



NEL ASA General Update May 2016

Jon André Løkke, CEO



NEL Q1 HIGHLIGHTS



- Financials reflecting high activity level in new markets and preparation for production ramp up
- Final agreement with Uno-X for a nationwide hydrogen station network in Norway
- Contract for delivery of first station with integrated production to Uno-X Hydrogen
- Announced plan for NOK 85 million facility for station production in Herning, Denmark
- Initiated feasibility study "Hyper" for large-scale hydrogen production in Norway
- Letter of Intent establish a large-scale, low-cost hydrogen production facility in Glomfjord Industrial Park in Meløy, Norway

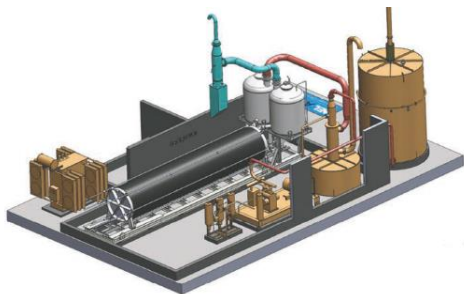
<i>(NOK million)</i>	2016 Q1	2015 Q1	2015
Revenue	26.0	17.6	99.9
EBITDA	-7.6	1.5	2.6*
EBIT	-10.1	-2.1	-18.3
Net profit	-9.7	-0.6	-21.7
Cash balance	289	165	313

*Adjusted EBITDA excludes Q2 2015 transaction costs related to acquisition of H2 Logic.

A PURE-PLAY HYDROGEN COMPANY



HYDROGEN PRODUCTION



HYDROGEN PRODUCTION
TECHNOLOGY



HYDROGEN REFUELLING



HYDROGEN REFUELLING
TECHNOLOGY



HYDROGEN SYSTEMS



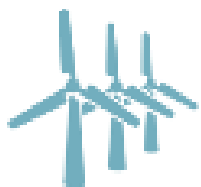
SYSTEM INTEGRATION
PROJECT DEVELOPMENT
FINANCING & OWNERSHIP

HYDROGEN VALUE CHAIN



Addressing all end markets for hydrogen

Electricity production



Renewable energy

Hydrogen production



+

H₂O

Water
electrolysers



Hydrogen production from
water and electricity

Energy storage



Hydrogen as a “battery”
for renewable energy

Distribution methods



Onsite



Trucked in



Pipeline

End markets

Hydrogen Refuelling Stations



Industrial end markets



Upstream

Downstream

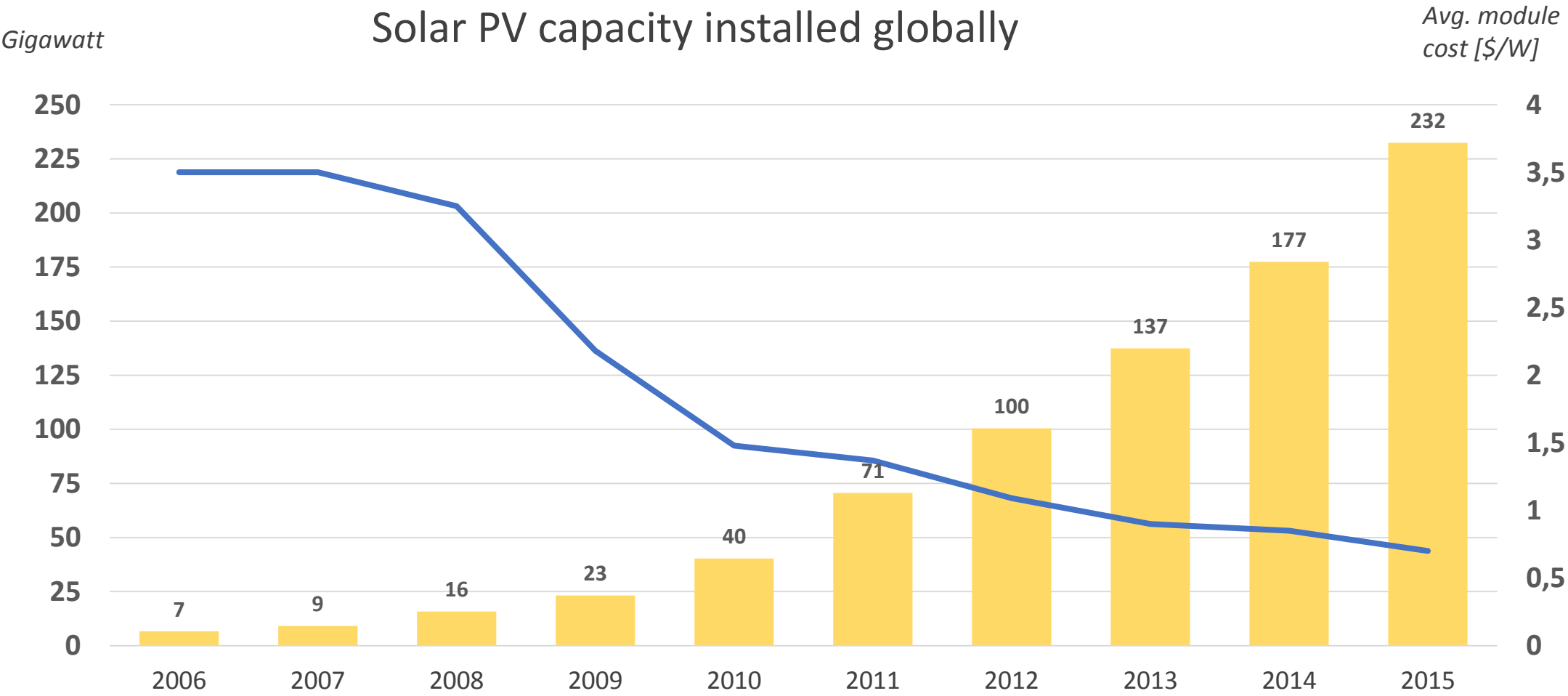
TWO MAIN DRIVERS



1. RENEWABLE ELECTRICITY IS BECOMING COMPETITIVE
 - Needs storage solutions to realize the full potential
 - The key is not the cost of energy, but the cost of storage
2. HYDROGEN CARS BECOMING AVAILABLE AND AFFORDABLE
 - Focus on zero emission transport
 - Major car companies launching ambitious programs



RENEWABLE ELECTRICITY BECOMING COMPETITIVE



HYDROGEN CARS BECOMING AVAILABLE & AFFORDABLE

- Hyundai, Toyota, Honda, BMW, Daimler, GM, Nissan, Ford, Audi, and Volkswagen have all launched, or announced launch, of FCEVs
- Formidable cost reductions enable introduction:** *“The Toyota Mirai’s powertrain is 95% cheaper to build than the fuel-cell system in the 2008 Highlander fuel cell SUV”¹*



2014



TOYOTA

2015



HONDA

2016



2017



Audi



2018 - 2020

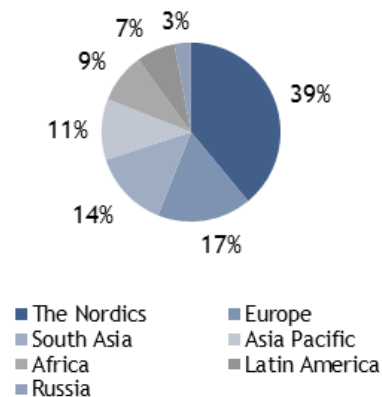
HYDROGEN PRODUCTION (UPSTREAM)

ABOUT THE PRODUCTS

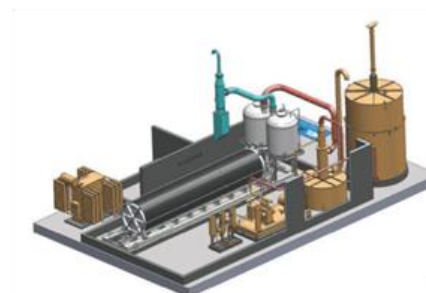
- Global leader within large scale hydrogen electrolyser plants
 - **Highest uptime, lowest conversion cost, robust and reliable**
- New technologies:
 1. Pressurized electrolyser, containerized solution, pre-assembled before delivery - reduced time for installation and commissioning
 2. Compact game-changing technology - Rotolyzer

CUSTOMERS

Regions



Atmospheric electrolyser

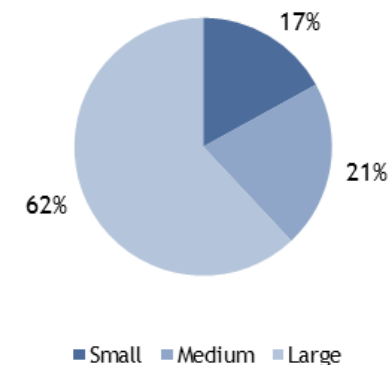


NEL A-150

NEL A-300

NEL A-485

Size



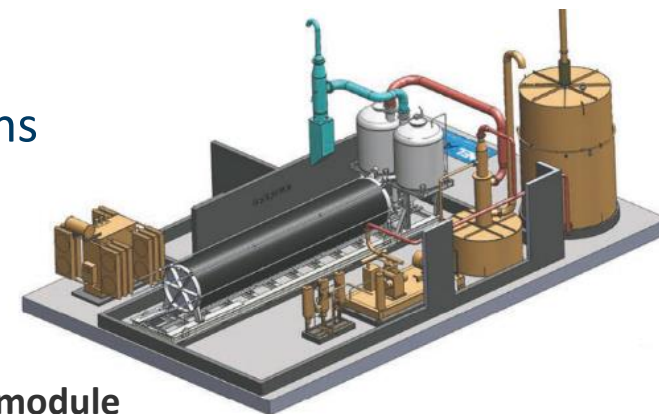
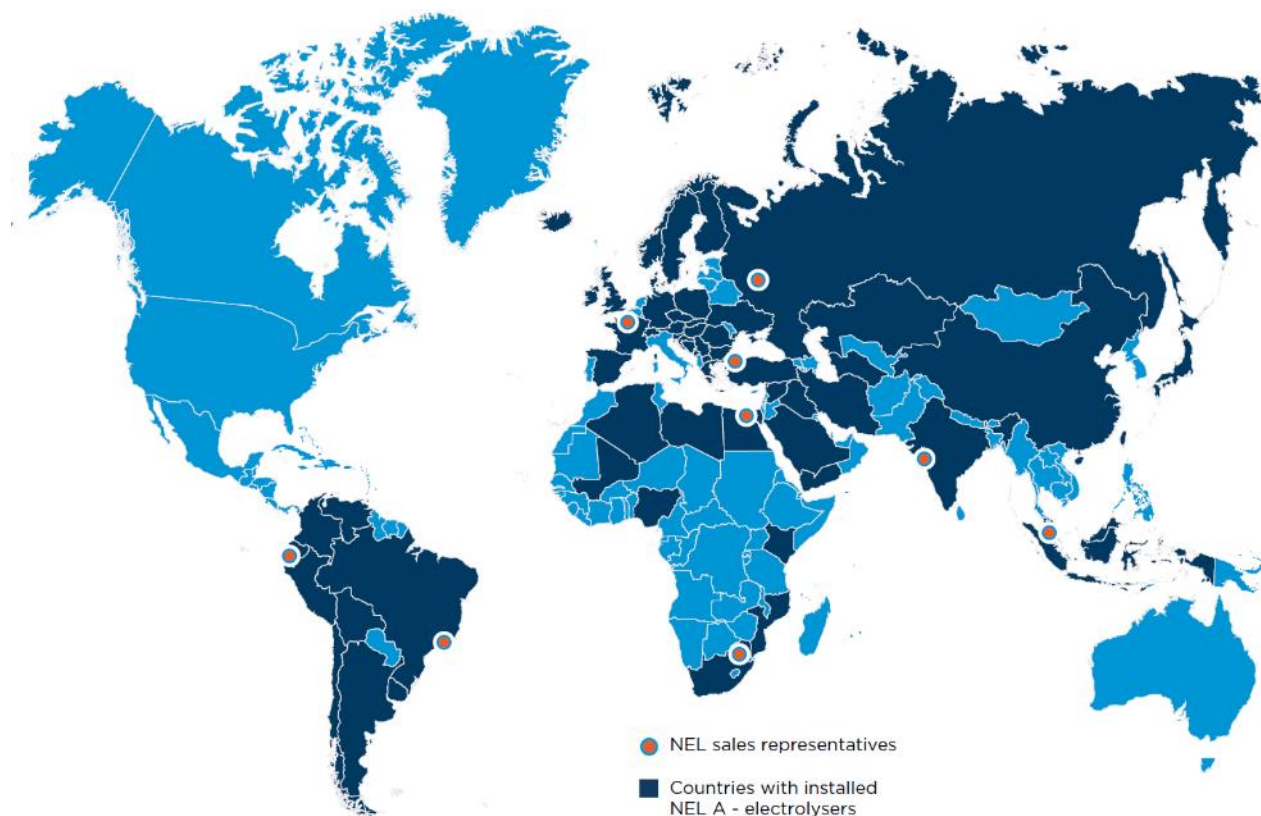
Pressurized electrolyser



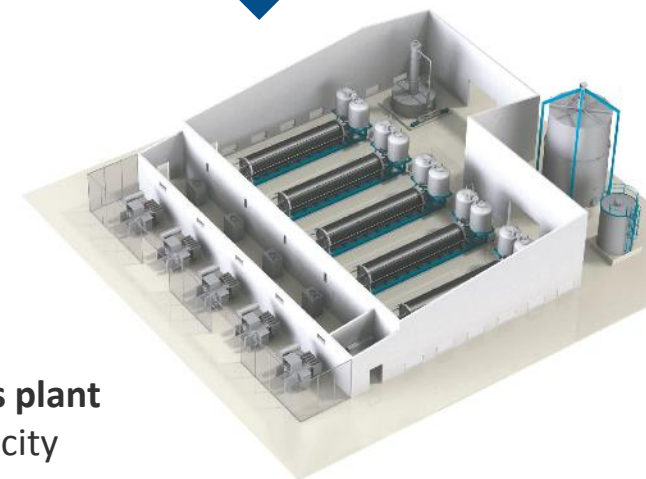
LONG TRACK RECORD & HIGHLY SCALABLE



- World leading supplier of technology for hydrogen production
- Delivered >500 large scale electrolyzers in >50 countries
- Scalable production capacity for industrial and energy/transport applications



100-1.000kg/day module
Flexible upgrade



Multiple modules plant
Unlimited capacity

Rotating electrolyser – several advantages:

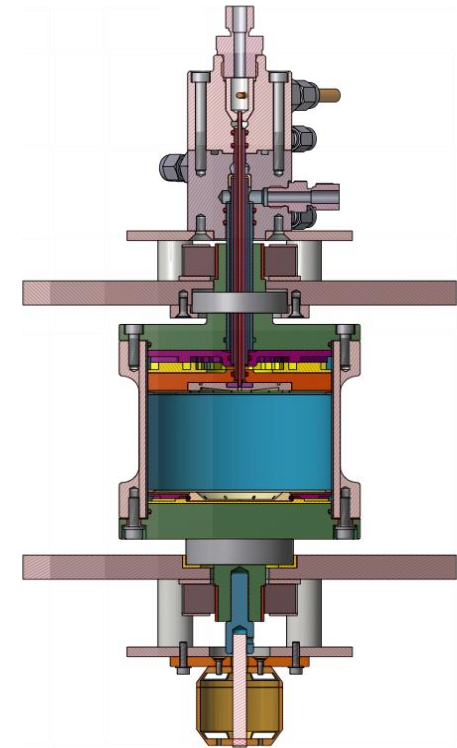
✓ **Optimal production and flow of hydrogen and oxygen**

- Cost efficient and compact
 - Dramatically increased active area on electrodes → less material needed → more compact
 - Increased gas-lye separation and less distance between electrodes → increased efficiency due to less ohmic resistance

✓ **Pressurized stack**

- Higher pressure → more compact & no need for 1st stage compression downstream
- Works as a centrifugal pump – no need for lye pumps

**100x
smaller***

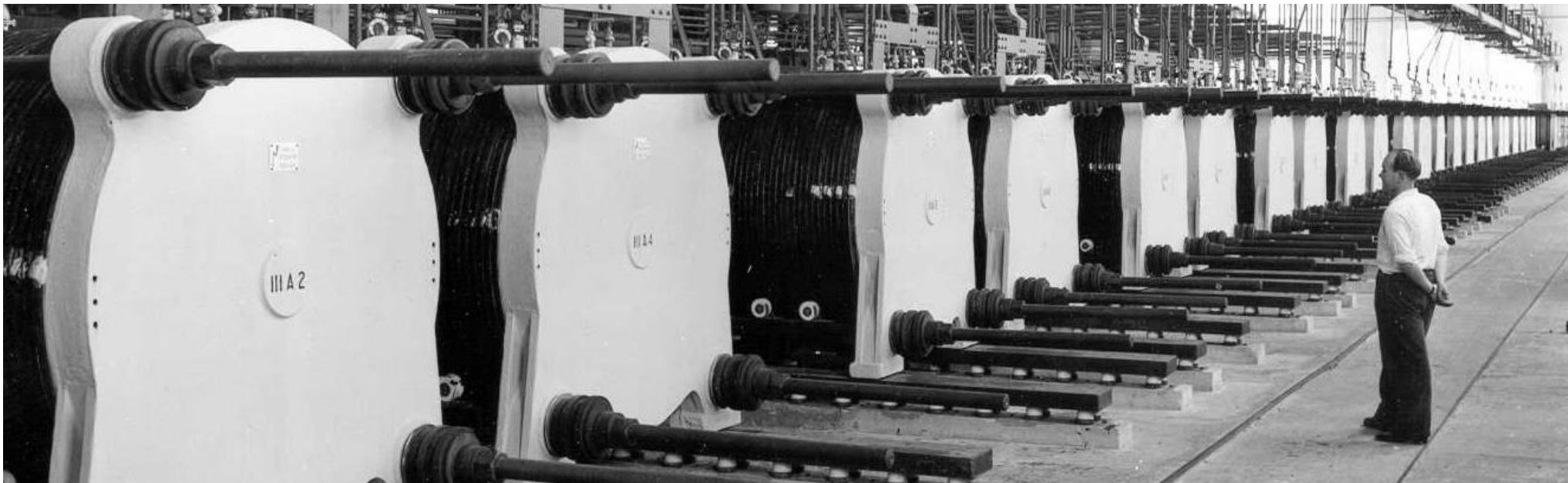


**cell stack, compared to atmospheric alkaline*

GLOMFJORD HYDROGEN



- Lol to establish Glomfjord Hydrogen AS for potential development of large-scale, low-cost hydrogen production in Glomfjord Industrial Park in Meløy, Norway
- The plant can provide hydrogen for industrial applications, as well as personal- and public transportation
- Increased demand for hydrogen from reviewable sources, with initial target capacity of 6000 kilograms of low-cost hydrogen per day



Proud history of large-scale hydrogen production: The world's largest hydrogen electrolyser plant in Glomfjord, Norway, until the 1990s (daily capacity of 65 tons)

HYDROGEN REFUELLING (DOWNSTREAM)

H2 LOGIC

- World leading supplier of hydrogen refuelling stations
- More than 29 stations delivered in 8 countries across Europe
- More than 14.700 refuellings (33 tons of hydrogen)
- Strategic collaboration with Mitsubishi Kakoki Kaisha in Japan
- Currently developing market entry strategy for California

H2STATION® CAR-200 FOR CARS

- One-module system with fast installation
- 3x capacity, 1/3 footprint of previous model
- Standardized and module based design
- Industrial production
- Patented technology



H2STATION® FOR LARGE VEHICLES

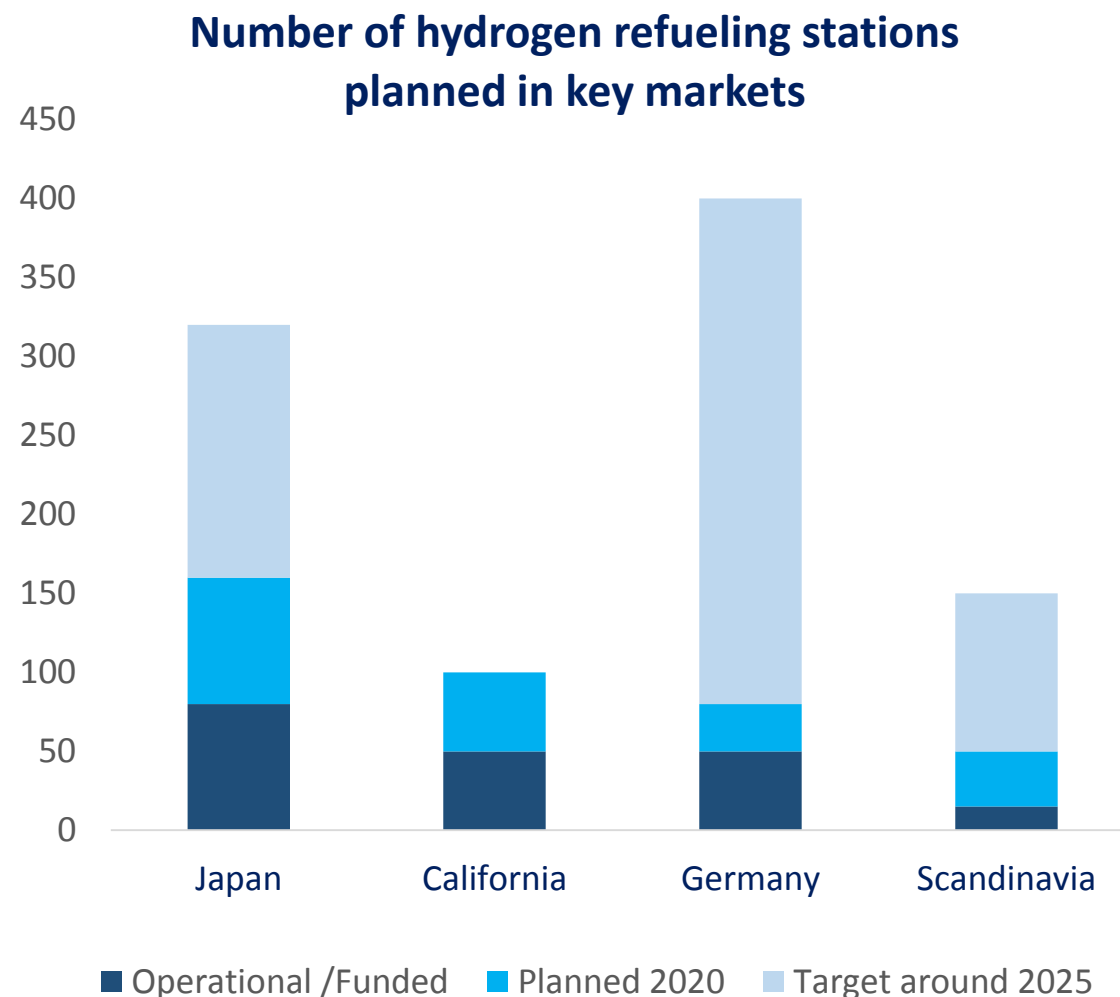
- Easy and fast installation
- 35MPa fuelling for large and small fleets of industrial vehicles or buses
- Flexible hydrogen supply
- Patented fueling technology



HYDROGEN MARKET HIGHLIGHTS YTD



- Honda Clarity launch in Japan
- Toyota communicates Norway and Sweden as priority markets
- Announcement of new GFO/PON in California (see below)
- Japanese government announced target of 800.000 FCEV in 2030 and 40.000 already in 2020
 - Also increased target for hydrogen refueling stations to 160 by 2020 and 320 by 2025
- Danish FCEV's crossed 1mio km driven on renewable hydrogen from electrolyser dispensed from H2 Logic stations



CALIFORNIAN MARKET PROGRESS



- California Energy Commission recently launched new GFO/PON
 - A competitive bid process for funding additional hydrogen refuelling stations
- California has set at side up to USD 20 million per year to reach 100 hydrogen refueling stations by 2020
- **Deadline for application submission July 15th, 2016**
 - **Allocation expected during Q4'16**

Map of hydrogen stations in California



Source: California Fuel Cell Partnership www.cafcp.org

H2STATION® CAR-200



- New generation H2Station® for 70MPa fuelling, designed for EU and USA
- 1 hose configuration with 200kg per day, prepared for upgrades
- Peak "rush hour" capacity of up to 100kg per 3 hours on 1 fuelling hose
- Dimensioning of storage fully flexible to fit any demand and supply source

Capacity	CAR-200
1 hour	20-33kg
3 hours	60-100kg
12 hours	160 kg
24 hours	200 kg

1/4 Footprint	Triple capacity	
10 m ²	CAR-200	100 kg / 3 hours
30 m ²	CAR-100	30 kg



**9 times greater capacity per m²
compared to H2Station® CAR-100**

NEW COMPACT HYDROGEN DISPENSER



- **CAR-200 features new dispenser designed solely for hydrogen refuelling**
- **Size of only one third of conventional dispenser, can be placed next to gasoline/diesel dispensers**
 - Flexible placement at site, up to 50m away from H2Station®
 - No equipment underground
 - Useable from any side
 - Shares fueling lane with gasoline/diesel
 - Intuitive designed user-interface



BUILDING THE WORLD'S LARGEST PRODUCTION PLANT



KEY INFORMATION

- Total capex of NOK 85 million, incl. land, building and production equipment
- Name-plate capacity of up to 300 refueling stations per year
- Next generation refueling stations ready for volume production according to lean principles
- Will ensure continuous improvement and scale benefits



HYDROGEN SYSTEMS

PRODUCT AND SERVICES

- System integration, project development and sales
- Operation, maintenance, ownership and financing solutions
- Particular focus on new markets like California, Japan
 - But also existing markets like Germany and Scandinavia

REFUELLING NETWORKS

- Develop entire refueling networks, incl. renewable hydrogen production
- Network monitoring services
- Service and maintenance



RENEWABLE HYDROGEN & STORAGE SOLUTIONS

- Energy storage solutions and “constant” renewable supply
- Production based hydro, wind or solar
- Large, medium or small scale



DELIVERED THE ENTIRE DANISH NETWORK



The world's first country wide network in daily operation:

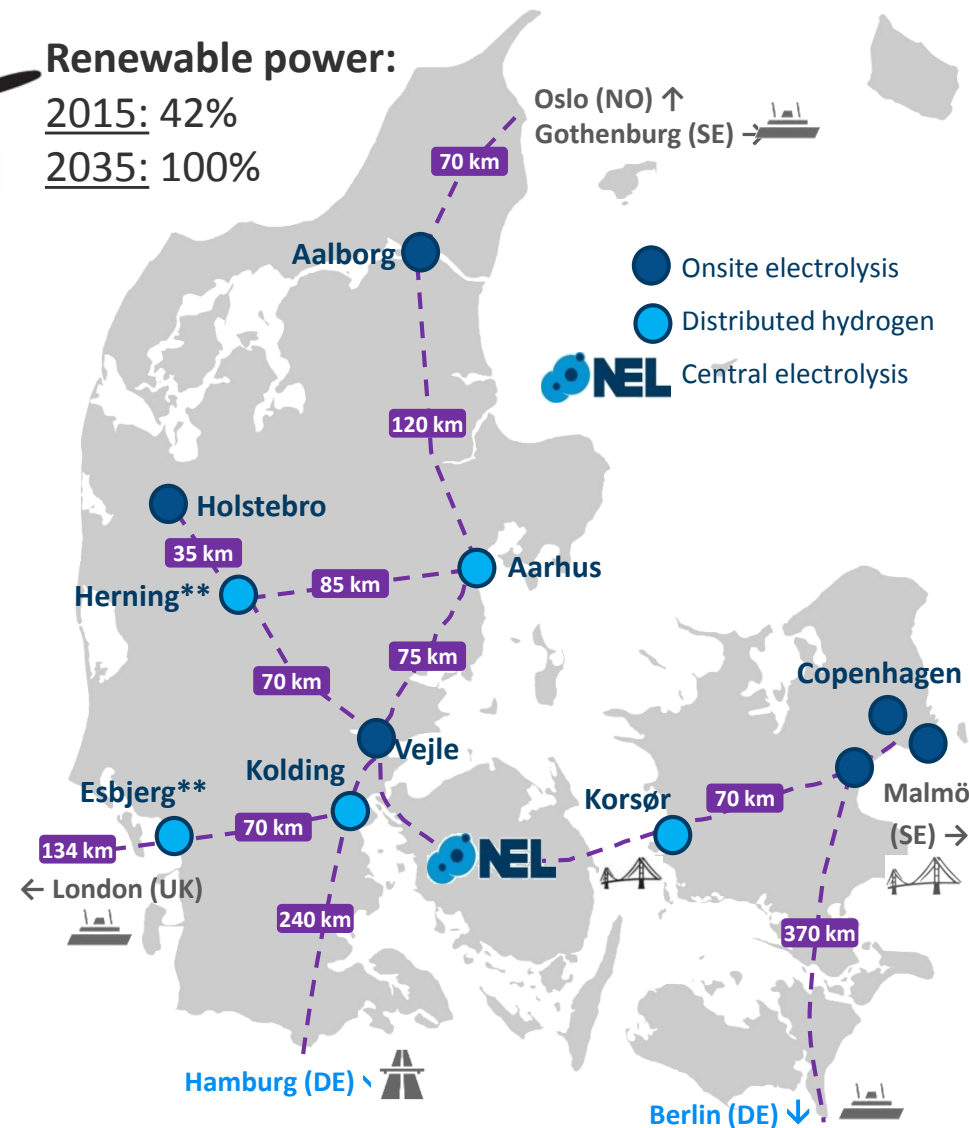
- NEL services and operates entire network
 - In collaboration with leading oil, energy and gas companies*
- 100% of hydrogen from electrolysis
- 6 stations with onsite electrolysis
- 5 stations with centralized NEL electrolysis
- All stations approved by OEM's
- Same approach in other markets



Renewable power:

2015: 42%

2035: 100%



* Partners: Air Liquide, OK, Strandmøllen, Vestforsyning

** Under planning/construction

UNO-X HYDROGEN AS

- Joint Venture between Uno-X and NEL
- Target to build minimum 20 hydrogen refuelling stations in Norway by 2020
 - Realization depend on public support
- First station to be located at Kjørbo, Sandvika
 - Use excess solar power from local office building for on-site hydrogen production
 - Benchmark project, not yet seen anywhere in the world



- ✓ Launched next generation refuelling station with standard modular design, ideal for industrial production, according to continuous improvement principles
- Continue to capture market shares, both upstream and downstream, with increased focus on renewable hydrogen production and energy storage
- Execution of market penetration strategy for California, both upstream and downstream, work together with selected partners or directly in the market
- To build the organization, align activities, and capture the synergies across the NEL group



Thank you!

