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

Ammonia Energy Association Implementation Conference, 11/1/18
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.

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.

Source: Nikola
Similar cost reduction can be achieved for PEM

New 8 ton per day PEM array now in development
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