27)
	22:33	21:26		19:59		18:33	16:17	19 13:53 (13)	15:42	21 12:48 (27)
16	04:52	05:57		07:06		08:13	08:27	13:34 (13)	09:22	12:28 (27)
	22:32	21:23		19:56		18:30	16:15	20 13:54 (13)	15:42	20 12:48 (27)
17	04:54	20:39 (78)	05:59	07:08		08:16	08:29	13:33 (13)	09:23	12:28 (27)
	22:30	3 20:42 (78)	21:21	19:53		18:28	16:13	20 13:53 (13)	15:42	20 12:48 (27)
18	04:56	20:36 (78)	06:02	07:10		08:18	08:32	13:34 (13)	09:24	12:29 (27)
	22:29	8 20:44 (78)	21:18	19:50		18:25	16:11	20 13:54 (13)	15:42	20 12:49 (27)
19	04:57	20:35 (78)	06:04	07:12		08:20	08:34	13:34 (13)	09:25	12:30 (27)
	22:27	11 20:46 (78)	21:15	19:48		18:22	16:09	21 13:55 (13)	15:42	20 12:50 (27)
20	04:59	20:34 (78)	06:06	07:15		08:23	08:36	13:34 (13)	09:25	12:30 (27)
	22:25	13 20:47 (78)	21:13	19:45		18:20	16:07	20 13:54 (13)	15:42	20 12:50 (27)
21	05:01	20:33 (78)	06:08	07:17		08:25	08:38	13:35 (13)	09:26	12:30 (27)
	22:23	14 20:47 (78)	21:10	19:42		18:17	16:06	20 13:55 (13)	15:43	20 12:50 (27)
22	05:03	20:33 (78)	06:10	07:19		08:27	08:41	13:35 (13)	09:27	12:31 (27)
	22:21	15 20:48 (78)	21:07	19:39		18:14	16:04	19 13:54 (13)	15:43	20 12:51 (27)
23	05:05	20:33 (78)	06:13	07:21		08:30	08:43	13:36 (13)	09:27	12:31 (27)
	22:20	15 20:48 (78)	21:05	19:36		18:11	16:02	19 13:55 (13)	15:44	20 12:51 (27)
24	05:07	20:32 (78)	06:15	19:43 (77)	07:24	08:32	08:45	13:37 (13)	09:27	12:31 (27)
	22:18	16 20:48 (78)	21:02	5 19:48 (77)	19:33	18:09	16:01	18 13:55 (13)	15:44	21 12:52 (27)
25	05:09	20:31 (78)	06:17	19:41 (77)	07:26	07:34	08:47	12:26 (27)	09:28	12:33 (27)
	22:16	16 20:47 (78)	20:59	9 19:50 (77)	19:30	17:06	15:59	25 13:54 (13)	15:45	20 12:53 (27)
26	05:11	20:31 (78)	06:19	19:39 (77)	07:28	07:37	08:49	12:25 (27)	09:28	12:33 (27)
	22:14	15 20:46 (78)	20:56	11 19:50 (77)	19:27	17:04	15:57	26 13:54 (13)	15:46	20 12:53 (27)
27	05:13	20:31 (78)	06:22	19:38 (77)	07:30	07:39	08:51	12:24 (27)	09:28	12:34 (27)
	22:12	14 20:45 (78)	20:54	13 19:51 (77)	19:24	17:01	15:56	27 13:53 (13)	15:47	20 12:54 (27)
28	05:15	20:32 (78)	06:24	19:37 (77)	07:32	07:42	08:54	12:23 (27)	09:28	12:33 (27)
	22:09	14 20:46 (78)	20:51	14 19:51 (77)	19:21	16:58	15:55	27 13:52 (13)	15:47	20 12:53 (27)
29	05:17	20:32 (78)	06:26	19:37 (77)	07:35	07:44	08:56	12:23 (27)	09:28	12:34 (27)
	22:07	13 20:45 (78)	20:48	13 19:50 (77)	19:19	16:56	15:53	27 13:52 (13)	15:49	20 12:54 (27)
30	05:20	20:32 (78)	06:28	19:36 (77)	07:37	07:46	08:58	12:23 (27)	09:28	12:35 (27)
	22:05	12 20:44 (78)	20:45	14 19:50 (77)	19:16	16:53	15:52	24 13:51 (13)	15:50	20 12:55 (27)
31	05:22	20:32 (78)	06:31	19:37 (77)		07:49		09:28		12:35 (27)
	22:03	10 20:42 (78)	20:42	12 19:49 (77)		16:51		15:51	20 12:55 (27)	
Potential sun hours	546	478		386		319	236	199		
Total, worst case	189		167		15			419		625
Sun reduction	0,50		0,50		0,50			0,50		0,50
Oper. time red.	0,80		0,80		0,80			0,80		0,80
Wind dir. red.	0,72		0,70		0,68			0,56		0,62
Total reduction	0,29		0,28		0,27			0,23		0,25
Total, real	54		46		4			94		154

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Calculation: Oppdatert layout - real case med vindrose - med nærliggende - oppdatert mottaker **Shadow receptor:** S - Vaule 176 (19)

Assumptions for shadow calculations

Sunshine probability S/S0 (Sun hours/Possible sun hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
644 231 315 644 959 714 721 455 378 420 574 938 6 993

	January	February	March	April	May	June		
1	09:28	13:54 (27)	08:45	15:13 (13)	07:35	07:06	05:43	
	15:52	8 14:02 (27)	16:56	13 15:26 (13)	18:04	20:16	21:26	
2	09:27	13:55 (27)	08:43	15:12 (13)	07:32	07:04	05:41	20:29 (78)
	15:54	9 14:04 (27)	16:58	16 15:28 (13)	18:07	20:19	21:28	6 20:35 (78)
3	09:27	13:54 (27)	08:41	15:11 (13)	07:29	07:01	05:38	20:28 (78)
	15:55	11 14:05 (27)	17:01	17 15:28 (13)	18:09	20:21	21:30	9 20:37 (78)
4	09:26	13:54 (27)	08:39	15:11 (13)	07:27	06:58	05:36	20:27 (78)
	15:57	12 14:06 (27)	17:03	18 15:29 (13)	18:12	20:23	21:33	10 20:37 (78)
5	09:26	13:54 (27)	08:37	15:11 (13)	07:24	06:55	05:33	20:26 (78)
	15:58	13 14:07 (27)	17:06	18 15:29 (13)	18:14	20:26	21:35	12 20:38 (78)
6	09:25	13:54 (27)	08:34	15:11 (13)	07:21	06:52	05:31	20:25 (78)
	16:00	14 14:08 (27)	17:08	19 15:30 (13)	18:16	20:28	21:37	13 20:38 (78)
7	09:24	13:54 (27)	08:32	15:11 (13)	07:18	06:49	05:29	20:25 (78)
	16:01	15 14:09 (27)	17:10	19 15:30 (13)	18:19	20:30	21:39	14 20:39 (78)
8	09:23	13:54 (27)	08:30	15:11 (13)	07:15	06:46	05:26	20:25 (78)
	16:03	17 14:11 (27)	17:13	18 15:29 (13)	18:21	20:32	21:42	14 20:39 (78)
9	09:23	13:53 (27)	08:27	15:12 (13)	07:13	06:44	05:24	20:26 (78)
	16:05	18 14:11 (27)	17:15	18 15:30 (13)	18:23	20:35	21:44	13 20:39 (78)
10	09:22	13:54 (27)	08:25	15:12 (13)	07:10	06:41	05:21	20:25 (78)
	16:07	18 14:12 (27)	17:18	17 15:29 (13)	18:26	20:37	21:46	12 20:37 (78)
11	09:20	13:53 (27)	08:22	15:13 (13)	07:07	06:38	05:19	20:26 (78)
	16:09	19 14:12 (27)	17:20	15 15:28 (13)	18:28	20:39	21:48	11 20:37 (78)
12	09:19	13:54 (27)	08:20	15:15 (13)	07:04	06:35	05:17	20:27 (78)
	16:10	19 14:13 (27)	17:23	12 15:27 (13)	18:30	20:42	21:51	9 20:36 (78)
13	09:18	13:53 (27)	08:17	15:17 (13)	07:01	06:32	05:14	20:29 (78)
	16:12	21 14:14 (27)	17:25	7 15:24 (13)	18:33	20:44	21:53	5 20:34 (78)
14	09:17	13:54 (27)	08:15		06:58	06:29	05:12	04:27
	16:14	21 14:15 (27)	17:28		18:35	20:46	21:55	22:46
15	09:16	13:54 (27)	08:12		06:56	06:27	05:10	04:27
	16:16	21 14:15 (27)	17:30		18:37	20:49	21:57	22:47
16	09:14	13:54 (27)	08:10		06:53	06:24	05:08	04:27
	16:19	21 14:15 (27)	17:33		18:40	20:51	21:59	22:48
17	09:13	13:54 (27)	08:07		06:50	06:21	05:06	20:57 (80)
	16:21	22 14:16 (27)	17:35		18:42	20:53	22:02	1 20:58 (80)
18	09:11	13:55 (27)	08:05		06:47	06:18	05:04	20:56 (80)
	16:23	21 14:16 (27)	17:38		18:44	20:56	22:04	3 20:59 (80)
19	09:10	13:55 (27)	08:02		06:44	06:15	05:02	20:56 (80)
	16:25	21 14:16 (27)	17:40		18:47	20:58	22:06	5 21:01 (80)
20	09:08	13:56 (27)	07:59		06:41	06:13	05:00	20:55 (80)
	16:27	20 14:16 (27)	17:43		18:49	21:00	22:08	7 21:02 (80)
21	09:07	13:56 (27)	07:57		06:38	06:10	04:58	20:56 (80)
	16:30	20 14:16 (27)	17:45		18:51	21:02	22:10	11 21:07 (80)
22	09:05	13:57 (27)	07:54		06:35	06:07	04:56	20:55 (80)
	16:32	19 14:16 (27)	17:47		18:53	21:05	22:12	13 21:08 (80)
23	09:03	13:58 (27)	07:51		06:32	06:05	04:54	20:56 (80)
	16:34	18 14:16 (27)	17:50		18:56	21:07	22:14	13 21:09 (80)
24	09:01	13:59 (27)	07:49		06:30	06:02	04:52	20:56 (80)
	16:36	17 14:16 (27)	17:52		18:58	21:09	22:16	13 21:09 (80)
25	08:59	14:01 (27)	07:46		06:27	05:59	04:50	20:57 (80)
	16:39	14 14:15 (27)	17:55		19:00	21:12	22:18	12 21:09 (80)
26	08:58	14:01 (27)	07:43		06:24	05:57	04:49	20:57 (80)
	16:41	13 14:14 (27)	17:57		19:03	21:14	22:20	11 21:08 (80)
27	08:56	14:04 (27)	07:41		06:21	05:54	04:47	20:58 (80)
	16:44	8 14:12 (27)	18:00		19:05	21:16	22:22	10 21:08 (80)
28	08:54		07:38		06:18	05:51	04:45	20:58 (80)
	16:46		18:02		19:07	21:19	22:23	9 21:07 (80)
29	08:52				07:15	05:49	04:44	20:59 (80)
	16:48				20:10	21:21	22:25	8 21:07 (80)
30	08:50	15:16 (13)			07:12	05:46	04:42	21:00 (80)
	16:51	6 15:22 (13)			20:12	21:23	22:27	6 21:06 (80)
31	08:48	15:14 (13)			07:09		04:41	
	16:53	11 15:25 (13)			20:14		22:29	
Potential sun hours	221	260		365	432	521		547
Total, worst case	467	207				250		237
Sun reduction	0,50	0,50				0,50		0,50
Oper. time red.	0,80	0,80				0,80		0,80
Wind dir. red.	0,55	0,55				0,72		0,74
Total reduction	0,22	0,22				0,29		0,29
Total, real	102	45				72		70

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Calculation: Oppdatert layout - real case med vindrose - med nærliggende - oppdatert mottaker **Shadow receptor:** S - Vaule 176 (19)

Assumptions for shadow calculations

Sunshine probability S/S0 (Sun hours/Possible sun hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
644 231 315 644 959 714 721 455 378 420 574 938 6 993

	July	August	September	October	November	December	
1	04:32	21:36 (81) 05:24	20:38 (78) 06:33	07:39	07:51	14:42 (13) 08:59	13:35 (27)
	22:48	9 21:45 (81) 22:01	9 20:47 (78) 20:39	19:13	16:48	16 14:58 (13) 15:51	19 13:54 (27)
2	04:33	21:37 (81) 05:26	20:37 (78) 06:35	07:41	07:53	14:41 (13) 09:01	13:37 (27)
	22:48	8 21:45 (81) 21:58	11 20:48 (78) 20:37	19:10	16:46	18 14:59 (13) 15:50	18 13:55 (27)
3	04:34	21:38 (81) 05:28	20:35 (78) 06:37	07:44	07:56	14:40 (13) 09:03	13:37 (27)
	22:47	7 21:45 (81) 21:56	13 20:48 (78) 20:34	19:07	16:44	19 14:59 (13) 15:49	18 13:55 (27)
4	04:35	21:39 (81) 05:30	20:35 (78) 06:39	07:46	07:58	14:40 (13) 09:05	13:38 (27)
	22:46	5 21:44 (81) 21:54	13 20:48 (78) 20:31	19:04	16:41	19 14:59 (13) 15:48	17 13:55 (27)
5	04:36	21:40 (81) 05:32	20:35 (78) 06:42	07:48	08:01	14:41 (13) 09:07	13:39 (27)
	22:45	3 21:43 (81) 21:51	13 20:48 (78) 20:28	19:01	16:39	19 15:00 (13) 15:47	16 13:55 (27)
6	04:37	05:35	20:35 (78) 06:44	07:50	08:03	14:41 (13) 09:08	13:40 (27)
	22:45	21:49	13 20:48 (78) 20:25	18:58	16:36	19 15:00 (13) 15:46	14 13:54 (27)
7	04:38	05:37	20:35 (78) 06:46	07:53	08:06	14:41 (13) 09:10	13:41 (27)
	22:44	21:46	12 20:47 (78) 20:22	18:56	16:34	18 14:59 (13) 15:45	13 13:54 (27)
8	04:40	05:39	20:35 (78) 06:48	07:55	08:08	14:42 (13) 09:12	13:42 (27)
	22:43	21:44	12 20:47 (78) 20:19	18:53	16:32	17 14:59 (13) 15:44	12 13:54 (27)
9	04:41	05:41	20:36 (78) 06:50	07:57	08:10	14:43 (13) 09:13	13:42 (27)
	22:41	21:41	10 20:46 (78) 20:16	18:50	16:30	15 14:58 (13) 15:44	11 13:53 (27)
10	04:42	05:44	20:38 (78) 06:53	07:59	08:13	14:43 (13) 09:15	13:44 (27)
	22:40	21:39	8 20:46 (78) 20:14	18:47	16:27	14 14:57 (13) 15:43	9 13:53 (27)
11	04:44	05:46	20:40 (78) 06:55	08:02	08:15	14:45 (13) 09:16	13:45 (27)
	22:39	21:36	4 20:44 (78) 20:11	18:44	16:25	11 14:56 (13) 15:43	8 13:53 (27)
12	04:45	05:48	06:57	08:04	08:18	14:48 (13) 09:17	13:46 (27)
	22:38	21:34	20:08	18:41	16:23	5 14:53 (13) 15:42	6 13:52 (27)
13	04:47	21:10 (80) 05:50	06:59	08:06	08:20	09:19	13:49 (27)
	22:36	4 21:14 (80) 21:31	20:05	18:39	16:21	15:42	3 13:52 (27)
14	04:49	21:08 (80) 05:53	07:01	08:09	08:22	09:20	
	22:35	7 21:15 (80) 21:29	20:02	18:36	16:19	15:42	
15	04:50	21:08 (80) 05:55	07:04	08:11	08:25	13:37 (27) 09:21	
	22:33	8 21:16 (80) 21:26	19:59	18:33	16:17	8 13:45 (27) 15:42	
16	04:52	21:07 (80) 05:57	07:06	08:13	08:27	13:35 (27) 09:22	
	22:32	10 21:17 (80) 21:23	19:56	18:30	16:15	12 13:47 (27) 15:42	
17	04:54	21:07 (80) 05:59	07:08	08:16	08:29	13:33 (27) 09:23	
	22:30	11 21:18 (80) 21:21	19:53	18:28	16:13	15 13:48 (27) 15:42	
18	04:56	21:06 (80) 06:01	07:10	08:18	08:32	13:33 (27) 09:24	
	22:29	12 21:18 (80) 21:18	19:50	18:25	16:11	17 13:50 (27) 15:42	
19	04:57	21:06 (80) 06:04	07:12	08:20	08:34	13:33 (27) 09:25	
	22:27	12 21:18 (80) 21:15	19:47	18:22	16:09	18 13:51 (27) 15:42	
20	04:59	21:06 (80) 06:06	07:15	08:23	08:36	13:32 (27) 09:25	
	22:25	13 21:19 (80) 21:13	19:45	18:19	16:07	19 13:51 (27) 15:42	
21	05:01	21:05 (80) 06:08	07:17	08:25	08:38	13:32 (27) 09:26	
	22:23	13 21:18 (80) 21:10	19:42	18:17	16:06	20 13:52 (27) 15:43	
22	05:03	21:06 (80) 06:10	07:19	08:27	08:41	13:32 (27) 09:27	
	22:21	11 21:17 (80) 21:07	19:39	18:14	16:04	20 13:52 (27) 15:43	
23	05:05	21:06 (80) 06:13	07:21	08:30	08:43	13:32 (27) 09:27	
	22:20	9 21:16 (80) 21:05	19:36	18:11	16:02	21 13:53 (27) 15:44	
24	05:07	21:06 (80) 06:15	07:23	08:32	08:45	13:33 (27) 09:27	
	22:18	6 21:12 (80) 21:02	19:33	18:09	16:00	21 13:54 (27) 15:44	
25	05:09	21:06 (80) 06:17	07:26	07:34	08:47	13:32 (27) 09:28	
	22:16	4 21:10 (80) 20:59	19:30	17:06	15:59	22 13:54 (27) 15:45	
26	05:11	21:07 (80) 06:19	07:28	07:37	08:49	13:33 (27) 09:28	
	22:14	2 21:09 (80) 20:56	19:27	17:04	15:57	21 13:54 (27) 15:46	
27	05:13	06:22	07:30	07:39	08:51	13:33 (27) 09:28	
	22:11	20:53	19:24	17:01	15:56	21 13:54 (27) 15:47	
28	05:15	06:24	07:32	07:41	08:53	13:33 (27) 09:28	
	22:09	20:51	19:21	16:58	15:55	21 13:54 (27) 15:47	
29	05:17	06:26	07:35	07:44	08:55	13:35 (27) 09:28	
	22:07	20:48	19:18	16:56	8 14:54 (13) 15:53	20 13:55 (27) 15:48	
30	05:19	06:28	07:37	07:46	08:57	13:35 (27) 09:28	
	22:05	20:45	19:16	16:53	13 14:57 (13) 15:52	19 13:54 (27) 15:50	
31	05:22	20:40 (78) 06:31	07:49	07:49	14:42 (13) 09:28		13:56 (27)
	22:03	6 20:46 (78) 20:42	16:51	15 14:57 (13) 15:51	4 14:00 (27)		
Potential sun hours	546	478	386	319	236	199	
Total, worst case	160	118		36	485	168	
Sun reduction	0,50	0,50		0,50	0,50	0,50	
Oper. time red.	0,80	0,80		0,80	0,80	0,80	
Wind dir. red.	0,73	0,72		0,55	0,55	0,55	
Total reduction	0,29	0,29		0,22	0,22	0,22	
Total, real	47	34		8	106	37	

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)		Last time (hh:mm) with flicker	(WTG causing flicker last time)

SHADOW - Calendar

Calculation: Oppdatert layout - real case med vindrose - med nærliggende - oppdatert mottaker **Shadow receptor:** T - Vaule 247 (20)

Assumptions for shadow calculations

Sunshine probability S/S0 (Sun hours/Possible sun hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
644 231 315 644 959 714 721 455 378 420 574 938 6 993

	January	February	March	April	May	June			
1	09:28	08:45	10:57 (38)	07:35	16:28 (18)	07:06	05:44	04:39	21:26 (78)
	15:52	16:56	41 13:51 (27)	18:04	11 16:39 (18)	20:16	21:26	22:30	2 21:28 (78)
2	09:27	08:43	10:59 (38)	07:32	16:27 (18)	07:04	05:41	04:38	21:24 (78)
	15:54	16:58	37 13:51 (27)	18:07	14 16:41 (18)	20:19	21:28	22:32	6 21:30 (78)
3	09:27	08:41	11:02 (38)	07:30	16:27 (18)	07:01	05:38	04:37	21:23 (78)
	15:55	17:01	27 13:49 (27)	18:09	15 16:42 (18)	20:21	21:30	22:33	8 21:31 (78)
4	09:26	08:39	13:29 (27)	07:27	16:27 (18)	06:58	05:36	04:36	21:23 (78)
	15:57	17:03	20 13:49 (27)	18:12	18 16:45 (18)	20:23	21:33	22:35	9 21:32 (78)
5	09:26	08:37	13:30 (27)	07:24	16:28 (18)	06:55	05:33	04:34	21:22 (78)
	15:58	17:06	17 13:47 (27)	18:14	18 16:46 (18)	20:26	21:35	22:36	11 21:33 (78)
6	09:25	08:34	13:34 (27)	07:21	16:28 (18)	06:52	05:31	04:33	21:22 (78)
	16:00	17:08	11 13:45 (27)	18:16	17 16:45 (18)	20:28	21:37	22:38	11 21:33 (78)
7	09:24	08:32	07:18	18:19	15 16:44 (18)	20:30	21:39	22:39	12 21:33 (78)
	16:01	17:11	07:15	18:21	12 16:42 (18)	20:32	21:42	22:40	13 21:35 (78)
8	09:23	08:30	07:13	18:23	5 16:38 (18)	20:35	21:44	22:41	13 21:35 (78)
	16:03	17:13	07:10	18:26		06:41	05:21	04:30	21:22 (78)
9	09:23	08:27	07:13	18:23		20:37	21:46	22:43	13 21:35 (78)
	16:05	17:15	07:07	18:26		06:38	05:19	04:29	21:22 (78)
10	09:22	08:25	14:55 (8)	07:07		20:39	21:48	22:44	13 21:35 (78)
	16:07	17:18	15:02 (8)	18:28		06:35	05:17	04:29	21:22 (78)
11	09:20	08:22	14:57 (8)	07:04		20:42	21:51	22:45	14 21:36 (78)
	16:09	17:20	15:07 (8)	18:30		06:32	05:15	04:28	21:22 (78)
12	09:19	08:20	15:11 (13)	18:33		20:44	21:53	22:45	14 21:36 (78)
	16:11	17:23	15:02 (8)	06:58		06:29	05:12	04:28	21:22 (78)
13	09:18	11:01 (38)	15:15 (13)	18:35		20:46	21:55	22:46	14 21:36 (78)
	16:12	5 11:06 (38)	15:06 (13)	06:56		06:27	05:10	04:27	21:22 (78)
14	09:17	10:57 (38)	15:19 (13)	18:37		20:49	21:57	22:47	15 21:37 (78)
	16:14	11 11:08 (38)	15:06 (13)	06:53		06:24	05:08	04:27	21:23 (78)
15	09:16	10:52 (38)	15:22 (13)	18:40		20:51	21:59	22:48	14 21:37 (78)
	16:17	17 11:09 (38)	15:05 (13)	06:50		06:21	05:06	04:27	21:22 (78)
16	09:14	10:52 (38)	15:21 (13)	18:42		20:53	22:02	22:48	15 21:37 (78)
	16:19	18 11:10 (38)	15:05 (13)	06:47		06:18	05:04	04:26	21:22 (78)
17	09:13	10:51 (38)	15:20 (13)	18:44		20:56	22:04	22:49	15 21:37 (78)
	16:21	19 11:10 (38)	15:06 (13)	06:44		06:16	05:02	04:26	21:23 (78)
18	09:11	10:51 (38)	15:23 (13)	18:47		20:58	22:06	22:49	15 21:38 (78)
	16:23	20 11:11 (38)	15:07 (13)	06:41		06:13	05:00	04:26	21:24 (78)
19	09:10	10:51 (38)	15:25 (13)	18:49		21:00	22:08	22:50	14 21:38 (78)
	16:25	21 11:12 (38)	15:07 (13)	06:38		06:10	04:58	04:26	21:24 (78)
20	09:08	10:51 (38)	15:28 (13)	18:51		21:02	22:10	22:50	14 21:38 (78)
	16:27	22 11:13 (38)	15:08 (13)	06:35		06:07	04:56	04:27	21:24 (78)
21	09:07	10:51 (38)	15:28 (13)	18:53		21:05	22:12	22:50	14 21:38 (78)
	16:30	23 12:45 (33)	15:09 (13)	06:32		06:05	04:54	04:27	21:23 (78)
22	09:05	10:51 (38)	15:27 (13)	18:56		21:07	22:14	22:50	15 21:38 (78)
	16:32	35 12:57 (33)	15:12 (13)	06:30		06:02	04:52	04:27	21:24 (78)
23	09:03	10:51 (38)	15:26 (13)	18:58		21:09	22:16	22:50	15 21:39 (78)
	16:34	41 13:04 (33)	15:16 (13)	06:27		05:59	04:50	04:28	21:24 (78)
24	09:01	10:52 (38)	15:22 (13)	19:00		21:12	22:18	22:50	15 21:39 (78)
	16:37	40 13:04 (33)	19:05	06:24		05:57	04:49	04:28	21:25 (78)
25	08:59	10:52 (38)	19:03	06:24		21:14	22:20	22:50	14 21:39 (78)
	16:39	39 13:04 (33)	19:05	06:24		05:54	04:47	04:29	21:25 (78)
26	08:58	10:52 (38)	19:05	06:24		21:16	22:22	22:50	14 21:39 (78)
	16:41	40 13:25 (27)	19:05	06:18		05:51	04:45	04:29	21:25 (78)
27	08:56	10:53 (38)	19:07	06:18		21:19	22:23	22:50	14 21:39 (78)
	16:44	42 13:31 (27)	19:07	06:18		05:49	04:44	04:30	21:25 (78)
28	08:54	10:53 (38)	19:07	06:18		21:21	22:25	22:49	14 21:39 (78)
	16:46	46 13:41 (27)	19:07	06:18		05:46	04:42	04:31	21:25 (78)
29	08:52	10:54 (38)	19:07	06:18		21:23	22:27	22:49	14 21:39 (78)
	16:48	42 13:45 (27)	19:07	06:18			04:41		
30	08:50	10:55 (38)	19:07	06:18					
	16:51	43 13:48 (27)	19:07	06:18					
31	08:48	10:56 (38)	19:07	06:18					
	16:53	43 13:50 (27)	20:14	365	432	521	547		
Potential sun hours	221	260	365						
Total, worst case	567	374	125						384
Sun reduction	0,50	0,50	0,50						0,50
Oper. time red.	0,80	0,80	0,80						0,80
Wind dir. red.	0,66	0,57	0,57						0,74
Total reduction	0,26	0,23	0,23						0,29
Total, real	150	85	28						113

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Calculation: Oppdatert layout - real case med vindrose - med nærliggende - oppdatert mottaker **Shadow receptor:** T - Vaule 247 (20)

Assumptions for shadow calculations

Sunshine probability S/S0 (Sun hours/Possible sun hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
644 231 315 644 959 714 721 455 378 420 574 938 6 993

	July	August	September	October	November	December
1	04:32	21:26 (78)	05:24	06:33	07:39	07:51
	22:48	21:40 (78)	05:24	06:39	07:45	08:59
2	04:33	21:26 (78)	05:26	06:35	07:41	07:54
	22:48	21:40 (78)	05:28	06:37	07:44	07:56
3	04:34	21:27 (78)	05:28	06:37	07:44	07:56
	22:47	21:40 (78)	05:30	06:39	07:46	07:58
4	04:35	21:27 (78)	05:30	06:39	07:46	07:58
	22:46	21:40 (78)	05:33	06:42	07:48	08:01
5	04:36	21:28 (78)	05:33	06:42	07:48	08:01
	22:45	21:40 (78)	05:35	06:44	07:50	08:03
6	04:37	21:28 (78)	05:35	06:44	07:50	08:03
	22:45	21:40 (78)	05:39	06:48	07:55	08:08
7	04:38	21:28 (78)	05:37	06:46	07:53	08:06
	22:44	21:39 (78)	05:41	06:50	07:57	08:10
8	04:40	21:29 (78)	05:39	06:48	07:55	08:08
	22:43	21:39 (78)	05:41	06:50	07:57	08:10
9	04:41	21:29 (78)	05:41	06:50	07:57	08:10
	22:41	21:38 (78)	05:44	06:53	07:59	08:13
10	04:42	21:31 (78)	05:44	06:53	07:59	08:13
	22:40	21:38 (78)	05:46	06:55	08:02	08:15
11	04:44	21:32 (78)	05:46	06:55	08:02	08:15
	22:39	21:37 (78)	05:48	06:57	08:04	08:18
12	04:45	21:33 (78)	05:48	06:57	08:04	08:18
	22:38	21:34	05:50	06:59	08:06	08:20
13	04:47	21:34	05:50	06:59	08:06	08:20
	22:36	21:31	05:53	07:01	08:09	08:22
14	04:49	21:35	05:53	07:01	08:09	08:22
	22:35	21:29	05:55	07:04	08:11	08:25
15	04:50	21:35	05:55	07:04	08:11	08:25
	22:33	21:26	05:57	07:06	08:13	08:27
16	04:52	21:36	05:57	07:06	08:13	08:27
	22:32	21:23	05:59	07:08	08:16	08:29
17	04:54	21:37	05:59	07:08	08:16	08:29
	22:30	21:21	06:02	07:10	08:18	08:32
18	04:56	21:38	06:02	07:10	08:18	08:32
	22:29	21:18	06:04	07:12	08:20	08:34
19	04:57	21:39	06:04	07:12	08:20	08:34
	22:27	21:15	06:06	07:15	08:23	08:36
20	04:59	21:40	06:06	07:15	08:23	08:36
	22:25	21:13	06:08	07:17	08:25	08:38
21	05:01	21:41	06:08	07:17	08:25	08:38
	22:23	21:10	06:13	07:21	08:30	08:43
22	05:03	21:42	06:10	07:19	08:27	08:41
	22:21	21:07	06:15	07:24	08:32	08:45
23	05:05	21:43	06:13	07:21	08:30	08:43
	22:20	21:05	06:15	07:24	08:32	08:45
24	05:07	21:44	06:15	07:24	08:32	08:45
	22:18	21:02	06:17	07:26	08:34	08:47
25	05:09	21:45	06:17	07:26	08:34	08:47
	22:16	20:59	06:22	07:30	08:39	08:51
26	05:11	21:46	06:19	07:28	08:37	08:49
	22:14	20:56	06:24	07:32	08:41	08:53
27	05:13	21:47	06:22	07:30	08:39	08:51
	22:11	20:53	06:26	07:35	08:44	08:55
28	05:15	21:48	06:24	07:32	08:41	08:53
	22:09	20:51	06:28	07:37	08:46	08:57
29	05:17	21:49	06:26	07:35	08:44	08:55
	22:07	20:48	06:31	07:40	08:50	09:02
30	05:20	21:50	06:28	07:37	08:46	08:57
	22:05	20:45	06:33	07:42	08:52	09:04
31	05:22	21:51	06:31	07:40	08:50	09:02
	22:03	20:42	06:39	07:48	09:00	09:12
Potential sun hours	546	478	386	319	236	199
Total, worst case	120			343	725	
Sun reduction	0,50			0,50	0,50	
Oper. time red.	0,80			0,80	0,80	
Wind dir. red.	0,74			0,56	0,65	
Total reduction	0,29			0,22	0,26	
Total, real	35			76	188	

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)		Last time (hh:mm) with flicker	(WTG causing flicker last time)

SHADOW - Calendar

Calculation: Oppdatert layout - real case med vindrose - med nærliggende - oppdatert mottaker **Shadow receptor:** U - Store Svæla, eiendom 60/5, Bjerkreim kommune (21)

Assumptions for shadow calculations

Sunshine probability S/S0 (Sun hours/Possible sun hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
644 231 315 644 959 714 721 455 378 420 574 938 6 993

	January	February	March	April	May	June	
1	09:27	08:45	15:29 (9) 07:35	15:43 (14) 07:06	05:43	18:53 (38) 04:39	
	15:52	16:56 21	15:50 (9) 18:04	16:21 (14) 20:16	21:25	19:19 (38) 22:30	
2	09:27	08:43	15:29 (9) 07:32	15:43 (14) 07:04	05:41	18:54 (38) 04:38	
	15:54	16:58 23	15:52 (9) 18:07	16:20 (14) 20:19	21:28	19:17 (38) 22:32	
3	09:27	08:41	15:29 (9) 07:29	15:43 (14) 07:01	05:38	18:56 (38) 04:37	
	15:55	17:01 23	15:52 (9) 18:09	16:19 (14) 20:21	21:30	19:15 (38) 22:33	
4	09:26	08:39	15:29 (9) 07:27	15:44 (14) 06:58	19:04 (38) 05:36	19:00 (38) 04:36	
	15:57	17:03 23	15:52 (9) 18:11	16:18 (14) 20:23	19:19 (38) 21:32	19:12 (38) 22:35	
5	09:25	08:36	15:29 (9) 07:24	15:46 (14) 06:55	19:00 (38) 05:33	04:35	
	15:58	17:06 23	15:52 (9) 18:14	16:18 (14) 20:25	19:22 (38) 21:35	22:36	
6	09:25	08:34	15:28 (9) 07:21	15:47 (14) 06:52	18:57 (38) 05:31	04:33	
	16:00	17:08 24	15:52 (9) 18:16	16:16 (14) 20:28	19:24 (38) 21:37	22:37	
7	09:24	08:32	15:29 (9) 07:18	15:48 (14) 06:49	18:55 (38) 05:29	04:32	
	16:01	17:10 23	15:52 (9) 18:19	16:15 (14) 20:30	19:25 (38) 21:39	22:39	
8	09:23	08:29	15:29 (9) 07:15	15:50 (14) 06:46	18:53 (38) 05:26	04:32	
	16:03	17:13 23	15:52 (9) 18:21	16:12 (14) 20:32	19:26 (38) 21:42	22:40	
9	09:22	08:27	15:30 (9) 07:13	15:52 (14) 06:43	18:52 (38) 05:24	04:31	
	16:05	17:15 22	15:52 (9) 18:23	16:10 (14) 20:35	19:57 (27) 21:44	22:41	
10	09:21	08:25	15:31 (9) 07:10	15:57 (14) 06:41	18:51 (38) 05:21	04:30	
	16:07	17:18 20	15:51 (9) 18:26	16:05 (14) 20:37	19:58 (27) 21:46	22:42	
11	09:20	08:22	15:31 (9) 07:07	06:38	18:49 (38) 05:19	04:29	
	16:09	17:20 19	15:50 (9) 18:28	20:39	19:58 (27) 21:48	22:43	
12	09:19	08:20	15:33 (9) 07:04	06:35	18:48 (38) 05:17	04:29	
	16:11	17:23 16	15:49 (9) 18:30	20:42	19:58 (27) 21:50	22:44	
13	09:18	08:17	15:35 (9) 07:01	06:32	18:48 (38) 05:15	04:28	
	16:12	17:25 16	16:05 (14) 18:33	20:44	19:59 (27) 21:53	22:45	
14	09:17	08:15	15:38 (9) 06:58	06:29	18:47 (38) 05:12	04:28	
	16:14	17:28 21	16:10 (14) 18:35	20:46	19:58 (27) 21:55	22:46	
15	09:15	08:12	15:52 (14) 06:55	06:27	18:46 (38) 05:10	04:27	
	16:17	17:30 21	16:13 (14) 18:37	20:48	19:57 (27) 21:57	22:47	
16	09:14	08:10	15:51 (14) 06:53	17:31 (33) 06:24	18:46 (38) 05:08	04:27	
	16:19	17:33 25	16:16 (14) 18:40	6 17:37 (33) 20:51	63 19:57 (27) 21:59	22:47	
17	09:13	08:07	15:49 (14) 06:50	17:27 (33) 06:21	18:45 (38) 05:06	04:27	
	16:21	17:35 28	16:17 (14) 18:42	13 17:40 (33) 20:53	61 19:55 (27) 22:01	22:48	
18	09:11	08:04	15:48 (14) 06:47	17:25 (33) 06:18	18:45 (38) 05:04	04:26	
	16:23	17:38 30	16:18 (14) 18:44	16 17:41 (33) 20:55	58 19:54 (27) 22:04	22:49	
19	09:10	08:02	15:46 (14) 06:44	17:23 (33) 06:15	18:45 (38) 05:02	04:26	
	16:25	17:40 33	16:19 (14) 18:46	19 17:42 (33) 20:58	55 19:52 (27) 22:06	22:49	
20	09:08	07:59	15:46 (14) 06:41	17:22 (33) 06:13	18:45 (38) 05:00	04:26	
	16:27	17:43 34	16:20 (14) 18:49	20 17:42 (33) 21:00	44 19:29 (38) 22:08	22:49	
21	09:06	07:57	15:45 (14) 06:38	17:21 (33) 06:10	18:45 (38) 04:58	04:26	
	16:30	17:45 36	16:21 (14) 18:51	22 17:43 (33) 21:02	43 19:28 (38) 22:10	22:50	
22	09:05	07:54	15:44 (14) 06:35	17:20 (33) 06:07	18:45 (38) 04:56	04:27	
	16:32	17:47 37	16:21 (14) 18:53	22 17:42 (33) 21:05	43 19:28 (38) 22:12	22:50	
23	09:03	07:51	15:44 (14) 06:32	17:20 (33) 06:05	18:45 (38) 04:54	04:27	
	16:34	17:50 37	16:21 (14) 18:56	22 17:42 (33) 21:07	42 19:27 (38) 22:14	22:50	
24	09:01	07:49	15:43 (14) 06:29	17:20 (33) 06:02	18:46 (38) 04:52	04:27	
	16:36	17:52 38	16:21 (14) 18:58	22 17:42 (33) 21:09	41 19:27 (38) 22:16	22:50	
25	08:59	07:46	15:44 (14) 06:27	17:20 (33) 05:59	18:46 (38) 04:50	04:28	
	16:39	17:55 38	16:22 (14) 19:00	21 17:41 (33) 21:12	40 19:26 (38) 22:18	22:50	
26	08:57	07:43	15:43 (14) 06:24	17:20 (33) 05:57	18:47 (38) 04:49	04:28	
	16:41	17:57 39	16:22 (14) 19:03	20 17:40 (33) 21:14	38 19:25 (38) 22:20	22:50	
27	08:55	15:35 (9) 07:40	15:43 (14) 06:21	17:22 (33) 05:54	18:47 (38) 04:47	04:29	
	16:44	8 15:43 (9) 18:00	39 16:22 (14) 19:05	17 17:39 (33) 21:16	37 19:24 (38) 22:21	22:50	
28	08:54	15:33 (9) 07:38	15:43 (14) 06:18	17:23 (33) 05:51	18:49 (38) 04:45	04:29	
	16:46	13 15:46 (9) 18:02	38 16:21 (14) 19:07	14 17:37 (33) 21:19	34 19:23 (38) 22:23	22:49	
29	08:51	15:31 (9) 07:15	07:15	18:25 (33) 05:49	18:49 (38) 04:44	04:30	
	16:48	16 15:47 (9) 20:09	10 18:35 (33) 21:21	33 19:22 (38) 22:25	04:31	22:49	
30	08:49	15:31 (9) 07:12	07:12	05:46	18:51 (38) 04:42	04:31	22:49
	16:51	17 15:48 (9) 20:12	30 19:21 (38) 22:27	04:41	22:27	22:49	04:31
31	08:47	15:29 (9) 07:09	07:09	04:41	22:28	22:49	04:31
	16:53	20 15:49 (9) 20:14	20:14	22:28	22:49	04:31	04:31
Potential sun hours	221	260	365	432	521	547	
Total, worst case	74	770	525	1202	80		
Sun reduction	0,50	0,50	0,50	0,50	0,50		
Oper. time red.	0,80	0,80	0,80	0,80	0,80		
Wind dir. red.	0,53	0,54	0,58	0,68	0,68		
Total reduction	0,21	0,22	0,23	0,27	0,27		
Total, real	16	167	122	327	22		

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)		Last time (hh:mm) with flicker	(WTG causing flicker last time)

SHADOW - Calendar

Calculation: Oppdatert layout - real case med vindrose - med nærliggende - oppdatert mottaker **Shadow receptor:** U - Store Sveta, eiendom 60/5, Bjerkreim kommune (21)

Assumptions for shadow calculations

Sunshine probability S/S0 (Sun hours/Possible sun hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
644 231 315 644 959 714 721 455 378 420 574 938 6 993

	July	August	September	October	November	December
1	04:32	05:24	06:33	18:48 (38)	07:39	07:51
	22:48	22:00	20:39	19:57 (27)	19:13	16:48
2	04:33	05:26	06:35	18:49 (38)	07:41	07:53
	22:47	21:58	20:36	19:56 (27)	19:10	16:46
3	04:34	05:28	06:37	18:49 (38)	07:43	07:56
	22:47	21:56	20:34	19:54 (27)	19:07	16:44
4	04:35	05:30	06:39	18:51 (38)	07:46	16:31 (14)
	22:46	21:53	20:31	19:24 (38)	19:04	16:45 (14)
5	04:36	05:33	06:42	18:52 (38)	07:48	16:27 (14)
	22:45	21:51	20:28	19:22 (38)	19:01	16:48 (14)
6	04:37	05:35	06:44	18:53 (38)	07:50	16:25 (14)
	22:44	21:49	20:25	19:20 (38)	18:58	16:50 (14)
7	04:38	05:37	06:46	18:55 (38)	07:52	16:23 (14)
	22:43	21:46	20:22	19:17 (38)	18:55	16:51 (14)
8	04:40	05:39	19:13 (38)	06:48	18:58 (38)	07:55
	22:42	21:44	19:16 (38)	20:19	19:13 (38)	18:53
9	04:41	05:41	19:07 (38)	06:50	07:57	16:20 (14)
	22:41	21:41	19:22 (38)	20:16	18:50	16:53 (14)
10	04:42	05:44	19:05 (38)	06:53	07:59	16:18 (14)
	22:40	21:39	19:25 (38)	20:13	18:47	16:53 (14)
11	04:44	05:46	19:03 (38)	06:55	08:02	16:18 (14)
	22:39	21:36	19:27 (38)	20:11	18:44	16:54 (14)
12	04:45	05:48	19:01 (38)	06:57	08:04	16:17 (14)
	22:37	21:34	19:28 (38)	20:08	18:41	16:54 (14)
13	04:47	05:50	18:59 (38)	06:59	08:06	16:16 (14)
	22:36	21:31	19:29 (38)	20:05	18:39	16:54 (14)
14	04:49	05:53	18:57 (38)	07:01	18:16 (33)	08:08
	22:35	21:28	19:30 (38)	20:02	8	18:24 (33)
15	04:50	05:55	18:56 (38)	07:04	18:13 (33)	08:11
	22:33	21:26	19:31 (38)	19:59	13	18:26 (33)
16	04:52	05:57	18:55 (38)	07:06	18:11 (33)	08:13
	22:32	21:23	19:32 (38)	19:56	16	18:27 (33)
17	04:54	05:59	18:53 (38)	07:08	18:09 (33)	08:15
	22:30	21:21	19:32 (38)	19:53	19	18:28 (33)
18	04:56	06:01	18:52 (38)	07:10	18:08 (33)	08:18
	22:28	21:18	19:32 (38)	19:50	20	18:28 (33)
19	04:57	06:04	18:51 (38)	07:12	18:07 (33)	08:20
	22:27	21:15	19:33 (38)	19:47	22	18:29 (33)
20	04:59	06:06	18:51 (38)	07:15	18:07 (33)	08:22
	22:25	21:13	19:33 (38)	19:44	22	18:29 (33)
21	05:01	06:08	18:50 (38)	07:17	18:06 (33)	08:25
	22:23	21:10	19:33 (38)	19:42	22	18:28 (33)
22	05:03	06:10	18:49 (38)	07:19	18:06 (33)	08:27
	22:21	21:07	19:33 (38)	19:39	21	18:27 (33)
23	05:05	06:13	18:49 (38)	07:21	18:06 (33)	08:29
	22:19	21:04	19:52 (27)	19:36	20	18:26 (33)
24	05:07	06:15	18:48 (38)	07:23	18:07 (33)	08:32
	22:17	21:02	19:55 (27)	19:33	19	18:26 (33)
25	05:09	06:17	18:49 (38)	07:26	18:07 (33)	07:34
	22:15	20:59	19:57 (27)	19:30	17	18:24 (33)
26	05:11	06:19	18:48 (38)	07:28	18:08 (33)	07:37
	22:13	20:56	19:58 (27)	19:27	14	18:22 (33)
27	05:13	06:22	18:48 (38)	07:30	18:10 (33)	07:39
	22:11	20:53	19:59 (27)	19:24	9	18:19 (33)
28	05:15	06:24	18:48 (38)	07:32	07:41	15:07 (9)
	22:09	20:51	19:59 (27)	19:21	16	16:53 (27)
29	05:17	06:26	18:48 (38)	07:34	16:58	15:39 (14)
	22:07	20:48	19:59 (27)	19:18	21	15:39 (14)
30	05:20	06:28	18:48 (38)	07:37	07:44	15:04 (9)
	22:05	20:45	19:59 (27)	19:16	13	15:17 (9)
31	05:22	06:30	18:48 (38)	07:39	07:46	15:03 (9)
	22:03	20:42	19:58 (27)	19:13	16	15:52 (14)
Potential sun hours	545	478	386	319	236	200
Total, worst case		1011	532	832	297	
Sun reduction		0,50	0,50	0,50	0,50	
Oper. time red.		0,80	0,80	0,80	0,80	
Wind dir. red.		0,68	0,65	0,55	0,53	
Total reduction		0,27	0,26	0,22	0,21	
Total, real		275	138	183	62	

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)		Last time (hh:mm) with flicker	(WTG causing flicker last time)

SHADOW - Calendar

Calculation: Oppdatert layout - real case med vindrose - med nærliggende - oppdatert mottaker Shadow receptor: V - Osland 45 (22)
Assumptions for shadow calculations

Sunshine probability S/S0 (Sun hours/Possible sun hours) []
Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
644 231 315 644 959 714 721 455 378 420 574 938 6 993

Table with columns for months (January to December) and rows for time slots (09:28 to 16:54). Includes summary rows for potential sun hours, total reduction, and real reduction.

Table layout: For each day in each month the following matrix apply

Day in month Sun rise (hh:mm) Sun set (hh:mm) Minutes with flicker First time (hh:mm) with flicker Last time (hh:mm) with flicker (WTG causing flicker first time) (WTG causing flicker last time)

SHADOW - Calendar

Calculation: Oppdatert layout - real case med vindrose - med nærliggende - oppdatert mottaker **Shadow receptor:** W - Osland 85 (23)

Assumptions for shadow calculations

Sunshine probability S/S0 (Sun hours/Possible sun hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
644 231 315 644 959 714 721 455 378 420 574 938 6 993

	January		February		March		April		May		June	
1	09:28		12:21 (25)	08:46		10:00 (29)	07:35	07:07		05:44	07:10 (76)	04:40
	15:53	20	12:41 (25)	16:56	20	10:20 (29)	18:05	20:17		21:26	11 07:21 (76)	22:31
2	09:28		12:21 (25)	08:44		09:59 (29)	07:33	07:04		05:41	06:28 (79)	04:38
	15:54	20	12:41 (25)	16:58	20	10:19 (29)	18:07	20:19		21:28	15 07:19 (76)	22:32
3	09:27		12:22 (25)	08:41		10:00 (29)	07:30	07:01		05:39	06:26 (79)	04:37
	15:55	19	12:41 (25)	17:01	20	10:20 (29)	18:09	20:21		21:31	10 06:36 (79)	22:34
4	09:27		12:22 (25)	08:39		10:00 (29)	07:27	06:58		05:36	06:25 (79)	04:36
	15:57	20	12:42 (25)	17:03	20	10:20 (29)	18:12	20:24		21:33	12 06:37 (79)	22:35
5	09:26		11:11 (24)	08:37		10:01 (29)	07:24	06:55		05:34	06:25 (79)	04:35
	15:58	25	12:42 (25)	17:06	19	10:20 (29)	18:14	20:26		21:35	13 06:38 (79)	22:37
6	09:25		11:10 (24)	08:35		10:01 (29)	07:21	06:52		05:31	06:24 (79)	04:34
	16:00	27	12:42 (25)	17:08	18	10:19 (29)	18:17	20:28		21:37	13 06:37 (79)	22:38
7	09:25		11:10 (24)	08:32		10:01 (29)	07:19	06:50		05:29	06:24 (79)	04:33
	16:02	28	12:42 (25)	17:11	17	10:18 (29)	18:19	20:31		21:40	13 06:37 (79)	22:39
8	09:24		11:09 (24)	08:30		10:03 (29)	07:16	06:47		05:26	06:24 (79)	04:32
	16:03	29	12:42 (25)	17:13	15	10:18 (29)	18:21	20:33		21:42	13 06:37 (79)	22:41
9	09:23		11:09 (24)	08:27		10:04 (29)	07:13	06:44		05:24	06:25 (79)	04:31
	16:05	30	12:42 (25)	17:16	12	10:16 (29)	18:24	20:35		21:44	12 06:37 (79)	22:42
10	09:22		11:08 (24)	08:25		10:07 (29)	07:10	06:41		05:22	06:25 (79)	04:30
	16:07	30	12:42 (25)	17:18	5	10:12 (29)	18:26	20:37		21:47	11 06:36 (79)	22:43
11	09:21		11:09 (24)	08:23			07:07	06:38		05:19	06:26 (79)	04:29
	16:09	29	12:42 (25)	17:21			18:28	20:40		21:49	9 06:35 (79)	22:44
12	09:20		11:08 (24)	08:20			07:04	06:35		05:17	06:28 (79)	04:29
	16:11	27	12:40 (25)	17:23			18:31	20:42		21:51	6 06:34 (79)	22:45
13	09:19		11:08 (24)	08:18			07:02	06:33		05:15		04:28
	16:13	25	12:39 (25)	17:26			18:33	20:44		21:53		22:46
14	09:17		11:08 (24)	08:15			06:59	06:30		05:13		04:28
	16:15	20	11:28 (24)	17:28			18:35	20:47		21:55		22:47
15	09:16		11:08 (24)	08:13			06:56	06:27		05:10		04:27
	16:17	21	11:29 (24)	17:31			18:38	20:49		21:58		22:47
16	09:15		11:08 (24)	08:10			06:53	06:24		05:08		04:27
	16:19	21	11:29 (24)	17:33			18:40	20:51		22:00		22:48
17	09:13		11:09 (24)	08:08			06:50	06:21		05:06		04:27
	16:21	22	11:31 (24)	17:36			18:42	20:54	3	07:11 (77)	05:06	22:49
											07:14 (77)	22:02
18	09:12		11:09 (24)	08:05			06:47	06:19		05:04		04:27
	16:23	22	11:31 (24)	17:38			18:45	20:56	9	07:17 (77)	22:04	22:49
19	09:10		11:09 (24)	08:02			06:44	06:16		05:02		04:27
	16:25	22	11:31 (24)	17:40			18:47	20:58	12	07:17 (77)	22:06	22:50
20	09:09		11:09 (24)	08:00			06:41	06:13		05:00		04:27
	16:28	23	11:32 (24)	17:43			18:49	21:01	18	07:22 (76)	22:08	22:50
21	09:07		11:09 (24)	07:57			06:39	06:10		04:58		04:27
	16:30	23	11:32 (24)	17:45			18:52	21:03	20	07:24 (76)	22:10	22:50
22	09:05		11:10 (24)	07:54			06:36	06:08		04:56		04:27
	16:32	22	11:32 (24)	17:48			18:54	21:05	22	07:25 (76)	22:12	22:50
23	09:03		11:10 (24)	07:52			06:33	06:05		04:54		04:27
	16:34	22	11:32 (24)	17:50			18:56	21:07	22	07:26 (76)	22:14	22:51
24	09:02		11:10 (24)	07:49			06:30	06:02		04:52		04:27
	16:37	22	11:32 (24)	17:53			18:58	21:10	22	07:25 (76)	22:16	22:51
25	09:00		10:05 (29)	07:46			06:27	06:00		04:51		04:28
	16:39	27	11:32 (24)	17:55			19:01	21:12	22	07:26 (76)	22:18	22:51
26	08:58		10:03 (29)	07:44			06:24	05:57		04:49		04:28
	16:42	31	11:32 (24)	17:57			19:03	21:14	20	07:25 (76)	22:20	22:50
27	08:56		10:02 (29)	07:41			06:21	05:54		04:47		04:29
	16:44	32	11:31 (24)	18:00			19:05	21:17	19	07:26 (76)	22:22	22:50
28	08:54		10:00 (29)	07:38			06:18	05:52		04:46		04:30
	16:46	32	11:30 (24)	18:02			19:08	21:19	16	07:24 (76)	22:24	22:50
29	08:52		10:00 (29)				07:15	05:49		04:44		04:30
	16:49	30	11:29 (24)				20:10	21:21	16	07:24 (76)	22:26	22:50
30	08:50		09:59 (29)				07:13	05:46		04:43		04:31
	16:51	29	11:27 (24)				20:12	21:24	14	07:22 (76)	22:27	22:49
31	08:48		09:59 (29)				07:10			04:41		
	16:54	20	10:19 (29)				20:14			22:29		
Potential sun hours	221		260				365	432		521		547
Total, worst case		770		166				235		138		
Sun reduction		0,50		0,50				0,50		0,50		
Oper. time red.		0,80		0,80				0,80		0,80		
Wind dir. red.		0,67		0,72				0,60		0,59		
Total reduction		0,27		0,29				0,24		0,24		
Total, real		207		48				57		33		

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)		Last time (hh:mm) with flicker	(WTG causing flicker last time)

SHADOW - Calendar

Calculation: Oppdatert layout - real case med vindrose - med nærliggende - oppdatert mottaker **Shadow receptor:** W - Osland 85 (23)

Assumptions for shadow calculations

Sunshine probability S/S0 (Sun hours/Possible sun hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
644 231 315 644 959 714 721 455 378 420 574 938 6 993

	July	August	September	October	November	December
1	04:32	05:24	06:37 (79)	06:33	07:39	07:51
	22:49	22:01	06:45 (79)	20:40	19:13	16:49
2	04:33	05:26	06:36 (79)	06:35	07:42	07:54
	22:48	21:59	06:46 (79)	20:37	19:10	16:46
3	04:34	05:28	06:35 (79)	06:38	07:44	07:56
	22:47	21:56	06:47 (79)	20:34	19:07	16:44
4	04:35	05:31	06:35 (79)	06:40	07:46	07:59
	22:47	21:54	06:47 (79)	20:31	19:04	16:41
5	04:36	05:33	06:34 (79)	06:42	07:48	08:01
	22:46	21:52	06:48 (79)	20:28	19:02	16:39
6	04:37	05:35	06:34 (79)	06:44	07:51	08:03
	22:45	21:49	06:48 (79)	20:25	18:59	16:37
7	04:39	05:37	06:34 (79)	06:46	07:53	08:06
	22:44	21:47	06:48 (79)	20:23	18:56	16:34
8	04:40	05:39	06:34 (79)	06:49	07:55	08:08
	22:43	21:44	06:47 (79)	20:20	18:53	16:32
9	04:41	05:42	06:35 (79)	06:51	07:57	08:11
	22:42	21:42	06:46 (79)	20:17	18:50	16:30
10	04:43	05:44	06:36 (79)	06:53	08:00	08:13
	22:41	21:39	06:45 (79)	20:14	18:47	16:28
11	04:44	05:46	06:37 (79)	06:55	08:02	08:15
	22:39	21:37	07:29 (76)	20:11	18:45	16:26
12	04:46	05:48	07:18 (76)	06:57	08:04	08:18
	22:38	21:34	07:30 (76)	20:08	18:42	16:23
13	04:47	05:51	07:17 (76)	07:00	08:07	08:20
	22:37	21:32	07:31 (76)	20:05	18:39	16:21
14	04:49	05:53	07:16 (76)	07:02	08:09	08:23
	22:35	21:29	07:32 (76)	20:02	18:36	16:19
15	04:51	05:55	07:15 (76)	07:04	08:11	08:25
	22:34	21:26	07:32 (76)	19:59	18:33	16:17
16	04:52	05:57	07:13 (77)	07:06	08:14	08:27
	22:32	21:24	07:32 (76)	19:57	18:31	16:15
17	04:54	06:00	07:11 (77)	07:08	08:16	08:30
	22:31	21:21	07:32 (76)	19:54	18:28	16:13
18	04:56	06:02	07:10 (77)	07:11	08:18	08:32
	22:29	21:18	07:32 (76)	19:51	18:25	16:11
19	04:58	06:04	07:09 (77)	07:13	08:21	08:34
	22:27	21:16	07:31 (76)	19:48	18:23	16:09
20	05:00	06:06	07:09 (77)	07:15	08:23	08:36
	22:25	21:13	07:31 (76)	19:45	18:20	16:08
21	05:02	06:09	07:09 (77)	07:17	08:25	08:39
	22:24	21:10	07:30 (76)	19:42	18:17	16:06
22	05:03	06:11	07:08 (77)	07:19	08:28	08:41
	22:22	21:08	07:29 (76)	19:39	18:14	16:04
23	05:05	06:13	07:08 (77)	07:22	08:30	08:43
	22:20	21:05	07:26 (76)	19:36	18:12	16:02
24	05:07	06:15	07:09 (77)	07:24	08:32	08:45
	22:18	21:02	07:21 (77)	19:33	18:09	16:01
25	05:09	06:17	07:11 (77)	07:26	07:35	08:48
	22:16	20:59	07:19 (77)	19:30	17:07	15:59
26	05:11	06:20	07:14 (77)	07:28	07:37	08:50
	22:14	20:57	07:16 (77)	19:27	17:04	15:58
27	05:14	06:22		07:30	07:39	08:52
	22:12	20:54		19:25	17:01	15:56
28	05:16	06:24		07:33	07:42	08:54
	22:10	20:51		19:22	16:59	15:55
29	05:18	06:26		07:35	07:44	08:56
	22:08	20:48		19:19	16:56	15:54
30	05:20	06:29		07:37	07:47	08:58
	22:05	20:45		19:16	16:54	15:52
31	05:22	06:31		07:40	07:49	09:01
	22:03	20:43		16:51	15:51	15:51
Potential sun hours	546	478	386	319	236	199
Total, worst case	1	380			663	699
Sun reduction	0,50	0,50			0,50	0,50
Oper. time red.	0,80	0,80			0,80	0,80
Wind dir. red.	0,59	0,60			0,70	0,64
Total reduction	0,24	0,24			0,28	0,25
Total, real	0	91			185	177

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)		Last time (hh:mm) with flicker	(WTG causing flicker last time)

SHADOW - Calendar

Calculation: Oppdatert layout - real case med vindrose - med nærliggende - oppdatert mottaker **Shadow receptor:** X - Osland 65 (24)

Assumptions for shadow calculations

Sunshine probability S/S0 (Sun hours/Possible sun hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
644 231 315 644 959 714 721 455 378 420 574 938 6 993

	January	February	March	April	May	June				
1	09:28	11:14 (24)	08:46	10:11 (29)	07:35	07:07	05:44	06:33 (79)	04:40	
	15:53	31 12:43 (25)	16:56	18	10:29 (29)	18:05	20:17	21:26	14 06:47 (79)	22:31
2	09:28	11:14 (24)	08:44	10:11 (29)	07:33	07:04	05:41	06:33 (79)	04:38	
	15:54	30 12:43 (25)	16:58	17	10:28 (29)	18:07	20:19	21:28	14 06:47 (79)	22:32
3	09:27	11:13 (24)	08:41	10:13 (29)	07:30	07:01	05:39	06:33 (79)	04:37	
	15:55	31 12:43 (25)	17:01	14	10:27 (29)	18:09	20:21	21:31	13 06:46 (79)	22:34
4	09:27	11:13 (24)	08:39	10:14 (29)	07:27	06:58	05:36	06:33 (79)	04:36	
	15:57	31 12:43 (25)	17:03	11	10:25 (29)	18:12	20:24	21:33	13 06:46 (79)	22:35
5	09:26	11:14 (24)	08:37	10:17 (29)	07:24	06:55	05:34	06:34 (79)	04:35	
	15:58	29 12:43 (25)	17:06	6	10:23 (29)	18:14	20:26	21:35	12 06:46 (79)	22:37
6	09:25	11:14 (24)	08:35		07:21	06:52	05:31	06:34 (79)	04:34	
	16:00	28 12:42 (25)	17:08		18:17	20:28	21:37	10 06:44 (79)	22:38	
7	09:25	11:14 (24)	08:32		07:19	06:50	05:29	06:35 (79)	04:33	
	16:02	26 12:41 (25)	17:11		18:19	20:31	21:40	8 06:43 (79)	22:39	
8	09:24	11:15 (24)	08:30		07:16	06:47	05:26	06:38 (79)	04:32	
	16:03	20 11:35 (24)	17:13		18:21	20:33	21:42	2 06:40 (79)	22:41	
9	09:23	11:15 (24)	08:27		07:13	06:44	05:24		04:31	
	16:05	21 11:36 (24)	17:16		18:24	20:35	21:44		22:42	
10	09:22	11:15 (24)	08:25		07:10	06:41	05:22		04:30	
	16:07	21 11:36 (24)	17:18		18:26	20:37	21:47		22:43	
11	09:21	11:15 (24)	08:23		07:07	06:38	05:19		04:29	
	16:09	22 11:37 (24)	17:21		18:28	20:40	21:49		22:44	
12	09:20	11:15 (24)	08:20		07:04	06:35	05:17		04:29	
	16:11	22 11:37 (24)	17:23		18:31	20:42	21:51		22:45	
13	09:19	11:16 (24)	08:18		07:02	06:33	05:15		04:28	
	16:13	22 11:38 (24)	17:26		18:33	20:44	21:53		22:46	
14	09:17	11:16 (24)	08:15		06:59	06:30	05:13		04:28	
	16:15	22 11:38 (24)	17:28		18:35	20:47	21:55		22:47	
15	09:16	11:16 (24)	08:13		06:56	06:27	05:10		04:27	
	16:17	22 11:38 (24)	17:31		18:38	20:49	21:58		22:47	
16	09:15	11:16 (24)	08:10		06:53	06:24	05:08		04:27	
	16:19	22 11:38 (24)	17:33		18:40	20:51	22:00		22:48	
17	09:13	11:18 (24)	08:08		06:50	06:21	05:06		04:27	
	16:21	21 11:39 (24)	17:36		18:42	20:54	22:02		22:49	
18	09:12	11:18 (24)	08:05		06:47	06:19	05:04		04:27	
	16:23	21 11:39 (24)	17:38		18:45	20:56	22:04		22:49	
19	09:10	10:13 (29)	08:02		06:44	06:16	05:02		04:27	
	16:25	27 11:39 (24)	17:40		18:47	20:58	22:06		22:50	
20	09:09	10:12 (29)	08:00		06:41	06:13	05:00		04:27	
	16:28	30 11:39 (24)	17:43		18:49	21:01	22:08		22:50	
21	09:07	10:11 (29)	07:57		06:39	06:10	04:58		04:27	
	16:30	32 11:39 (24)	17:45		18:52	21:03	22:10		22:50	
22	09:05	10:10 (29)	07:54		06:36	06:08	04:56		04:27	
	16:32	32 11:38 (24)	17:48		18:54	21:05	22:12		22:51	
23	09:03	10:09 (29)	07:52		06:33	06:05	04:54		04:27	
	16:34	31 11:37 (24)	17:50		18:56	21:07	22:14		22:51	
24	09:02	10:09 (29)	07:49		06:30	06:02	04:52		04:27	
	16:37	29 11:36 (24)	17:53		18:58	21:10	22:16		22:51	
25	09:00	10:09 (29)	07:46		06:27	06:00	04:51		04:28	
	16:39	26 11:34 (24)	17:55		19:01	21:12	22:18		22:51	
26	08:58	10:09 (29)	07:44		06:24	05:57	04:49		04:28	
	16:41	19 10:28 (29)	17:57		19:03	21:14	22:20		22:51	
27	08:56	10:09 (29)	07:41		06:21	05:54	04:47		04:29	
	16:44	20 10:29 (29)	18:00		19:05	21:17	22:22		22:50	
28	08:54	10:09 (29)	07:38		06:18	05:52	04:46		04:30	
	16:46	19 10:28 (29)	18:02		19:08	21:19	22:24		22:50	
29	08:52	10:09 (29)			07:15	05:49	04:44		04:30	
	16:49	20 10:29 (29)			20:10	21:21	22:26		22:50	
30	08:50	10:09 (29)			07:13	05:46	04:43		04:31	
	16:51	19 10:28 (29)			20:12	21:24	22:27		22:49	
31	08:48	10:10 (29)			07:10		04:41			
	16:54	19 10:29 (29)			20:14		22:29			
Potential sun hours	221	260	365	432	521	547				
Total, worst case	765	66		305	86					
Sun reduction	0,50	0,50		0,50	0,50					
Oper. time red.	0,80	0,80		0,80	0,80					
Wind dir. red.	0,68	0,72		0,62	0,59					
Total reduction	0,27	0,29		0,25	0,24					
Total, real	208	19		76	20					

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Calculation: Oppdatert layout - real case med vindrose - med nærliggende - oppdatert mottaker **Shadow receptor:** X - Osland 65 (24)

Assumptions for shadow calculations

Sunshine probability S/S0 (Sun hours/Possible sun hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
644 231 315 644 959 714 721 455 378 420 574 938 6 993

	July	August	September	October	November	December
1	04:32	05:24	06:33	07:39	07:51	09:00
	22:49	22:01	20:40	19:13	16:49	15:51
2	04:33	05:26	06:35	07:42	07:54	09:02
	22:48	21:59	20:37	19:10	16:46	15:50
3	04:34	05:28	06:38	07:44	07:56	09:04
	22:47	21:56	20:34	19:07	16:44	15:49
4	04:35	05:31	06:40	07:46	07:59	09:05
	22:47	21:54	20:31	19:04	16:41	15:48
5	04:36	05:33	06:47 (79)	07:48	08:01	09:07
	22:46	21:52	20:28	19:02	16:39	15:47
6	04:37	05:35	06:45 (79)	07:51	08:03	09:09
	22:45	21:49	20:25	18:59	16:37	15:46
7	04:39	05:37	06:44 (79)	07:53	08:06	09:10
	22:44	21:47	20:23	18:56	16:34	15:45
8	04:40	05:39	06:43 (79)	07:55	08:08	09:12
	22:43	21:44	20:20	18:53	16:32	15:45
9	04:41	05:42	06:42 (79)	07:57	08:11	09:14
	22:42	21:42	20:17	18:50	16:30	15:44
10	04:43	05:44	06:42 (79)	08:00	08:13	09:15
	22:41	21:39	20:14	18:47	16:28	15:44
11	04:44	05:46	06:42 (79)	08:02	08:15	09:16
	22:39	21:37	20:11	18:45	16:26	15:43
12	04:46	05:48	06:42 (79)	08:04	08:18	09:18
	22:38	21:34	20:08	18:42	16:23	15:43
13	04:47	05:51	06:42 (79)	08:07	08:20	09:19
	22:37	21:32	20:05	18:39	16:21	15:42
14	04:49	05:53	06:43 (79)	08:09	08:23	09:20
	22:35	21:29	20:02	18:36	16:19	15:42
15	04:51	05:55	06:44 (79)	08:11	08:25	09:21
	22:34	21:26	19:59	18:33	16:17	15:42
16	04:52	05:57	07:06	08:14	08:27	09:22
	22:32	21:24	19:57	18:31	16:15	15:42
17	04:54	06:00	07:31 (76)	08:16	08:30	09:23
	22:31	21:21	19:54	18:28	16:13	15:42
18	04:56	06:02	07:29 (76)	08:11	08:32	09:24
	22:29	21:18	19:51	18:25	16:11	15:42
19	04:58	06:04	07:27 (76)	08:13	08:34	09:25
	22:27	21:16	19:48	18:23	16:09	15:42
20	05:00	06:06	07:27 (76)	08:15	08:36	09:26
	22:25	21:13	19:45	18:20	16:08	15:43
21	05:01	06:09	07:22 (77)	08:17	08:39	09:26
	22:24	21:10	19:42	18:17	16:06	15:43
22	05:03	06:11	07:20 (77)	08:19	08:41	09:27
	22:22	21:08	19:39	18:14	16:04	15:43
23	05:05	06:13	07:19 (77)	08:22	08:43	09:27
	22:20	21:05	19:36	18:12	16:02	15:44
24	05:07	06:15	07:18 (77)	08:24	08:45	09:28
	22:18	21:02	19:33	18:09	16:01	15:45
25	05:09	06:17	07:17 (77)	08:26	08:48	09:28
	22:16	20:59	19:30	17:07	15:59	15:45
26	05:11	06:20	07:17 (77)	08:28	08:50	09:28
	22:14	20:57	19:27	17:04	15:58	15:46
27	05:14	06:22	07:16 (77)	08:30	08:52	09:28
	22:12	20:54	19:25	17:01	15:56	15:47
28	05:16	06:24	07:17 (77)	08:33	08:54	09:29
	22:10	20:51	19:22	16:59	15:55	15:48
29	05:18	06:26	07:17 (77)	08:35	08:56	09:29
	22:08	20:48	19:19	16:56	15:54	15:49
30	05:20	06:29	07:18 (77)	08:37	08:58	09:28
	22:05	20:45	19:16	16:54	15:52	15:50
31	05:22	06:31		07:49		09:28
	22:03	20:43		16:51		15:51
Potential sun hours	546	478	386	319	236	199
Total, worst case		394			542	889
Sun reduction		0,50			0,50	0,50
Oper. time red.		0,80			0,80	0,80
Wind dir. red.		0,62			0,70	0,65
Total reduction		0,25			0,28	0,26
Total, real		97			151	231

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)		Last time (hh:mm) with flicker	(WTG causing flicker last time)

SHADOW - Calendar

Calculation: Oppdatert layout - real case med vindrose - med nærliggende - oppdatert mottaker **Shadow receptor:** Y - Brusalivegen 215 (25)
 Sunshine probability S/S0 (Sun hours/Possible sun hours) []

Assumptions for shadow calculations

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
 644 231 315 644 959 714 721 455 378 420 574 938 6 993

	January	February	March	April	May	June
1	09:28 08:46	08:46	07:35	08:18 (63)	07:07	05:44
	15:53 16:56	16:56	18:05	13	08:31 (63)	20:17
2	09:27 08:43	08:43	07:33	08:19 (63)	07:04	05:42
	15:54 16:59	16:59	18:07	10	08:29 (63)	20:19
3	09:27 08:41	08:41	07:30	08:22 (63)	07:01	05:39
	15:56 17:01	17:01	18:10	4	08:26 (63)	20:21
4	09:26 08:39	08:39	07:27		06:58	05:37
	15:57 17:04	17:04	18:12		20:24	21:33
5	09:26 08:37	08:37	07:24		06:55	05:34
	15:59 17:06	17:06	18:14		20:26	21:35
6	09:25 08:34	08:34	07:21		06:53	05:32
	16:00 17:09	17:09	18:17		20:28	21:37
7	09:24 08:32	08:32	07:19	07:48 (62)	06:50	05:29
	16:02 17:11	17:11	18:19	7	07:55 (62)	20:31
8	09:24 08:30	08:30	07:16	07:46 (62)	06:47	05:27
	16:04 17:14	17:14	18:21	10	07:56 (62)	20:33
9	09:23 08:27	08:27	07:13	07:44 (62)	06:44	05:24
	16:06 17:16	17:16	18:24	13	07:57 (62)	20:35
10	09:22 08:25	08:25	07:10	07:44 (62)	06:41	05:22
	16:07 17:19	17:19	18:26	14	07:58 (62)	20:37
11	09:21 08:23	08:23	07:07	07:44 (62)	06:38	05:20
	16:09 17:21	17:21	18:28	14	07:58 (62)	20:40
12	09:20 08:20	08:20	07:04	07:44 (62)	06:36	05:17
	16:11 17:23	17:23	18:31	13	07:57 (62)	20:42
13	09:18 08:18	08:18	07:02	07:44 (62)	06:33	05:15
	16:13 17:26	17:26	18:33	12	07:56 (62)	20:44
14	09:17 08:15	08:15	06:59	07:45 (62)	06:30	05:13
	16:15 17:28	17:28	18:35	10	07:55 (62)	20:47
15	09:16 08:13	08:13	06:56	07:46 (62)	06:27	05:11
	16:17 17:31	17:31	18:38	6	07:52 (62)	20:49
16	09:14 08:10	08:10	06:53		06:24	05:09
	16:19 17:33	17:33	18:40		20:51	22:00
17	09:13 08:07	08:07	06:50		06:22	05:06
	16:21 17:36	17:36	18:42		20:54	22:02
18	09:12 08:05	08:05	06:47		06:19	05:04
	16:24 17:38	17:38	18:45		20:56	22:04
19	09:10 08:02	08:02	06:44		06:16	05:02
	16:26 17:41	17:41	18:47		20:58	22:06
20	09:08 08:00	08:00	06:42		06:13	05:00
	16:28 17:43	17:43	18:49		21:00	22:08
21	09:07 07:57	07:57	06:39		06:11	04:58
	16:30 17:46	17:46	18:52		21:03	22:10
22	09:05 07:54	07:54	08:23 (63)	06:36	06:08	04:56
	16:32 17:48	17:48	5	08:28 (63)	18:54	21:05
23	09:03 07:52	07:52	08:21 (63)	06:33	06:05	04:55
	16:35 17:50	17:50	10	08:31 (63)	18:56	21:07
24	09:02 07:49	07:49	08:18 (63)	06:30	06:02	04:53
	16:37 17:53	17:53	13	08:31 (63)	18:58	21:10
25	09:00 07:46	07:46	08:17 (63)	06:27	06:00	04:51
	16:39 17:55	17:55	15	08:32 (63)	19:01	21:12
26	08:58 07:44	07:44	08:17 (63)	06:24	05:57	04:49
	16:42 17:58	17:58	15	08:32 (63)	19:03	21:14
27	08:56 07:41	07:41	08:17 (63)	06:21	05:54	04:48
	16:44 18:00	18:00	14	08:31 (63)	19:05	21:17
28	08:54 07:38	07:38	08:17 (63)	06:18	05:52	04:46
	16:47 18:02	18:02	14	08:31 (63)	19:08	21:19
29	08:52 07:35	07:35	07:16		05:49	04:44
	16:49 18:05	18:05	20:10		21:21	22:25
30	08:50 07:32	07:32	07:13		05:47	04:43
	16:51 18:07	18:07	20:12		21:24	22:27
31	08:48 07:29	07:29	07:10		05:45	04:41
	16:54 18:10	18:10	20:14		21:27	22:29
Potential sun hours	221	260	365	432	521	547
Total, worst case		86	126		284	963
Sun reduction		0,50	0,50		0,50	0,50
Oper. time red.		0,80	0,80		0,80	0,80
Wind dir. red.		0,73	0,71		0,58	0,58
Total reduction		0,29	0,28		0,23	0,23
Total, real		25	36		66	225

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Calculation: Oppdatert layout - real case med vindrose - med nærliggende - oppdatert mottaker **Shadow receptor:** Y - Brusalivegen 215 (25)

Assumptions for shadow calculations

Sunshine probability S/S0 (Sun hours/Possible sun hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
644 231 315 644 959 714 721 455 378 420 574 938 6 993

July		August		September		October		November		December	
1	04:32	06:18 (1)	05:24	06:33	07:39		08:23 (62)	07:51	09:00		
	22:48	33	06:51 (1)	22:01	20:40		19:13	13	08:36 (62)	16:49	15:52
2	04:33	06:18 (1)	05:27	06:35	07:42		08:22 (62)	07:54	09:01		
	22:48	33	06:51 (1)	21:58	20:37		19:10	14	08:36 (62)	16:47	15:50
3	04:34	06:17 (1)	05:29	06:38	07:44		08:21 (62)	07:56	09:03		
	22:47	34	06:51 (1)	21:56	20:34		19:07	14	08:35 (62)	16:44	15:49
4	04:35	06:18 (1)	05:31	06:40	07:46		08:22 (62)	07:59	09:05		
	22:46	33	06:51 (1)	21:54	20:31		19:05	13	08:35 (62)	16:42	15:48
5	04:37	06:18 (1)	05:33	06:42	07:48		08:22 (62)	08:01	09:07		
	22:46	33	06:51 (1)	21:51	20:28		19:02	12	08:34 (62)	16:39	15:47
6	04:38	06:19 (1)	05:35	06:44	07:51		08:23 (62)	08:03	09:09		
	22:45	34	06:53 (1)	21:49	20:25		18:59	9	08:32 (62)	16:37	15:47
7	04:39	06:20 (1)	05:38	06:47	07:53		08:27 (62)	08:06	09:10		
	22:44	33	06:53 (1)	21:47	20:23		18:56	2	08:29 (62)	16:35	15:46
8	04:40	06:21 (1)	05:40	06:49	07:55		08:28 (62)	08:08	09:12		
	22:43	32	06:53 (1)	21:44	20:20		18:53		16:32	15:45	
9	04:42	06:21 (1)	05:42	06:51	07:57		08:27 (62)	08:11	09:13		
	22:42	32	06:53 (1)	21:42	20:17		18:50		16:30	15:44	
10	04:43	06:22 (1)	05:44	06:53	08:00		08:26 (62)	08:13	09:15		
	22:40	31	06:53 (1)	21:39	20:14		18:48		16:28	15:44	
11	04:45	06:24 (1)	05:46	06:55	08:02		08:54 (63)	08:15	09:16		
	22:39	30	06:54 (1)	21:37	20:11		18:45	7	09:01 (63)	16:26	15:43
12	04:46	06:25 (1)	05:49	06:58	08:04		08:51 (63)	08:18	09:17		
	22:38	29	06:54 (1)	21:34	20:08		18:42	11	09:02 (63)	16:24	15:43
13	04:48	06:26 (1)	05:51	07:00	08:07		08:51 (63)	08:20	09:19		
	22:36	28	06:54 (1)	21:32	20:05		18:39	13	09:04 (63)	16:22	15:43
14	04:49	06:28 (1)	05:53	07:02	08:09		08:49 (63)	08:22	09:20		
	22:35	26	06:54 (1)	21:29	20:02		18:36	15	09:04 (63)	16:19	15:43
15	04:51	06:28 (1)	05:55	07:04	08:11		08:49 (63)	08:25	09:21		
	22:34	26	06:54 (1)	21:26	19:59		18:34	15	09:04 (63)	16:17	15:42
16	04:53	06:30 (1)	05:58	07:06	08:14		08:49 (63)	08:27	09:22		
	22:32	24	06:54 (1)	21:24	19:57		18:31	15	09:04 (63)	16:15	15:42
17	04:54	06:31 (1)	06:00	07:09	08:16		08:50 (63)	08:29	09:23		
	22:30	23	06:54 (1)	21:21	19:54		18:28	14	09:04 (63)	16:14	15:42
18	04:56	06:33 (1)	06:02	07:11	08:18		08:50 (63)	08:32	09:24		
	22:29	21	06:54 (1)	21:18	19:51		18:25	12	09:02 (63)	16:12	15:42
19	04:58	06:35 (1)	06:04	07:13	08:21		08:53 (63)	08:34	09:25		
	22:27	20	06:55 (1)	21:16	19:48		18:23	8	09:01 (63)	16:10	15:43
20	05:00	06:35 (1)	06:07	07:15	08:23		08:55 (63)	08:36	09:25		
	22:25	19	06:54 (1)	21:13	19:45		18:20	3	08:58 (63)	16:08	15:43
21	05:02	06:37 (1)	06:09	07:17	08:25		08:58 (63)	08:39	09:26		
	22:23	17	06:54 (1)	21:10	19:42		18:17		16:06	15:43	
22	05:04	06:39 (1)	06:11	07:20	08:28		08:28		08:41	09:27	
	22:22	15	06:54 (1)	21:08	19:39		18:15		16:04	15:44	
23	05:06	06:40 (1)	06:13	07:22	08:30		08:30		08:43	09:27	
	22:20	13	06:53 (1)	21:05	19:36		18:12		16:03	15:44	
24	05:08	06:42 (1)	06:15	07:24	08:32		08:32		08:45	09:28	
	22:18	11	06:53 (1)	21:02	19:33		18:09		16:01	15:45	
25	05:10	06:43 (1)	06:18	07:26	07:35		07:35		08:47	09:28	
	22:16	10	06:53 (1)	20:59	19:30		17:07		16:00	15:46	
26	05:12	06:45 (1)	06:20	07:28	07:37		07:37		08:49	09:28	
	22:14	7	06:52 (1)	20:57	19:28		17:04		15:58	15:46	
27	05:14	06:47 (1)	06:22	07:31	07:39		07:39		08:52	09:28	
	22:12	5	06:52 (1)	20:54	19:25		17:02		15:57	15:47	
28	05:16	06:49 (1)	06:24	07:33	07:42		08:29 (62)	07:42	08:54	09:28	
	22:10	2	06:51 (1)	20:51	19:22		3	08:32 (62)	16:59	15:55	15:48
29	05:18	06:49 (1)	06:27	07:35	07:44		08:25 (62)	07:44	08:56	09:28	
	22:07	1	06:50 (1)	20:48	19:19		9	08:34 (62)	16:56	15:54	15:49
30	05:20		06:29	07:37	07:47		08:23 (62)	07:47	08:58	09:28	
	22:05		20:45	19:16	12		08:35 (62)	16:54	15:53	15:50	
31	05:22		06:31	07:39	07:49			07:49	08:58	09:28	
	22:03		20:43	16:51	16:51			16:51	15:51	15:51	
Potential sun hours	545		478	386	319			236	200	200	
Total, worst case	655			24	190						
Sun reduction	0,50			0,50	0,50						
Oper. time red.	0,80			0,80	0,80						
Wind dir. red.	0,58			0,70	0,72						
Total reduction	0,23			0,28	0,29						
Total, real	153			7	54						

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)		Last time (hh:mm) with flicker	(WTG causing flicker last time)

SHADOW - Calendar

Calculation: Oppdatert layout - real case med vindrose - med nærliggende - oppdatert mottaker **Shadow receptor:** Z - Brusalivegen 217 (26)

Assumptions for shadow calculations

Sunshine probability S/S0 (Sun hours/Possible sun hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
644 231 315 644 959 714 721 455 378 420 574 938 6 993

	January	February	March	April	May	June								
1	09:28	08:46	07:35	08:16 (63)	07:07	05:44	04:40	06:00 (1)						
	15:53	16:56	18:05	15	08:31 (63)	20:17	21:26	22:30	35	06:35 (1)				
2	09:27	08:43	07:33	08:17 (63)	07:04	05:42	04:39	06:00 (1)						
	15:54	16:59	18:07	13	08:30 (63)	20:19	21:28	22:32	35	06:35 (1)				
3	09:27	08:41	07:30	08:18 (63)	07:01	05:39	04:38	06:00 (1)						
	15:56	17:01	18:10	10	08:28 (63)	20:21	21:30	22:33	36	06:36 (1)				
4	09:26	08:39	07:27	08:20 (63)	06:58	05:37	04:36	06:00 (1)						
	15:57	17:04	18:12	5	08:25 (63)	20:24	21:33	22:35	36	06:36 (1)				
5	09:26	08:37	07:24		06:55	05:34	04:35	06:01 (1)						
	15:59	17:06	18:14		20:26	21:35	22:36	36	06:37 (1)					
6	09:25	08:34	07:21		06:53	05:32	04:34	06:01 (1)						
	16:00	17:09	18:17		20:28	21:37	22:38	36	06:37 (1)					
7	09:24	08:32	07:19		06:50	05:29	04:33	06:01 (1)						
	16:02	17:11	18:19		20:31	21:40	22:39	36	06:37 (1)					
8	09:24	08:30	07:16	07:46 (62)	06:47	05:27	04:32	06:01 (1)						
	16:04	17:14	18:21	6	07:52 (62)	20:33	21:42	22:40	36	06:37 (1)				
9	09:23	08:27	07:13	07:44 (62)	06:44	05:24	04:31	06:01 (1)						
	16:06	17:16	18:24	10	07:54 (62)	20:35	21:44	22:41	37	06:38 (1)				
10	09:22	08:25	07:10	07:43 (62)	06:41	05:22	04:31	06:01 (1)						
	16:07	17:19	18:26	13	07:56 (62)	20:37	21:46	22:43	37	06:38 (1)				
11	09:21	08:23	07:07	07:42 (62)	06:38	05:20	04:30	06:02 (1)						
	16:09	17:21	18:28	14	07:56 (62)	20:40	21:49	22:44	36	06:38 (1)				
12	09:20	08:20	07:04	07:42 (62)	06:36	05:17	04:29	06:01 (1)						
	16:11	17:23	18:31	14	07:56 (62)	20:42	21:51	22:45	37	06:38 (1)				
13	09:18	08:18	07:02	07:41 (62)	06:33	05:15	04:29	06:02 (1)						
	16:13	17:26	18:33	15	07:56 (62)	20:44	21:53	22:46	37	06:39 (1)				
14	09:17	08:15	06:59	07:41 (62)	06:30	05:13	04:28	06:02 (1)						
	16:15	17:28	18:35	14	07:55 (62)	20:47	21:55	22:46	37	06:39 (1)				
15	09:16	08:13	06:56	07:42 (62)	06:27	05:11	04:28	06:02 (1)						
	16:17	17:31	18:38	11	07:53 (62)	20:49	21:57	22:47	37	06:39 (1)				
16	09:14	08:10	06:53	07:43 (62)	06:24	05:09	04:28	06:02 (1)						
	16:19	17:33	18:40	8	07:51 (62)	20:51	22:00	22:48	37	06:39 (1)				
17	09:13	08:07	06:50		06:22	05:06	06:13 (1)	04:27	06:03 (1)					
	16:21	17:36	18:42		20:54	22:02	7	06:20 (1)	22:48	36	06:39 (1)			
18	09:12	08:05	06:47		06:19	05:04	06:11 (1)	04:27	06:03 (1)					
	16:24	17:38	18:45		20:56	22:04	13	06:24 (1)	22:49	37	06:40 (1)			
19	09:10	08:02	06:44		06:16	05:02	06:10 (1)	04:27	06:03 (1)					
	16:26	17:41	18:47		20:58	22:06	16	06:26 (1)	22:49	37	06:40 (1)			
20	09:08	08:00	06:42		06:13	05:00	06:08 (1)	04:27	06:03 (1)					
	16:28	17:43	18:49		21:00	22:08	19	06:27 (1)	22:50	37	06:40 (1)			
21	09:07	07:57	06:39		06:11	04:58	06:06 (1)	04:27	06:03 (1)					
	16:30	17:46	18:52		21:03	22:10	22	06:28 (1)	22:50	37	06:40 (1)			
22	09:05	07:54	06:36		06:08	04:56	06:05 (1)	04:27	06:04 (1)					
	16:32	17:48	18:54		21:05	22:12	25	06:30 (1)	22:50	37	06:41 (1)			
23	09:03	07:52	08:21 (63)	06:33		04:55	06:04 (1)	04:28	06:04 (1)					
	16:35	17:50	8	08:29 (63)	18:56	21:07	22:14	26	06:30 (1)	22:50	37	06:41 (1)		
24	09:02	07:49	08:18 (63)	06:30		04:53	06:03 (1)	04:28	06:04 (1)					
	16:37	17:53	12	08:30 (63)	18:58	21:10	22:16	29	06:32 (1)	22:50	37	06:41 (1)		
25	09:00	07:46	08:17 (63)	06:27		04:51	06:02 (1)	04:28	06:05 (1)					
	16:39	17:55	14	08:31 (63)	19:01	21:12	22:18	30	06:32 (1)	22:50	36	06:41 (1)		
26	08:58	07:44	08:16 (63)	06:24		04:49	06:02 (1)	04:29	06:04 (1)					
	16:42	17:58	15	08:31 (63)	19:03	21:14	22:20	31	06:33 (1)	22:50	37	06:41 (1)		
27	08:56	07:41	08:15 (63)	06:21		04:48	06:01 (1)	04:29	06:05 (1)					
	16:44	18:00	16	08:31 (63)	19:05	21:17	22:22	32	06:33 (1)	22:50	37	06:42 (1)		
28	08:54	07:38	08:15 (63)	06:18		04:46	06:01 (1)	04:30	06:05 (1)					
	16:47	18:02	15	08:30 (63)	19:08	21:19	22:24	33	06:34 (1)	22:50	36	06:41 (1)		
29	08:52		07:16		05:49	04:44	06:01 (1)	04:31	06:05 (1)					
	16:49		20:10		21:21	22:25	33	06:34 (1)	22:49	37	06:42 (1)			
30	08:50		07:13		05:47	04:43	06:01 (1)	04:32	06:06 (1)					
	16:51		20:12		21:24	22:27	34	06:35 (1)	22:49	36	06:42 (1)			
31	08:48		07:10			04:41	06:00 (1)							
	16:54		20:14			22:29	35	06:35 (1)						
Potential sun hours	221	260	365		432	521		547						
Total, worst case			148			385		1095						
Sun reduction		80	0,50		0,50	0,50		0,50						
Oper. time red.		0,80	0,80			0,80		0,80						
Wind dir. red.		0,72	0,71			0,58		0,58						
Total reduction		0,29	0,28			0,23		0,23						
Total, real		23	42			89		253						

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Calculation: Oppdatert layout - real case med vindrose - med nærliggende - oppdatert mottaker **Shadow receptor:** Z - Brusalivegen 217 (26)

Assumptions for shadow calculations

Sunshine probability S/S0 (Sun hours/Possible sun hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
644 231 315 644 959 714 721 455 378 420 574 938 6 993

	July	August	September	October	November	December					
1	04:32	06:06 (1)	05:24	06:33	07:39	08:21 (62)	07:51	09:00			
	22:48	37	06:43 (1)	22:01	20:40	19:13	14	08:35 (62)	16:49	15:52	
2	04:33	06:06 (1)	05:27	06:35	07:42	08:20 (62)	07:54	09:01			
	22:48	37	06:43 (1)	21:58	20:37	19:10	14	08:34 (62)	16:47	15:50	
3	04:34	06:06 (1)	05:29	06:38	07:44	08:20 (62)	07:56	09:03			
	22:47	36	06:42 (1)	21:56	20:34	19:07	13	08:33 (62)	16:44	15:49	
4	04:35	06:06 (1)	05:31	06:40	07:46	08:21 (62)	07:59	09:05			
	22:46	36	06:42 (1)	21:54	20:31	19:05	12	08:33 (62)	16:42	15:48	
5	04:37	06:06 (1)	05:33	06:42	07:48	08:22 (62)	08:01	09:07			
	22:46	37	06:43 (1)	21:51	20:28	19:02	9	08:31 (62)	16:39	15:47	
6	04:38	06:07 (1)	05:35	06:44	07:51			08:03	09:09		
	22:45	37	06:44 (1)	21:49	20:25	18:59		16:37	15:47		
7	04:39	06:08 (1)	05:38	06:47	07:53			08:06	09:10		
	22:44	36	06:44 (1)	21:47	20:23	18:56		16:35	15:46		
8	04:40	06:08 (1)	05:40	06:49	07:55			08:08	09:12		
	22:43	35	06:43 (1)	21:44	20:20	18:53		16:32	15:45		
9	04:42	06:08 (1)	05:42	06:51	07:57			08:11	09:13		
	22:42	35	06:43 (1)	21:42	20:17	18:50		16:30	15:44		
10	04:43	06:08 (1)	05:44	06:53	08:00			08:13	09:15		
	22:40	35	06:43 (1)	21:39	20:14	18:48	8	09:01 (63)	16:28	15:44	
11	04:45	06:09 (1)	05:46	06:55	08:02			08:15	09:16		
	22:39	35	06:44 (1)	21:37	20:11	18:45	11	09:02 (63)	16:26	15:43	
12	04:46	06:09 (1)	05:49	06:58	08:04			08:18	09:17		
	22:38	34	06:43 (1)	21:34	20:08	18:42	14	09:03 (63)	16:24	15:43	
13	04:48	06:09 (1)	05:51	07:00	08:07			08:20	09:19		
	22:36	34	06:43 (1)	21:31	20:05	18:39	15	09:04 (63)	16:22	15:43	
14	04:49	06:10 (1)	05:53	07:02	08:09			08:22	09:20		
	22:35	33	06:43 (1)	21:29	20:02	18:36	15	09:03 (63)	16:19	15:43	
15	04:51	06:10 (1)	05:55	07:04	08:11			08:25	09:21		
	22:34	32	06:42 (1)	21:26	19:59	18:34	16	09:04 (63)	16:17	15:42	
16	04:53	06:11 (1)	05:58	07:06	08:14			08:27	09:22		
	22:32	32	06:43 (1)	21:24	19:57	18:31	15	09:03 (63)	16:15	15:42	
17	04:54	06:11 (1)	06:00	07:09	08:16			08:29	09:23		
	22:30	31	06:42 (1)	21:21	19:54	18:28	13	09:02 (63)	16:14	15:42	
18	04:56	06:12 (1)	06:02	07:11	08:18			08:32	09:24		
	22:29	30	06:42 (1)	21:18	19:51	18:25	10	09:00 (63)	16:12	15:42	
19	04:58	06:13 (1)	06:04	07:13	08:20			08:34	09:25		
	22:27	29	06:42 (1)	21:16	19:48	18:23	6	08:59 (63)	16:10	15:43	
20	05:00	06:13 (1)	06:07	07:15	08:23			08:36	09:25		
	22:25	27	06:40 (1)	21:13	19:45	18:20		16:08	15:43		
21	05:02	06:15 (1)	06:09	07:17	08:25			08:39	09:26		
	22:23	25	06:40 (1)	21:10	19:42	18:17		16:06	15:43		
22	05:04	06:16 (1)	06:11	07:20	08:28			08:41	09:27		
	22:22	24	06:40 (1)	21:08	19:39	18:15		16:04	15:44		
23	05:06	06:17 (1)	06:13	07:22	08:30			08:43	09:27		
	22:20	21	06:38 (1)	21:05	19:36	18:12		16:03	15:44		
24	05:08	06:19 (1)	06:15	07:24	08:32			08:45	09:28		
	22:18	18	06:37 (1)	21:02	19:33	18:09		16:01	15:45		
25	05:10	06:20 (1)	06:18	07:26	07:35			08:47	09:28		
	22:16	15	06:35 (1)	20:59	19:30	17:07		16:00	15:46		
26	05:12	06:22 (1)	06:20	07:28	07:37			08:49	09:28		
	22:14	11	06:33 (1)	20:57	19:28	17:04		15:58	15:46		
27	05:14	06:27 (1)	06:22	07:31	07:39	08:26 (62)		08:52	09:28		
	22:12	2	06:29 (1)	20:54	19:25	6	08:32 (62)	17:02	15:57	15:47	
28	05:16		06:24	07:33	08:23 (62)	07:42		08:54	09:28		
	22:10		20:51	19:22	11	08:34 (62)	16:59	15:55	15:48		
29	05:18		06:27	07:35	08:22 (62)	07:44		08:56	09:28		
	22:07		20:48	19:19	12	08:34 (62)	16:56	15:54	15:49		
30	05:20		06:29	07:37	08:20 (62)	07:47		08:58	09:28		
	22:05		20:45	19:16	15	08:35 (62)	16:54	15:53	15:50		
31	05:22		06:31						09:28		
	22:03		20:43						16:51	15:51	
Potential sun hours	545		478		386			319		236	200
Total, worst case		794			44			185			
Sun reduction		0,50			0,50			0,50			
Oper. time red.		0,80			0,80			0,80			
Wind dir. red.		0,58			0,70			0,72			
Total reduction		0,23			0,28			0,29			
Total, real		183			12			53			

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Calculation: Oppdatert layout - real case med vindrose - med nærliggende - oppdatert mottaker **Shadow receptor:** AA - Buevegen 1463 (27)

Assumptions for shadow calculations

Sunshine probability S/S0 (Sun hours/Possible sun hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
644 231 315 644 959 714 721 455 378 420 574 938 6 993

	January	February	March	April	May	June
1	09:28 15:53	08:46 16:56	07:35 18:05	08:22 (23) 20:17	07:07 21:26	04:40 22:31
2	09:28 15:54	08:44 16:59	07:33 18:07	08:21 (23) 20:19	07:04 21:28	04:39 22:32
3	09:27 15:56	08:41 17:01	07:30 18:10	08:20 (23) 20:21	07:01 21:31	04:37 22:34
4	09:27 15:57	08:39 17:04	07:27 18:12	08:20 (23) 20:24	06:58 21:33	04:36 22:35
5	09:26 15:59	08:37 17:06	07:24 18:14	08:20 (23) 20:26	06:55 21:35	04:34 22:37
6	09:25 16:00	08:35 17:09	07:22 18:17	08:20 (23) 20:28	06:53 21:38	04:34 22:38
7	09:25 16:02	08:32 17:11	07:19 18:19	08:20 (23) 20:31	06:50 21:40	04:33 22:39
8	09:24 16:04	08:30 17:13	07:16 18:21	08:20 (23) 20:33	06:47 21:42	04:32 22:41
9	09:23 16:05	08:28 17:16	09:21 (3) 07:13 18:24	08:22 (23) 20:35	06:44 21:44	04:31 22:42
10	09:22 16:07	08:25 17:18	09:18 (3) 07:10 18:26	08:23 (23) 20:38	06:41 21:47	04:30 22:43
11	09:21 16:09	08:23 17:21	09:15 (3) 07:07 18:28	08:25 (23) 20:40	06:38 21:49	04:30 22:44
12	09:20 16:11	08:20 17:23	09:14 (3) 07:05 18:31	09:14 (3) 07:05 18:31	06:36 20:42 21:51	04:29 22:45
13	09:19 16:13	08:18 17:26	09:13 (3) 07:02 18:33	09:13 (3) 07:02 18:33	06:33 20:44 21:53	04:29 22:46
14	09:17 16:15	08:15 17:28	09:13 (3) 06:59 18:35	07:38 (25) 06:30 20:47	05:13 21:55	04:28 22:47
15	09:16 16:17	08:13 17:31	09:12 (3) 06:56 18:38	07:33 (25) 06:27 20:49	05:11 21:58	04:28 22:47
16	09:15 16:19	08:10 17:33	09:12 (3) 06:53 18:40	07:31 (25) 06:24 20:51	05:08 22:00	04:27 22:48
17	09:13 16:21	08:08 17:36	09:13 (3) 06:50 18:42	07:29 (25) 06:22 20:54	05:06 22:02	04:27 22:49
18	09:12 16:23	08:05 17:38	09:13 (3) 06:47 18:45	07:28 (25) 06:19 20:56	05:04 22:04	04:27 22:49
19	09:10 16:26	08:02 17:41	09:13 (3) 06:44 18:47	07:28 (25) 06:16 20:58	05:02 22:06	04:27 22:50
20	09:09 16:28	08:00 17:43	09:14 (3) 06:42 18:49	07:27 (25) 06:13 21:01	05:00 22:08	04:27 22:50
21	09:07 16:30	07:57 17:46	09:15 (3) 06:39 18:52	07:28 (25) 06:11 21:03	04:58 22:10	04:27 22:50
22	09:05 16:32	07:54 17:48	09:18 (3) 06:36 18:54	07:28 (25) 06:08 21:05	04:56 22:12	04:27 22:50
23	09:04 16:35	07:52 17:50	09:26 (3) 06:33 18:56	07:28 (25) 06:05 21:08	04:54 22:14	04:27 22:51
24	09:02 16:37	07:49 17:53	06:30 18:59	07:29 (25) 06:02 21:10	04:53 22:16	04:28 22:51
25	09:00 16:39	07:46 17:55	08:28 (23) 06:27 19:01	07:30 (25) 06:00 21:12	04:51 22:18	04:28 22:51
26	08:58 16:42	07:44 17:58	08:25 (23) 06:24 19:03	07:34 (25) 05:57 21:14	04:49 22:20	04:29 22:50
27	08:56 16:44	07:41 18:00	08:23 (23) 06:21 19:05	05:54 21:17	04:47 22:22	04:29 22:50
28	08:54 16:46	07:38 18:02	08:23 (23) 06:18 19:08	05:52 21:19	04:46 22:24	04:30 22:50
29	08:52 16:49		08:44 (23) 19:08 07:16 20:10	05:49 21:21	04:44 22:26	04:31 22:50
30	08:50 16:51		07:13 20:12	05:47 21:24	04:43 22:27	04:31 22:49
31	08:48 16:54		07:10 20:15		04:41 22:29	
Potential sun hours	221	260	365	432	521	547
Total, worst case		269	410			
Sun reduction		0,50	0,50			
Oper. time red.		0,80	0,80			
Wind dir. red.		0,73	0,71			
Total reduction		0,29	0,28			
Total, real		79	117			

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Calculation: Oppdatert layout - real case med vindrose - med nærliggende - oppdatert mottaker **Shadow receptor:** AA - Buevegen 1463 (27)

Assumptions for shadow calculations

Sunshine probability S/S0 (Sun hours/Possible sun hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
644 231 315 644 959 714 721 455 378 420 574 938 6 993

	July	August	September	October	November	December
1	04:32	05:24	06:33	07:40	07:52	08:47 (3) 09:00
	22:49	22:01	20:40	19:13	16:49	8 08:55 (3) 15:51
2	04:33	05:26	06:35	07:42	09:05 (23) 07:54	09:02
	22:48	21:59	20:37	19:10	7 09:12 (23) 16:46	15:50
3	04:34	05:29	06:38	07:44	09:01 (23) 07:56	09:04
	22:47	21:56	20:34	19:07	14 09:15 (23) 16:44	15:49
4	04:35	05:31	06:40	07:46	09:00 (23) 07:59	09:05
	22:47	21:54	20:31	19:05	17 09:17 (23) 16:42	15:48
5	04:36	05:33	06:42	07:48	08:58 (23) 08:01	09:07
	22:46	21:52	20:28	19:02	20 09:18 (23) 16:39	15:47
6	04:38	05:35	06:44	07:51	08:56 (23) 08:04	09:09
	22:45	21:49	20:26	18:59	22 09:18 (23) 16:37	15:46
7	04:39	05:37	06:47	07:53	08:56 (23) 08:06	09:10
	22:44	21:47	20:23	18:56	23 09:19 (23) 16:35	15:46
8	04:40	05:40	06:49	07:55	08:55 (23) 08:08	09:12
	22:43	21:44	20:20	18:53	24 09:19 (23) 16:32	15:45
9	04:41	05:42	06:51	07:58	08:54 (23) 08:11	09:14
	22:42	21:42	20:17	18:50	25 09:19 (23) 16:30	15:44
10	04:43	05:44	06:53	08:00	08:55 (23) 08:13	09:15
	22:41	21:39	20:14	18:48	24 09:19 (23) 16:28	15:44
11	04:44	05:46	06:55	08:02	08:54 (23) 08:16	09:16
	22:39	21:37	20:11	18:45	24 09:18 (23) 16:26	15:43
12	04:46	05:49	06:58	08:04	08:55 (23) 08:18	09:18
	22:38	21:34	20:08	18:42	23 09:18 (23) 16:24	15:43
13	04:48	05:51	07:00	08:07	08:55 (23) 08:20	09:19
	22:37	21:32	20:05	18:39	22 09:17 (23) 16:21	15:43
14	04:49	05:53	07:02	08:09	08:55 (23) 08:23	09:20
	22:35	21:29	20:02	18:36	20 09:15 (23) 16:19	15:42
15	04:51	05:55	07:04	08:11	08:57 (23) 08:25	09:21
	22:34	21:26	20:00	18:34	18 09:15 (23) 16:17	15:42
16	04:53	05:58	07:06	08:14	08:58 (23) 08:27	09:22
	22:32	21:24	19:57	18:31	14 09:12 (23) 16:15	15:42
17	04:54	06:00	07:09	08:16	09:01 (23) 08:30	09:23
	22:31	21:21	19:54	18:28	9 09:10 (23) 16:13	15:42
18	04:56	06:02	07:11	08:18 (25) 08:18	08:32	09:24
	22:29	21:19	19:51	10 08:28 (25) 18:25	16:11	15:42
19	04:58	06:04	07:13	08:16 (25) 08:21	08:34	09:25
	22:27	21:16	19:48	13 08:29 (25) 18:23	16:10	15:43
20	05:00	06:06	07:15	08:14 (25) 08:23	09:47 (3) 08:37	09:26
	22:25	21:13	19:45	16 08:30 (25) 18:20	10 09:57 (3) 16:08	15:43
21	05:02	06:09	07:17	08:14 (25) 08:25	09:46 (3) 08:39	09:26
	22:24	21:10	19:42	17 08:31 (25) 18:17	13 09:59 (3) 16:06	15:43
22	05:04	06:11	07:20	08:13 (25) 08:28	09:44 (3) 08:41	09:27
	22:22	21:08	19:39	18 08:31 (25) 18:15	16 10:00 (3) 16:04	15:44
23	05:06	06:13	07:22	08:12 (25) 08:30	09:43 (3) 08:43	09:27
	22:20	21:05	19:36	19 08:31 (25) 18:12	18 10:01 (3) 16:03	15:44
24	05:08	06:15	07:24	08:11 (25) 08:32	09:42 (3) 08:45	09:28
	22:18	21:02	19:33	19 08:30 (25) 18:09	19 10:01 (3) 16:01	15:45
25	05:10	06:18	07:26	08:11 (25) 07:35	08:42 (3) 08:48	09:28
	22:16	20:59	19:31	18 08:29 (25) 17:07	19 09:01 (3) 15:59	15:45
26	05:12	06:20	07:28	08:12 (25) 07:37	08:42 (3) 08:50	09:28
	22:14	20:57	19:28	17 08:29 (25) 17:04	20 09:02 (3) 15:58	15:46
27	05:14	06:22	07:31	08:12 (25) 07:40	08:42 (3) 08:52	09:28
	22:12	20:54	19:25	16 08:28 (25) 17:02	19 09:01 (3) 15:57	15:47
28	05:16	06:24	07:33	08:13 (25) 07:42	08:43 (3) 08:54	09:29
	22:10	20:51	19:22	12 08:25 (25) 16:59	18 09:01 (3) 15:55	15:48
29	05:18	06:27	07:35	08:16 (25) 07:44	08:43 (3) 08:56	09:29
	22:08	20:48	19:19	6 08:22 (25) 16:56	17 09:00 (3) 15:54	15:49
30	05:20	06:29	07:37	07:47	08:44 (3) 08:58	09:28
	22:05	20:45	19:16	16:54	15 08:59 (3) 15:53	15:50
31	05:22	06:31		07:49	08:45 (3)	09:28
	22:03	20:43		16:51	13 08:58 (3)	15:51
Potential sun hours	545	478	386	319	236	200
Total, worst case			181	503	8	
Sun reduction			0,50	0,50	0,50	
Oper. time red.			0,80	0,80	0,80	
Wind dir. red.			0,70	0,73	0,74	
Total reduction			0,28	0,29	0,29	
Total, real			50	147	2	

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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Project:

Moifjellet vindkraftverk

Licensed user:

Multiconsult Norge AS

Nedre Skøyen vei 2 .

NO-0276 Oslo

+47 21 58 60 15

Martine / martine.bjugg@multiconsult.no

Calculated:

20.01.2025 16:22/4.0.540

SHADOW - Calendar

Calculation: Oppdatert layout - real case med vindrose - med nærliggende - oppdatert mottaker Shadow receptor: AB - Buevegen 1461 (28)
Sunshine probability S/S0 (Sun hours/Possible sun hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
644 231 315 644 959 714 721 455 378 420 574 938 6 993

Table with columns for months (January to December) and rows for time slots (09:28 to 16:54). Includes summary rows for 'Potential sun hours', 'Total, worst case', 'Sun reduction', 'Oper. time red.', 'Wind dir. red.', 'Total reduction', and 'Total, real'.

Table layout: For each day in each month the following matrix apply

Day in month Sun rise (hh:mm) Sun set (hh:mm) Minutes with flicker First time (hh:mm) with flicker Last time (hh:mm) with flicker (WTG causing flicker first time) (WTG causing flicker last time)



SHADOW - Calendar

Calculation: Oppdatert layout - real case med vindrose - med nærliggende - oppdatert mottaker **Shadow receptor:** AC - Buevegen 1502 (29)

Assumptions for shadow calculations

Sunshine probability S/S0 (Sun hours/Possible sun hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
644 231 315 644 959 714 721 455 378 420 574 938 6 993

	January	February	March	April	May	June
1	09:28	08:46	09:42 (23)	07:35	08:32 (25)	07:07
	15:53	16:56	14 09:56 (23)	18:05	20 08:52 (25)	20:17
2	09:28	08:44	09:40 (23)	07:33	08:32 (25)	07:04
	15:54	16:59	17 09:57 (23)	18:07	20 08:52 (25)	20:19
3	09:27	08:41	09:40 (23)	07:30	08:32 (25)	07:01
	15:56	17:01	19 09:59 (23)	18:10	19 08:51 (25)	20:21
4	09:27	08:39	09:38 (23)	07:27	08:32 (25)	06:58
	15:57	17:04	21 09:59 (23)	18:12	18 08:50 (25)	20:24
5	09:26	08:37	09:38 (23)	07:24	08:32 (25)	06:55
	15:59	17:06	22 10:00 (23)	18:14	17 08:49 (25)	20:26
6	09:25	08:35	09:38 (23)	07:22	08:33 (25)	06:53
	16:00	17:08	22 10:00 (23)	18:17	14 08:47 (25)	20:28
7	09:25	08:32	09:37 (23)	07:19	08:35 (25)	06:50
	16:02	17:11	24 10:01 (23)	18:19	10 08:45 (25)	20:31
8	09:24	08:30	09:37 (23)	07:16	06:47	05:27
	16:04	17:13	24 10:01 (23)	18:21	20:33	21:42
9	09:23	08:28	09:37 (23)	07:13	06:44	05:24
	16:05	17:16	24 10:01 (23)	18:24	20:35	21:44
10	09:22	08:25	09:38 (23)	07:10	06:41	05:22
	16:07	17:18	24 10:02 (23)	18:26	20:38	21:47
11	09:21	08:23	09:38 (23)	07:07	06:38	05:20
	16:09	17:21	23 10:01 (23)	18:28	20:40	21:49
12	09:20	08:20	09:38 (23)	07:05	06:36	05:17
	16:11	17:23	22 10:00 (23)	18:31	20:42	21:51
13	09:19	08:18	09:38 (23)	07:02	06:33	05:15
	16:13	17:26	21 09:59 (23)	18:33	20:44	21:53
14	09:17	08:15	09:40 (23)	06:59	06:30	05:13
	16:15	17:28	19 09:59 (23)	18:35	20:47	21:55
15	09:16	08:13	09:41 (23)	06:56	06:27	05:11
	16:17	17:31	17 09:58 (23)	18:38	20:49	21:58
16	09:15	08:10	09:43 (23)	06:53	06:24	05:08
	16:19	17:33	12 09:55 (23)	18:40	20:51	22:00
17	09:13	08:08	09:46 (23)	06:50	06:21	05:06
	16:21	17:36	7 09:53 (23)	18:42	20:54	22:02
18	09:12	08:05		06:47	06:19	05:04
	16:23	17:38		18:45	20:56	22:04
19	09:10	08:02		06:44	06:16	05:02
	16:26	17:41		18:47	20:58	22:06
20	09:09	08:00		06:42	06:13	05:00
	16:28	17:43		18:49	21:01	22:08
21	09:07	07:57		06:39	06:10	04:58
	16:30	17:45		18:52	21:03	22:10
22	09:05	07:54		06:36	06:08	04:56
	16:32	17:48		18:54	21:05	22:12
23	09:04	07:52	08:40 (25)	06:33	06:05	04:54
	16:35	17:50	6 08:46 (25)	18:56	21:08	22:14
24	09:02	07:49	08:36 (25)	06:30	06:02	04:53
	16:37	17:53	12 08:48 (25)	18:59	21:10	22:16
25	09:00	07:46	08:34 (25)	06:27	06:00	04:51
	16:39	17:55	16 08:50 (25)	19:01	21:12	22:18
26	08:58	07:44	08:33 (25)	06:24	05:57	04:49
	16:42	17:58	17 08:50 (25)	19:03	21:14	22:20
27	08:56	07:41	08:32 (25)	06:21	05:54	04:47
	16:44	18:00	19 08:51 (25)	19:05	21:17	22:22
28	08:54	07:38	08:32 (25)	06:18	05:52	04:46
	16:46	18:02	20 08:52 (25)	19:08	21:19	22:24
29	08:52			07:16	05:49	04:44
	16:49			20:10	21:21	22:26
30	08:50			07:13	05:47	04:43
	16:51			20:12	21:24	22:27
31	08:48	09:43 (23)		07:10		04:41
	16:54	09:53 (23)		20:15		22:29
Potential sun hours	221	10	260	365	432	521
Total, worst case	10		422		118	
Sun reduction	0,50		0,50		0,50	
Oper. time red.	0,80		0,80		0,80	
Wind dir. red.	0,72		0,73		0,73	
Total reduction	0,29		0,29		0,29	
Total, real	3		122		34	

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Calculation: Oppdatert layout - real case med vindrose - med nærliggende - oppdatert mottaker **Shadow receptor:** AC - Buevegen 1502 (29)

Assumptions for shadow calculations

Sunshine probability S/S0 (Sun hours/Possible sun hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
644 231 315 644 959 714 721 455 378 420 574 938 6 993

	July	August	September	October	November	December		
1	04:32	05:24	06:33	07:39	07:51	09:06 (23)	09:00	
	22:49	22:01	20:40	19:13	16:49	24 09:30 (23)	15:51	
2	04:33	05:26	06:35	07:42	07:54	09:07 (23)	09:02	
	22:48	21:59	20:37	19:10	16:46	24 09:31 (23)	15:50	
3	04:34	05:29	06:38	07:44	07:56	09:07 (23)	09:04	
	22:47	21:56	20:34	19:07	16:44	24 09:31 (23)	15:49	
4	04:35	05:31	06:40	07:46	07:59	09:08 (23)	09:05	
	22:47	21:54	20:31	19:05	16:42	23 09:31 (23)	15:48	
5	04:36	05:33	06:42	07:48	08:01	09:07 (23)	09:07	
	22:46	21:52	20:28	19:02	16:39	23 09:30 (23)	15:47	
6	04:37	05:35	06:44	07:51	09:13 (25)	08:04	09:08 (23)	09:09
	22:45	21:49	20:26	18:59	6 09:19 (25)	16:37	22 09:30 (23)	15:46
7	04:39	05:37	06:47	07:53	09:11 (25)	08:06	09:09 (23)	09:10
	22:44	21:47	20:23	18:56	11 09:22 (25)	16:35	21 09:30 (23)	15:46
8	04:40	05:40	06:49	07:55	09:08 (25)	08:08	09:09 (23)	09:12
	22:43	21:44	20:20	18:53	16 09:24 (25)	16:32	19 09:28 (23)	15:45
9	04:41	05:42	06:51	07:58	09:07 (25)	08:11	09:11 (23)	09:14
	22:42	21:42	20:17	18:50	17 09:24 (25)	16:30	16 09:27 (23)	15:44
10	04:43	05:44	06:53	08:00	09:06 (25)	08:13	09:13 (23)	09:15
	22:41	21:39	20:14	18:48	19 09:25 (25)	16:28	13 09:26 (23)	15:44
11	04:44	05:46	06:55	08:02	09:05 (25)	08:16	09:14 (23)	09:16
	22:39	21:37	20:11	18:45	20 09:25 (25)	16:26	10 09:24 (23)	15:43
12	04:46	05:49	06:58	08:04	09:05 (25)	08:18		09:18
	22:38	21:34	20:08	18:42	20 09:25 (25)	16:24		15:43
13	04:47	05:51	07:00	08:07	09:05 (25)	08:20		09:19
	22:37	21:32	20:05	18:39	20 09:25 (25)	16:21		15:43
14	04:49	05:53	07:02	08:09	09:04 (25)	08:23		09:20
	22:35	21:29	20:02	18:36	20 09:24 (25)	16:19		15:42
15	04:51	05:55	07:04	08:11	09:05 (25)	08:25		09:21
	22:34	21:26	20:00	18:34	19 09:24 (25)	16:17		15:42
16	04:53	05:57	07:06	08:14	09:05 (25)	08:27		09:22
	22:32	21:24	19:57	18:31	17 09:22 (25)	16:15		15:42
17	04:54	06:00	07:09	08:16	09:07 (25)	08:30		09:23
	22:31	21:21	19:54	18:28	14 09:21 (25)	16:13		15:42
18	04:56	06:02	07:11	08:18	09:08 (25)	08:32		09:24
	22:29	21:19	19:51	18:25	11 09:19 (25)	16:11		15:42
19	04:58	06:04	07:13	08:21	08:34			09:25
	22:27	21:16	19:48	18:23	16:10			15:42
20	05:00	06:06	07:15	08:23	08:37			09:26
	22:25	21:13	19:45	18:20	16:08			15:43
21	05:02	06:09	07:17	08:25	08:39			09:26
	22:24	21:10	19:42	18:17	16:06			15:43
22	05:04	06:11	07:20	08:28	08:41			09:27
	22:22	21:08	19:39	18:15	16:04			15:44
23	05:06	06:13	07:22	08:30	08:43			09:27
	22:20	21:05	19:36	18:12	16:03			15:44
24	05:08	06:15	07:24	08:32	08:45			09:28
	22:18	21:02	19:33	18:09	16:01			15:45
25	05:10	06:18	07:26	07:35	09:15 (23)	08:48		09:28
	22:16	20:59	19:30	17:07	8 09:23 (23)	15:59		15:45
26	05:12	06:20	07:28	07:37	09:12 (23)	08:50		09:28
	22:14	20:57	19:28	17:04	14 09:26 (23)	15:58		15:46
27	05:14	06:22	07:31	07:40	09:10 (23)	08:52		09:28
	22:12	20:54	19:25	17:01	17 09:27 (23)	15:56		15:47
28	05:16	06:24	07:33	07:42	09:09 (23)	08:54		09:29
	22:10	20:51	19:22	16:59	20 09:29 (23)	15:55		15:48
29	05:18	06:27	07:35	07:44	09:09 (23)	08:56		09:29
	22:08	20:48	19:19	16:56	21 09:30 (23)	15:54		15:49
30	05:20	06:29	07:37	07:47	09:07 (23)	08:58		09:28
	22:05	20:45	19:16	16:54	23 09:30 (23)	15:53		15:50
31	05:22	06:31		07:49	09:07 (23)			09:28
	22:03	20:43		16:51	24 09:31 (23)			15:51
Potential sun hours	546	478	386	319	236		199	
Total, worst case				337	219			
Sun reduction				0,50	0,50			
Oper. time red.				0,80	0,80			
Wind dir. red.				0,73	0,72			
Total reduction				0,29	0,29			
Total, real				98	63			

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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Project:

Moifjellet vindkraftverk

Licensed user:

Multiconsult Norge AS

Nedre Skøyen vei 2 .

NO-0276 Oslo

+47 21 58 60 15

Martine / martine.bjugg@multiconsult.no

Calculated:

20.01.2025 16:22/4.0.540

SHADOW - Calendar

Calculation: Oppdatert layout - real case med vindrose - med nærliggende - oppdatert mottaker **Shadow receptor:** AD - Buevegen 1500 (30)
Sunshine probability S/S0 (Sun hours/Possible sun hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
644 231 315 644 959 714 721 455 378 420 574 938 6 993

	January	February	March	April	May	June	July	August	September	October	November	December	
1	09:28 15:53	08:46 16:56	09:42 (23) 18:05	07:35 19	08:28 (25) 20:17	07:07 21:26	05:44 22:31	04:40 22:49	04:32 22:01	05:24 20:40	06:33 19:13	07:39 16:49	09:00 (23) 15:51
2	09:28 15:54	08:44 16:59	09:37 (23) 18:07	07:33 20	08:27 (25) 20:19	07:04 21:28	05:41 22:32	04:39 22:48	04:33 21:59	05:26 20:37	06:35 19:10	07:42 16:46	09:01 (23) 15:50
3	09:27 15:56	08:41 17:01	09:36 (23) 18:10	07:30 20	08:27 (25) 20:21	07:01 21:31	05:39 22:34	04:37 22:47	04:34 21:56	05:29 20:34	06:38 19:07	07:44 16:44	09:01 (23) 15:49
4	09:27 15:57	08:39 17:04	09:34 (23) 18:12	07:27 19	08:27 (25) 20:24	06:58 21:33	05:36 22:35	04:36 22:47	04:35 21:54	05:31 20:31	06:40 19:05	07:46 16:42	09:02 (23) 15:48
5	09:26 15:59	08:37 17:06	09:33 (23) 18:14	07:24 18	08:27 (25) 20:26	06:55 21:35	05:34 22:37	04:35 22:46	04:36 21:52	05:33 20:28	06:42 19:02	07:48 16:49	09:10 (25) 16:39
6	09:25 16:00	08:35 17:08	09:32 (23) 18:17	07:22 16	08:28 (25) 20:28	06:53 21:38	05:31 22:38	04:34 22:45	04:37 21:49	05:35 20:26	06:44 18:59	07:51 16:48	09:06 (25) 16:37
7	09:25 16:02	08:32 17:11	09:31 (23) 18:19	07:19 13	08:29 (25) 20:31	06:50 21:40	05:29 22:39	04:33 22:44	04:39 21:47	05:37 20:23	06:47 18:56	07:53 16:55	09:05 (25) 16:35
8	09:24 16:04	08:30 17:13	09:32 (23) 18:21	07:16 8	08:31 (25) 20:33	06:47 21:42	05:27 22:41	04:32 22:43	04:40 21:44	05:40 20:20	06:49 18:53	07:55 16:57	09:02 (25) 16:32
9	09:23 16:05	08:28 17:16	09:31 (23) 18:24	07:13 10	08:30 (25) 20:35	06:44 21:44	05:24 22:42	04:31 22:42	04:41 21:42	05:42 20:17	06:51 18:50	07:58 16:58	09:20 (25) 16:30
10	09:22 16:07	08:25 17:18	09:32 (23) 18:26	07:10 11	08:31 (25) 20:38	06:41 21:47	05:22 22:43	04:30 22:41	04:43 21:39	05:44 20:14	06:53 18:48	08:00 16:55	09:02 (25) 16:28
11	09:21 16:09	08:23 17:21	09:31 (23) 18:28	07:07 12	08:32 (25) 20:40	06:40 21:49	05:20 22:44	04:30 22:39	04:44 21:37	05:46 20:11	06:55 18:45	08:02 16:52	09:01 (25) 16:26
12	09:20 16:11	08:20 17:23	09:31 (23) 18:31	07:05 13	08:33 (25) 20:42	06:36 21:51	05:17 22:45	04:29 22:38	04:46 21:34	05:49 20:08	06:58 18:42	08:04 16:54	09:01 (25) 16:24
13	09:19 16:13	08:18 17:26	09:31 (23) 18:33	07:02 14	08:34 (25) 20:44	06:33 21:53	05:15 22:46	04:28 22:37	05:51 21:32	07:00 20:05	08:07 18:39	09:01 (25) 16:21	09:01 (25) 16:21
14	09:17 16:15	08:15 17:28	09:33 (23) 18:35	06:59 15	08:35 (25) 20:47	06:30 21:55	05:13 22:47	04:28 22:35	04:49 21:29	05:53 20:02	07:02 18:36	08:09 16:58	09:02 (25) 16:19
15	09:16 16:17	08:13 17:31	09:33 (23) 18:38	06:56 16	08:36 (25) 20:49	06:27 21:58	05:11 22:47	04:28 22:34	04:51 21:26	05:55 20:00	07:04 18:34	08:11 16:56	09:02 (25) 16:17
16	09:15 16:19	08:10 17:33	09:34 (23) 18:40	06:53 17	08:37 (25) 20:51	06:24 22:00	05:08 22:48	04:27 22:32	04:53 21:24	05:57 19:57	07:06 18:31	08:14 16:59	09:03 (25) 16:15
17	09:13 16:21	08:08 17:36	09:36 (23) 18:42	06:50 18	08:38 (25) 20:54	06:22 22:02	05:06 22:49	04:27 22:31	04:54 21:21	06:00 19:54	07:09 18:28	08:16 16:58	09:05 (25) 16:13
18	09:12 16:23	08:05 17:38	09:39 (23) 18:45	06:47 19	08:39 (25) 20:56	06:19 22:04	05:04 22:49	04:27 22:29	04:56 21:19	06:02 19:51	07:11 18:25	08:18 16:59	09:06 (25) 16:11
19	09:10 16:26	08:02 17:41	09:42 (23) 18:47	06:44 20	08:40 (25) 20:58	06:16 22:06	05:02 22:50	04:27 22:27	04:58 21:16	06:04 19:48	07:13 18:23	08:21 16:58	09:07 (25) 16:10
20	09:09 16:28	08:00 17:43	09:43 (23) 18:49	06:42 21	08:41 (25) 21:01	06:13 22:08	05:00 22:50	04:27 22:25	05:00 21:13	06:06 19:45	07:15 18:20	08:23 16:58	09:08 (25) 16:08
21	09:07 16:30	07:57 17:45	09:44 (23) 18:52	06:39 22	08:42 (25) 21:03	06:10 22:10	04:58 22:50	04:27 22:24	05:02 21:10	06:09 19:42	07:17 18:17	08:25 16:56	09:09 (25) 16:06
22	09:05 16:32	07:54 17:48	09:45 (23) 18:54	06:36 23	08:43 (25) 21:05	06:08 22:12	04:56 22:51	04:27 22:22	05:04 21:08	06:11 19:39	07:20 18:15	08:28 16:54	09:10 (25) 16:04
23	09:04 16:35	07:52 17:50	09:46 (23) 18:56	06:33 24	08:44 (25) 21:08	06:05 22:14	04:54 22:51	04:27 22:20	05:06 21:03	06:13 19:36	07:22 18:12	08:30 16:53	09:11 (25) 16:03
24	09:02 16:37	07:49 17:53	09:47 (23) 18:59	06:30 25	08:45 (25) 21:10	06:02 22:16	04:53 22:51	04:28 22:18	05:08 21:02	06:15 19:33	07:24 18:09	08:32 16:51	09:12 (25) 16:01
25	09:00 16:39	07:46 17:55	09:48 (23) 19:01	06:27 26	08:46 (25) 21:12	06:00 22:18	04:51 22:51	04:28 22:16	05:10 20:59	06:18 19:30	07:26 17:07	08:35 16:50	09:13 (25) 15:59
26	08:58 16:42	07:44 17:58	09:49 (23) 19:03	06:24 27	08:47 (25) 21:14	05:57 22:20	04:49 22:51	04:29 22:14	05:12 20:57	06:20 19:28	07:28 17:04	08:37 16:50	09:14 (25) 15:58
27	08:56 16:44	07:41 18:00	09:50 (23) 19:05	06:21 28	08:48 (25) 21:17	05:54 22:22	04:47 22:50	04:29 22:12	05:14 20:54	06:22 19:25	07:31 17:02	08:40 16:50	09:15 (25) 15:56
28	08:54 16:46	07:38 18:02	09:51 (23) 19:08	06:18 29	08:49 (25) 21:19	05:52 22:24	04:46 22:50	04:30 22:10	05:16 20:51	06:24 19:22	07:33 16:59	08:42 16:51	09:16 (25) 15:55
29	08:52 16:49	07:35 18:09	09:52 (23) 19:11	06:16 30	08:50 (25) 21:21	05:49 22:26	04:44 22:50	04:30 22:08	05:18 20:48	06:27 19:19	07:35 16:56	08:44 16:50	09:17 (25) 15:54
30	08:50 16:51	07:32 18:12	09:53 (23) 19:14	06:14 31	08:51 (25) 21:24	05:47 22:27	04:43 22:49	04:31 22:05	05:20 20:29	06:29 19:16	07:37 16:54	08:47 16:53	09:18 (25) 15:53
31	08:48 16:54	07:29 18:15	09:54 (23) 19:17	06:12 32	08:52 (25) 21:27	05:45 22:29	04:41 22:03	04:30 20:43	05:22 19:31	06:31 16:51	07:49 16:51	08:50 16:51	09:19 (25) 15:51
Potential sun hours	221	260	365	432	521	547	546	478	386	319	236	199	
Total, worst case													
Sun reduction		388	133							354	172		
Oper. time red.		0,50	0,50							0,50	0,50		
Wind dir. red.		0,80	0,80							0,80	0,80		
Total reduction		0,73	0,73							0,73	0,73		
Total, real		0,29	0,29							0,29	0,29		
		113	39							103	50		

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)		Last time (hh:mm) with flicker	(WTG causing flicker last time)

Project:

Moifjellet vindkraftverk

Licensed user:

Multiconsult Norge AS

Nedre Skøyen vei 2 .

NO-0276 Oslo

+47 21 58 60 15

Martine / martine.bjugg@multiconsult.no

Calculated:

20.01.2025 16:22/4.0.540

SHADOW - Calendar

Calculation: Oppdatert layout - real case med vindrose - med nærliggende - oppdatert mottaker Shadow receptor: AE - Buevegen 1498 (31)
Assumptions for shadow calculations

Sunshine probability S/S0 (Sun hours/Possible sun hours) []
Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
644 231 315 644 959 714 721 455 378 420 574 938 6 993

Table with 12 columns for months (January to December) and rows for each day of the year (1-31), showing sun rise/set times and shadow reduction factors. Includes summary rows for 'Potential sun hours', 'Total, worst case', 'Sun reduction', 'Oper. time red.', 'Wind dir. red.', 'Total reduction', and 'Total, real'.

Table layout: For each day in each month the following matrix apply

Day in month Sun rise (hh:mm) Sun set (hh:mm) Minutes with flicker First time (hh:mm) with flicker Last time (hh:mm) with flicker (WTG causing flicker first time) (WTG causing flicker last time)



SHADOW - Calendar

Calculation: Oppdatert layout - real case med vindrose - med nærliggende - oppdatert mottaker **Shadow receptor:** AF - Buevegen 1496 (32)

Assumptions for shadow calculations

Sunshine probability S/S0 (Sun hours/Possible sun hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
644 231 315 644 959 714 721 455 378 420 574 938 6 993

	January	February	March	April	May	June	July	August	September	October	November	December	
1	09:28 15:53	08:46 16:56	07:35 18:05	07:07 20:17	05:44 21:26	04:40 22:31	04:32 22:49	05:24 22:01	06:33 20:40	07:40 19:13	07:52 16:49	09:00 15:51	
2	09:28 15:54	08:44 16:59	07:33 18:07	07:04 20:19	05:41 21:28	04:39 22:32	04:33 22:48	05:26 21:59	06:35 20:37	07:42 19:10	07:54 16:46	09:02 15:50	
3	09:27 15:56	08:41 17:01	07:30 18:10	07:01 20:21	05:39 21:31	04:37 22:34	04:34 22:47	05:29 21:56	06:38 20:34	07:44 19:07	07:56 16:44	09:04 15:49	
4	09:27 15:57	08:39 17:04	07:27 18:12	06:58 20:24	05:36 21:33	04:36 22:35	04:35 22:47	05:31 21:54	06:40 20:31	07:46 19:05	07:59 16:42	09:05 15:48	
5	09:26 15:59	08:37 17:06	07:24 18:14	06:55 20:26	05:34 21:35	04:35 22:37	04:36 22:46	05:33 21:52	06:42 20:28	07:49 19:02	08:01 16:39	09:07 15:47	
6	09:25 16:00	08:35 17:09	07:22 18:17	06:53 20:28	05:31 21:38	04:34 22:38	04:38 22:45	05:35 21:49	06:44 20:26	07:51 18:59	08:04 16:37	09:09 15:46	
7	09:25 16:02	08:32 17:11	07:19 18:19	06:50 20:31	05:29 21:40	04:33 22:39	04:39 22:44	05:37 21:47	06:47 20:23	07:53 18:56	08:06 16:35	09:10 15:46	
8	09:24 16:04	08:30 17:13	07:16 18:21	06:47 20:33	05:27 21:42	04:32 22:41	04:40 22:43	05:40 21:44	06:49 20:20	07:55 18:53	08:08 16:32	09:12 15:45	
9	09:23 16:05	08:28 17:16	07:13 18:24	06:44 20:35	05:24 21:44	04:31 22:42	04:41 22:42	05:42 21:42	06:51 20:17	07:58 18:50	08:11 16:30	09:14 15:44	
10	09:22 16:07	08:25 17:18	07:10 18:26	06:41 20:38	05:22 21:47	04:30 22:43	04:43 22:41	05:44 21:39	06:53 20:14	08:00 18:48	08:13 16:28	09:15 15:44	
11	09:21 16:09	08:23 17:21	09:07 (23) 07:07	06:38 18:28	05:20 20:40	04:30 21:49	04:44 22:39	05:46 21:37	06:55 20:11	08:02 18:45	08:16 16:26	09:16 15:43	
12	09:20 16:11	08:20 17:23	09:04 (23) 07:05	06:36 18:31	05:17 20:42	04:29 22:45	04:46 22:38	05:49 21:34	06:58 20:08	08:04 18:42	08:18 16:24	09:18 15:43	
13	09:19 16:13	08:18 17:26	09:03 (23) 07:02	06:33 18:33	05:15 20:44	04:28 22:46	04:48 22:37	05:51 21:32	07:00 20:05	08:07 18:39	08:20 16:21	09:19 15:43	
14	09:17 16:15	08:15 17:28	09:02 (23) 06:59	06:30 18:35	05:13 20:47	04:28 22:47	04:49 22:35	05:53 21:29	07:02 20:02	08:09 18:36	08:23 16:19	09:20 15:42	
15	09:16 16:17	08:13 17:31	09:01 (23) 06:56	06:27 18:38	05:11 20:49	04:28 22:47	04:51 22:34	05:55 21:26	07:04 20:00	08:11 18:34	08:25 16:17	09:21 15:42	
16	09:15 16:19	08:10 17:33	09:00 (23) 06:53	06:24 18:40	05:08 20:51	04:27 22:48	04:53 22:32	05:58 21:24	07:06 19:57	08:14 18:31	08:27 16:15	09:22 15:42	
17	09:13 16:21	08:08 17:36	09:01 (23) 06:50	06:22 18:42	05:06 20:54	04:27 22:02	04:54 22:31	06:00 21:21	07:09 19:54	08:16 18:28	08:30 16:13	09:23 15:42	
18	09:12 16:23	08:05 17:38	09:00 (23) 06:47	06:19 18:45	05:04 20:56	04:27 22:04	04:56 22:29	06:02 21:19	07:11 19:51	08:18 18:25	08:32 16:11	09:24 15:42	
19	09:10 16:26	08:02 17:41	09:00 (23) 06:44	06:16 18:47	05:02 20:58	04:27 22:50	04:58 22:27	06:04 21:16	07:13 19:48	08:21 18:23	09:34 (23) 16:10	08:34 15:42	
20	09:09 16:28	08:00 17:43	09:00 (23) 06:42	06:13 18:49	05:00 21:01	04:27 22:50	05:00 22:26	06:06 21:13	07:15 19:45	08:23 18:20	09:32 (23) 16:08	08:37 15:43	
21	09:07 16:30	07:57 17:46	09:01 (23) 06:39	06:11 18:52	04:58 21:03	04:27 22:50	05:02 22:24	06:09 21:10	07:17 19:42	08:25 18:17	09:32 (23) 16:06	08:39 15:43	
22	09:05 16:32	07:55 17:48	09:02 (23) 06:36	06:08 18:54	04:56 21:05	04:27 22:12	05:04 22:22	06:11 21:08	07:20 19:39	08:28 18:15	09:30 (23) 16:04	08:41 15:44	
23	09:04 16:35	07:52 17:50	09:03 (23) 06:33	06:05 18:56	04:54 21:08	04:27 22:14	05:06 22:20	06:13 21:05	07:22 19:36	08:30 18:12	09:30 (23) 16:03	08:43 15:44	
24	09:02 16:37	07:49 17:53	09:06 (23) 06:30	06:02 18:59	04:53 21:10	04:28 22:16	05:08 22:51	06:15 21:02	07:24 19:33	08:32 18:09	09:30 (23) 16:01	08:45 15:45	
25	09:00 16:39	07:46 17:55	8 09:14 (23) 06:27	06:00 19:01	04:51 21:12	04:28 22:18	05:10 22:16	06:18 20:59	07:26 19:31	07:35 17:07	08:30 (23) 15:59	09:28 15:45	
26	08:58 16:42	07:44 17:58	06:24 19:03	05:57 21:15	04:49 22:20	04:29 22:51	05:12 22:14	06:20 20:57	07:28 19:28	07:37 17:04	08:30 (23) 15:58	09:28 15:46	
27	08:56 16:44	07:41 18:00	06:21 19:05	05:54 21:17	04:47 22:22	04:29 22:50	05:14 22:12	06:22 20:54	07:31 19:25	07:40 17:42	08:30 (23) 15:57	08:52 15:47	
28	08:54 16:46	07:38 18:02	06:18 19:08	05:52 21:19	04:46 22:24	04:30 22:50	05:16 22:10	06:24 20:51	07:33 19:22	07:22 16:59	08:31 (23) 15:55	08:54 15:48	
29	08:52 16:49		07:16 19:08	05:49 21:21	04:44 22:26	04:31 22:50	05:18 22:08	06:27 20:48	07:35 19:19	07:44 16:56	08:33 (23) 15:54	08:56 15:49	
30	08:50 16:51		07:13 20:12	05:47 21:24	04:43 22:27	04:31 22:49	05:20 22:05	06:29 20:45	07:37 19:16	07:47 16:54	08:34 (23) 15:53	08:58 15:50	
31	08:48 16:54		07:10 20:15		04:41 22:29		05:22 22:03	06:31 20:43		07:49 16:51	08:37 (23) 15:51		09:28 15:51
Potential sun hours	221	260	365	432	521	547	546	478	386	319	236	199	
Total, worst case										228			
Sun reduction										0,50			
Oper. time red.										0,80			
Wind dir. red.										0,74			
Total reduction										0,29			
Total, real										67			

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)	Last time (hh:mm) with flicker	(WTG causing flicker last time)
	Minutes with flicker		

SHADOW - Calendar

Calculation: Oppdatert layout - real case med vindrose - med nærliggende - oppdatert mottaker **Shadow receptor:** AG - Hytte, ikke ferdig bygd. Eiendom 57/3 - Bjerkreim kommune (33)

Assumptions for shadow calculations

Sunshine probability S/S0 (Sun hours/Possible sun hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
644 231 315 644 959 714 721 455 378 420 574 938 6 993

	January		February		March		April		May		June			
1	09:28	12:11 (33)	08:45	12:16 (33)	07:35	15:43 (8)	07:07	18:42 (18)	05:44	04:39				
	15:52	49	14:26 (15)	16:56	112	15:37 (36)	18:04	25	17:06 (10)	20:16	18	19:00 (18)	21:26	22:30
2	09:27	12:12 (33)	08:43	12:17 (33)	07:32	15:46 (8)	07:04	18:43 (18)	05:41	04:38				
	15:54	54	14:28 (15)	16:58	113	15:38 (36)	18:07	35	17:10 (10)	20:19	14	18:57 (18)	21:28	22:32
3	09:27	12:11 (33)	08:41	12:19 (33)	07:30	16:31 (13)	07:01	18:47 (18)	05:38	04:37				
	15:55	58	14:29 (15)	17:01	110	15:38 (36)	18:09	38	17:13 (10)	20:21	8	18:55 (18)	21:30	22:33
4	09:26	12:11 (33)	08:39	12:21 (33)	07:27	16:29 (13)	06:58	18:52 (18)	05:36	04:36				
	15:57	61	14:29 (15)	17:03	107	15:39 (36)	18:12	46	17:15 (10)	20:23			21:33	22:35
5	09:26	12:10 (33)	08:36	12:25 (33)	07:24	16:27 (13)	06:55	18:55 (18)	05:34	04:35				
	15:58	66	14:30 (15)	17:06	99	15:39 (36)	18:14	48	17:15 (10)	20:26			21:35	22:36
6	09:25	12:10 (33)	08:34	12:59 (27)	07:21	16:25 (13)	06:52	18:58 (18)	05:31	04:34				
	16:00	70	14:31 (15)	17:08	92	15:39 (36)	18:16	50	17:15 (10)	20:28			21:37	22:38
7	09:24	12:10 (33)	08:32	12:59 (27)	07:18	16:23 (13)	06:49	18:59 (18)	05:29	04:33				
	16:01	73	14:32 (15)	17:11	91	15:38 (36)	18:19	52	17:15 (10)	20:30			21:39	22:39
8	09:23	12:10 (33)	08:30	12:59 (27)	07:15	16:22 (13)	06:46	19:00 (18)	05:26	04:32				
	16:03	78	14:33 (15)	17:13	90	15:38 (36)	18:21	52	17:14 (10)	20:32			21:42	22:40
9	09:22	12:09 (33)	08:27	13:00 (27)	07:13	16:20 (13)	06:44	19:01 (18)	05:24	04:31				
	16:05	81	14:33 (15)	17:16	88	15:38 (36)	18:23	54	17:14 (10)	20:35			21:44	22:41
10	09:21	12:09 (33)	08:25	12:59 (27)	07:10	16:19 (13)	06:41	19:02 (18)	05:21	04:30				
	16:07	84	14:34 (15)	17:18	97	15:58 (8)	18:26	54	17:13 (10)	20:37			21:46	22:42
11	09:20	12:09 (33)	08:22	12:59 (27)	07:07	16:18 (13)	06:38	19:03 (18)	05:19	04:29				
	16:09	87	14:34 (15)	17:20	99	16:00 (8)	18:28	54	17:12 (10)	20:39			21:48	22:44
12	09:19	12:09 (33)	08:20	13:00 (27)	07:04	16:17 (13)	06:35	19:04 (18)	05:17	04:29				
	16:11	91	14:35 (15)	17:23	100	16:03 (8)	18:30	54	17:11 (10)	20:42			21:51	22:44
13	09:18	12:09 (33)	08:17	13:00 (27)	07:01	16:16 (13)	06:32	19:05 (18)	05:15	04:28				
	16:13	93	14:35 (15)	17:25	95	16:04 (8)	18:33	53	17:09 (10)	20:44			21:53	22:45
14	09:17	12:09 (33)	08:15	13:01 (27)	06:58	16:16 (13)	06:29	19:06 (18)	05:12	04:28				
	16:15	96	14:36 (15)	17:28	90	16:05 (8)	18:35	50	17:06 (10)	20:46			21:55	22:46
15	09:16	12:09 (33)	08:12	13:02 (27)	06:56	16:16 (13)	06:27	19:07 (18)	05:10	04:27				
	16:17	99	14:37 (15)	17:30	91	16:07 (8)	18:37	46	17:02 (13)	20:49			21:57	22:47
16	09:14	12:09 (33)	08:10	13:02 (27)	06:53	16:16 (13)	06:24	19:08 (18)	05:08	04:27				
	16:19	101	14:37 (15)	17:33	91	16:07 (8)	18:40	46	17:02 (13)	20:51			21:59	22:48
17	09:13	12:09 (33)	08:07	13:03 (27)	06:50	16:16 (13)	06:21	19:09 (18)	05:06	04:27				
	16:21	103	14:37 (15)	17:35	91	16:08 (8)	18:42	45	17:01 (13)	20:53			22:02	22:48
18	09:11	12:09 (33)	08:05	13:03 (27)	06:47	16:15 (13)	06:18	19:10 (18)	05:04	04:27				
	16:23	104	14:37 (15)	17:38	91	16:08 (8)	18:44	48	17:56 (18)	20:56			22:04	22:49
19	09:10	12:09 (33)	08:02	13:05 (27)	06:44	16:15 (13)	06:16	19:11 (18)	05:02	04:26				
	16:25	105	14:37 (15)	17:40	89	16:09 (8)	18:47	57	18:01 (18)	20:58			22:06	22:49
20	09:08	12:09 (33)	07:59	13:06 (27)	06:41	16:16 (13)	06:13	19:12 (18)	05:00	04:26				
	16:27	107	14:37 (15)	17:43	88	16:09 (8)	18:49	60	18:03 (18)	21:00			22:08	22:50
21	09:07	12:09 (33)	07:57	13:07 (27)	06:38	16:16 (13)	06:10	19:13 (18)	04:58	04:27				
	16:30	106	14:36 (15)	17:45	84	16:08 (8)	18:51	63	18:04 (18)	21:02			22:10	22:50
22	09:05	12:10 (33)	07:54	13:08 (27)	06:35	16:16 (13)	06:07	19:14 (18)	04:56	04:27				
	16:32	106	14:36 (15)	17:48	82	16:08 (8)	18:54	63	18:05 (18)	21:05			22:12	22:50
23	09:03	12:10 (33)	07:51	13:09 (27)	06:32	16:17 (13)	06:05	19:15 (18)	04:54	04:27				
	16:34	105	14:36 (15)	17:50	78	16:07 (8)	18:56	63	18:05 (18)	21:07			22:14	22:50
24	09:01	12:10 (33)	07:49	13:12 (27)	06:30	16:17 (13)	06:02	19:16 (18)	04:52	04:27				
	16:37	106	14:35 (15)	17:52	74	16:08 (8)	18:58	63	18:05 (18)	21:09			22:16	22:50
25	08:59	12:11 (33)	07:46	13:14 (27)	06:27	16:18 (13)	05:59	19:17 (18)	04:50	04:28				
	16:39	104	15:26 (36)	17:55	68	16:07 (8)	19:00	61	18:05 (18)	21:12			22:18	22:50
26	08:58	12:11 (33)	07:43	13:16 (27)	06:24	16:20 (13)	05:57	19:18 (18)	04:49	04:28				
	16:41	103	15:28 (36)	17:57	62	16:06 (8)	19:03	59	18:06 (18)	21:14			22:20	22:50
27	08:56	12:12 (33)	07:41	13:19 (27)	06:21	16:22 (13)	05:54	19:19 (18)	04:47	04:29				
	16:44	108	15:31 (36)	18:00	52	16:04 (8)	19:05	55	18:06 (18)	21:16			22:22	22:50
28	08:54	12:12 (33)	07:38	13:24 (27)	06:18	16:24 (13)	05:51	19:20 (18)	04:45	04:29				
	16:46	111	15:33 (36)	18:02	40	17:03 (10)	19:07	49	18:05 (18)	21:19			22:23	22:50
29	08:52	12:13 (33)				17:27 (13)	05:49		04:44	04:30				
	16:48	112	15:34 (36)			20:10		42	19:04 (18)	21:21			22:25	22:49
30	08:50	12:14 (33)				07:12			04:42	04:31				
	16:51	115	15:36 (36)			20:12		32	19:03 (18)	21:23			22:27	22:49
31	08:47	12:15 (33)				07:09			04:41					
	16:53	116	15:37 (36)			20:14		20	19:01 (18)	21:25			22:29	
Potential sun hours	221		260		365		432		521		547			
Total, worst case	2852		2464		1537		40							
Sun reduction	0,50		0,50		0,50		0,50							
Oper. time red.	0,80		0,80		0,80		0,80							
Wind dir. red.	0,59		0,57		0,58		0,61							
Total reduction	0,24		0,23		0,23		0,25							
Total, real	672		561		358		10							

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Calculation: Oppdatert layout - real case med vindrose - med nærliggende - oppdatert mottaker **Shadow receptor:** AG - Hytte, ikke ferdig bygd. Eiendom 57/3 - Bjerkreim kommune (33)

Assumptions for shadow calculations

Sunshine probability S/S0 (Sun hours/Possible sun hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
644 231 315 644 959 714 721 455 378 420 574 938 6 993

	July	August	September	October	November	December
1	04:32 22:48	05:24 22:01	06:33 20:39	07:39 19:13	16:56 (13) 07:51 19:13	12:29 (27) 08:59 15:51
2	04:33 22:48	05:26 21:58	06:35 20:37	07:41 19:10	16:57 (13) 07:53 17:51 (10)	12:29 (27) 09:01 15:50
3	04:34 22:47	05:28 21:56	06:37 20:34	07:44 19:07	16:57 (13) 07:56 17:51 (10)	12:28 (27) 09:03 15:49
4	04:35 22:46	05:30 21:54	06:39 20:31	07:46 19:04	16:57 (13) 07:58 17:51 (10)	12:29 (27) 09:05 15:48
5	04:36 22:45	05:33 21:51	06:42 20:28	07:48 19:01	16:58 (13) 08:01 17:52 (10)	12:29 (27) 09:07 15:47
6	04:37 22:44	05:35 21:49	06:44 20:25	07:50 18:58	16:59 (13) 08:03 17:51 (10)	11:55 (33) 09:08 15:46
7	04:38 22:44	05:37 21:46	06:46 20:22	07:53 18:56	16:59 (13) 08:06 17:50 (10)	11:51 (33) 09:10 15:45
8	04:40 22:43	05:39 21:44	06:48 20:19	07:55 18:53	17:01 (13) 08:08 17:50 (10)	11:49 (33) 09:12 15:44
9	04:41 22:41	05:41 21:41	06:51 20:16	07:57 18:51	17:02 (13) 08:10 17:49 (10)	11:48 (33) 09:13 15:44
10	04:42 22:40	05:44 21:39	06:53 20:14	07:59 18:49	17:04 (13) 08:13 17:48 (10)	11:46 (33) 09:15 15:43
11	04:44 22:39	05:46 21:36	06:55 20:11	08:02 18:47	16:24 (8) 08:15 17:46 (10)	11:46 (33) 09:16 15:43
12	04:45 22:38	05:48 21:34	06:57 20:08	08:04 18:44	16:18 (8) 08:17 17:42 (10)	11:46 (33) 09:17 15:42
13	04:47 22:36	05:50 21:31	06:59 20:05	08:06 18:41	14:04 (27) 08:20 17:42 (10)	11:44 (33) 09:19 15:42
14	04:49 22:35	05:53 21:29	07:02 20:02	08:09 18:38	13:55 (27) 08:22 17:41 (10)	11:44 (33) 09:20 15:42
15	04:50 22:33	05:55 21:26	07:04 19:59	08:11 18:36	13:50 (27) 08:25 17:41 (10)	11:44 (33) 09:21 15:42
16	04:52 22:32	05:57 21:23	07:06 19:56	08:13 18:33	13:47 (27) 08:27 17:41 (10)	11:45 (33) 09:22 15:42
17	04:54 22:30	05:59 21:21	07:08 19:53	08:16 18:31	13:44 (27) 08:29 17:41 (10)	11:44 (33) 09:23 15:42
18	04:56 22:29	06:02 21:18	07:10 19:50	08:18 18:29	13:42 (27) 08:32 17:41 (10)	11:44 (33) 09:24 15:42
19	04:58 22:27	06:04 21:15	07:12 19:47	08:20 18:27	13:39 (27) 08:34 17:41 (10)	11:45 (33) 09:25 15:42
20	04:59 22:25	06:06 21:13	07:15 19:45	08:23 18:25	13:38 (27) 08:36 17:41 (10)	11:45 (33) 09:25 15:42
21	05:01 22:23	06:08 21:10	07:17 19:42	08:25 18:23	13:36 (27) 08:38 17:41 (10)	11:45 (33) 09:26 15:42
22	05:03 22:21	06:11 21:07	07:19 19:39	08:27 18:21	13:35 (27) 08:41 17:41 (10)	11:45 (33) 09:26 15:42
23	05:05 22:19	06:13 21:05	07:21 19:36	08:30 18:19	13:34 (27) 08:43 17:41 (10)	11:46 (33) 09:27 15:42
24	05:07 22:18	06:15 21:02	07:24 19:33	08:32 18:17	13:33 (27) 08:45 17:41 (10)	11:46 (33) 09:27 15:42
25	05:09 22:16	06:17 20:59	07:26 19:30	08:34 18:15	12:33 (27) 08:47 17:41 (10)	11:47 (33) 09:28 15:42
26	05:11 22:14	06:19 20:56	07:28 19:27	08:37 18:13	12:31 (27) 08:49 17:41 (10)	11:47 (33) 09:28 15:42
27	05:13 22:11	06:22 20:53	07:30 19:24	08:39 18:11	12:31 (27) 08:51 17:41 (10)	11:48 (33) 09:28 15:42
28	05:15 22:09	06:24 20:51	07:32 19:21	08:41 18:09	12:30 (27) 08:53 17:41 (10)	11:48 (33) 09:28 15:42
29	05:17 22:07	06:26 20:48	07:35 19:19	08:44 18:07	12:30 (27) 08:55 17:41 (10)	11:50 (33) 09:28 15:42
30	05:20 22:05	06:28 20:45	07:37 19:16	08:46 18:05	12:30 (27) 08:57 17:41 (10)	11:50 (33) 09:28 15:42
31	05:22 22:03	06:31 20:42	07:40 19:13	08:49 18:03	12:29 (27) 09:00 17:41 (10)	11:51 (33) 09:28 15:42
Potential sun hours	546	478	386	319	236	199
Total, worst case			1011	2094	3097	1286
Sun reduction			0,50	0,50	0,50	0,50
Oper. time red.			0,80	0,80	0,80	0,80
Wind dir. red.			0,59	0,57	0,59	0,59
Total reduction			0,24	0,23	0,23	0,23
Total, real			238	474	726	301

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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Project:

Moifjellet vindkraftverk

Licensed user:

Multiconsult Norge AS

Nedre Skøyen vei 2 .

NO-0276 Oslo

+47 21 58 60 15

Martine / martine.bjugg@multiconsult.no

Calculated:

20.01.2025 16:22/4.0.540

SHADOW - Calendar

Calculation: Oppdatert layout - real case med vindrose - med nærliggende - oppdatert mottaker Shadow receptor: AH - Brusalivegen 201 (34)
Sunshine probability S/S0 (Sun hours/Possible sun hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
644 231 315 644 959 714 721 455 378 420 574 938 6 993

Table with columns for months (January to December) and rows for time slots (09:28 to 16:54). Includes summary rows for 'Potential sun hours', 'Total, worst case', 'Sun reduction', 'Oper. time red.', 'Wind dir. red.', 'Total reduction', and 'Total, real'.

Table layout: For each day in each month the following matrix apply

Day in month Sun rise (hh:mm) Sun set (hh:mm) Minutes with flicker First time (hh:mm) with flicker Last time (hh:mm) with flicker (WTG causing flicker first time) (WTG causing flicker last time)



SHADOW - Calendar

Calculation: Oppdatert layout - real case med vindrose - med nærliggende - oppdatert mottaker **Shadow receptor:** AI - Vaule 218 (35)

Assumptions for shadow calculations

Sunshine probability S/S0 (Sun hours/Possible sun hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
644 231 315 644 959 714 721 455 378 420 574 938 6 993

	January	February	March	April	May	June	
1	09:28	08:45	13:54 (27)	07:35	07:06	05:44	20:58 (78)
	15:52	16:56	14:12 (27)	18:04	20:16	21:26	7 21:05 (78)
2	09:27	08:43	13:56 (27)	07:32	07:04	05:41	04:38
	15:54	16:58	14:12 (27)	18:07	20:19	21:28	22:32 5 21:04 (78)
3	09:27	08:41	13:58 (27)	07:29	07:01	05:38	04:37
	15:55	17:01	14:09 (27)	18:09	20:21	21:30	22:33
4	09:26	08:39		07:27	06:58	05:36	04:36
	15:57	17:03		18:12	20:23	21:33	22:35
5	09:26	08:37		07:24	06:55	05:33	04:34
	15:58	17:06		18:14	20:26	21:35	22:36
6	09:25	08:34	15:24 (13)	07:21	06:52	05:31	04:33
	16:00	17:08	6 15:30 (13)	18:16	20:28	21:37	22:38
7	09:24	08:32	15:21 (13)	07:18	06:49	05:29	04:32
	16:01	17:11	12 15:33 (13)	18:19	20:30	21:39	22:39
8	09:23	08:30	15:19 (13)	07:15	06:46	05:26	04:31
	16:03	17:13	15 15:34 (13)	18:21	20:32	21:42	22:40
9	09:23	08:27	15:18 (13)	07:13	06:44	05:24	04:31
	16:05	17:15	18 15:36 (13)	18:23	20:35	21:44	22:41
10	09:22	08:25	15:17 (13)	07:10	06:41	05:21	04:30
	16:07	17:18	20 15:37 (13)	18:26	20:37	21:46	22:43 1 21:27 (80)
11	09:20	08:22	15:16 (13)	07:07	06:38	05:19	04:29
	16:09	17:20	21 15:37 (13)	18:28	20:39	21:48	22:44 2 21:28 (80)
12	09:19	13:53 (27)	08:20	15:17 (13)	07:04	06:35	05:17
	16:10	2 13:55 (27)	17:23	15:38 (13)	18:30	20:42	21:51
13	09:18	13:53 (27)	08:17	15:16 (13)	07:01	06:32	05:15
	16:12	5 13:58 (27)	17:25	15:38 (13)	18:33	20:44	21:53
14	09:17	13:51 (27)	08:15	15:16 (13)	06:58	06:29	05:12
	16:14	8 13:59 (27)	17:28	15:38 (13)	18:35	20:46	21:55
15	09:16	13:50 (27)	08:12	15:17 (13)	06:56	06:27	05:10
	16:17	13 14:03 (27)	17:30	15:38 (13)	18:37	20:49	21:57
16	09:14	13:49 (27)	08:10	15:17 (13)	06:53	06:24	05:08
	16:19	19 14:08 (27)	17:33	15:38 (13)	18:40	20:51	21:59
17	09:13	11:39 (38)	08:07	15:17 (13)	06:50	06:21	05:06
	16:21	27 14:10 (27)	17:35	15:37 (13)	18:42	20:53	22:02
18	09:11	11:35 (38)	08:05	15:17 (13)	06:47	06:18	05:04
	16:23	33 14:11 (27)	17:38	15:36 (13)	18:44	20:56	22:04
19	09:10	11:32 (38)	08:02	15:19 (13)	06:44	06:16	05:02
	16:25	36 14:11 (27)	17:40	15:36 (13)	18:47	20:58	22:06
20	09:08	11:28 (38)	07:59	15:21 (13)	06:41	06:13	05:00
	16:27	43 14:12 (27)	17:43	15:34 (13)	18:49	21:00	22:08
21	09:07	11:27 (38)	07:57	15:24 (13)	06:38	06:10	04:58
	16:30	44 14:13 (27)	17:45	6 15:30 (13)	18:51	21:02	22:10
22	09:05	11:28 (38)	07:54		06:35	06:07	04:56
	16:32	43 14:13 (27)	17:47		18:53	21:05	22:12
23	09:03	11:29 (38)	07:51		06:32	06:05	04:54
	16:34	43 14:14 (27)	17:50		18:56	21:07	22:14
24	09:01	11:30 (38)	07:49		06:30	06:02	04:52
	16:36	42 14:14 (27)	17:52		18:58	21:09	22:16
25	08:59	11:32 (38)	07:46		06:27	05:59	04:50
	16:39	39 14:15 (27)	17:55		19:00	21:12	22:18
26	08:58	11:33 (38)	07:43		06:24	05:57	04:49
	16:41	36 14:14 (27)	17:57		19:03	21:14	22:20
27	08:56	11:36 (38)	07:41		06:21	05:54	04:47
	16:44	30 14:14 (27)	18:00		19:05	21:16	22:22
28	08:54	13:51 (27)	07:38		06:18	05:51	04:45
	16:46	24 14:15 (27)	18:02		19:07	21:19	22:23
29	08:52	13:51 (27)			07:15	05:49	04:44
	16:48	23 14:14 (27)			20:10	21:21	22:25
30	08:50	13:52 (27)			07:12	05:46	04:42
	16:51	22 14:14 (27)			20:12	21:23	22:27
31	08:48	13:54 (27)			07:09		04:41
	16:53	20 14:14 (27)			20:14	22:29	9 21:06 (78)
Potential sun hours	221	260	365	432	521	547	
Total, worst case	552	319			185		92
Sun reduction	0,50	0,50			0,50		0,50
Oper. time red.	0,80	0,80			0,80		0,80
Wind dir. red.	0,58	0,55			0,73		0,74
Total reduction	0,23	0,22			0,29		0,29
Total, real	128	69			54		27

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Calculation: Oppdatert layout - real case med vindrose - med nærliggende - oppdatert mottaker **Shadow receptor:** AI - Vaule 218 (35)
Assumptions for shadow calculations Sunshine probability S/S0 (Sun hours/Possible sun hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
 644 231 315 644 959 714 721 455 378 420 574 938 6 993

	July	August	September	October	November	December						
1	04:32	21:31 (80)	05:24	06:33	07:39	07:51	14:47 (13)	08:59				
	22:48	1	21:32 (80)	22:01	20:39	19:13	16:48	19	15:06 (13)	15:51		
2	04:33	21:31 (80)	05:26	06:35	07:41	07:53	14:48 (13)	09:01				
	22:48	1	21:32 (80)	21:58	20:37	19:10	16:46	17	15:05 (13)	15:50		
3	04:34	21:31 (80)	05:28	06:37	07:44	07:56	14:48 (13)	09:03				
	22:47	1	21:32 (80)	21:56	20:34	19:07	16:44	16	15:04 (13)	15:49		
4	04:35		05:30	06:39	07:46	07:58	14:50 (13)	09:05				
	22:46		21:54	20:31	19:04	16:41	12	15:02 (13)	15:48			
5	04:36		05:33	06:42	07:48	08:01	14:54 (13)	09:07				
	22:45		21:51	20:28	19:01	16:39	5	14:59 (13)	15:47			
6	04:37		05:35	06:44	07:50	08:03		09:08				
	22:45		21:49	20:25	18:58	16:36		15:46				
7	04:38		05:37	06:46	07:53	08:06	13:33 (27)	09:10				
	22:44		21:46	20:22	18:56	16:34	3	13:36 (27)	15:45			
8	04:40		05:39	06:48	07:55	08:08	13:29 (27)	09:12				
	22:43		21:44	20:19	18:53	16:32	11	13:40 (27)	15:44			
9	04:41		05:41	06:50	07:57	08:10	13:27 (27)	09:13				
	22:41		21:41	20:16	18:50	16:30	15	13:42 (27)	15:44			
10	04:42	21:08 (78)	05:44	06:53	07:59	08:13	13:25 (27)	09:15				
	22:40	3	21:11 (78)	21:39	20:14	18:47	16:27	18	13:43 (27)	15:43		
11	04:44	21:06 (78)	05:46	06:55	08:02	08:15	13:24 (27)	09:16				
	22:39	6	21:12 (78)	21:36	20:11	18:44	16:25	21	13:45 (27)	15:43		
12	04:45	21:05 (78)	05:48	06:57	08:04	08:17	13:24 (27)	09:17				
	22:38	8	21:13 (78)	21:34	20:08	18:41	16:23	22	13:46 (27)	15:42		
13	04:47	21:05 (78)	05:50	06:59	08:06	08:20	13:23 (27)	09:19				
	22:36	9	21:14 (78)	21:31	20:05	18:39	16:21	23	13:46 (27)	15:42		
14	04:49	21:04 (78)	05:53	07:01	08:09	08:22	13:23 (27)	09:20				
	22:35	11	21:15 (78)	21:29	20:02	18:36	16:19	24	13:47 (27)	15:42		
15	04:50	21:04 (78)	05:55	07:04	08:11	08:25	11:08 (38)	09:21				
	22:33	12	21:16 (78)	21:26	19:59	18:33	16:17	31	13:47 (27)	15:42		
16	04:52	21:03 (78)	05:57	07:06	08:13	08:27	11:06 (38)	09:22				
	22:32	13	21:16 (78)	21:23	19:56	18:30	16:15	37	13:48 (27)	15:42		
17	04:54	21:03 (78)	05:59	07:08	08:16	08:29	11:05 (38)	09:23				
	22:30	13	21:16 (78)	21:21	19:53	18:28	16:13	39	13:48 (27)	15:42		
18	04:56	21:03 (78)	06:01	07:10	08:18	08:32	11:04 (38)	09:24				
	22:29	13	21:16 (78)	21:18	19:50	18:25	16:11	42	13:48 (27)	15:42		
19	04:57	21:03 (78)	06:04	07:12	08:20	08:34	11:04 (38)	09:25				
	22:27	14	21:17 (78)	21:15	19:47	18:22	16:09	43	13:49 (27)	15:42		
20	04:59	21:03 (78)	06:06	07:15	08:23	08:36	11:03 (38)	09:25				
	22:25	14	21:17 (78)	21:13	19:45	18:19	16:07	43	13:48 (27)	15:42		
21	05:01	21:03 (78)	06:08	07:17	08:25	15:53 (13)	08:38	11:03 (38)	09:26			
	22:23	14	21:17 (78)	21:10	19:42	18:17	9	16:02 (13)	16:06	44	13:49 (27)	15:43
22	05:03	21:03 (78)	06:10	07:19	08:27	15:51 (13)	08:41	11:04 (38)	09:27			
	22:21	14	21:17 (78)	21:07	19:39	18:14	13	16:04 (13)	16:04	43	13:48 (27)	15:43
23	05:05	21:04 (78)	06:13	07:21	08:30	15:48 (13)	08:43	11:09 (38)	09:27			
	22:20	13	21:17 (78)	21:05	19:36	18:11	17	16:05 (13)	16:02	36	13:48 (27)	15:44
24	05:07	21:05 (78)	06:15	07:23	08:32	15:47 (13)	08:45	11:13 (38)	09:27			
	22:18	12	21:17 (78)	21:02	19:33	18:09	19	16:06 (13)	16:01	33	13:49 (27)	15:44
25	05:09	21:04 (78)	06:17	07:26	08:34	14:47 (13)	08:47	11:17 (38)	09:28			
	22:16	11	21:15 (78)	20:59	19:30	17:06	20	15:07 (13)	15:59	27	13:48 (27)	15:45
26	05:11	21:05 (78)	06:19	07:28	08:37	14:46 (13)	08:49	13:28 (27)	09:28			
	22:14	10	21:15 (78)	20:56	19:27	17:04	21	15:07 (13)	15:57	20	13:48 (27)	15:46
27	05:13	21:07 (78)	06:22	07:30	08:39	14:46 (13)	08:51	13:29 (27)	09:28			
	22:11	6	21:13 (78)	20:53	19:24	17:01	22	15:08 (13)	15:56	13	13:42 (27)	15:47
28	05:15		06:24	07:32	08:41	14:45 (13)	08:53	13:30 (27)	09:28			
	22:09		20:51	19:21	16:58	22	15:07 (13)	15:55	9	13:39 (27)	15:47	
29	05:17		06:26	07:35	08:44	14:45 (13)	08:55	13:34 (27)	09:28			
	22:07		20:48	19:18	16:56	22	15:07 (13)	15:53	5	13:39 (27)	15:49	
30	05:20		06:28	07:37	08:46	14:46 (13)	08:57	13:34 (27)	09:28			
	22:05		20:45	19:16	16:53	21	15:07 (13)	15:52	2	13:36 (27)	15:50	
31	05:22		06:31	07:40	08:49	14:46 (13)		09:28				
	22:03		20:42	19:12	16:51	20	15:06 (13)	15:51				
Potential sun hours	546	478	386	319	236	199						
Total, worst case	199				206	673						
Sun reduction	0,50				0,50	0,50						
Oper. time red.	0,80				0,80	0,80						
Wind dir. red.	0,73				0,55	0,57						
Total reduction	0,29				0,22	0,23						
Total, real	58				45	154						

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Calculation: Oppdatert layout - real case med vindrose - med nærliggende - oppdatert mottaker **Shadow receptor:** AJ - Heiavegen 543 (36)

Assumptions for shadow calculations

Sunshine probability S/S0 (Sun hours/Possible sun hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
644 231 315 644 959 714 721 455 378 420 574 938 6 993

	January	February	March	April	May	June	July	August	September	October	November	December	
1	09:27 15:53	08:45 16:56	07:35 18:04	07:06 20:16	05:44 21:25	04:40 22:30	04:32 22:48	20:43 (2) 22:00	05:24 06:33	07:39 19:13	07:51 16:49	08:59 15:51	
2	09:27 15:54	08:43 16:58	07:32 18:07	07:04 20:19	05:41 21:28	04:38 22:31	04:33 22:47	20:44 (2) 21:58	05:26 06:35	07:41 19:10	07:53 16:46	09:01 15:50	
3	09:26 15:55	08:41 17:01	07:29 18:09	07:01 20:21	05:39 21:30	04:37 22:33	04:34 22:47	20:44 (2) 21:56	05:28 06:37	07:43 19:07	07:56 16:44	09:03 15:49	
4	09:26 15:57	08:38 17:03	07:27 18:11	06:58 20:23	05:36 21:32	04:36 22:34	04:35 22:46	20:45 (2) 21:53	05:30 06:39	07:46 19:04	07:58 16:41	09:05 15:48	
5	09:25 15:58	08:36 17:06	07:24 18:14	06:55 20:25	05:34 21:35	04:35 22:36	04:36 22:45	21:51 05:35	06:42 06:28	07:48 19:01	08:00 16:39	09:06 15:47	
6	09:25 16:00	08:34 17:08	07:21 18:16	06:52 20:28	05:31 21:37	04:34 22:37	04:37 22:44	21:48 21:48	06:44 06:25	07:50 18:58	08:03 16:37	09:08 15:46	
7	09:24 16:02	08:32 17:11	07:18 18:19	06:49 20:30	05:29 21:39	04:33 22:38	04:39 22:43	21:46 21:46	06:46 06:22	07:52 18:56	08:05 16:34	09:10 15:45	
8	09:23 16:03	08:29 17:13	07:15 18:21	06:46 20:32	05:26 21:41	04:32 22:40	04:40 22:42	21:44 21:44	06:48 06:19	07:55 18:53	08:08 16:32	09:11 15:45	
9	09:22 16:05	08:27 17:16	07:12 18:23	06:44 20:35	05:24 21:44	04:31 22:41	04:41 22:41	21:41 21:41	06:50 06:16	07:57 18:50	08:10 16:30	09:13 15:44	
10	09:21 16:07	08:24 17:18	07:10 18:26	06:41 20:37	05:22 21:46	04:30 22:42	04:43 22:40	21:39 21:39	06:53 06:13	07:59 18:47	08:12 16:27	09:14 15:43	
11	09:20 16:09	08:22 17:20	07:07 18:28	06:38 20:39	05:19 21:48	04:29 22:43	20:39 (2) 22:39	04:44 21:36	06:55 06:11	08:01 18:44	08:15 16:25	09:16 15:43	
12	09:19 16:11	08:20 17:23	07:04 18:30	06:35 20:41	05:17 21:50	04:29 22:44	20:40 (2) 22:37	04:46 20:41 (2)	05:48 21:34	06:57 20:08	08:04 18:41	08:17 16:23	09:17 15:43
13	09:18 16:13	08:17 17:25	07:01 18:33	06:32 20:44	05:15 21:53	04:28 22:45	20:39 (2) 22:36	04:47 20:41 (2)	05:50 21:31	06:59 20:05	08:06 18:39	08:20 16:21	09:18 15:42
14	09:17 16:15	08:15 17:28	06:58 18:35	06:29 20:46	05:12 21:55	04:28 22:46	20:40 (2) 22:34	04:49 20:42 (2)	05:53 21:28	07:01 20:02	08:08 18:36	08:22 16:19	09:19 15:42
15	09:15 16:17	08:12 17:30	06:55 18:37	06:27 20:48	05:10 21:57	04:27 22:47	20:40 (2) 22:33	04:51 21:26	05:55 19:59	07:04 18:33	08:11 16:17	08:24 15:42	09:20 15:42
16	09:14 16:19	08:10 17:33	06:53 18:40	06:24 20:51	05:08 21:59	04:27 22:47	20:40 (2) 22:31	04:52 21:23	05:57 19:56	07:06 18:30	08:13 16:15	08:27 15:42	09:21 15:42
17	09:12 16:21	08:07 17:35	06:50 18:42	06:21 20:53	05:06 22:01	04:27 22:48	20:40 (2) 22:50	04:54 21:20	05:59 19:53	07:08 18:28	08:15 16:13	08:29 15:42	09:22 15:42
18	09:11 16:23	08:04 17:38	06:47 18:44	06:18 20:55	05:04 22:03	04:27 22:48	20:41 (2) 22:28	04:56 21:18	06:02 19:50	07:10 18:25	08:18 16:11	08:31 15:42	09:23 15:42
19	09:09 16:25	08:02 17:40	06:44 18:46	06:16 20:58	05:02 22:05	04:27 22:49	20:41 (2) 22:26	04:58 21:15	06:04 19:47	07:12 18:22	08:20 16:09	08:33 15:42	09:24 15:42
20	09:08 16:27	07:59 17:43	06:41 18:49	06:13 21:00	05:00 22:07	04:27 22:49	20:41 (2) 22:25	05:00 21:12	06:06 19:44	07:15 18:20	08:22 16:07	08:36 15:43	09:25 15:43
21	09:06 16:30	07:56 17:45	06:38 18:51	06:10 21:02	04:58 22:10	04:27 22:49	20:41 (2) 22:23	05:01 21:10	06:08 19:42	07:17 18:17	08:25 16:06	08:38 15:43	09:25 15:43
22	09:05 16:32	07:54 17:47	06:35 18:53	06:07 21:05	04:56 22:12	04:27 22:50	20:41 (2) 22:21	05:03 21:07	06:11 19:39	07:19 18:14	08:27 16:04	08:40 15:43	09:26 15:43
23	09:03 16:34	07:51 17:50	06:32 18:56	06:05 21:07	04:54 22:14	04:27 22:50	20:42 (2) 22:19	05:05 21:04	06:13 19:36	07:21 18:12	08:29 16:02	08:42 15:44	09:27 15:44
24	09:01 16:37	07:48 17:52	06:29 18:58	06:02 21:09	04:52 22:15	04:27 22:50	20:42 (2) 22:17	05:07 21:02	06:15 19:33	07:23 18:09	08:32 16:01	08:45 15:44	09:27 15:44
25	08:59 16:39	07:46 17:55	06:27 19:00	05:59 21:11	04:51 22:17	04:28 22:50	20:42 (2) 22:15	05:09 20:59	06:17 19:30	07:26 17:06	07:34 15:59	08:47 15:45	09:27 15:45
26	08:57 16:41	07:43 17:57	06:24 19:03	05:57 21:14	04:49 22:19	04:28 22:50	20:42 (2) 22:13	05:11 20:56	06:19 19:27	07:28 17:04	07:36 15:58	08:49 15:46	09:27 15:46
27	08:55 16:44	07:40 18:00	06:21 19:05	05:54 21:16	04:47 22:21	04:29 22:49	20:42 (2) 22:11	05:13 20:53	06:22 19:24	07:30 17:01	07:39 15:56	08:51 15:47	09:28 15:47
28	08:53 16:46	07:38 18:02	06:18 19:07	05:51 21:18	04:46 22:23	04:30 22:49	20:43 (2) 22:09	05:15 20:50	06:24 19:21	07:32 16:59	07:41 15:55	08:53 15:48	09:28 15:48
29	08:51 16:49	07:15 20:09	07:15 20:09	05:49 21:21	04:44 22:25	04:30 22:49	20:43 (2) 22:07	05:18 20:48	06:26 19:18	07:34 16:56	07:44 15:54	08:55 15:49	09:28 15:49
30	08:49 16:51	07:12 20:12	07:12 20:12	05:46 21:23	04:42 22:26	04:31 22:48	20:43 (2) 22:05	05:20 20:45	06:28 19:16	07:37 16:53	07:46 15:52	08:57 15:50	09:28 15:50
31	08:47 16:53	07:09 20:14	07:09 20:14	04:41 22:28	04:41 22:28	04:41 22:28	05:22 22:02	06:31 20:42	07:48 16:51	07:48 16:51	09:27 15:51	09:27 15:51	09:27 15:51
Potential sun hours	222	260	365	432	521	547	545	478	386	319	236	200	
Total, worst case						51							
Sun reduction						0,50		4					
Oper. time red.						0,80		0,80					
Wind dir. red.						0,74		0,74					
Total reduction						0,29		0,29					
Total, real						15		1					

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)		Last time (hh:mm) with flicker	(WTG causing flicker last time)

SHADOW - Calendar

Calculation: Oppdatert layout - real case med vindrose - med nærliggende - oppdatert mottaker **Shadow receptor:** AK - Heiavegen 541 (37)
 Sunshine probability S/S0 (Sun hours/Possible sun hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
 644 231 315 644 959 714 721 455 378 420 574 938 6 993

	January	February	March	April	May	June	July	August	September	October	November	December		
1	09:27	08:45	07:35	07:06	05:44	04:40	20:27 (2)	04:32	20:32 (2)	05:24	06:33	07:39	07:51	08:59
	15:53	16:56	18:04	20:16	21:25	22:30	9 20:36 (2)	22:48	17 20:49 (2)	22:00	20:39	19:13	16:49	15:51
2	09:27	08:43	07:32	07:04	05:41	04:38	20:27 (2)	04:33	20:32 (2)	05:26	06:35	07:41	07:53	09:01
	15:54	16:58	18:07	20:19	21:28	22:31	11 20:38 (2)	22:47	16 20:48 (2)	21:58	20:36	19:10	16:46	15:50
3	09:26	08:41	07:29	07:01	05:39	04:37	20:27 (2)	04:34	20:33 (2)	05:28	06:37	07:43	07:56	09:03
	15:55	17:01	18:09	20:21	21:30	22:33	12 20:39 (2)	22:47	15 20:48 (2)	21:56	20:33	19:07	16:44	15:49
4	09:26	08:38	07:27	06:58	05:36	04:36	20:27 (2)	04:35	20:33 (2)	05:30	06:39	07:46	07:58	09:05
	15:57	17:03	18:11	20:23	21:32	22:34	12 20:39 (2)	22:46	14 20:47 (2)	21:53	20:31	19:04	16:41	15:48
5	09:25	08:36	07:24	06:55	05:34	04:35	20:27 (2)	04:36	20:33 (2)	05:33	06:42	07:48	08:00	09:06
	15:58	17:06	18:14	20:25	21:35	22:36	13 20:40 (2)	22:45	14 20:47 (2)	21:51	20:28	19:01	16:39	15:47
6	09:25	08:34	07:21	06:52	05:31	04:34	20:27 (2)	04:37	20:33 (2)	05:35	06:44	07:50	08:03	09:08
	16:00	17:08	18:16	20:28	21:37	22:37	13 20:40 (2)	22:44	14 20:47 (2)	21:48	20:25	18:58	16:37	15:46
7	09:24	08:32	07:18	06:49	05:29	04:33	20:28 (2)	04:39	20:33 (2)	05:37	06:46	07:52	08:05	09:10
	16:02	17:11	18:19	20:30	21:39	22:38	14 20:42 (2)	22:43	13 20:46 (2)	21:46	20:22	18:56	16:34	15:45
8	09:23	08:29	07:15	06:46	05:26	04:32	20:27 (2)	04:40	20:33 (2)	05:39	06:48	07:55	08:08	09:11
	16:03	17:13	18:21	20:32	21:41	22:40	15 20:42 (2)	22:42	13 20:46 (2)	21:44	20:19	18:53	16:32	15:45
9	09:22	08:27	07:12	06:44	05:24	04:31	20:27 (2)	04:41	20:34 (2)	05:41	06:50	07:57	08:10	09:13
	16:05	17:16	18:23	20:35	21:44	22:41	15 20:42 (2)	22:41	12 20:46 (2)	21:41	20:16	18:50	16:30	15:44
10	09:21	08:24	07:10	06:41	05:22	04:30	20:28 (2)	04:43	20:34 (2)	05:44	06:53	07:59	08:12	09:14
	16:07	17:18	18:26	20:37	21:46	22:42	15 20:43 (2)	22:40	12 20:46 (2)	21:39	20:13	18:47	16:27	15:43
11	09:20	08:22	07:07	06:38	05:19	04:29	20:28 (2)	04:44	20:34 (2)	05:46	06:55	08:01	08:15	09:16
	16:09	17:20	18:28	20:39	21:48	22:43	16 20:44 (2)	22:39	11 20:45 (2)	21:36	20:11	18:44	16:25	15:43
12	09:19	08:20	07:04	06:35	05:17	04:29	20:29 (2)	04:46	20:35 (2)	05:48	06:57	08:04	08:17	09:17
	16:11	17:23	18:30	20:41	21:50	22:44	16 20:45 (2)	22:37	5 20:42 (2)	21:34	20:08	18:41	16:23	15:43
13	09:18	08:17	07:01	06:32	05:15	04:28	20:28 (2)	04:47	20:35 (2)	05:50	06:59	08:06	08:20	09:18
	16:13	17:25	18:33	20:44	21:53	22:45	17 20:45 (2)	22:36	3 20:38 (2)	21:31	20:05	18:39	16:21	15:42
14	09:17	08:15	06:58	06:29	05:12	04:28	20:29 (2)	04:49	20:35 (2)	05:53	07:01	08:08	08:22	09:19
	16:15	17:28	18:35	20:46	21:55	22:46	17 20:46 (2)	22:34	2 20:37 (2)	21:28	20:02	18:36	16:19	15:42
15	09:15	08:12	06:55	06:27	05:10	04:27	20:29 (2)	04:51	20:36 (2)	05:55	07:04	08:11	08:24	09:20
	16:17	17:30	18:37	20:48	21:57	22:47	18 20:47 (2)	22:33	21:26	19:59	18:33	16:17	15:42	
16	09:14	08:10	06:53	06:24	05:08	04:27	20:30 (2)	04:52	20:37 (2)	05:57	07:06	08:13	08:27	09:21
	16:19	17:33	18:40	20:51	21:59	22:47	17 20:47 (2)	22:31	21:23	19:56	18:30	16:15	15:42	
17	09:12	08:07	06:50	06:21	05:06	04:27	20:30 (2)	04:54	20:38 (2)	05:59	07:08	08:15	08:29	09:22
	16:21	17:35	18:42	20:53	22:01	22:48	18 20:48 (2)	22:30	21:20	19:53	18:28	16:13	15:42	
18	09:11	08:04	06:47	06:18	05:04	04:27	20:30 (2)	04:56	20:39 (2)	06:02	07:10	08:18	08:31	09:23
	16:23	17:38	18:44	20:55	22:03	22:48	18 20:48 (2)	22:28	21:18	19:50	18:25	16:11	15:42	
19	09:09	08:02	06:44	06:16	05:02	04:27	20:30 (2)	04:58	20:40 (2)	07:12	08:20	08:34	09:24	
	16:25	17:40	18:46	20:58	22:05	22:49	19 20:49 (2)	22:26	21:15	19:47	18:22	16:09	15:42	
20	09:08	07:59	06:41	06:13	05:00	04:27	20:31 (2)	05:00	20:41 (2)	07:15	08:22	08:36	09:25	
	16:27	17:43	18:49	21:00	22:07	22:49	18 20:49 (2)	22:25	21:12	19:44	18:19	16:07	15:42	
21	09:06	07:56	06:38	06:10	04:58	04:27	20:31 (2)	05:01	20:42 (2)	07:17	08:25	08:38	09:25	
	16:30	17:45	18:51	21:02	22:10	22:49	18 20:49 (2)	22:23	21:10	19:42	18:17	16:06	15:43	
22	09:05	07:54	06:35	06:07	04:56	04:27	20:31 (2)	05:03	20:43 (2)	07:19	08:27	08:40	09:26	
	16:32	17:47	18:53	21:05	22:12	22:50	18 20:49 (2)	22:21	21:07	19:39	18:14	16:04	15:43	
23	09:03	07:51	06:32	06:05	04:54	04:27	20:30 (2)	05:05	20:44 (2)	07:21	08:29	08:42	09:27	
	16:34	17:50	18:56	21:07	22:14	22:50	19 20:49 (2)	22:19	21:04	19:36	18:11	16:02	15:44	
24	09:01	07:48	06:29	06:02	04:52	04:27	20:31 (2)	05:07	20:45 (2)	07:23	08:32	08:45	09:27	
	16:37	17:52	18:58	21:09	22:15	22:50	19 20:50 (2)	22:17	21:02	19:33	18:09	16:01	15:44	
25	08:59	07:46	06:27	05:59	04:51	04:28	20:31 (2)	05:09	20:46 (2)	07:26	07:34	08:47	09:27	
	16:39	17:55	19:00	21:11	22:17	22:50	18 20:49 (2)	22:15	20:59	19:30	17:06	15:59	15:45	
26	08:57	07:43	06:24	05:57	04:49	04:28	20:32 (2)	05:11	20:47 (2)	07:28	07:36	08:49	09:27	
	16:41	17:57	19:03	21:14	22:19	22:50	18 20:50 (2)	22:13	20:56	19:27	17:04	15:58	15:46	
27	08:55	07:40	06:21	05:54	04:47	04:29	20:31 (2)	05:13	20:48 (2)	07:30	07:39	08:51	09:28	
	16:44	18:00	19:05	21:16	22:21	22:49	18 20:49 (2)	22:11	20:53	19:24	17:01	15:56	15:47	
28	08:53	07:38	06:18	05:51	04:46	04:30	20:32 (2)	05:15	20:49 (2)	07:32	07:41	08:53	09:28	
	16:46	18:02	19:07	21:18	22:23	22:49	17 20:49 (2)	22:09	20:50	19:21	16:59	15:55	15:48	
29	08:51	07:15	05:49	04:44	04:30	04:30	20:32 (2)	05:18	20:51 (2)	07:34	07:44	08:55	09:28	
	16:49	20:09	21:21	22:25	22:49	22:49	18 20:50 (2)	22:07	20:48	19:18	16:56	15:53	15:49	
30	08:49	07:12	05:46	04:42	20:27 (2)	04:31	20:32 (2)	05:20	20:49 (2)	07:37	07:46	08:57	09:28	
	16:51	20:12	21:23	22:26	2 20:29 (2)	22:48	17 20:49 (2)	22:05	20:45	19:16	16:53	15:52	15:50	
31	08:47	07:09	05:41	04:41	20:27 (2)	04:31	20:32 (2)	05:22	20:46 (2)	07:38	07:48	08:59	09:27	
	16:53	20:14	22:28	3 20:30 (2)	22:28	22:28	22:02	20:42	20:42	16:51	16:51	15:51	15:51	
Potential sun hours	222	260	365	432	521	547	545	478	386	319	236	200		
Total, worst case					5	483	161							
Sun reduction					0,50	0,50	0,50							
Oper. time red.					0,80	0,80	0,80							
Wind dir. red.					0,73	0,73	0,73							
Total reduction					0,29	0,29	0,29							
Total, real					1	142	47							

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)		Last time (hh:mm) with flicker	(WTG causing flicker last time)

SHADOW - Calendar

Calculation: Oppdatert layout - real case med vindrose - med nærliggende - oppdatert mottaker **Shadow receptor:** AL - Buevegen 2100 (38)
 Sunshine probability S/S0 (Sun hours/Possible sun hours) []

Assumptions for shadow calculations

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
 644 231 315 644 959 714 721 455 378 420 574 938 6 993

	January	February	March	April	May	June	July	August	September	October	November	December			
1	09:28	12:55 (13)	08:45	07:35	07:07	05:44	04:39	04:32	05:24	06:33	07:39	07:51	09:00	12:38 (13)	
	15:52	16 13:11 (13)	16:56	18:04	20:16	21:26	22:30	22:48	22:01	20:39	19:13	16:48	15:51	20 12:58 (13)	
2	09:27	12:55 (13)	08:43	07:32	07:04	05:41	04:38	04:33	05:26	06:35	07:41	07:54	09:01	12:39 (13)	
	15:54	16 13:11 (13)	16:58	18:07	20:19	21:28	22:32	22:48	21:58	20:37	19:10	16:46	15:50	20 12:59 (13)	
3	09:27	12:55 (13)	08:41	07:30	07:01	05:38	04:37	04:34	05:28	06:37	07:44	07:56	09:03	12:40 (13)	
	15:55	17 13:12 (13)	17:01	18:09	20:21	21:30	22:33	22:47	21:56	20:34	19:07	16:44	15:49	20 13:00 (13)	
4	09:26	12:55 (13)	08:39	07:27	06:58	05:36	04:36	04:35	05:30	06:39	07:46	07:58	09:05	12:40 (13)	
	15:57	17 13:12 (13)	17:03	18:12	20:23	21:33	22:35	22:46	21:54	20:31	19:04	16:41	15:48	20 13:00 (13)	
5	09:26	12:55 (13)	08:37	07:24	06:55	05:33	04:34	04:36	05:33	06:42	07:48	08:01	09:07	12:41 (13)	
	15:58	18 13:13 (13)	17:06	18:14	20:26	21:35	22:36	22:46	21:51	20:28	19:01	16:39	15:47	19 13:00 (13)	
6	09:25	12:55 (13)	08:34	07:21	06:52	05:31	04:33	04:37	05:35	06:44	07:50	08:03	09:09	12:41 (13)	
	16:00	19 13:14 (13)	17:08	18:16	20:28	21:37	22:38	22:45	21:49	20:25	18:58	16:36	15:46	19 13:00 (13)	
7	09:24	12:55 (13)	08:32	07:18	06:49	05:29	04:32	04:38	05:37	06:46	07:53	08:06	09:10	12:42 (13)	
	16:01	20 13:15 (13)	17:11	18:19	20:30	21:40	22:39	22:44	21:46	20:22	18:56	16:34	15:45	18 13:00 (13)	
8	09:24	12:56 (13)	08:30	07:16	06:46	05:26	04:31	04:40	05:39	06:48	07:55	08:08	09:12	12:43 (13)	
	16:03	19 13:15 (13)	17:13	18:21	20:33	21:42	22:40	22:43	21:44	20:19	18:53	16:32	15:44	18 13:01 (13)	
9	09:23	12:55 (13)	08:27	07:13	06:44	05:24	04:31	04:41	05:41	06:51	07:57	08:10	09:13	12:43 (13)	
	16:05	20 13:15 (13)	17:16	18:23	20:35	21:44	22:42	22:42	21:42	20:17	18:50	16:30	15:44	17 13:00 (13)	
10	09:22	12:56 (13)	08:25	07:10	06:41	05:21	04:30	04:42	05:44	06:53	07:59	08:13	09:15	12:44 (13)	
	16:07	20 13:16 (13)	17:18	18:26	20:37	21:46	22:43	22:40	21:39	20:14	18:47	16:27	15:43	16 13:00 (13)	
11	09:21	12:57 (13)	08:22	07:07	06:38	05:19	04:29	04:44	05:46	06:55	08:02	08:15	09:16	12:45 (13)	
	16:09	20 13:17 (13)	17:20	18:28	20:39	21:49	22:44	22:39	21:36	20:11	18:44	16:25	15:43	16 13:01 (13)	
12	09:19	12:57 (13)	08:20	07:04	06:35	05:17	04:29	04:45	05:48	06:57	08:04	08:18	09:17	12:45 (13)	
	16:11	20 13:17 (13)	17:23	18:30	20:42	21:51	22:45	22:38	21:34	20:08	18:42	16:23	15:42	16 13:01 (13)	
13	09:18	12:57 (13)	08:17	07:01	06:32	05:15	04:28	04:47	05:50	06:59	08:06	08:20	09:19	12:46 (13)	
	16:12	20 13:17 (13)	17:25	18:33	20:44	21:53	22:46	22:36	21:31	20:05	18:39	16:21	15:42	15 13:01 (13)	
14	09:17	12:58 (13)	08:15	06:58	06:29	05:12	04:28	04:49	05:53	07:02	08:09	08:22	09:20	12:47 (13)	
	16:14	20 13:18 (13)	17:28	18:35	20:46	21:55	22:46	22:35	21:29	20:02	18:36	16:19	15:42	14 13:01 (13)	
15	09:16	12:58 (13)	08:12	06:56	06:27	05:10	04:27	04:50	05:55	07:04	08:11	08:25	09:21	12:47 (13)	
	16:17	20 13:18 (13)	17:30	18:37	20:49	21:57	22:47	22:34	21:26	19:59	18:33	16:17	15:42	14 13:01 (13)	
16	09:14	12:58 (13)	08:10	06:53	06:24	05:08	04:27	04:52	05:57	07:06	08:13	08:27	09:22	12:48 (13)	
	16:19	20 13:18 (13)	17:33	18:40	20:51	22:00	22:48	22:32	21:23	19:56	18:30	16:15	15:42	13 13:01 (13)	
17	09:13	12:59 (13)	08:07	06:50	06:21	05:06	04:27	04:54	05:59	07:08	08:16	08:29	09:23	12:48 (13)	
	16:21	19 13:18 (13)	17:35	18:42	20:53	22:02	22:48	22:30	21:21	19:53	18:28	16:13	15:42	14 13:02 (13)	
18	09:11	12:59 (13)	08:05	06:47	06:18	05:04	04:26	04:56	06:02	07:10	08:18	08:32	09:24	12:49 (13)	
	16:23	19 13:18 (13)	17:38	18:44	20:56	22:04	22:49	22:29	21:18	19:50	18:25	16:11	15:42	13 13:02 (13)	
19	09:10	13:01 (13)	08:02	06:44	06:16	05:02	04:26	04:57	06:04	07:13	08:20	08:34	9 12:41 (13)	09:25	12:50 (13)
	16:25	18 13:19 (13)	17:40	18:47	20:58	22:06	22:49	22:27	21:15	19:48	18:22	16:09	15:42	12 13:02 (13)	
20	09:08	13:02 (13)	07:59	06:41	06:13	05:00	04:26	04:59	06:06	07:15	08:23	08:36	9 12:50 (13)	09:25	12:51 (13)
	16:27	16 13:18 (13)	17:43	18:49	21:00	22:08	22:50	22:25	21:13	19:45	18:20	16:07	15:42	12 13:03 (13)	
21	09:07	13:02 (13)	07:57	06:38	06:10	04:58	04:26	05:01	06:08	07:17	08:25	08:38	12:38 (13)	09:26	12:51 (13)
	16:30	15 13:17 (13)	17:45	18:51	21:03	22:10	22:50	22:23	21:10	19:42	18:17	16:06	15 12:53 (13)	15:43	12 13:03 (13)
22	09:05	13:04 (13)	07:54	06:35	06:07	04:56	04:27	05:03	06:11	07:19	08:27	08:41	12:38 (13)	09:27	12:52 (13)
	16:32	12 13:16 (13)	17:48	18:54	21:05	22:12	22:50	22:22	21:07	19:39	18:14	16:04	16 12:54 (13)	15:43	12 13:04 (13)
23	09:03	13:06 (13)	07:51	06:33	06:05	04:54	04:27	05:05	06:13	07:21	08:30	08:43	12:37 (13)	09:27	12:52 (13)
	16:34	9 13:15 (13)	17:50	18:56	21:07	22:14	22:50	22:20	21:05	19:36	18:12	16:02	18 12:55 (13)	15:44	12 13:04 (13)
24	09:01		07:49	06:30	06:02	04:52	04:27	05:07	06:15	07:24	08:32	08:45	12:38 (13)	09:28	12:52 (13)
	16:37		17:52	18:58	21:10	22:16	22:50	22:18	21:02	19:33	18:09	16:01	18 12:56 (13)	15:44	12 13:04 (13)
25	09:00		07:46	06:27	05:59	04:50	04:28	05:09	06:17	07:26	07:34	08:47	12:37 (13)	09:28	12:53 (13)
	16:39		17:55	19:00	21:12	22:18	22:50	22:16	20:59	19:30	17:06	15:59	19 12:56 (13)	15:45	13 13:06 (13)
26	08:58		07:43	06:24	05:57	04:49	04:28	05:11	06:19	07:28	07:37	08:49	12:38 (13)	09:28	12:53 (13)
	16:41		17:57	19:03	21:14	22:20	22:50	22:14	20:56	19:27	17:04	15:57	19 12:57 (13)	15:46	13 13:06 (13)
27	08:56		07:41	06:21	05:54	04:47	04:29	05:13	06:22	07:30	07:39	08:52	12:37 (13)	09:28	12:54 (13)
	16:44		18:00	19:05	21:16	22:22	22:50	22:12	20:54	19:24	17:01	15:56	20 12:57 (13)	15:47	13 13:07 (13)
28	08:54		07:38	06:18	05:51	04:45	04:29	05:15	06:24	07:32	07:42	08:54	12:37 (13)	09:28	12:53 (13)
	16:46		18:02	19:07	21:19	22:24	22:50	22:09	20:51	19:21	16:59	15:55	20 12:57 (13)	15:48	14 13:07 (13)
29	08:52			07:15	05:49	04:44	04:30	05:17	06:26	07:35	07:44	08:56	12:38 (13)	09:28	12:54 (13)
	16:48			20:10	21:21	22:25	22:49	22:07	20:48	19:19	16:56	15:53	20 12:58 (13)	15:49	14 13:08 (13)
30	08:50			07:12	05:46	04:42	04:31	05:20	06:28	07:37	07:46	08:58	12:38 (13)	09:28	12:54 (13)
	16:51			20:12	21:23	22:27	22:49	22:05	20:45	19:16	16:53	15:52	20 12:58 (13)	15:50	15 13:09 (13)
31	08:48			07:09		04:41		05:22	06:31		07:49		09:28		12:54 (13)
	16:53			20:14		22:29		22:03	20:42		16:51		15:51	15 13:09 (13)	
Potential sun hours	221	260	365	432	521	547	546	478	386	319	236	199	471		
Total, worst case	410										206		471		
Sun reduction	0,50										0,50		0,50		
Oper. time red.	0,80										0,80		0,80		
Wind dir. red.	0,61										0,61		0,61		
Total reduction	0,24										0,24		0,24		
Total, real	99										50		114		

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)	Last time (hh:mm) with flicker	(WTG causing flicker last time)
	Minutes with flicker		

SHADOW - Calendar

Calculation: Oppdatert layout - real case med vindrose - med nærliggende - oppdatert mottaker **Shadow receptor:** AM - Eiendom 121/9 - Hå kommune (39)

Assumptions for shadow calculations

Sunshine probability S/S0 (Sun hours/Possible sun hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
644 231 315 644 959 714 721 455 378 420 574 938 6 993

	January	February	March	April	May	June
1	09:28	08:46	07:35	07:07	05:44	07:30 (1) 04:40
	15:53	16:56	18:05	20:17	21:26	08:02 (1) 22:30
2	09:27	08:43	07:33	07:04	05:42	07:32 (1) 04:39
	15:54	16:59	18:07	20:19	21:28	08:01 (1) 22:32
3	09:27	08:41	07:30	07:01	05:39	07:32 (1) 04:37
	15:56	17:01	18:10	20:21	21:31	07:59 (1) 22:34
4	09:26	08:39	07:27	06:58	05:36	07:33 (1) 04:36
	15:57	17:04	18:12	20:24	21:33	07:58 (1) 22:35
5	09:26	08:37	07:24	06:55	05:34	07:35 (1) 04:35
	15:59	17:06	18:14	20:26	21:35	07:56 (1) 22:36
6	09:25	08:34	07:21	06:53	05:32	07:37 (1) 04:34
	16:00	17:09	18:17	20:28	21:37	07:55 (1) 22:38
7	09:24	08:32	07:19	06:50	05:29	07:39 (1) 04:33
	16:02	17:11	18:19	20:31	21:40	07:51 (1) 22:39
8	09:24	08:30	09:03 (63)	07:16	06:47	05:27
	16:04	17:14	2 09:05 (63)	18:21	20:33	21:42
9	09:23	08:27	09:00 (63)	07:13	06:44	05:24
	16:06	17:16	7 09:07 (63)	18:24	20:35	21:44
10	09:22	08:25	08:58 (63)	07:10	06:41	9 07:48 (1) 05:22
	16:07	17:18	9 09:07 (63)	18:26	20:37	07:57 (1) 21:46
11	09:21	08:23	08:57 (63)	07:07	06:38	07:46 (1) 05:20
	16:09	17:21	12 09:09 (63)	18:28	20:40	15 08:01 (1) 21:49
12	09:20	08:20	08:55 (63)	07:04	06:36	07:42 (1) 05:17
	16:11	17:23	14 09:09 (63)	18:31	20:42	21 08:03 (1) 21:51
13	09:18	08:18	08:55 (63)	07:02	06:33	07:38 (1) 05:15
	16:13	17:26	14 09:09 (63)	18:33	20:44	26 08:04 (1) 21:53
14	09:17	08:15	08:56 (63)	06:59	06:30	07:35 (1) 05:13
	16:15	17:28	13 09:09 (63)	18:35	20:47	30 08:05 (1) 21:55
15	09:16	08:13	08:56 (63)	06:56	06:27	07:34 (1) 05:11
	16:17	17:31	13 09:09 (63)	18:38	20:49	32 08:06 (1) 21:57
16	09:14	08:10	08:56 (63)	06:53	06:24	07:33 (1) 05:09
	16:19	17:33	11 09:07 (63)	18:40	20:51	34 08:07 (1) 22:00
17	09:13	08:07	08:58 (63)	06:50	06:22	07:32 (1) 05:06
	16:21	17:36	7 09:05 (63)	18:42	20:54	35 08:07 (1) 22:02
18	09:12	08:05	06:47	06:19	07:31 (1) 05:04	04:27
	16:24	17:38	18:45	20:56	37 08:08 (1) 22:04	22:49 31 06:47 (37)
19	09:10	08:02	06:44	06:16	07:30 (1) 05:02	04:27
	16:26	17:41	18:47	20:58	38 08:08 (1) 22:06	22:49 31 06:47 (37)
20	09:08	08:00	06:42	06:13	07:30 (1) 05:00	04:27
	16:28	17:43	18:49	21:00	38 08:08 (1) 22:08	22:50 31 06:47 (37)
21	09:07	07:57	06:39	06:11	07:29 (1) 04:58	04:27
	16:30	17:46	18:52	21:03	39 08:08 (1) 22:10	22:50 31 06:47 (37)
22	09:05	07:54	06:36	06:08	07:29 (1) 04:56	04:27
	16:32	17:48	18:54	21:05	38 08:07 (1) 22:12	22:50 31 06:48 (37)
23	09:03	07:52	06:33	06:05	07:29 (1) 04:55	04:28
	16:35	17:50	18:56	21:07	39 08:08 (1) 22:14	22:50 31 06:48 (37)
24	09:02	07:49	06:30	06:02	07:28 (1) 04:53	04:28
	16:37	17:53	18:58	21:10	39 08:07 (1) 22:16	22:50 31 06:48 (37)
25	09:00	07:46	06:27	06:00	07:29 (1) 04:51	04:28
	16:39	17:55	19:01	21:12	38 08:07 (1) 22:18	22:50 31 06:49 (37)
26	08:58	07:44	06:24	05:57	07:28 (1) 04:49	04:29
	16:42	17:58	19:03	21:14	38 08:06 (1) 22:20	6 06:31 (37) 22:50 30 06:48 (37)
27	08:56	07:41	06:21	05:54	07:29 (1) 04:48	06:22 (37) 04:29
	16:44	18:00	19:05	21:17	37 08:06 (1) 22:22	11 06:33 (37) 22:50 31 06:49 (37)
28	08:54	07:38	06:18	05:52	07:29 (1) 04:46	06:20 (37) 04:30
	16:47	18:02	19:08	21:19	36 08:05 (1) 22:24	15 06:35 (37) 22:50 30 06:48 (37)
29	08:52		07:16	05:49	07:30 (1) 04:44	06:20 (37) 04:31
	16:49		20:10	21:21	34 08:04 (1) 22:25	17 06:37 (37) 22:49 30 06:49 (37)
30	08:50		07:13	05:47	07:29 (1) 04:43	06:19 (37) 04:31
	16:51		20:12	21:24	34 08:03 (1) 22:27	19 06:38 (37) 22:49 30 06:49 (37)
31	08:48		07:10		04:41	06:17 (37)
	16:54		20:14		22:29	21 06:38 (37)
Potential sun hours	221	260	365	432	521	547
Total, worst case				687		872
Sun reduction		102		0,50		0,50
Oper. time red.		0,80		0,80		0,80
Wind dir. red.		0,74		0,65		0,58
Total reduction		0,29		0,26		0,23
Total, real		30		177		202

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Calculation: Oppdatert layout - real case med vindrose - med nærliggende - oppdatert mottaker **Shadow receptor:** AM - Eiendom 121/9 - Hå kommune (39)

Assumptions for shadow calculations

Sunshine probability S/S0 (Sun hours/Possible sun hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
644 231 315 644 959 714 721 455 378 420 574 938 6 993

	July		August		September		October		November		December	
1	04:32	06:20 (37)	05:24		06:33	07:45 (1)	07:39		07:51	08:28 (63)	09:00	
	22:48	29 06:49 (37)	22:01		20:40	15 08:00 (1)	19:13		16:49	9 08:37 (63)	15:51	
2	04:33	06:20 (37)	05:27		06:35	07:47 (1)	07:42		07:54	08:30 (63)	09:01	
	22:48	30 06:50 (37)	21:58		20:37	9 07:56 (1)	19:10		16:47	6 08:36 (63)	15:50	
3	04:34	06:20 (37)	05:29		06:38		07:44		07:56	08:33 (63)	09:03	
	22:47	29 06:49 (37)	21:56		20:34		19:07		16:44	1 08:34 (63)	15:49	
4	04:35	06:20 (37)	05:31		06:40		07:46		07:59		09:05	
	22:46	29 06:49 (37)	21:54		20:31		19:05		16:42		15:48	
5	04:36	06:21 (37)	05:33		07:52 (1)	06:42	07:48		08:01		09:07	
	22:46	28 06:49 (37)	21:51	6	07:58 (1)	20:28	19:02		16:39		15:47	
6	04:38	06:21 (37)	05:35		07:48 (1)	06:44	07:51		08:03		09:09	
	22:45	27 06:48 (37)	21:49	14	08:02 (1)	20:25	18:59		16:37		15:47	
7	04:39	06:22 (37)	05:38		07:46 (1)	06:47	07:53		08:06		09:10	
	22:44	27 06:49 (37)	21:47	19	08:05 (1)	20:23	18:56		16:35		15:46	
8	04:40	06:23 (37)	05:40		07:44 (1)	06:49	07:55		08:08		09:12	
	22:43	26 06:49 (37)	21:44	22	08:06 (1)	20:20	18:53		16:32		15:45	
9	04:42	06:23 (37)	05:42		07:42 (1)	06:51	07:57		08:11		09:13	
	22:42	25 06:48 (37)	21:42	26	08:08 (1)	20:17	18:50		16:30		15:44	
10	04:43	06:24 (37)	05:44		07:41 (1)	06:53	08:00		08:13		09:15	
	22:40	24 06:48 (37)	21:39	28	08:09 (1)	20:14	18:48		16:28		15:44	
11	04:45	06:25 (37)	05:46		07:40 (1)	06:55	08:02		08:15		09:16	
	22:39	23 06:48 (37)	21:37	30	08:10 (1)	20:11	18:45		16:26		15:43	
12	04:46	06:25 (37)	05:49		07:39 (1)	06:58	08:04		08:18		09:17	
	22:38	22 06:47 (37)	21:34	32	08:11 (1)	20:08	18:42		16:24		15:43	
13	04:48	06:26 (37)	05:51		07:38 (1)	07:00	08:07		08:20		09:19	
	22:36	20 06:46 (37)	21:32	33	08:11 (1)	20:05	18:39		16:22		15:43	
14	04:49	06:28 (37)	05:53		07:37 (1)	07:02	08:09		08:22		09:20	
	22:35	18 06:46 (37)	21:29	35	08:12 (1)	20:02	18:36		16:19		15:43	
15	04:51	06:28 (37)	05:55		07:36 (1)	07:04	08:11		08:25		09:21	
	22:34	16 06:44 (37)	21:26	36	08:12 (1)	19:59	18:34		16:17		15:42	
16	04:53	06:30 (37)	05:58		07:35 (1)	07:06	08:14		08:27		09:22	
	22:32	14 06:44 (37)	21:24	37	08:12 (1)	19:57	18:31		16:15		15:42	
17	04:54	06:32 (37)	06:00		07:35 (1)	07:09	08:16		08:29		09:23	
	22:30	9 06:41 (37)	21:21	38	08:13 (1)	19:54	18:28		16:13		15:42	
18	04:56		06:02		07:35 (1)	07:11	08:18		08:32		09:24	
	22:29		21:18	39	08:14 (1)	19:51	18:25		16:12		15:42	
19	04:58		06:04		07:35 (1)	07:13	08:21		08:34		09:25	
	22:27		21:16	38	08:13 (1)	19:48	18:23		16:10		15:43	
20	05:00		06:07		07:35 (1)	07:15	08:23		08:36		09:25	
	22:25		21:13	38	08:13 (1)	19:45	18:20		16:08		15:43	
21	05:02		06:09		07:34 (1)	07:17	08:25		08:39		09:26	
	22:23		21:10	39	08:13 (1)	19:42	18:17		16:06		15:43	
22	05:04		06:11		07:34 (1)	07:20	08:28		08:41		09:27	
	22:22		21:08	38	08:12 (1)	19:39	18:15		16:04		15:44	
23	05:06		06:13		07:34 (1)	07:22	08:30		08:43		09:27	
	22:20		21:05	38	08:12 (1)	19:36	18:12		16:03		15:44	
24	05:08		06:15		07:34 (1)	07:24	08:32		09:30 (63)	08:45	09:28	
	22:18		21:02	37	08:11 (1)	19:33	18:09	3	09:33 (63)	16:01	15:45	
25	05:10		06:18		07:34 (1)	07:26	07:35		08:27 (63)	08:47	09:28	
	22:16		20:59	36	08:10 (1)	19:30	17:07	9	08:36 (63)	16:00	15:46	
26	05:12		06:20		07:34 (1)	07:28	07:37		08:26 (63)	08:50	09:28	
	22:14		20:57	35	08:09 (1)	19:28	17:04	12	08:38 (63)	15:58	15:46	
27	05:14		06:22		07:35 (1)	07:31	07:39		08:25 (63)	08:52	09:28	
	22:12		20:54	33	08:08 (1)	19:25	17:02	13	08:38 (63)	15:57	15:47	
28	05:16		06:24		07:35 (1)	07:33	07:42		08:25 (63)	08:54	09:28	
	22:10		20:51	32	08:07 (1)	19:22	16:59	14	08:39 (63)	15:55	15:48	
29	05:18		06:27		07:36 (1)	07:35	07:44		08:24 (63)	08:56	09:28	
	22:07		20:48	30	08:06 (1)	19:19	16:56	14	08:38 (63)	15:54	15:49	
30	05:20		06:29		07:39 (1)	07:37	07:47		08:25 (63)	08:58	09:28	
	22:05		20:45	26	08:05 (1)	19:16	16:54	13	08:38 (63)	15:53	15:50	
31	05:22		06:31		07:42 (1)		07:49		08:26 (63)		09:28	
	22:03		20:43	21	08:03 (1)		16:51	12	08:38 (63)		15:51	
Potential sun hours	545		478		386		319		236		200	
Total, worst case	396		836		24		90		16			
Sun reduction	0,50		0,50		0,50		0,50		0,50			
Oper. time red.	0,80		0,80		0,80		0,80		0,80			
Wind dir. red.	0,58		0,65		0,65		0,74		0,74			
Total reduction	0,23		0,26		0,26		0,29		0,29			
Total, real	92		216		6		26		5			

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)		Last time (hh:mm) with flicker	(WTG causing flicker last time)

SHADOW - Calendar

Calculation: Oppdatert layout - real case med vindrose - med nærliggende - oppdatert mottaker **Shadow receptor:** AN - Brusalivegen 219 (40)

Assumptions for shadow calculations

Sunshine probability S/S0 (Sun hours/Possible sun hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
644 231 315 644 959 714 721 455 378 420 574 938 6 993

	January	February	March	April	May	June
1	09:28 15:53	08:46 16:56	07:35 18:05	08:11 (62) 20:17	07:07 21:26	04:40 22:30
2	09:27 15:54	08:43 16:59	07:33 18:07	08:08 (62) 20:19	07:04 21:28	07:06 (1) 22:32
3	09:27 15:56	08:41 17:01	07:30 18:10	08:06 (62) 20:21	07:01 21:31	07:04 (1) 22:33
4	09:26 15:57	08:39 17:04	07:27 18:12	08:05 (62) 20:24	06:58 21:33	07:02 (1) 22:35
5	09:26 15:59	08:37 17:06	07:24 18:14	08:04 (62) 20:26	06:55 21:35	07:00 (1) 22:36
6	09:25 16:00	08:34 17:09	07:21 18:17	08:04 (62) 20:28	06:53 21:37	06:59 (1) 22:38
7	09:24 16:02	08:32 17:11	07:19 18:19	08:05 (62) 20:31	06:50 21:40	06:56 (1) 22:39
8	09:24 16:04	08:30 17:14	07:16 18:21	08:05 (62) 20:33	06:47 21:42	06:54 (1) 22:40
9	09:23 16:06	08:27 17:16	07:13 18:24	08:07 (62) 20:35	06:44 21:44	06:52 (1) 22:42
10	09:22 16:07	08:25 17:18	07:10 18:26	08:13 (62) 20:37	06:41 21:46	07:17 (1) 22:43
11	09:21 16:09	08:23 17:21	07:07 18:28	07:07 20:40	06:38 21:49	06:48 (1) 22:44
12	09:20 16:11	08:20 17:23	07:04 18:31	07:04 20:42	05:17 21:51	06:46 (1) 22:45
13	09:18 16:13	08:18 17:26	07:02 18:33	07:02 20:44	06:33 21:53	06:45 (1) 22:46
14	09:17 16:15	08:15 17:28	06:59 18:35	06:30 20:47	05:13 21:55	06:43 (1) 22:46
15	09:16 16:17	08:13 17:31	08:45 (63) 18:38	06:27 20:49	05:11 21:57	06:41 (1) 22:47
16	09:14 16:19	08:10 17:33	08:42 (63) 18:40	06:24 20:51	05:09 22:00	06:40 (1) 22:48
17	09:13 16:21	08:07 17:36	08:40 (63) 18:42	06:22 20:54	05:06 22:02	06:39 (1) 22:48
18	09:12 16:24	08:05 17:38	08:40 (63) 18:45	06:19 20:56	05:04 22:04	06:40 (1) 22:49
19	09:10 16:26	08:02 17:41	08:39 (63) 18:47	06:16 20:58	05:02 22:06	06:40 (1) 22:49
20	09:08 16:28	08:00 17:43	08:39 (63) 18:49	06:13 21:00	05:00 22:08	06:40 (1) 22:50
21	09:07 16:30	07:57 17:46	08:39 (63) 18:52	06:11 21:03	04:58 22:10	06:40 (1) 22:50
22	09:05 16:32	07:54 17:48	08:39 (63) 18:54	06:08 21:05	04:56 22:12	06:40 (1) 22:50
23	09:03 16:35	07:52 17:50	08:41 (63) 18:56	06:05 21:07	04:55 22:14	06:40 (1) 22:50
24	09:02 16:37	07:49 17:53	08:42 (63) 18:58	06:02 21:10	04:53 22:16	06:41 (1) 22:50
25	09:00 16:39	07:46 17:55	08:50 (63) 19:01	06:00 21:12	04:51 22:18	06:41 (1) 22:50
26	08:58 16:42	07:44 17:58	06:24 19:03	05:57 21:14	04:49 22:20	06:42 (1) 22:50
27	08:56 16:44	07:41 18:00	06:21 19:05	05:54 21:17	04:48 22:22	06:41 (1) 22:50
28	08:54 16:47	07:38 18:02	06:18 19:08	05:52 21:19	04:46 22:24	06:42 (1) 22:50
29	08:52 16:49	07:16 18:00	07:16 20:10	05:49 21:21	04:44 22:25	06:43 (1) 22:49
30	08:50 16:51	07:13 20:12	07:13 20:12	05:47 21:24	04:43 22:27	06:43 (1) 22:49
31	08:48 16:54	07:10 20:14	07:10 20:14	05:44 21:26	04:41 22:29	06:43 (1) 22:49
Potential sun hours	221	260	365	432	521	547
Total, worst case		117	101		928	743
Sun reduction		0,50	0,50		0,50	0,50
Oper. time red.		0,80	0,80		0,80	0,80
Wind dir. red.		0,74	0,72		0,59	0,59
Total reduction		0,29	0,29		0,24	0,24
Total, real		34	29		220	176

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Calculation: Oppdatert layout - real case med vindrose - med nærliggende - oppdatert mottaker **Shadow receptor:** AN - Brusallivegen 219 (40)

Assumptions for shadow calculations

Sunshine probability S/S0 (Sun hours/Possible sun hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
644 231 315 644 959 714 721 455 378 420 574 938 6 993

	July		August		September		October		November		December	
1	04:32		06:54 (1)	05:24	06:57 (1)	06:33	07:39		07:51	09:00		
	22:48	25	07:19 (1)	22:01	07:29 (1)	20:40	19:13		16:49	15:52		
2	04:33		06:54 (1)	05:27	06:59 (1)	06:35	07:42		07:54	09:01		
	22:48	26	07:20 (1)	21:58	07:29 (1)	20:37	19:10		16:47	15:50		
3	04:34		06:53 (1)	05:29	07:01 (1)	06:38	07:44		07:56	09:03		
	22:47	27	07:20 (1)	21:56	07:28 (1)	20:34	19:07		16:44	15:49		
4	04:35		06:53 (1)	05:31	07:03 (1)	06:40	07:46		07:59	09:05		
	22:46	27	07:20 (1)	21:54	07:27 (1)	20:31	19:05		16:42	15:48		
5	04:37		06:53 (1)	05:33	07:05 (1)	06:42	07:48		08:43 (62)	08:01	09:07	
	22:46	28	07:21 (1)	21:51	07:27 (1)	20:28	19:02	9	08:52 (62)	16:39	15:47	
6	04:38		06:54 (1)	05:35	07:07 (1)	06:44	07:51		08:41 (62)	08:03	09:09	
	22:45	28	07:22 (1)	21:49	07:26 (1)	20:25	18:59	12	08:53 (62)	16:37	15:47	
7	04:39		06:53 (1)	05:38	07:09 (1)	06:47	07:53		08:41 (62)	08:06	09:10	
	22:44	30	07:23 (1)	21:47	07:25 (1)	20:23	18:56	13	08:54 (62)	16:35	15:46	
8	04:40		06:53 (1)	05:40	07:10 (1)	06:49	07:55		08:40 (62)	08:08	09:12	
	22:43	30	07:23 (1)	21:44	07:23 (1)	20:20	18:53	14	08:54 (62)	16:32	15:45	
9	04:42		06:52 (1)	05:42	07:12 (1)	06:51	07:57		08:39 (62)	08:11	09:13	
	22:42	32	07:24 (1)	21:42	07:22 (1)	20:17	18:50	15	08:54 (62)	16:30	15:44	
10	04:43		06:52 (1)	05:44	07:14 (1)	06:53	08:00		08:40 (62)	08:13	09:15	
	22:40	32	07:24 (1)	21:39	07:20 (1)	20:14	18:48	14	08:54 (62)	16:28	15:44	
11	04:45		06:52 (1)	05:46	07:15 (1)	06:55	08:02		08:40 (62)	08:15	09:16	
	22:39	33	07:25 (1)	21:37	07:18 (1)	20:11	18:45	12	08:52 (62)	16:26	15:43	
12	04:46		06:52 (1)	05:49		06:58	08:04		08:42 (62)	08:18	09:17	
	22:38	34	07:26 (1)	21:34		20:08	18:42	8	08:50 (62)	16:24	15:43	
13	04:48		06:51 (1)	05:51		07:00	08:07		08:45 (62)	08:20	09:19	
	22:36	35	07:26 (1)	21:32		20:05	18:39	4	08:49 (62)	16:22	15:43	
14	04:49		06:52 (1)	05:53		07:02	08:09			08:22	09:20	
	22:35	35	07:27 (1)	21:29		20:02	18:36			16:19	15:43	
15	04:51		06:51 (1)	05:55		07:04	08:11			08:25	09:21	
	22:34	36	07:27 (1)	21:26		19:59	18:34			16:17	15:42	
16	04:53		06:51 (1)	05:58		07:06	08:14			08:27	09:22	
	22:32	37	07:28 (1)	21:24		19:57	18:31			16:15	15:42	
17	04:54		06:50 (1)	06:00		07:09	08:16		09:16 (63)	08:29	09:23	
	22:30	38	07:28 (1)	21:21		19:54	18:28	3	09:19 (63)	16:13	15:42	
18	04:56		06:51 (1)	06:02		07:11	08:18		09:12 (63)	08:32	09:24	
	22:29	37	07:28 (1)	21:18		19:51	18:25	10	09:22 (63)	16:12	15:42	
19	04:58		06:51 (1)	06:04		07:13	08:21		09:11 (63)	08:34	09:25	
	22:27	38	07:29 (1)	21:16		19:48	18:23	12	09:23 (63)	16:10	15:43	
20	05:00		06:50 (1)	06:07		07:15	08:23		09:10 (63)	08:36	09:25	
	22:25	39	07:29 (1)	21:13		19:45	18:20	14	09:24 (63)	16:08	15:43	
21	05:02		06:50 (1)	06:09		07:17	08:25		09:10 (63)	08:39	09:26	
	22:23	39	07:29 (1)	21:10		19:42	18:17	14	09:24 (63)	16:06	15:43	
22	05:04		06:51 (1)	06:11		07:19	08:28		09:09 (63)	08:41	09:27	
	22:22	39	07:30 (1)	21:08		19:39	18:15	15	09:24 (63)	16:04	15:44	
23	05:06		06:50 (1)	06:13		07:22	08:30		09:09 (63)	08:43	09:27	
	22:20	39	07:29 (1)	21:05		19:36	18:12	15	09:24 (63)	16:03	15:44	
24	05:08		06:50 (1)	06:15		07:24	08:32		09:09 (63)	08:45	09:28	
	22:18	40	07:30 (1)	21:02		19:33	18:09	14	09:23 (63)	16:01	15:45	
25	05:10		06:50 (1)	06:18		07:26	07:35		08:10 (63)	08:47	09:28	
	22:16	40	07:30 (1)	20:59		19:30	17:07	12	08:22 (63)	16:00	15:46	
26	05:12		06:50 (1)	06:20		07:28	07:37		08:13 (63)	08:49	09:28	
	22:14	40	07:30 (1)	20:57		19:28	17:04	8	08:21 (63)	15:58	15:46	
27	05:14		06:51 (1)	06:22		07:31	07:39		08:15 (63)	08:52	09:28	
	22:12	39	07:30 (1)	20:54		19:25	17:02	3	08:18 (63)	15:57	15:47	
28	05:16		06:51 (1)	06:24		07:33	07:42			08:54	09:28	
	22:10	40	07:31 (1)	20:51		19:22	16:59			15:55	15:48	
29	05:18		06:52 (1)	06:27		07:35	07:44			08:56	09:28	
	22:07	38	07:30 (1)	20:48		19:19	16:56			15:54	15:49	
30	05:20		06:54 (1)	06:29		07:37	07:47			08:58	09:28	
	22:05	35	07:29 (1)	20:45		19:16	16:54			15:53	15:50	
31	05:22		06:56 (1)	06:31			07:49				09:28	
	22:03	33	07:29 (1)	20:43			16:51				15:51	
Potential sun hours	545			478		386	319		236		200	
Total, worst case	1069			202			221					
Sun reduction	0,50			0,50			0,50					
Oper. time red.	0,80			0,80			0,80					
Wind dir. red.	0,59			0,59			0,73					
Total reduction	0,24			0,24			0,29					
Total, real	254			48			64					

Table layout: For each day in each month the following matrix apply

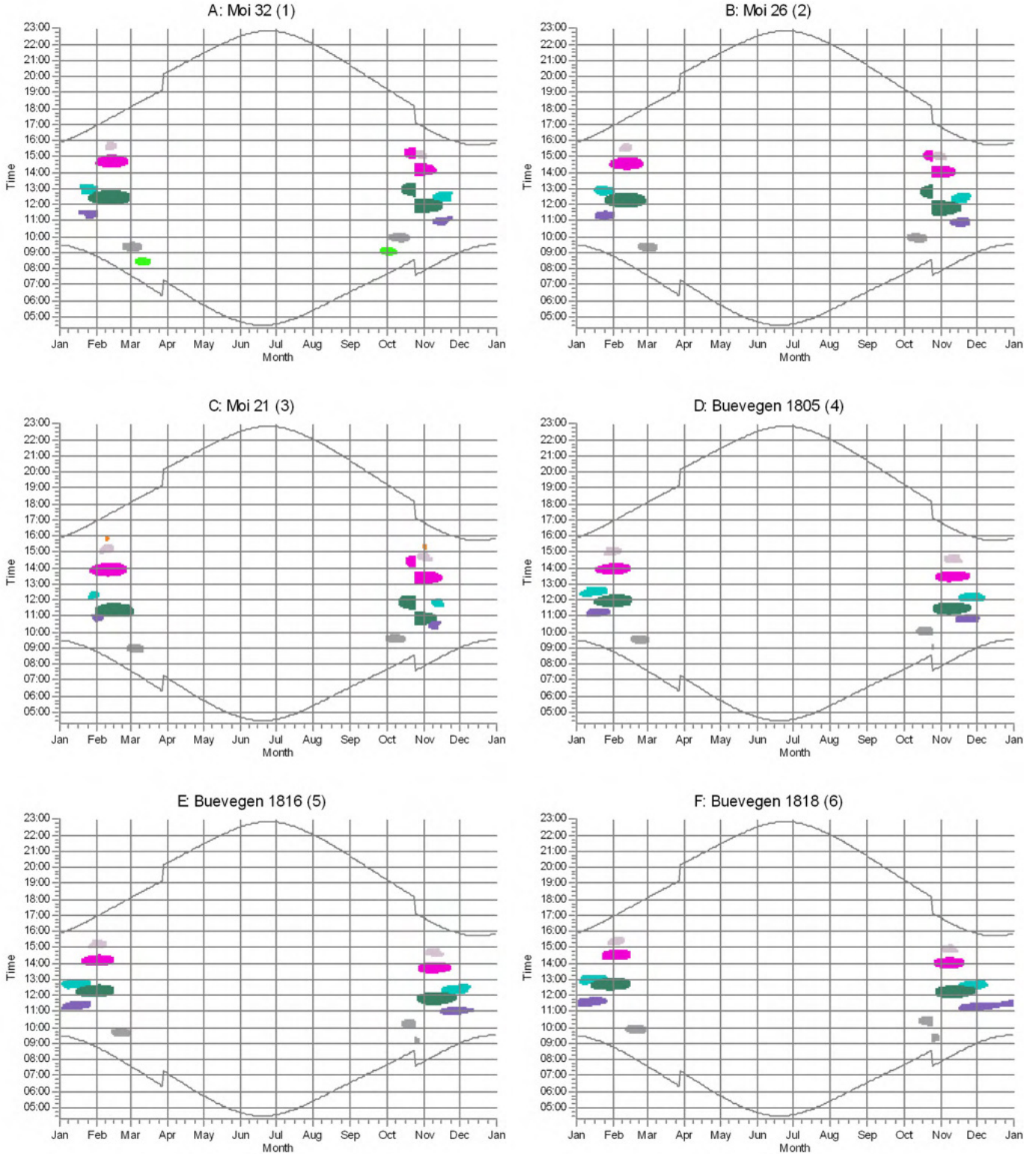
Day in month	Sun rise (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)		Last time (hh:mm) with flicker	(WTG causing flicker last time)



Vedlegg 4.2

SHADOW - Calendar, graphical

Calculation: Oppdatert layout - real case med vindrose - med nærliggende - oppdatert mottaker



HTK
 16: VESTAS V162-7.2 7000 362.0 101 hub: 119.0 m (T01: 200.0 m) (258)
 18: VESTAS V162-7.2 7000 362.0 101 hub: 119.0 m (T01: 200.0 m) (250)

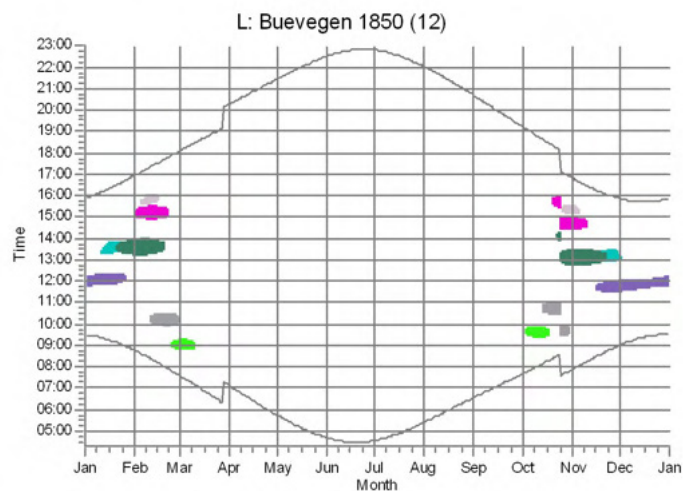
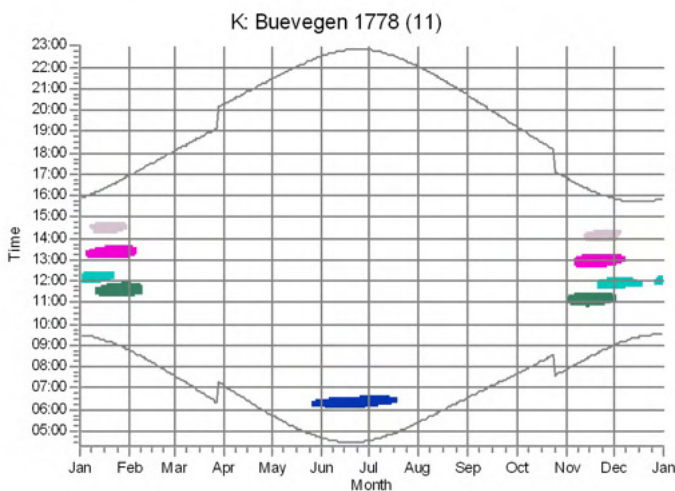
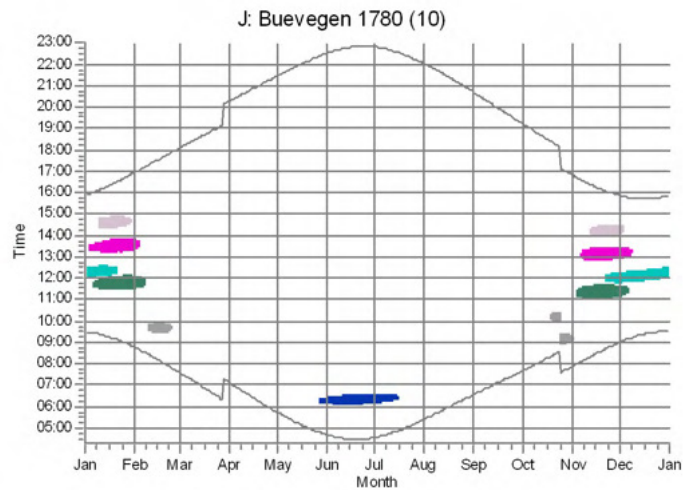
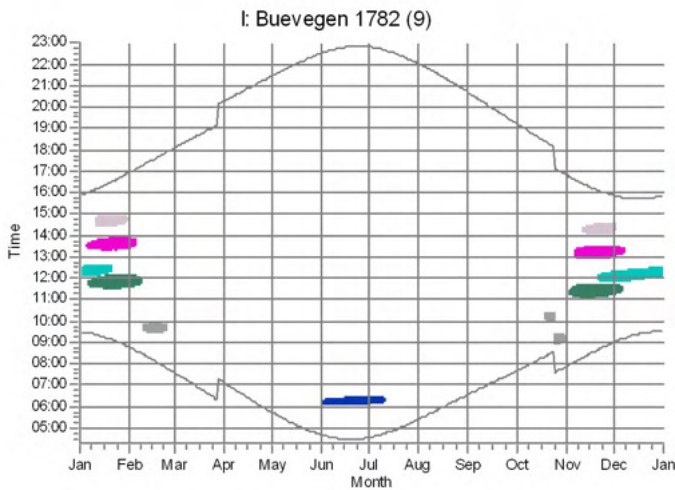
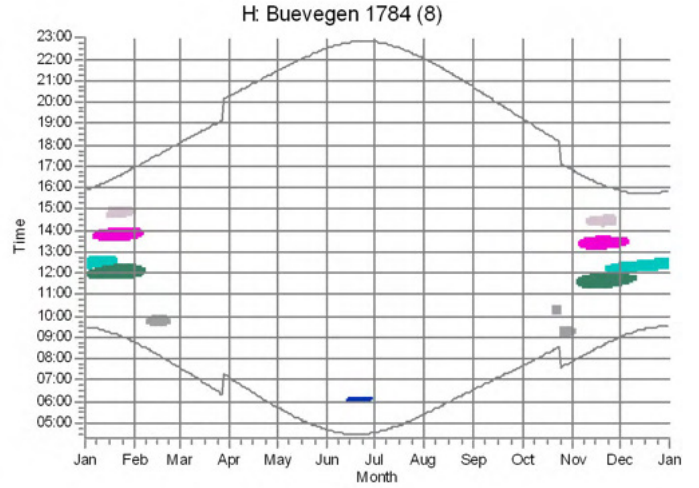
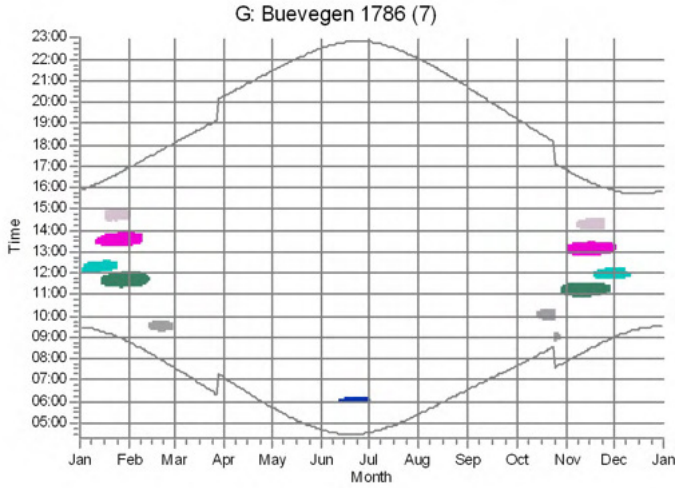
21: VESTAS V162-7.2 7000 362.0 101 hub: 119.0 m (T01: 200.0 m) (256)
 23: VESTAS V162-7.2 7000 362.0 101 hub: 119.0 m (T01: 200.0 m) (256)

24: VESTAS V162-7.2 7000 362.0 101 hub: 119.0 m (T01: 200.0 m) (256)
 25: VESTAS V162-7.2 7000 362.0 101 hub: 119.0 m (T01: 200.0 m) (257)

26: VESTAS V162-7.2 7000 362.0 101 hub: 119.0 m (T01: 200.0 m) (257)
 28: VESTAS V162-7.2 7000 362.0 101 hub: 119.0 m (T01: 200.0 m) (258)

SHADOW - Calendar, graphical

Calculation: Oppdatert layout - real case med vindrose - med nærliggende - oppdatert mottaker



16: VESTAS V162-7.2 7000 362.0 10' hub: 119.0 m (T01: 200.0 m) (258)
 18: VESTAS V162-7.2 7000 362.0 10' hub: 119.0 m (T01: 200.0 m) (250)

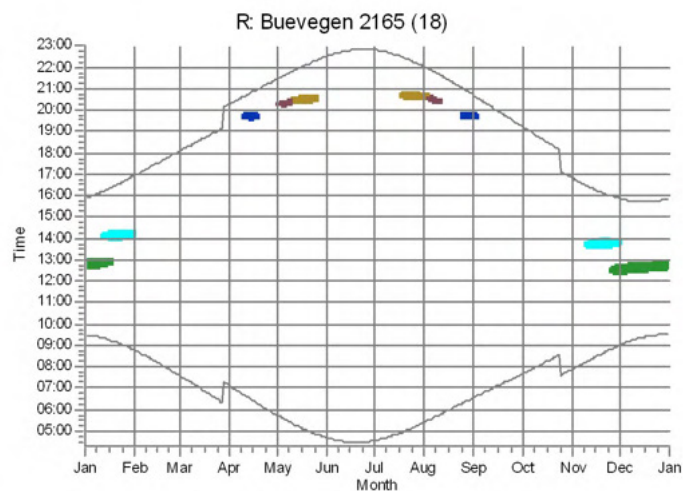
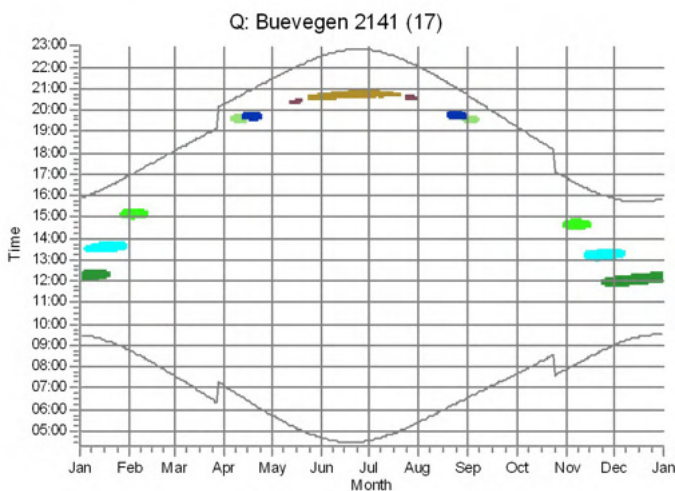
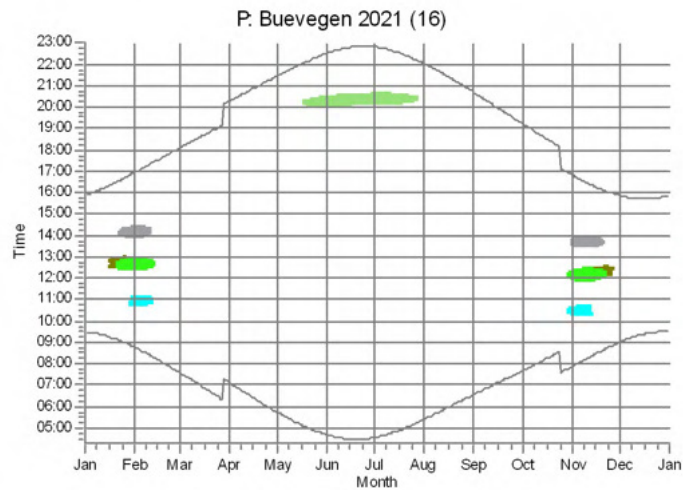
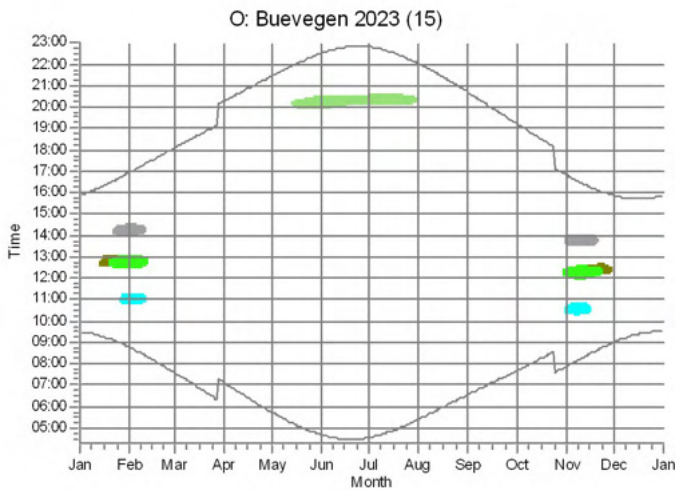
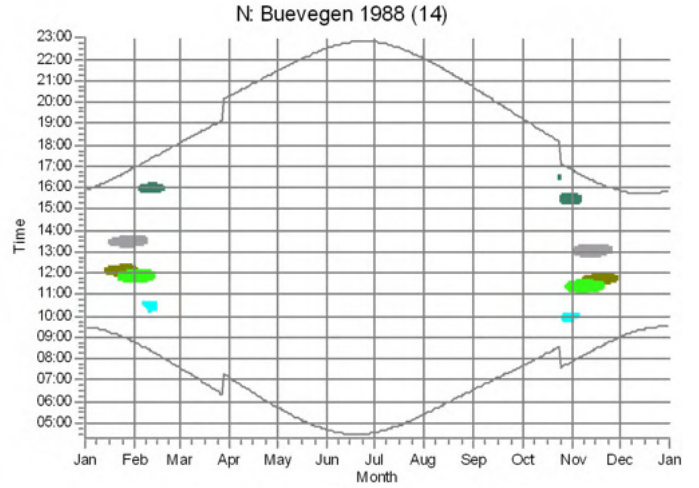
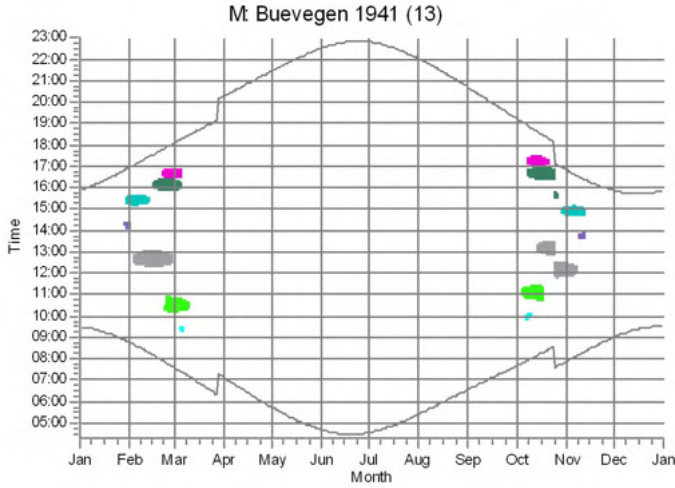
21: VESTAS V162-7.2 7000 362.0 10' hub: 119.0 m (T01: 200.0 m) (265)
 24: VESTAS V162-7.2 7000 362.0 10' hub: 119.0 m (T01: 200.0 m) (256)

25: VESTAS V162-7.2 7000 362.0 10' hub: 119.0 m (T01: 200.0 m) (267)
 26: VESTAS V162-7.2 7000 362.0 10' hub: 119.0 m (T01: 200.0 m) (257)

24: VESTAS V162-7.2 7000 362.0 10' hub: 119.0 m (T01: 200.0 m) (259)
 77: Siemens Gamesa 95 S 5.0-132 M60 5000 132.0 10' hub: 115.0 m (T01: 181.0 m) (72)

SHADOW - Calendar, graphical

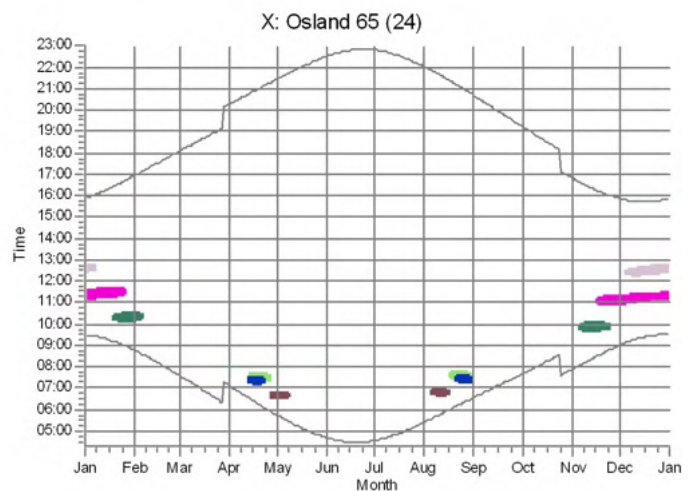
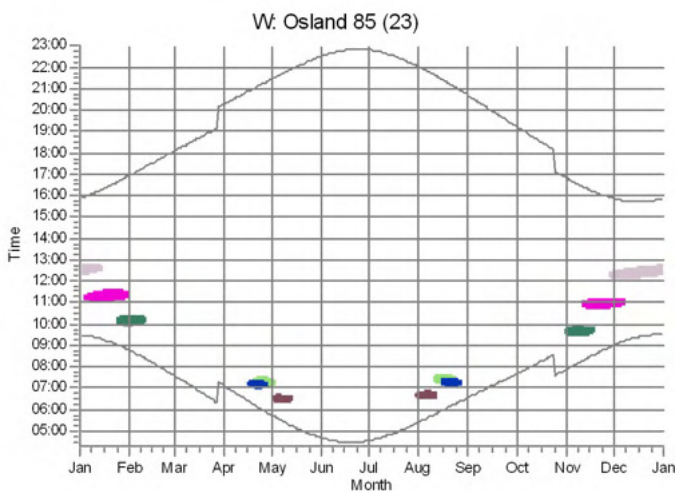
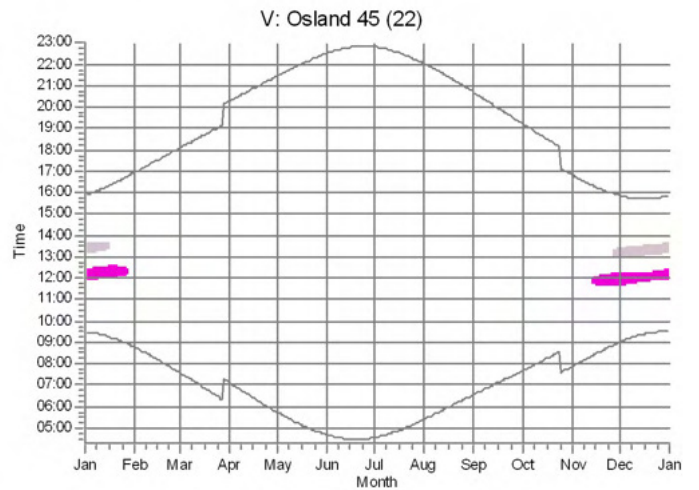
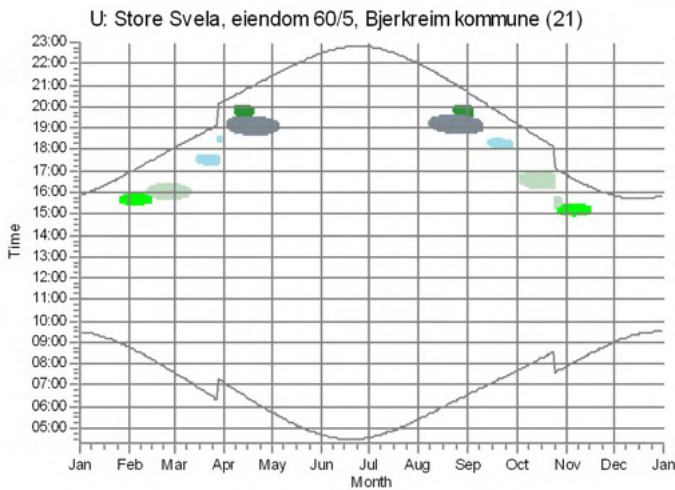
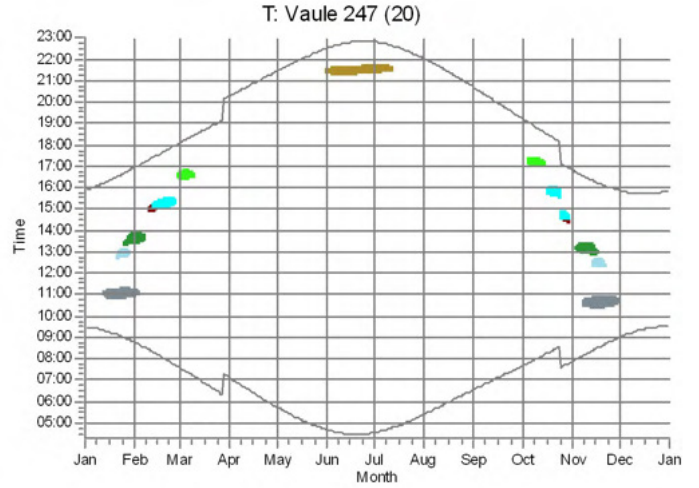
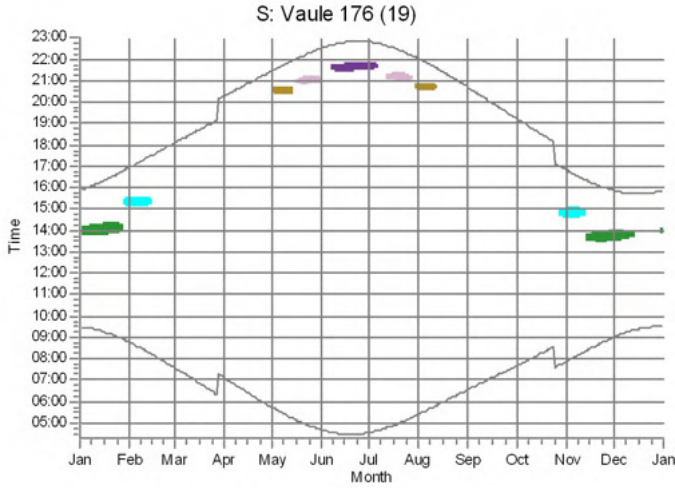
Calculation: Oppdatert layout - real case med vindrose - med nærliggende - oppdatert mottaker



- 10: Vestas V162-7.2 7000 162.0 101 hub: 119.0 m (T01: 200.0 m) (2512)
- 11: Vestas V162-7.2 7000 162.0 101 hub: 119.0 m (T01: 200.0 m) (2505)
- 16: Vestas V162-7.2 7000 162.0 101 hub: 119.0 m (T01: 200.0 m) (2508)
- 18: Vestas V162-7.2 7000 162.0 101 hub: 119.0 m (T01: 200.0 m) (2500)
- 21: Vestas V162-7.2 7000 162.0 101 hub: 119.0 m (T01: 200.0 m) (2565)
- 24: Vestas V162-7.2 7000 162.0 101 hub: 119.0 m (T01: 200.0 m) (2566)
- 27: Vestas V162-7.2 7000 162.0 101 hub: 119.0 m (T01: 200.0 m) (2569)
- 30: Vestas V162-7.2 7000 162.0 101 hub: 119.0 m (T01: 200.0 m) (2571)
- 34: Vestas V162-7.2 7000 162.0 101 hub: 119.0 m (T01: 200.0 m) (2576)
- 36: Siemens Gamesa SG 5.0-132 1965 132.0 101 hub: 115.0 m (T01: 181.0 m) (71)
- 37: Siemens Gamesa SG 5.0-132 1965 132.0 101 hub: 115.0 m (T01: 181.0 m) (72)
- 38: Siemens Gamesa SG 5.0-132 1965 132.0 101 hub: 115.0 m (T01: 181.0 m) (73)
- 70: Siemens Gamesa SG 5.0-132 1965 132.0 101 hub: 115.0 m (T01: 181.0 m) (74)

SHADOW - Calendar, graphical

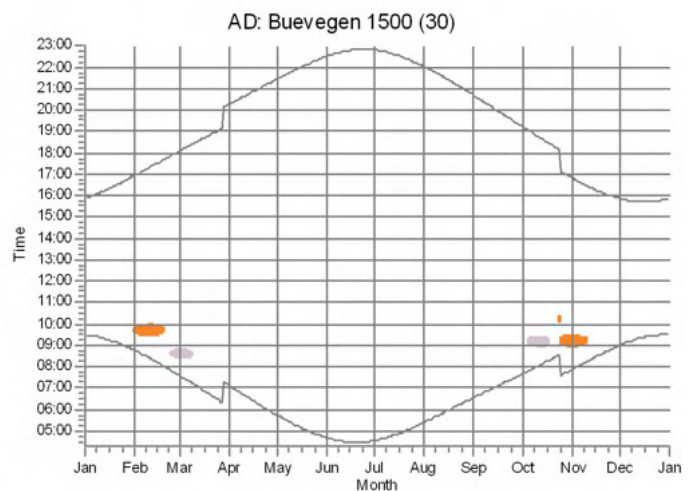
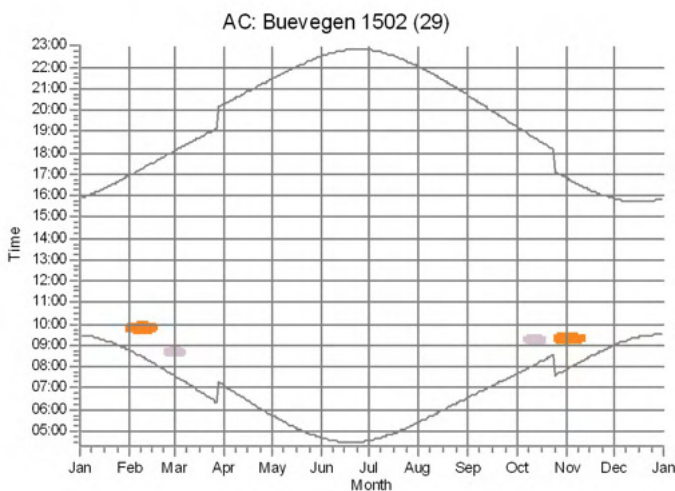
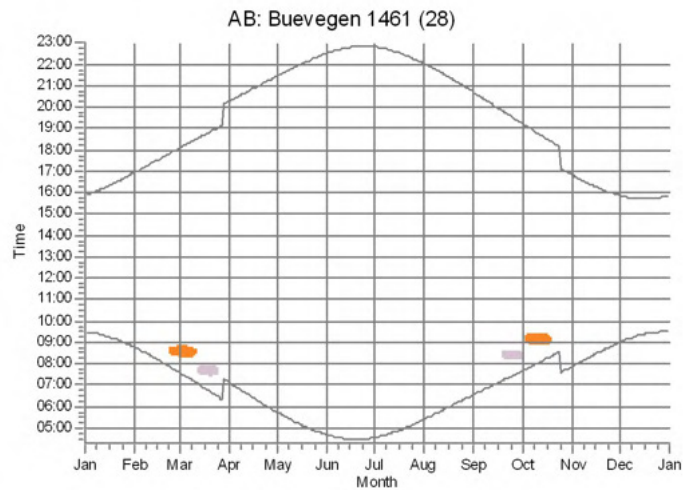
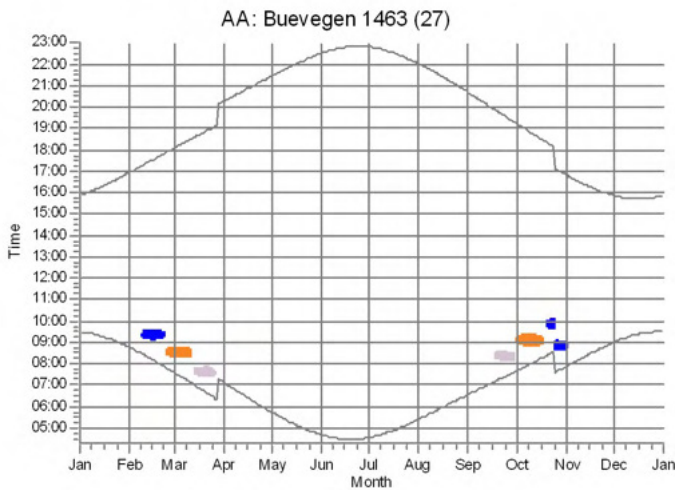
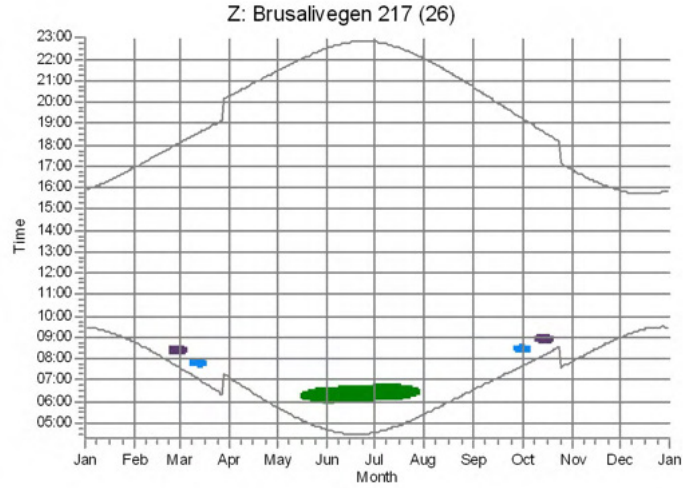
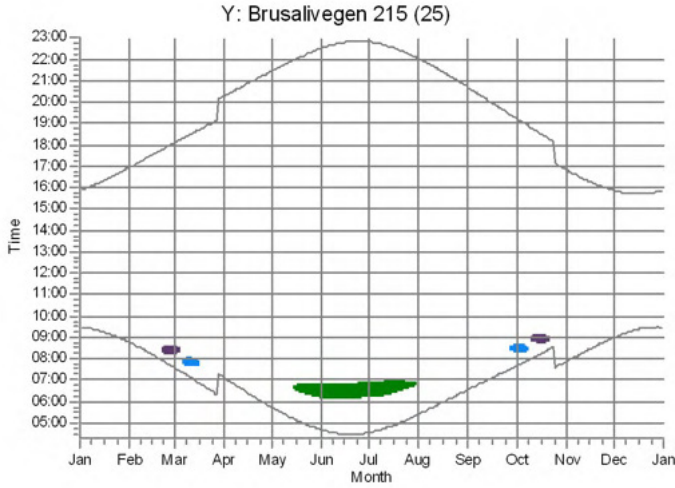
Calculation: Oppdatert layout - real case med vindrose - med nærliggende - oppdatert mottaker



- | | | | |
|---|---|--|--|
| 8: VESTAS V162-7.2 7200 162.0 101 hub: 110.0 m (T01: 200.0 m) (2550) | 24: VESTAS V162-7.2 7200 162.0 101 hub: 110.0 m (T01: 200.0 m) (2566) | 38: VESTAS V162-7.2 7200 162.0 101 hub: 110.0 m (T01: 200.0 m) (2589) | 40: Siemens Gamesa SC 5.0-132 1662 5000 132.0 101 hub: 115.0 m (T01: 181.0 m) (2591) |
| 9: VESTAS V162-7.2 7200 162.0 101 hub: 110.0 m (T01: 200.0 m) (2551) | 25: VESTAS V162-7.2 7200 162.0 101 hub: 110.0 m (T01: 200.0 m) (2567) | 39: Siemens Gamesa SC 5.0-132 1662 5000 132.0 101 hub: 115.0 m (T01: 181.0 m) (2590) | 41: Siemens Gamesa SC 5.0-132 1662 5000 132.0 101 hub: 115.0 m (T01: 181.0 m) (2592) |
| 13: VESTAS V162-7.2 7200 162.0 101 hub: 110.0 m (T01: 200.0 m) (2555) | 27: VESTAS V162-7.2 7200 162.0 101 hub: 110.0 m (T01: 200.0 m) (2569) | 37: Siemens Gamesa SC 5.0-132 1662 5000 132.0 101 hub: 115.0 m (T01: 181.0 m) (2588) | 42: Siemens Gamesa SC 5.0-132 1662 5000 132.0 101 hub: 115.0 m (T01: 181.0 m) (2593) |
| 14: VESTAS V162-7.2 7200 162.0 101 hub: 110.0 m (T01: 200.0 m) (2556) | 28: VESTAS V162-7.2 7200 162.0 101 hub: 110.0 m (T01: 200.0 m) (2570) | 36: Siemens Gamesa SC 5.0-132 1662 5000 132.0 101 hub: 115.0 m (T01: 181.0 m) (2587) | 43: Siemens Gamesa SC 5.0-132 1662 5000 132.0 101 hub: 115.0 m (T01: 181.0 m) (2594) |
| 16: VESTAS V162-7.2 7200 162.0 101 hub: 110.0 m (T01: 200.0 m) (2560) | 31: VESTAS V162-7.2 7200 162.0 101 hub: 110.0 m (T01: 200.0 m) (2575) | 35: Siemens Gamesa SC 5.0-132 1662 5000 132.0 101 hub: 115.0 m (T01: 181.0 m) (2586) | |

SHADOW - Calendar, graphical

Calculation: Oppdatert layout - real case med vindrose - med nærliggende - oppdatert mottaker



WFS

1: VESTAS V162-7.2 2300 162.0 01 hub: 110.0 m (T01: 200.0 m) (254)

2: VESTAS V162-7.2 2300 162.0 01 hub: 110.0 m (T01: 200.0 m) (254)

21: VESTAS V162-7.2 2300 162.0 01 hub: 110.0 m (T01: 200.0 m) (254)

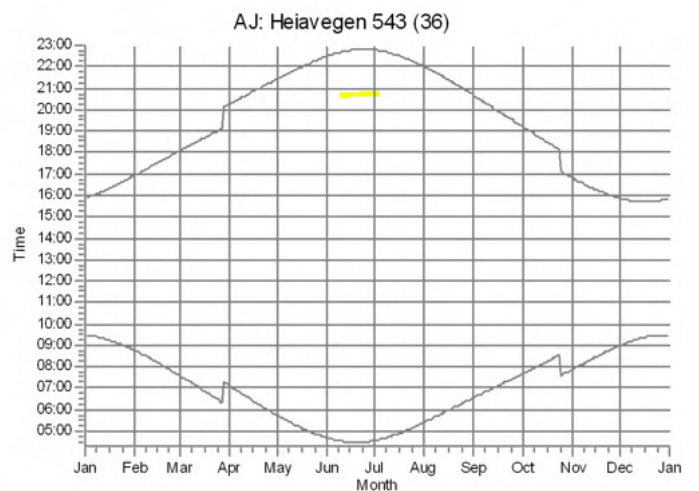
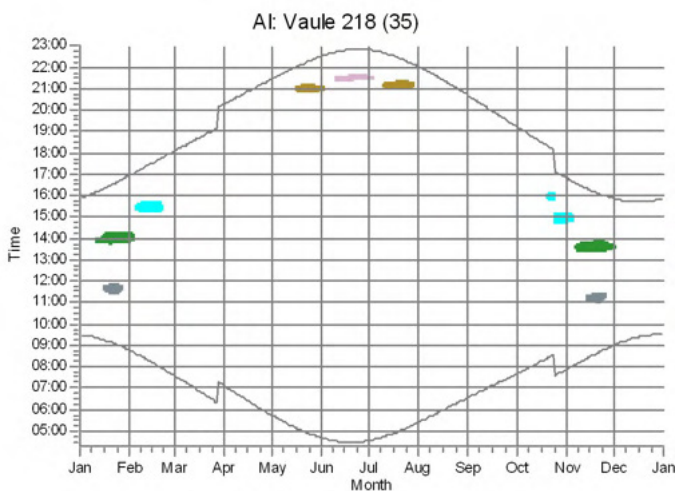
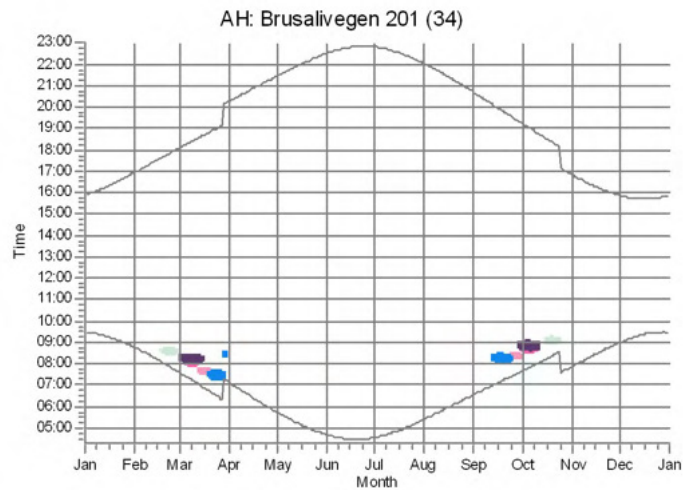
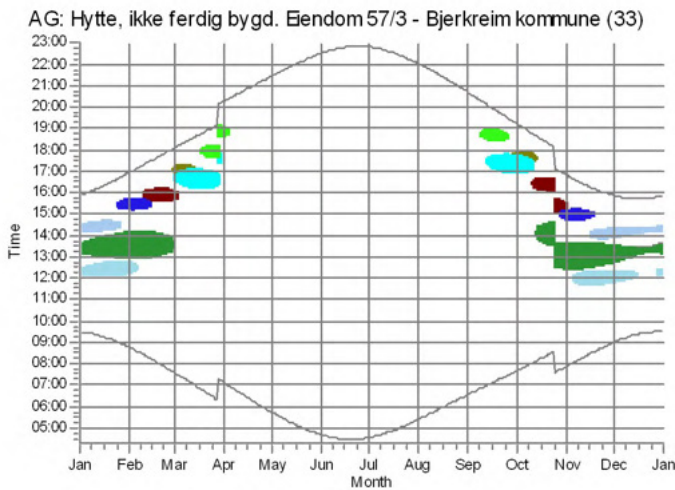
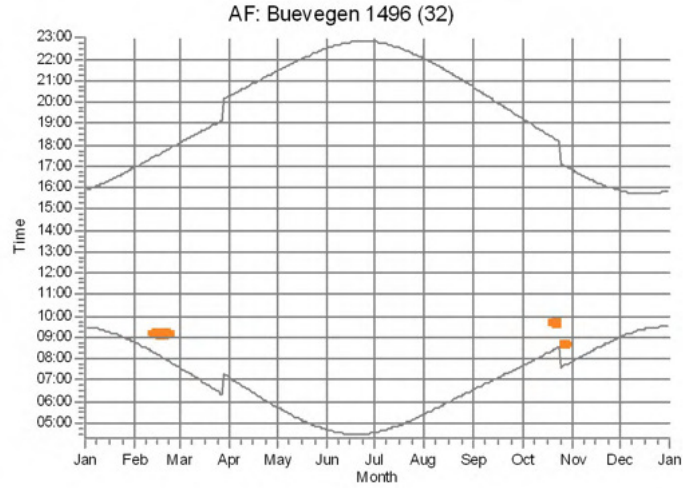
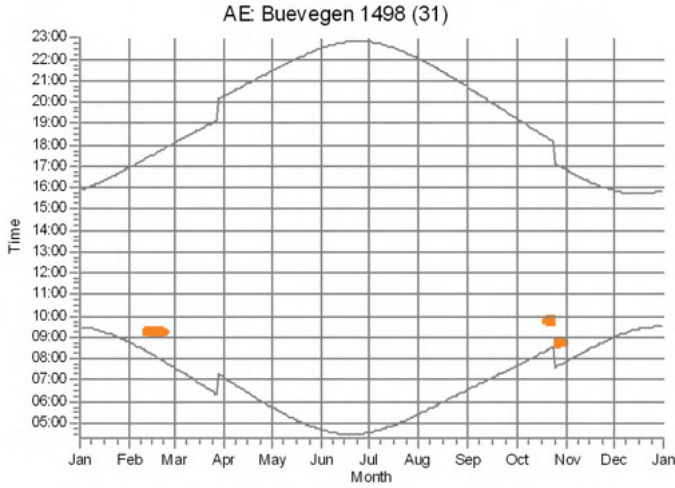
26: VESTAS V162-7.2 2300 162.0 01 hub: 110.0 m (T01: 200.0 m) (257)

42: Siemens Gamesa 5C 5.0-132 1960 5000 132.0 101 hub: 125.0 m (T01: 191.0 m) (24)

43: Siemens Gamesa 5C 5.0-132 1960 5000 132.0 101 hub: 125.0 m (T01: 191.0 m) (25)

SHADOW - Calendar, graphical

Calculation: Oppdatert layout - real case med vindrose - med nærliggende - oppdatert mottaker



- 2: VESTFAS V162-7.2 7200 162.0 101 hub: 110.0 m (T01: 200.0 m) (2594)
- 4: VESTFAS V162-7.2 7200 162.0 101 hub: 110.0 m (T01: 200.0 m) (2596)
- 6: VESTFAS V162-7.2 7200 162.0 101 hub: 110.0 m (T01: 200.0 m) (2598)
- 10: VESTFAS V162-7.2 7200 162.0 101 hub: 110.0 m (T01: 200.0 m) (2599)
- 11: VESTFAS V162-7.2 7200 162.0 101 hub: 110.0 m (T01: 200.0 m) (2599)

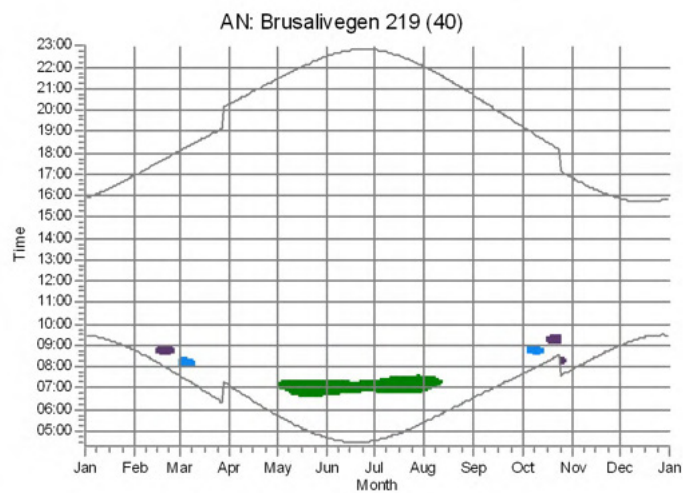
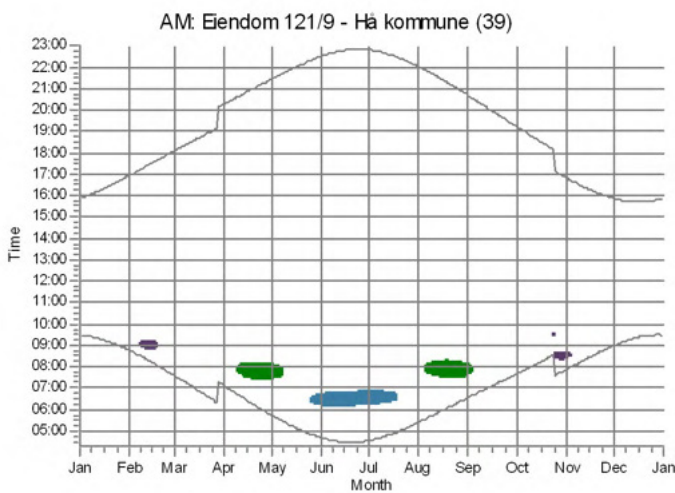
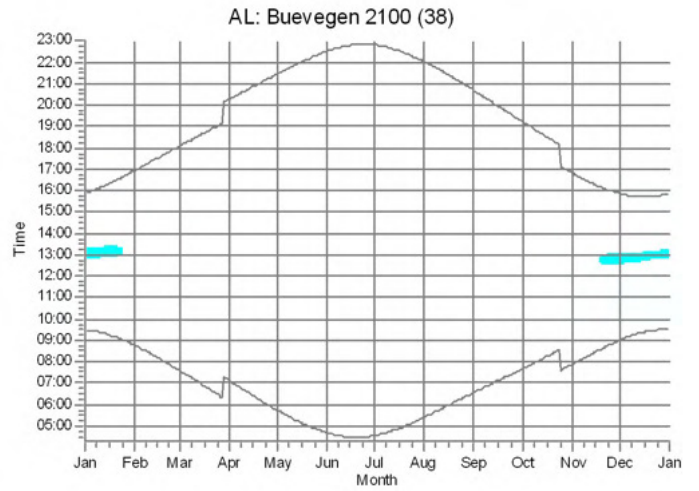
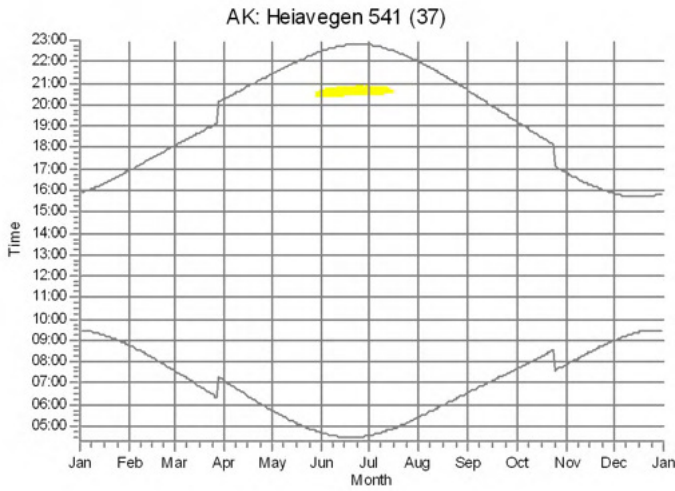
- 11: VESTFAS V162-7.2 7200 162.0 101 hub: 110.0 m (T01: 200.0 m) (2597)
- 16: VESTFAS V162-7.2 7200 162.0 101 hub: 110.0 m (T01: 200.0 m) (2598)
- 21: VESTFAS V162-7.2 7200 162.0 101 hub: 110.0 m (T01: 200.0 m) (2599)
- 27: VESTFAS V162-7.2 7200 162.0 101 hub: 110.0 m (T01: 200.0 m) (2599)
- 31: VESTFAS V162-7.2 7200 162.0 101 hub: 110.0 m (T01: 200.0 m) (2597)

- 36: VESTFAS V162-7.2 7200 162.0 101 hub: 110.0 m (T01: 200.0 m) (2578)
- 38: VESTFAS V162-7.2 7200 162.0 101 hub: 110.0 m (T01: 200.0 m) (2598)
- 39: Siemens Gamesa SC 5.0-132 1965 5000 132.0 101 hub: 125.0 m (T01: 195.0 m) (21)
- 40: Siemens Gamesa SC 5.0-132 1965 5000 132.0 101 hub: 125.0 m (T01: 195.0 m) (21)
- 41: Siemens Gamesa SC 5.0-132 1965 5000 132.0 101 hub: 125.0 m (T01: 195.0 m) (21)

- 42: Siemens Gamesa SC 5.0-132 1965 5000 132.0 101 hub: 125.0 m (T01: 195.0 m) (24)
- 43: Siemens Gamesa SC 5.0-132 1965 5000 132.0 101 hub: 125.0 m (T01: 195.0 m) (25)
- 78: Siemens Gamesa SC 5.0-132 1965 5000 132.0 101 hub: 125.0 m (T01: 195.0 m) (79)
- 80: Siemens Gamesa SC 5.0-132 1965 5000 132.0 101 hub: 125.0 m (T01: 195.0 m) (79)

SHADOW - Calendar, graphical

Calculation: Oppdatert layout - real case med vindrose - med nærliggende - oppdatert mottaker



WFS:
 1: Vestas V150-7.2 2300 162.0 01 hub: 110.0 m (T01: 200.0 m) (254)
 2: Vestas V150-7.2 2300 162.0 01 hub: 110.0 m (T01: 200.0 m) (254)

11: Vestas V150-7.2 2300 162.0 01 hub: 110.0 m (T01: 200.0 m) (255)
 31: Vestas V150-7.2 2300 162.0 01 hub: 110.0 m (T01: 200.0 m) (259)

43: Siemens Gamesa 95 S-0-132 1960 5000 132.0 01 hub: 125.0 m (T01: 195.0 m) (24)
 63: Siemens Gamesa 95 S-0-132 1960 5000 132.0 01 hub: 125.0 m (T01: 195.0 m) (25)