



Plug Power Inc.
NASDAQ: PLUG

August 2021

Cautionary Note on Forward Looking Statements

This communication contains “forward-looking statements” within the meaning of the Private Securities Litigation Reform Act of 1995 that involve significant risks and uncertainties about Plug Power including but not limited to statements about Plug Power's expectations regarding the effects of the recent acquisitions; expectations regarding the building of a fuel cell and electrolyzer stack Gigafactory; expectations regarding its position and capabilities in hydrogen generation, liquefaction and distribution of green hydrogen fuel, and expectations regarding its servable addressable market. These forward-looking statements contain projections of our future results of operations or of our financial position or state other forward-looking information. In some cases you can identify these statements by forward-looking words such as “anticipate,” “believe,” “could,” “continue,” “estimate,” “expect,” “intend,” “may,” “should,” “will,” “would,” “plan,” “projected” or the negative of such words or other similar words or phrases. We believe that it is important to communicate our future expectations to our investors. However, there may be events in the future that we are not able to accurately predict or control and that may cause our actual results to differ materially from the expectations we describe in our forward-looking statements. Investors are cautioned not to unduly rely on forward-looking statements because they involve risks and uncertainties, and actual results may differ materially from those discussed as a result of various factors, including, but not limited to: the risk that we continue to incur losses and might never achieve or maintain profitability, the risk that we will need to raise additional capital to fund our operations and such capital may not be available to us, the risk of dilution to our stockholders and/or stock price should we need to raise additional capital, the risk that our lack of extensive experience in manufacturing and marketing products may impact our ability to manufacture and market products on a profitable and large-scale commercial basis, the risk that unit orders may not ship, be installed and/or converted to revenue, in whole or in part, the risk that a loss of one or more of our major customers, or if one of our major customers delays payment of or is unable to pay its receivables, a material adverse effect could result on our financial condition, the risk that a sale of a significant number of shares of stock could depress the market price of our common stock, the risk that our convertible senior notes, if settled in cash, could have a material effect on our financial results, the risk that our convertible note hedges may affect the value of our convertible senior notes and our common stock, the risk that negative publicity related to our business or stock could result in a negative impact on our stock value and profitability, the risk of potential losses related to any product liability claims or contract disputes, the risk of loss related to an inability to maintain an effective system of internal controls, our ability to attract and maintain key personnel, the risks related to the use of flammable fuels in our products, the risk that pending orders may not convert to purchase orders, in whole or in part, the cost and timing of developing, marketing and selling our products, the risks of delays in or not completing our product development goals, our ability to obtain financing arrangements to support the sale or leasing of our products and services to customers, our ability to achieve the forecasted gross margin on the sale of our products, the cost and availability of fuel and fueling infrastructures for our products, the risks, liabilities, and costs related to environmental, health and safety matters, the risk of elimination of government subsidies and economic incentives for alternative energy products, market acceptance of our products and services, including GenDrive, GenSure and GenKey systems, our ability to establish and maintain relationships with third parties with respect to product development, manufacturing, distribution and servicing, and the supply of key product components, the cost and availability of components and parts for our products, the risk that possible new tariffs could have a material adverse effect on our business, our ability to develop commercially viable products, our ability to reduce product and manufacturing costs, our ability to successfully market, distribute and service our products and services internationally, our ability to improve system reliability for our products, competitive factors, such as price competition and competition from other traditional and alternative energy companies, our ability to protect our intellectual property, the risk of dependency on information technology on our operations and the failure of such technology, the cost of complying with current and future federal, state and international governmental regulations, our subjectivity to legal proceedings and legal compliance, the risks associated with past and potential future acquisitions, and the volatility of our stock price. The risks included here are not exhaustive, and additional factors could adversely affect our business and financial performance. Moreover, we operate in a very competitive and rapidly changing environment. New risk factors emerge from time to time and it is not possible for management to predict all such risk factors, nor can we assess the impact of all such risk factors on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from these contained in any forward-looking statements. While forward-looking statements reflect our good faith beliefs, they are not guarantees of future performance. For additional disclosure regarding these and other risks faced by Plug Power, see disclosures contained in our public filings with the SEC including, the “Risk Factors” section of our Annual Report on Form 10-K for the year ended December 31, 2020 as such risk factors may be updated from time to time in Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and other filings Plug Power makes with the SEC. These forward-looking statements speak only as of the date on which the statements were made. Except as may be required by applicable law, we do not undertake or intend to update any forward-looking statements after the date of this presentation.

Plug Power is a Leader in Hydrogen Economy

Key Performance Characteristics



1st to create a market for HFC technology



Strong patent portfolio and proprietary know-how



123 Patents and Patents pending



~70% blue chip customer base



~733MM operating hours (1Bn+ miles)



Significant runway available in core forklift market



Future applications represent tremendous addressable markets



>41MM fuelings dispensing ~23.5MM Kg of H2



Installed base creates foundation for recurring revenue

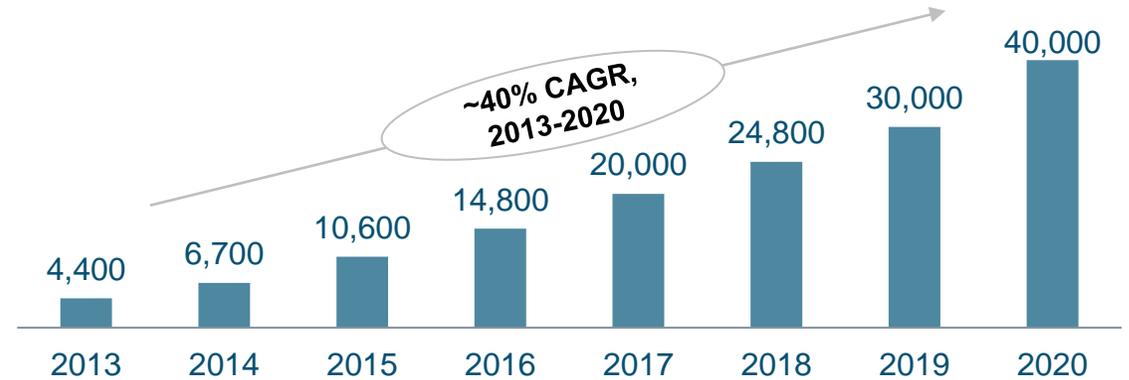
Source: Internal Data Collected via SiteView

Notes:

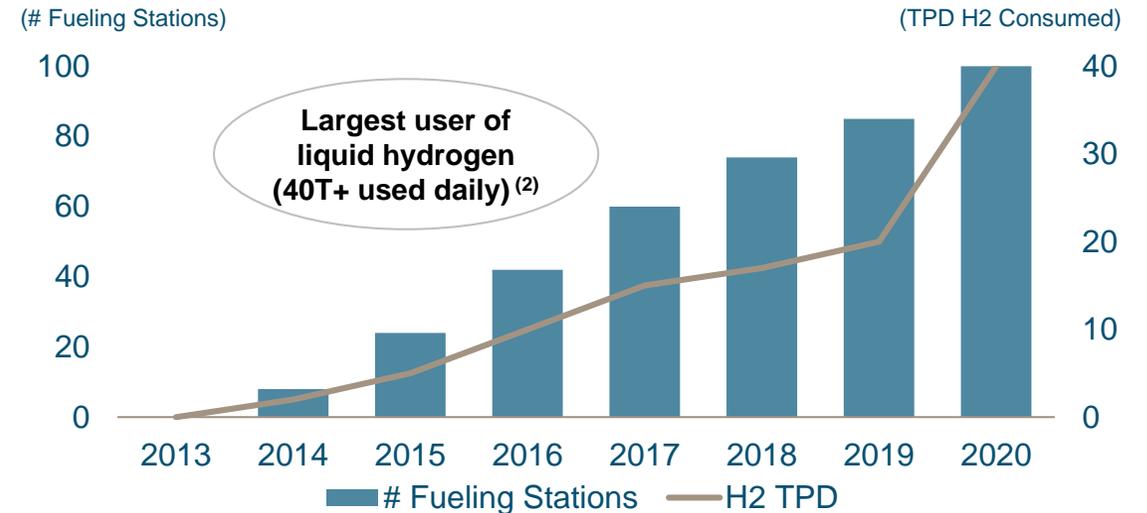
1. Rounded figures, excludes stationary units

2. Reflects liquid hydrogen required to fuel 40,000 installed base of forklifts, assuming each requires 0.9kg hydrogen per day

Cumulative Hybrid Fuel Cell Units Installed ⁽¹⁾



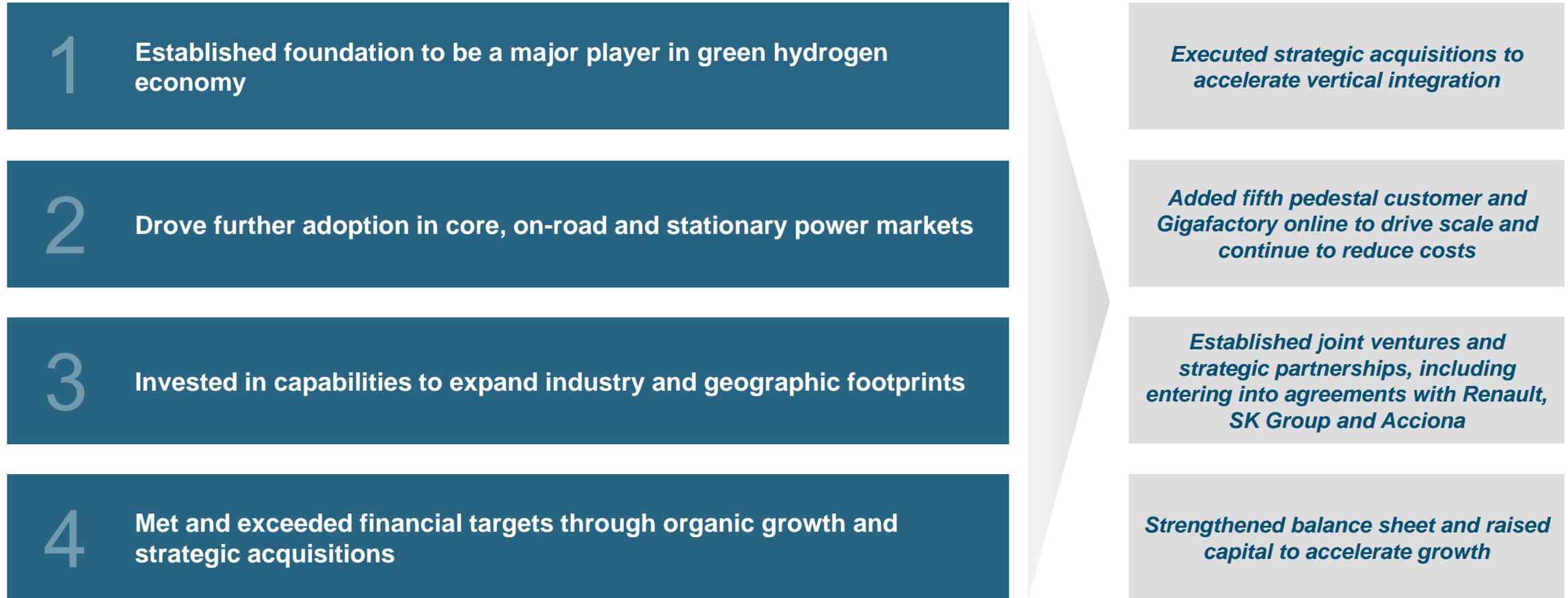
Hydrogen Infrastructure and Fuel Consumption ⁽²⁾



Source: Internal Data Collected via SiteView

Plug Power is Driving the \$10Tn Hydrogen Economy ⁽¹⁾

In 2020, Plug Power Solidified its Global Leadership Position in Green Hydrogen Solutions and Built the Foundation to Lead the Hydrogen Economy



Note:

1. Based on Bloomberg New Energy Finance (March 30, 2020) estimates of over \$11Tn of hydrogen investment in production, storage and transport infrastructure in a “strong policy” scenario

Market Opportunity



Plug Power Today

Long-term Growth Trajectory

Forklifts

- More than 6MM forklifts deployed
- 1.5MM forklifts sold annually

On-Road Electric Vehicles

- Energy density is ~10x BEVs
- High asset utilization
- Enables sharing economy
- Faster fueling
- Longer range
- Infrastructure expertise
- Less challenging operating conditions than material handling applications
- Constant power

Data Centers & Wireless Infrastructure

- Small footprint, high power density
- Lower TCO vs. diesel generators

Hydrogen & Equipment

- The Hydrogen Council projects that by 2050, hydrogen could provide up to ⁽¹⁾ :
 - 18% of final energy demand
 - 6Gt annual CO2 abatement
 - 30MM jobs created

Material Handling

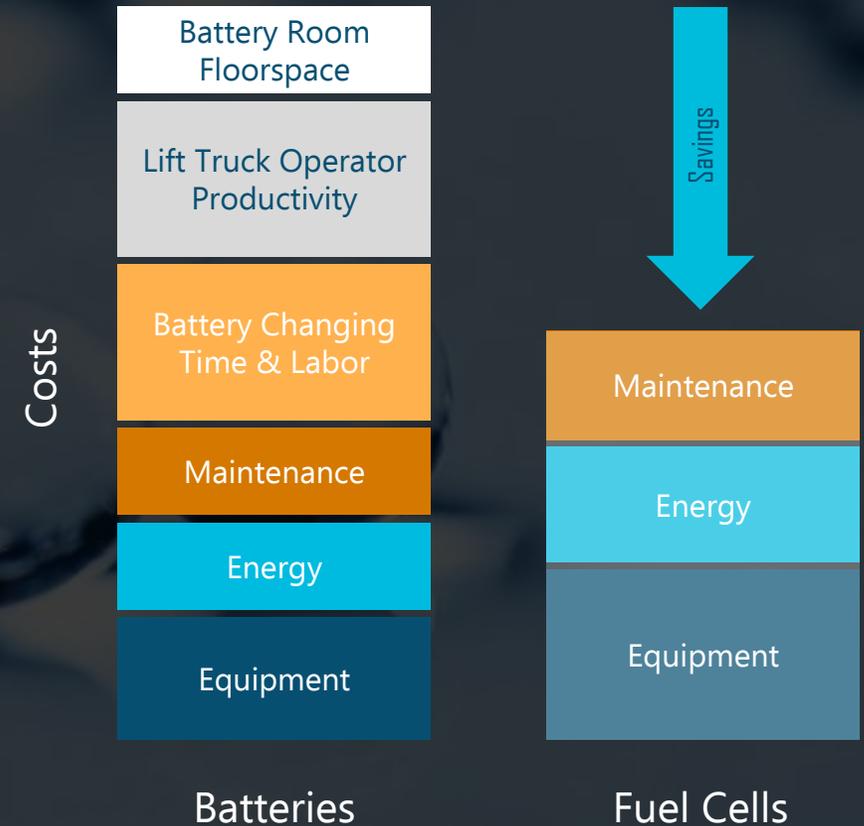
Strong Value Proposition

Fuel cells improve operational efficiency because they are refilled by the operator without removal or recharging.

Trucks operate at full-power through the shift and operator productivity is improved by removing downtime to remove and charge batteries.

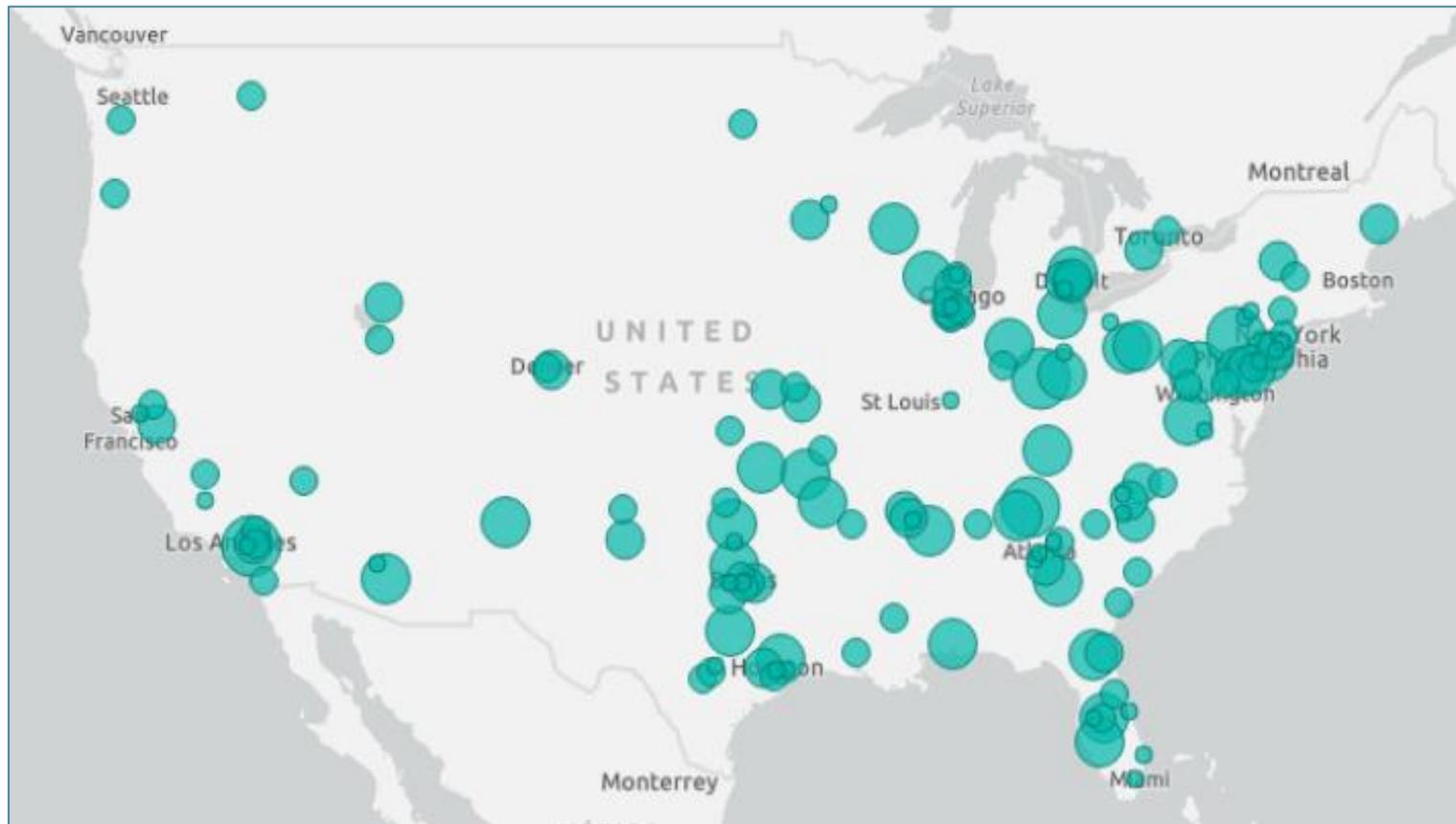
\$900k in savings

for a typical distribution center with 200 lift trucks



Installed and operates the largest network of H2 refueling stations in the world

+127 Refueling stations and adding +38, currently dispensing 50T/day with customers in logistics and that manage fleets



Pillars for Growth In Material Handling

On track on the development of our pillars for growth

\$750M

in Revenue in 2024

5+

Pedestal Customers

25,000

Shipping 25K Units Per Year

Channels Globally



European Expansion



New Multisite Deals
New Customers



Continued Expansion



OEM

ProGen Engines: Zero Emission Transportation Solutions

Modular Power Enables Tailored Power Density

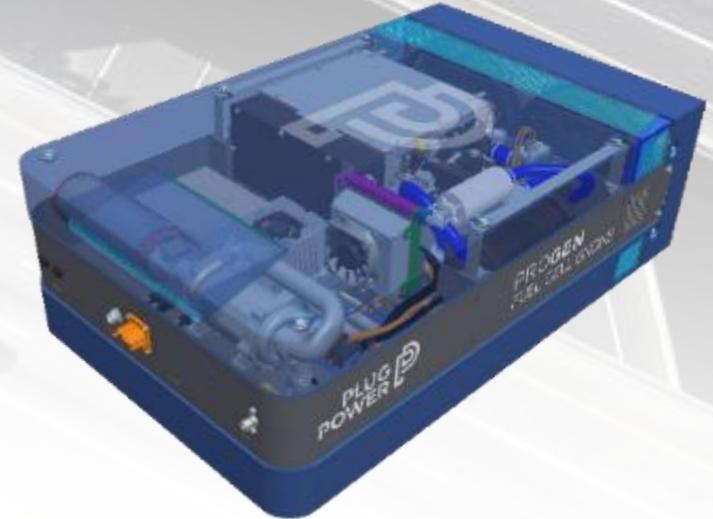
Pre-engineered OEM platform

“Plug and Play” system solution

Includes all balance of plant

Models can be used in series and parallel combinations

Easy to integrate



Modular Engines Provide Leverage and Enable Multiple Applications



15kW



30kW



85kW



125kW

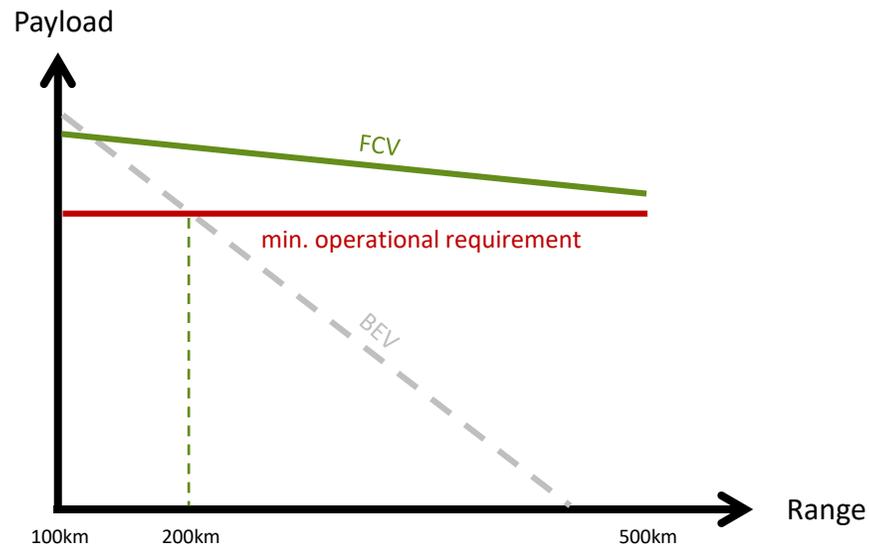


>1mW

Fuel cell trucks increase range and payload

From 2019 DHL's Symposium Presentation

Operational Perspective



For ranges > 200km BEVs do not fulfill the minimum user requirements (“the asset can’t

Vehicle Type	Distance	Weight	Charge/Refuel Time
Diesel	500 mile	45,000lb Payload 35,000lb Unloaded	5 Minutes
	125 mile	44,000lb Payload 36,000lb Unloaded	3 Hours
Battery	500 mile	34,600lb Payload 45,400lb Unloaded	11 Hours
	150 mile	45,000lb Payload 35,000lb Unloaded	5 Minutes
Fuel Cell	500 mile	42,600lb Payload 37,400lb Unloaded	15 Minutes

GenSure HP Systems

Fuel Cells for large-scale backup power –
 Pilots deployed in 2021 to unlock a +\$37B TAM by 2027

Push to Eliminate Diesel:

This is a trend amongst the largest DC operators in the world.

“We’re announcing that we’re aiming to eliminate diesel fuel by 2030. While diesel fuel accounts for less than 1% of our emissions, we believe it’s important to help accelerate the global transition away from fossil fuels and we are charting a new course using low-carbon fuel sources including hydrogen.”

Lucas Joppa | Microsoft Chief Environmental Officer



\$1.7B Revenue Plan

Driving Scale in Fuel Cell Technology

World's first PEM Technology Gigafactory

Annual Capacity (2024)

2.5+

Gigawatts
output

7M+

MEAs

7M+

Bi-Polar
Plates

1+GW

Of Electrolyzers

Green H₂

Onsite generation

60,000+

Fuel Cell Stacks

Vertical Integration Accelerates Green Hydrogen Strategy

- Our comprehensive solutions enables us to successfully serve multiple industries with low-cost Green Hydrogen

Our capabilities will generate long-term growth

- Unmatched products and solutions
- 40+ years of electrolyzer experience
- Only non-industrial gas company to bring a liquefier online
- Internal demand representing ~15% of liquid hydrogen market

Building Blocks to Plug Power's Green H₂ Vertical Integration

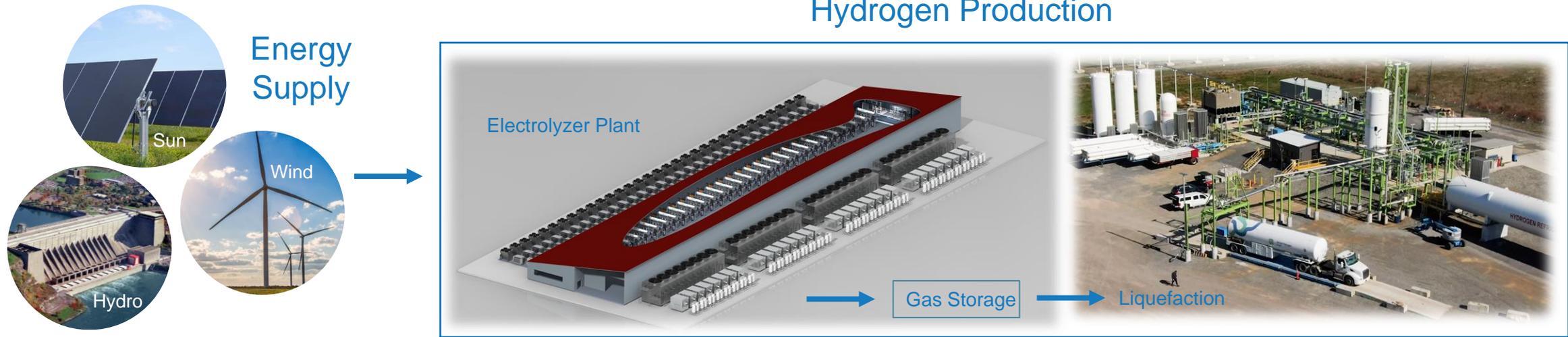
H₂ Generation

Liquefaction

Logistics

Customer Equipment

Green Hydrogen Plant Design



Consideration	Design options
Firm energy supply	<ul style="list-style-type: none"> Utilize firm renewable energy like hydro Back variable renewable energy like wind and solar with the grid, and increase renewable capacity with hybrid supplies Use the grid and purchase Renewable Energy Credits (REC) to offset
Optimizing energy cost	<ul style="list-style-type: none"> Ability to avoid grid usage at certain times and to exploit variable renewables is key to cost optimization Oversizing electrolyzer and gas storage enables: <ul style="list-style-type: none"> Following variable supply to “Make gas when the sun shines and liquefy later” Curtail electrolyzer when grid charges are excessive – keep liquefaction running on stored gas
Plant resiliency	<ul style="list-style-type: none"> Minimal gas storage reduces dependency between liquefaction and gas production enabling maintenance on electrolyzers without interruption of liquefaction plant Significant liquid storage enables maintenance outage of liquefaction plant and provides network resource to support customers during outages at neighboring plants

Reliability and hydrogen availability is our focus in the network



Green Hydrogen Generation Targets

- Build the first green hydrogen generation network across the United States
- Targeting multiple green hydrogen plants in North America by 2022
- Green hydrogen generation target to 500-tons per day by 2025 and 1000-tons per day before 2028
- Develop appropriate global partnerships to support global expansion
- Expanding presence in Europe and Asia-Pacific

Liquid Hydrogen Growth is Significant

○ Liquid hydrogen demand derives from multiple sectors can reach >1,000 tons per day

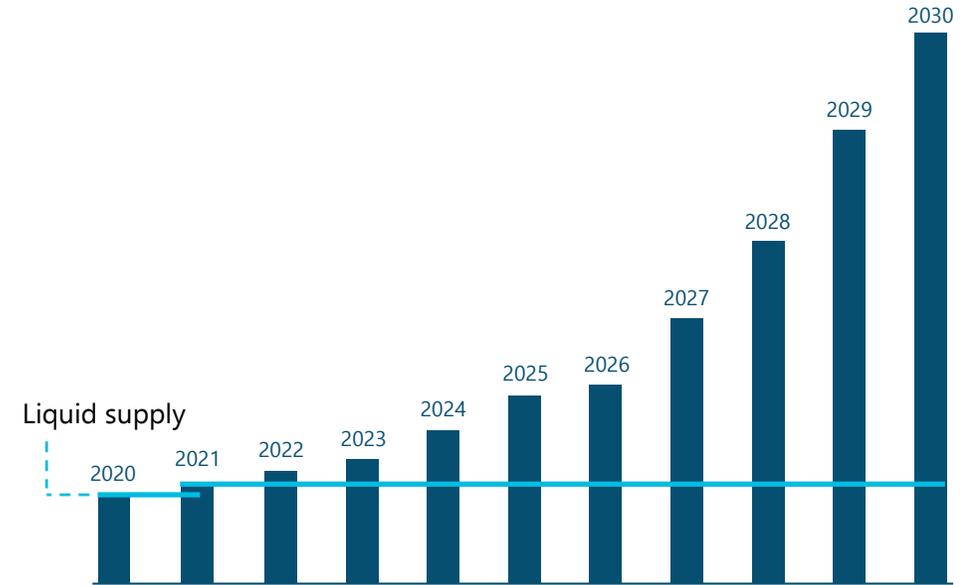
Transportation will dominate the market and represent unprecedented industry growth

Sectors

Electronics	Chemicals
Transportation	Metals

10x in 10 years

Liquid hydrogen demand is projected to be ~10x growth in 10 years

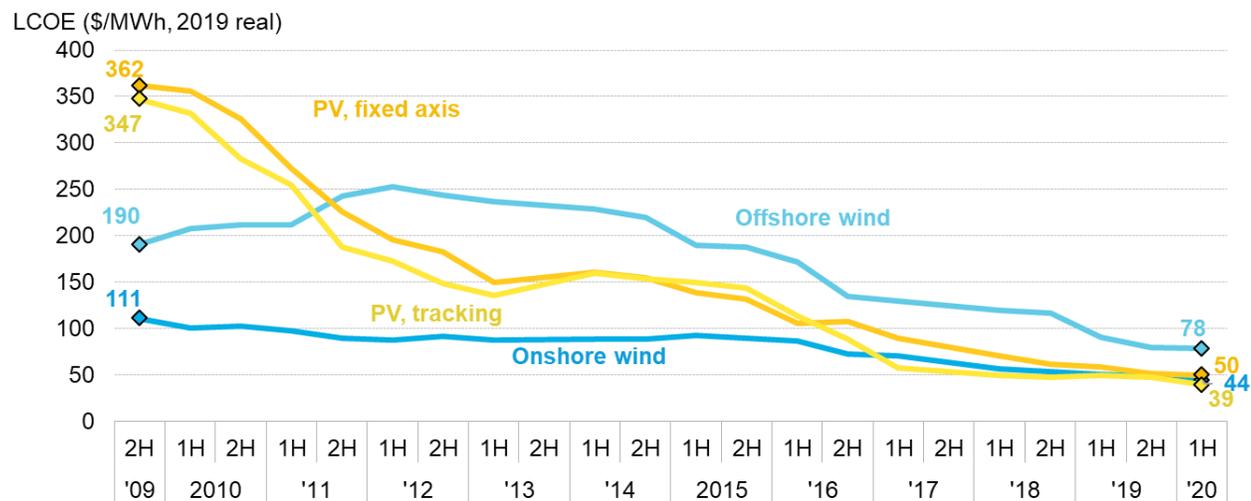


US LH2 Forecast (TPD)



○ As renewable electricity costs continue to come down, our generating costs for hydrogen will follow.

BNEF benchmark LCOEs for onshore wind and PV are now below \$50/MWh



Source: BloombergNEF



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