



Electrolysis for Renewable Ammonia: How do we get to a relevant scale?

Ammonia Energy Association Implementation Conference, 11/1/18

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Company Overview

Public Company, Pure H₂ Play

3 Manufacturing Sites

3,500+ Electrolyzers Installed

40+ H₂ Fueling Stations

90+ Years Experience



USA (Wallingford, CT)
PEM Electrolyzers



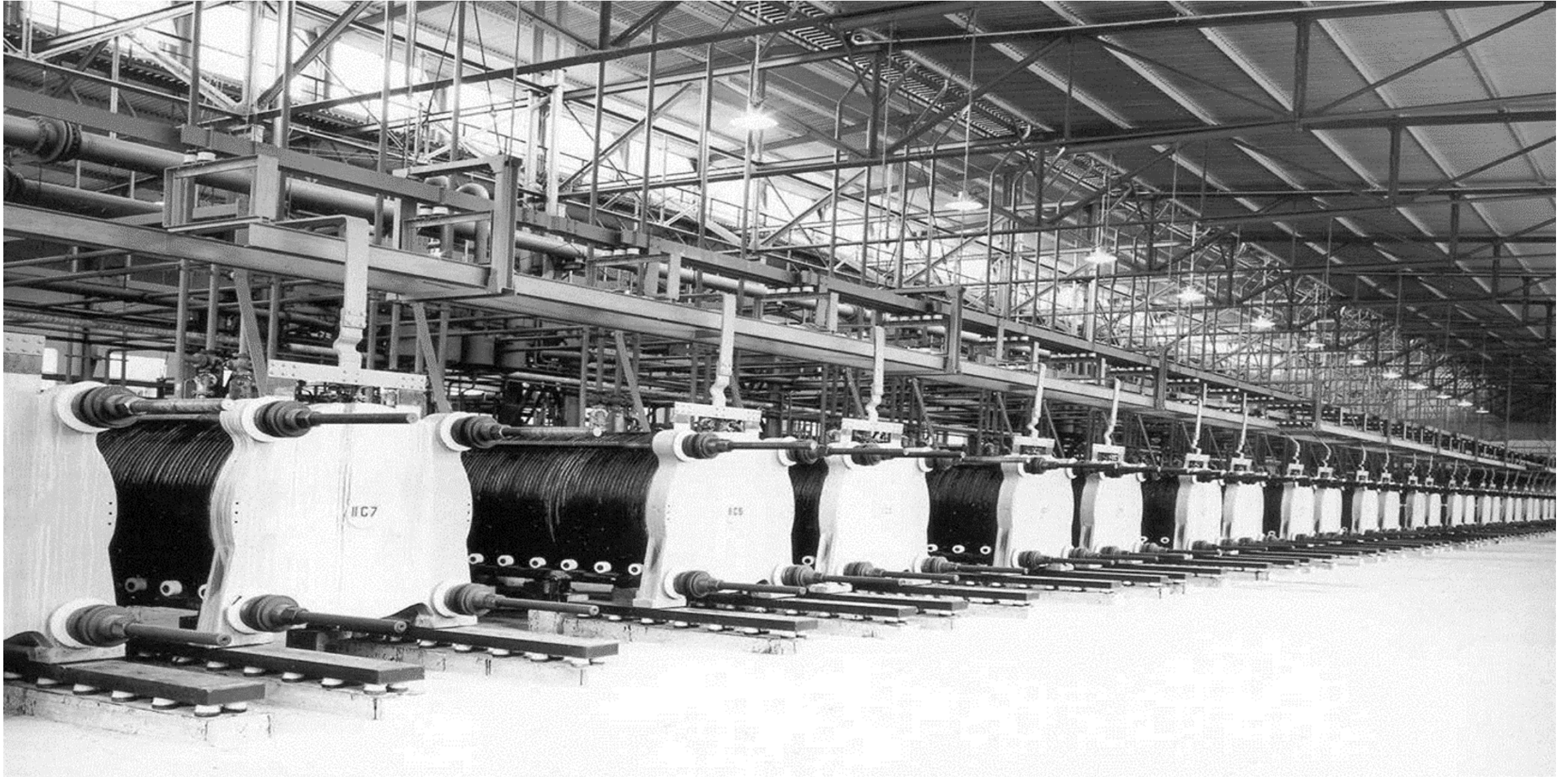
Denmark (Herning)
H₂ Fueling Stations



Norway (Notodden)
Alkaline Electrolyzers

Where we came from...

135 MW electrolysis plant for ammonia production, Glomfjord, Norway



Nel offers both PEM and alkaline electrolyzer technology



Atmospheric alkaline stack



30 bar PEM stack

Alkaline Installation: 9.2 MW, 1,940 Nm³/hr, Norway



Alkaline Installation: 25 MW, 5,500 Nm³/hr, Malaysia



PEM MW scale installation



PEM process skids



Rectifiers, MCC, transformer

Case Study: How volume can drive cost

reduction

Nikola Motors supply agreement will enable automation, scale-up, and cost reduction



OVER 8,000 TRUCKS
ON ORDER
800 TRUCK ORDERS
FROM ANHEUSER-
BUSCH INBEV
TRUCKS ARE LEASED
ACCORDING TO
MILEAGE WITH ALL
FUEL INCLUDED



Source: Nikola

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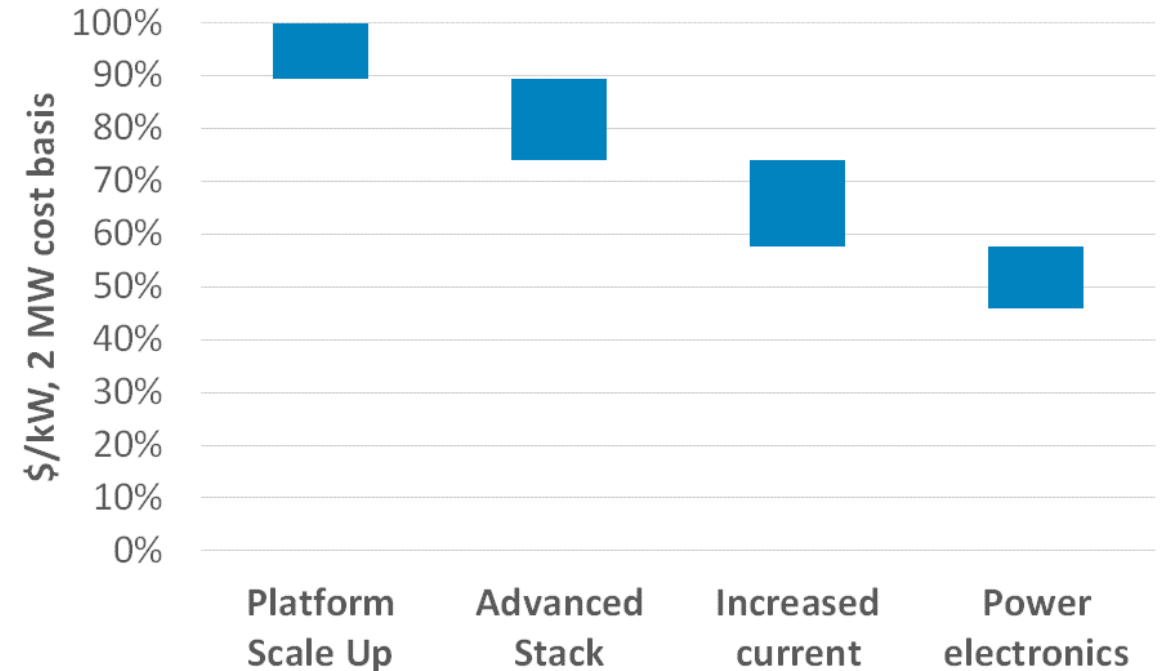
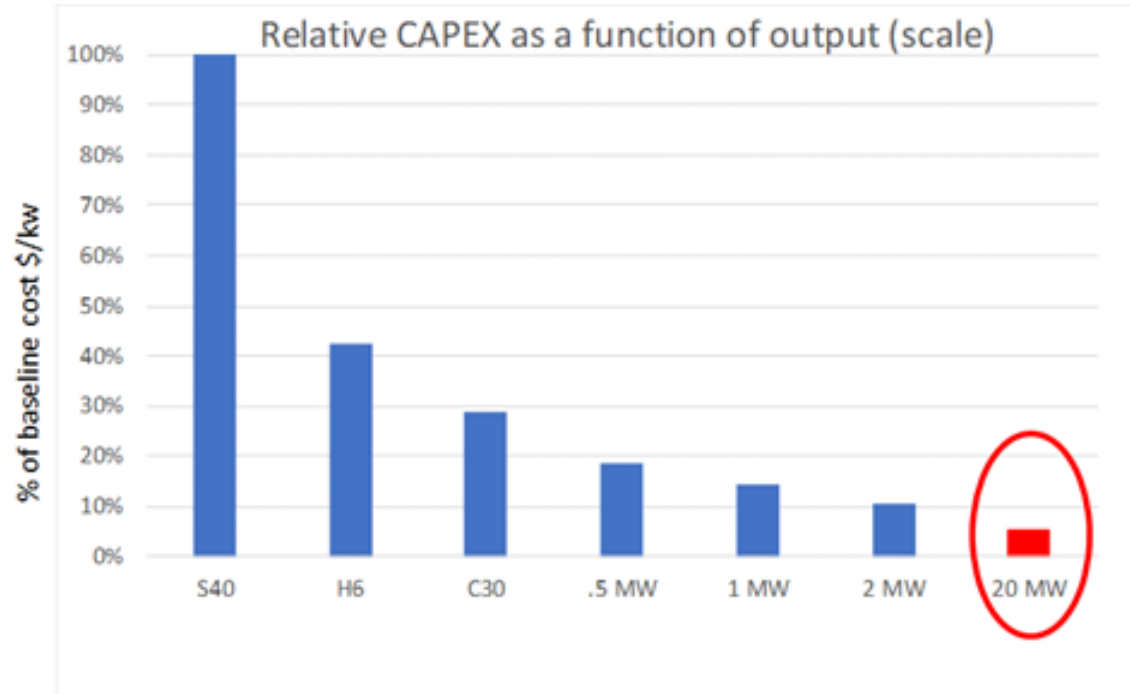


Nel's 8 ton/day (18 MW) electrolyzer plant provides the hydrogen production for each

station site. New factory in Norway will enable 40% reduction in stack cost.

Similar cost reduction can be achieved for PEM

New 8 ton per day PEM array now in development



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