NVE’s Vindkraft Seminar – June 3-4 2019
FREYR’s Relevance
Exponential Growth In Demand For Batteries To Support The Accelerated De-Carbonization Of The Transportation and Power Sector

10 x Growth In Demand
Exponential Demand Growth For Batteries in Europe and Globally

Limited Current Supply
No Current Large Scale Battery Cell Supply in Europe Against A Need Of 300 GWh By 2025

Norway As Ideal Location
Deep Industrial Experience In Energy Intensive Industry
Substantial Untapped Low Cost Green Energy
Leading The Adoption Of Electric Vehicles
Tradition For Cluster Developments

The Future Is Electric
Adoption Of Electric Solutions Picking Up Pace Beyond Passenger Vehicles
FREYR In A Nutshell
32 GWh Battery Cell Factory & 600 MW Wind-park Creating Carbon Positive Low Cost Storage Solutions

40 Billion NOK Investment
The largest Investment Program In Northern Norway In This Millennium

>500 000 Electric Vehicles per year
32 GWh of Battery Cells Will Power Europe’s Growing Appetite For Batteries

2,500 Direct Job Creation
Material Increase In Arctic Development With Substantial Ripple Effects

>4.0 million tons CO₂ per year
Material Catalyst For Norway’s ‘Green Shift’ Ambitions
Why Electric Vehicles Will Outcompete ICE

The Intrinsic Physical Differences Ultimately Delivers a Superior Economic Proposition

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Source: FREYR
Why Electric Vehicles Will Outcompete ICE

The Intrinsic Physical Differences Ultimately Delivers A Superior Economic Proposition

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Source: Bernstein estimates and analysis
FREYR – Battery Cell Market Development

The only Giga-Factory development project in Norway which can supply the European market at scale produced by CO2-free energy

Global Battery Cell Capacity is 1000 GWh in 2020

European Battery Market in 2025 estimated at 400 GWh

Planned Battery Cell capacity in 2025 is estimated at 240 GWh

New Capacity required is 160 GWh – equal to 5-6 new Giga-factories

Volkswagen alone requires 150 GWh, equal to 5 Giga-factories in Europe by 2025, 10 factories globally

Source: FREYR
FREYR – At A Glance
The only Giga-Factory development project in Norway which can supply the European market at scale produced by CO2-free energy

- Building a 32 GWh battery-cell factory and 600 MW wind-park, in an ideal location in Northern Norway balanced by low cost Hydro power
- Producing a continuously expanding array of Best Available Battery cells, based on proven technology and CO2 free energy
- Producing battery cells for the EV, Maritime and Stationary storage segments in Europe (and Norway)
- Since Q1-19 FREYR has been in select strategic, industrial & financial partner dialogues to write the next chapter in Norway’s energy intensive industry development

Source: FREYR
Freyr – Norway Context

Norway is in an ideal situation to create a globally leading battery technology, development and supply cluster

- One of the leading countries in the world on sustainable development with 100% renewable energy (hydro and wind) at ultra-low cost

- Leading the world in adoption of electrification solutions as more than 50% of new vehicles sold are now electric models

- Highly skilled and efficient labor force, with low top-management salaries partly offsetting generally high labor costs

- World leading track-record in energy and energy-intensive industries, based on solid scientific clusters coupled with stable, clean, ultra-low energy costs

- With its Nordic neighbors emerging access to all commodity based raw materials required for best available battery cells at globally competitive costs

Source: EuroStat 2018, Rystad Energy
FREYR At A Glance – A Circular, Renewable Value Chain

Flexible value chain approach leveraging the key Norwegian competitive edges of low cost, green power and process industry/automatization expertise.

- FREYR’s presence along the value-chain is initially focused on leveraging Norway’s energy intensive industry competence.
- This secures maximum utilization of Norway’s competitive edge on low-cost renewable energy.
FREYR – Sjonfjellet Windpark

1st quartile wind-park project

Source: Meventus
Wind Energy and Battery Cell Production – Mutual Catalysts For Industrial Development

Deep Synergies Across Multiple Verticals Provide Superior Fundamentals To Write Multiple New Chapters In Norway’s Industrial History

- Can provide 2.5-3.0 TWh of low cost, green energy to catalyze industrial development
- One of Norway’s best undeveloped wind-parks with superior wind-conditions
- Industrial European partners provides material equity for the battery facility
  - Unlocks 1000 new industrial jobs per 1 TWh generated

600 MWh Windpark at Sjonfjellet in Rana/Nesna

- Generates ca 2.5 TWh/year
- Requires ca 2.5 TWh/year

34 GWh battery cell plant in Mo I Rana

- 32+2 GWh battery cell manufacturing facility requiring 75-100 Kwh/Kwh battery cell
- 35 BNOK investment generating 2,500 direct jobs with significant multiplier effects
- Energy storage requires greenest energy possible to accelerate GHG impact
  - Norwegian Text Book Example Roadmap: ‘Green Industry From Green Energy’

Source: FREYR
Norway has superior conditions to supply energy intensive products to Europe

Energy and energy intensive industrial heritage with proven track record in up- and downstream industrial cluster development

Some High Level Strategic Considerations:

- Norway’s energy potential & industrial heritage provides an unprecedented opportunity to supply European demand
- With a proven track record in up and downstream energy development, Norway can create a new energy adventure
- Realizing +/-1% of Norway’s Potential Could Unlock ca 100,000 High Skilled Jobs & GDP impact of ca >100 BUSD/yr

Key observations:

- Norway produces roughly 130 TWh in a normal year.
- 96% of power production in Norway stems from hydropower.
- A large share of the production capacity is flexible; hydropower storage possibility is 85 TWh.

Wind Resource Map Europe

<table>
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<th>Medium Term Gigafactory Potential In The Nordic Countries – Rough Estimate **</th>
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<tr>
<td>Finland</td>
</tr>
<tr>
<td>50</td>
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Installed Hydropower Plants in Norway

Source: National Renewable Energy Laboratory (NREL; US); NTNU; Global Wind Atlas (World Bank); FREYR

**Assuming 5% of technical wind energy potential can be used for battery cell production