

Nel in brief: 4 manufacturing facilities

- Strong field know-how & manufacturing capacity



Wallingford, USA

PEM electrolyzers
since 1996

2 700+ systems delivered

Production capacity:

>40MW/year



Notodden/Herøya, Norway

Alkaline electrolyzers
since 1927

800+ systems delivered

Production capacity:

40 MW/year

→ 360 MW/year (> 1 GW/year)



Herring, Denmark

Hydrogen refuelling stations

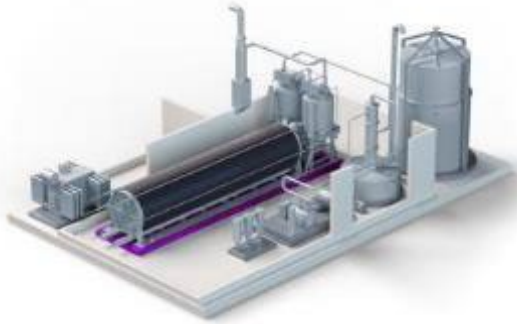
50+ stations delivered

Production capacity:

300 HRS/year

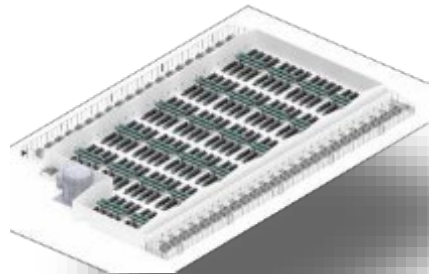
NEL HYDROGEN ELECTROLYSER

Alkaline product scale



1 electrolyzer (2.2MW)

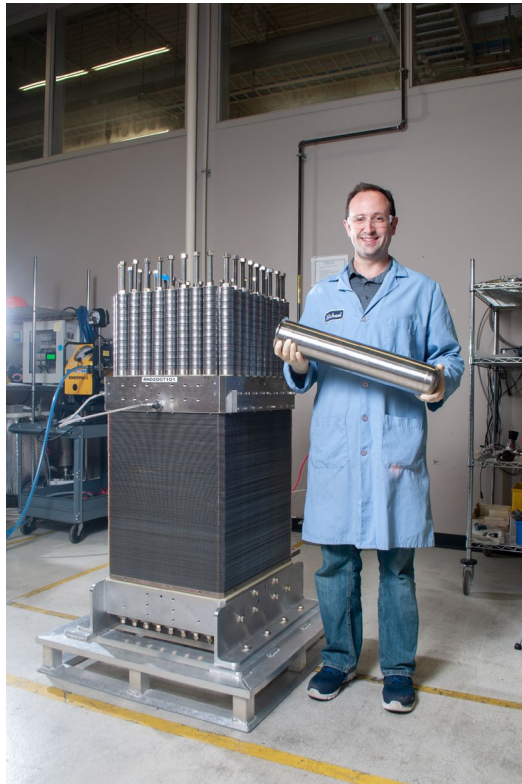
Built for future expansion up to any capacity size



176 electrolyzers (~400MW)

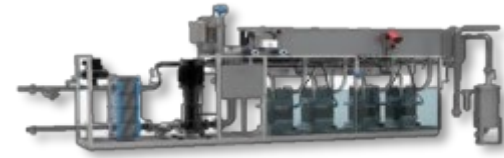


PEM product scale



M Series

1-1.25 MW solution



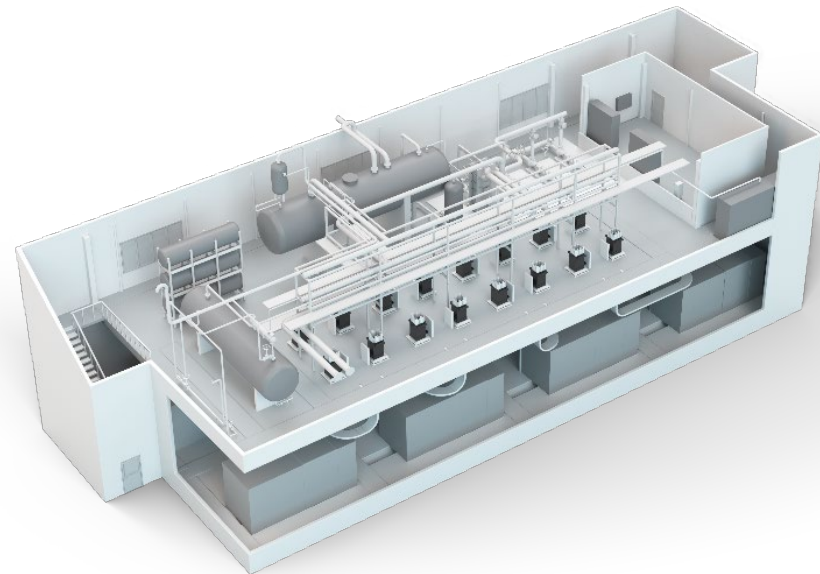
Net production rate: 200-250 Nm³/h

2-2.5 MW solution



Net production rate: 400-500+ Nm³/h

Larger Installations



Power electronics challenges

- Rectifier and transformer can still represent 20-25% of electrolyzer cost
- Higher voltage is typically optimal
- Need to understand the current cost drivers and requirements holistically
 - What can electrolyzer tolerate vs. cost impact on power supply
- Smarter controls and algorithms for optimization of stack and power supply performance
 - Efficiency
 - Reliability

Source: ORNL