



Plug Power

NASDAQ: PLUG

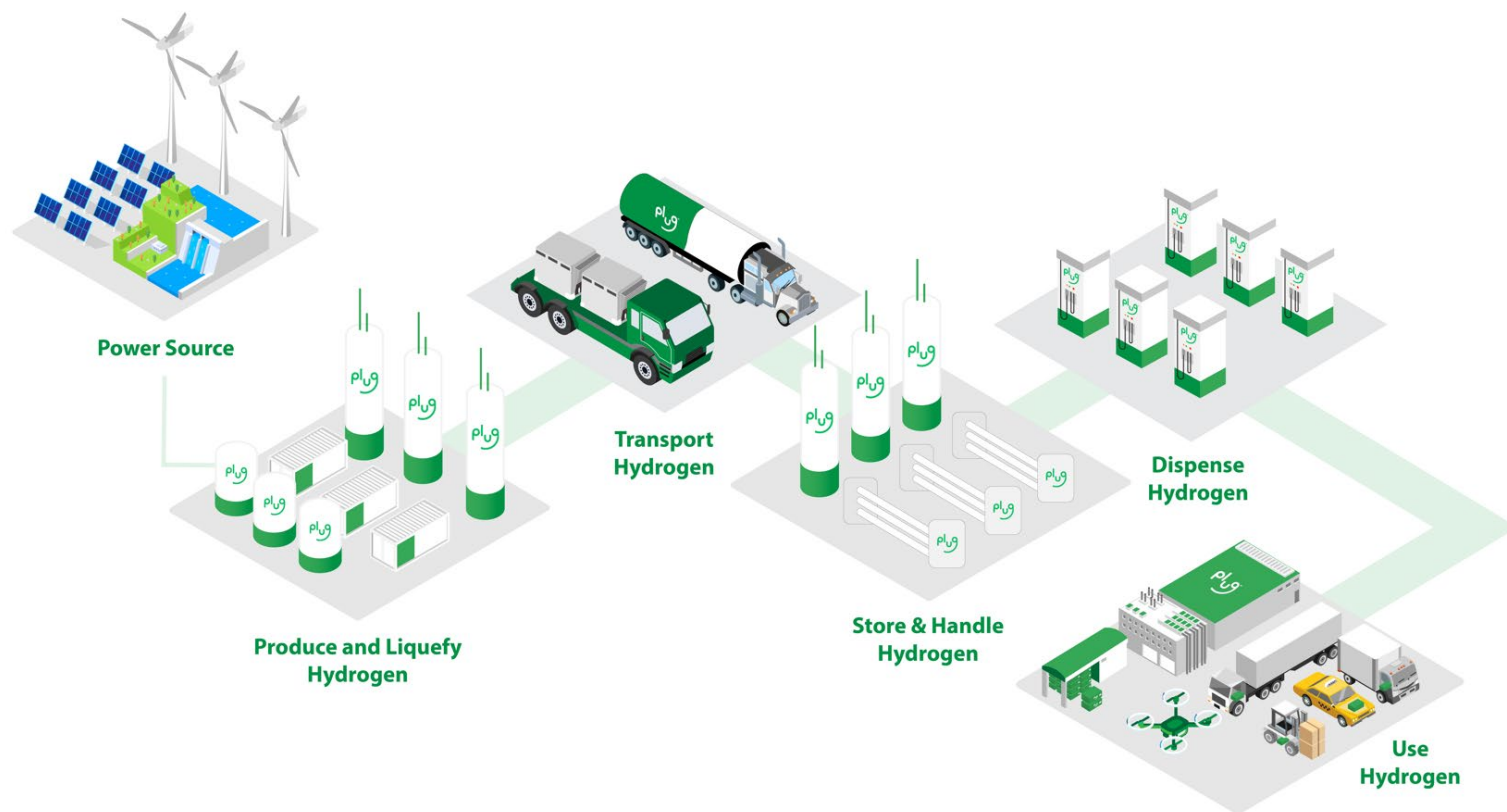
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Cautionary Note on Forward Looking Statements

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.



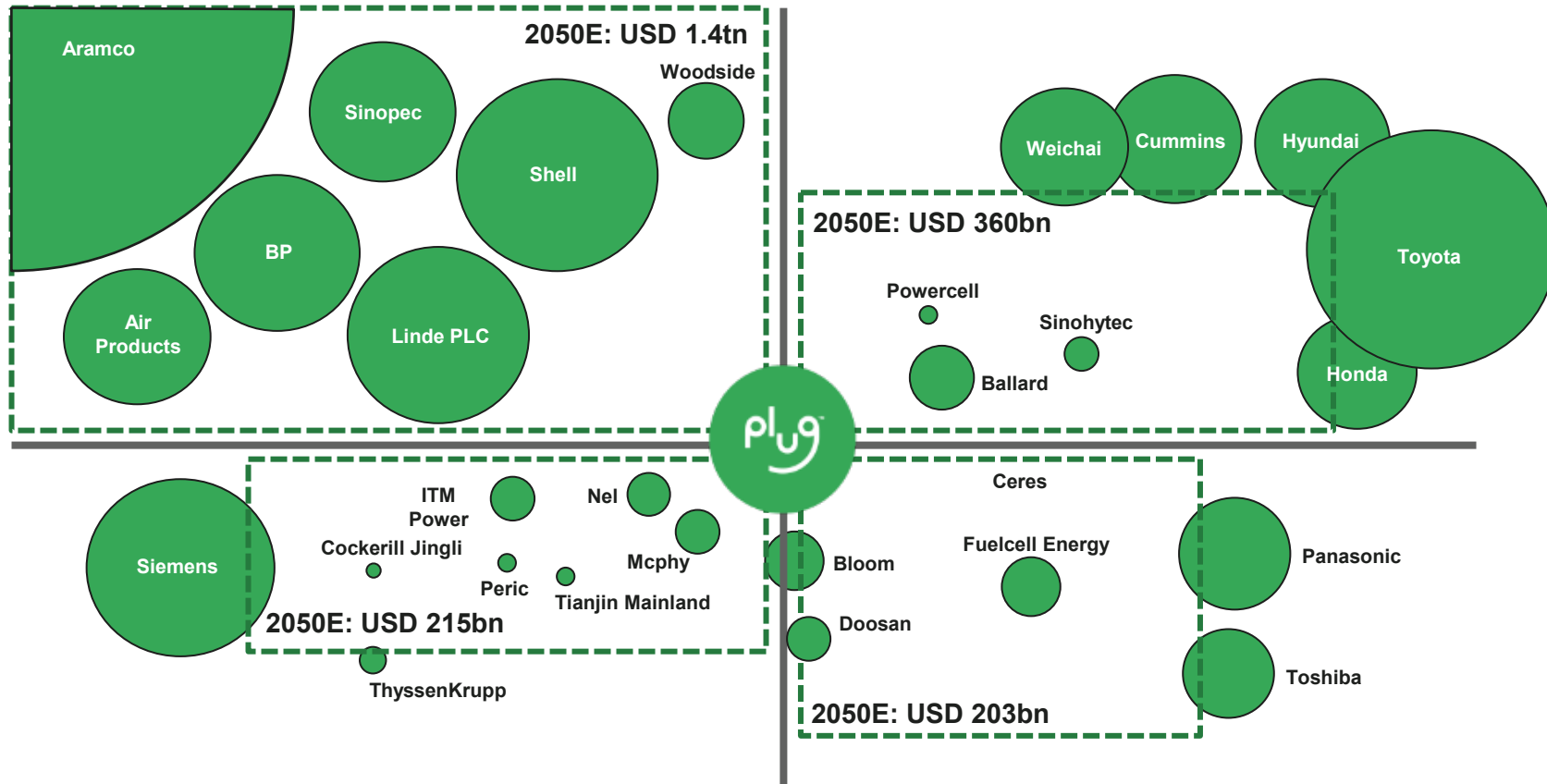


Plug is building an end-to-end green hydrogen ecosystem, from production, storage and delivery to energy generation, to help its customers meet their business goals and decarbonize the economy.

Plug Power is uniquely positioned at the center of the hydrogen economy

Hydrogen

Fuel cells for transport

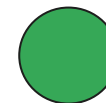


Electrolyzers

Fuel cells for stationary



Market size (2050E)



Company market cap

Source: Bloomberg and Bernstein analysis and estimates



Energy Solutions

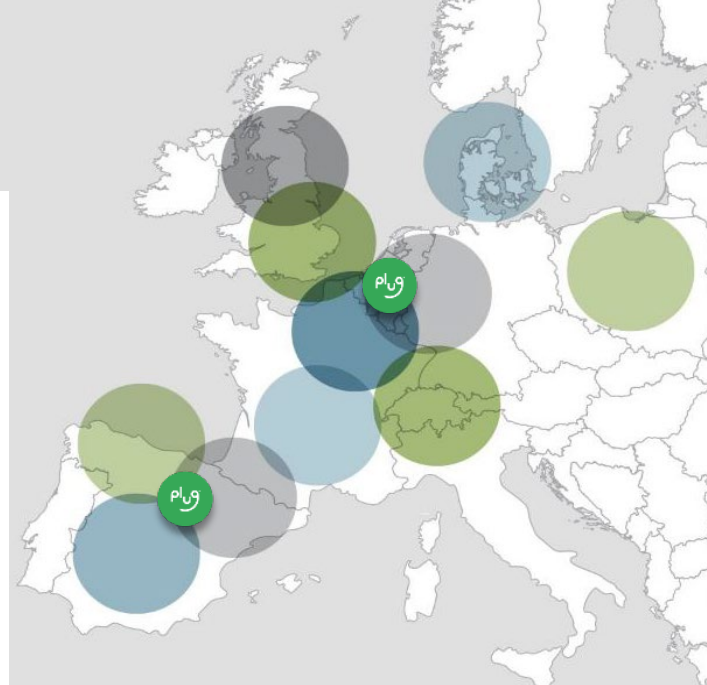


Global Green Hydrogen Network



North American Network
500 TPD by 2025

EU and Global Network
1,000+ TPD Globally by 2028
100+ TPD in Europe by 2028



- Announced Green Hydrogen plant locations in California, Georgia, Tennessee, Louisiana, New York and Texas
 - Broke Ground on three Plants in 2021
 - Six Plants by year-end 2023 with 200TPD
- Announced 35TPD Green Hydrogen plant location at Port of Antwerp-Bruges
- Expansion with JV partner Acciona, including first Green Hydrogen plant announced in Spain
- Energy Solutions Business Revenue projections (Inclusive of Cryo and Liquefaction)
 - 2023: \$285MM
 - 2030: \$3.9B



Hydrogen Plant Development Strategy

Planned Commissioning of 200+ TPD by YE 2023 and 500 TPD by YE 2025
Commissioning to full production is ~6 months

| Site | Land | PPA | Construction Permits | Start Construction | Commissioning | Target Full Production |
|----------------|--|---------------|----------------------|--------------------|--|---------------------------------|
| Georgia | ✓ | ✓ | ✓ | ✓ | 1 st 15 TPD – Q4 22/ Q1 23 | 1 st 15 TPD – Q2 '23 |
| Louisiana | ✓ | In discussion | ✓ | ✓ | Q3 '23 | Q4 '23 |
| New York | ✓ | ✓ | ✓ | ✓ | Q4 '23 | 1H '24 |
| Texas | ✓ | ✓ | ✓ | ✓ | Q4 '23 | 1H '24 |
| Other Projects | Exploring production at multiple potential locations | | | Early 2023 | Q4 '23 | 1H '24 |

- Other projects represent mix of byproduct hydrogen and electrolytic hydrogen



2023

200+ TPD

Georgia GH2: 2.5

Georgia LH2: 15

Louisiana: 15

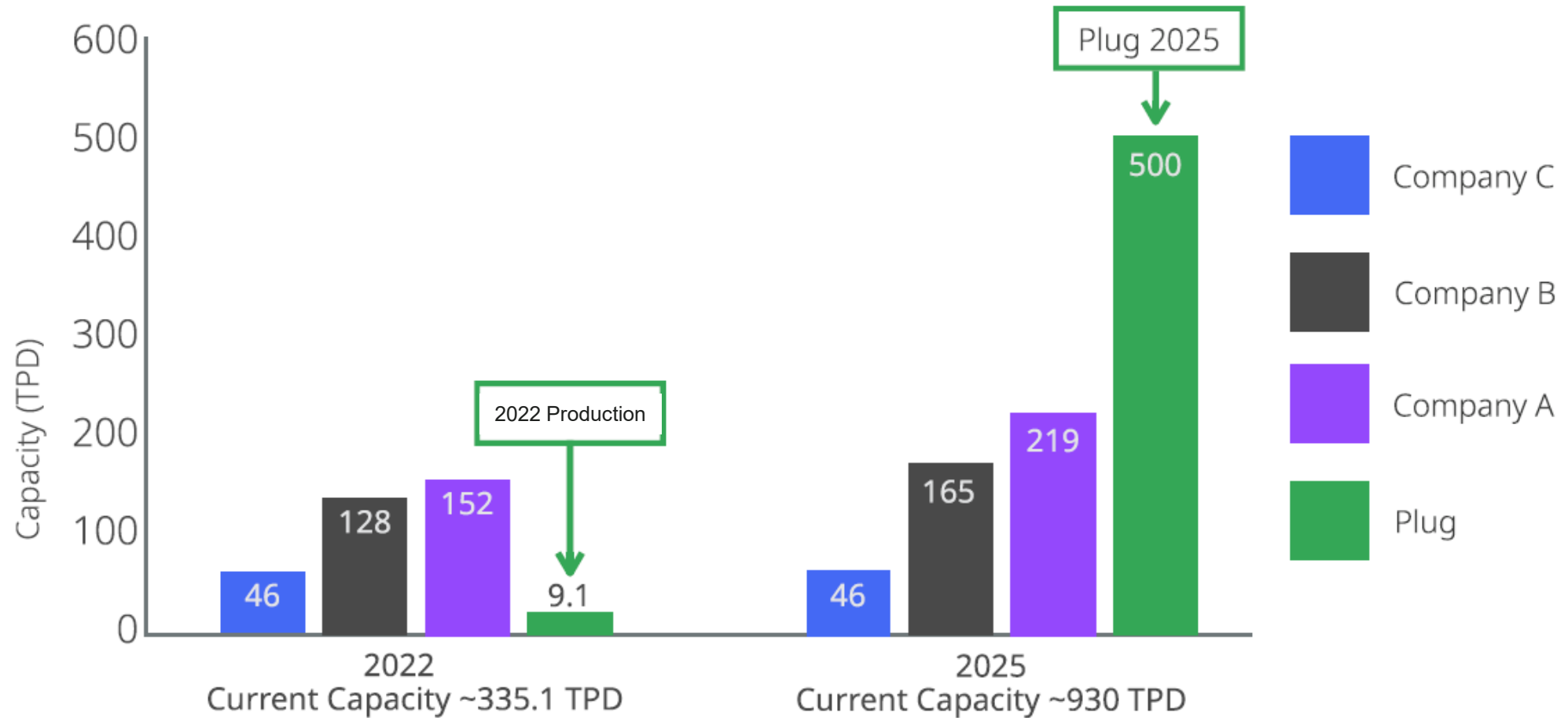
Texas: 45

New York: 60-75

other projects: 45+

Plug's Transition from Nascent Player to Industry Leader

Making Green Hydrogen Economical, Easy, and Ubiquitous

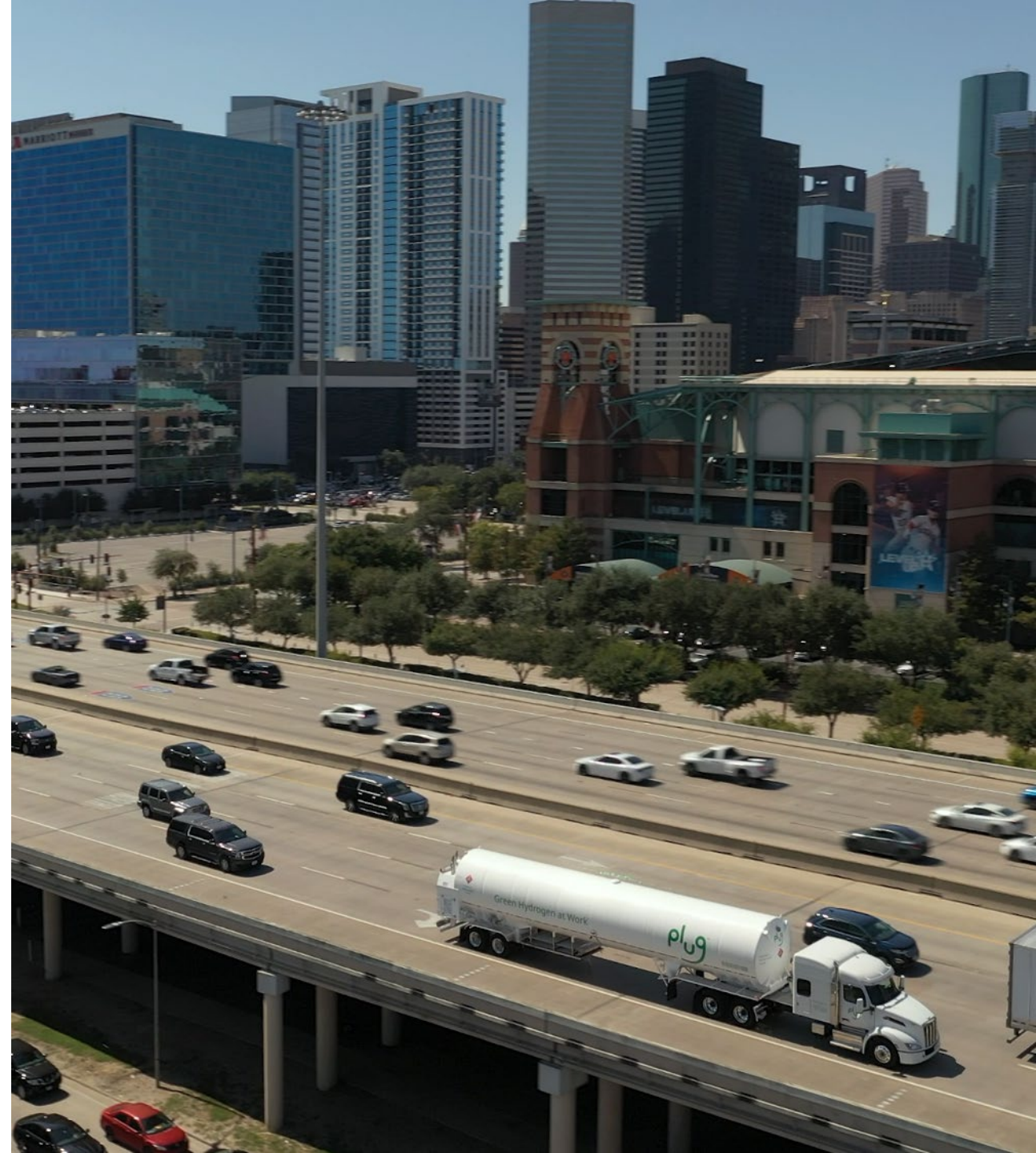


The Impact of Plug's Green Hydrogen Strategy

Plug's 2023 forecast includes average usage of ~65 tons per day of hydrogen

Baseline forecast includes plan for cost downs due to hydrogen being sourced from Plug's internal network (~40%) and positive cost trends from expected decline in natural gas prices

On a pro forma basis, if all hydrogen for 2023 was sourced from Plug's wholly owned network, it could generate an additional ~\$100M in gross margin.



Expanded Cryogenic Equipment H2 Offerings Bringing Significant Revenue Growth

Liquefaction Systems

- Sold three 30 ton per day hydrogen liquefaction systems in 2022
- Most efficient and cost-effective liquefier system in the market
- Targeting 60+TPD of sales in near-term



LH2 Trailers

- Ramped up LH2 trailer sales to market and for internal logistics use
- Second generation 18k gallon delivery asset; highest payload in the market



Adjacent Applications

- Storage tanks introduced Q1 2023
- Mobile refuelers ordered in 2022 for 2023 delivery





Electrolyzer Solutions

Electrolyzer Solutions Business Outlook



| 425 kg per day Container | 2 Ton per Day System | 4 Ton per Day Array |
|---|---|--|
| Up to 1 MW input | Up to 5 MW input | Up to 10 MW input |
| Fully containerized solution (standard 40 ft. / 12.2 m ISO container) | Includes full BoP for turnkey simplicity | BoP custom-engineered to meet customer requirements |
| Scalable drop-and-play convenience | Containerized solution for high demand applications | Efficient, scalable solution for high volume H ₂ plants |

- Electrolyzer backlog exceeding 2 GW
- Sales funnel of \$30B+
 - 50% Green Ammonia / Fertilizer projects
 - Significant demand acceleration following the passage of the Inflation Reduction Act
- 1.5GW+ of annual electrolyzer capacity
 - Evaluating manufacturing expansion opportunities globally
- Electrolyzer Business Unit Projections
 - 2026: \$1.45B revenue
 - 2030: \$7.3B Revenue



World's first PEM Technology Gigafactory

Driving Scale in Fuel Cell Technology

Annual Capacity

2.5+
Gigawatts
output

7M+
MEAs

2M+
Bi-Polar
Plates

2+GW
Of Electrolyzers

Green H2
Onsite generation

60,000+
Fuel Cell Stacks

100+MW
Manufacturing reaching this
capacity to build over 100
large electrolyzer stacks per
month in May

Gigafactory Virtual Tour: <https://3d.zuant.com/experience/plug-power/KJ66EE8SEe2i3O%2BCc7Lqpg/>





Applications

Material Handling - GenDrive

4M

Operating forklifts, U.S. and Europe, 2021

5M

Operating forklifts, U.S. and Europe, 2030

Large

Medium

Small

15%

200+ unit fleet

25%

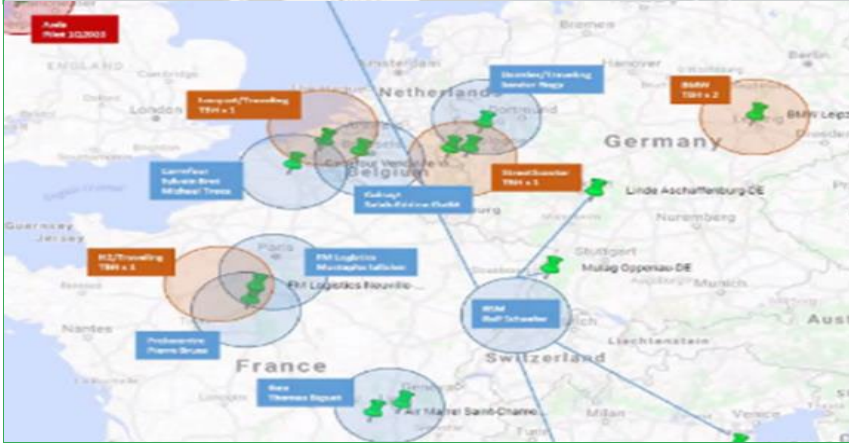
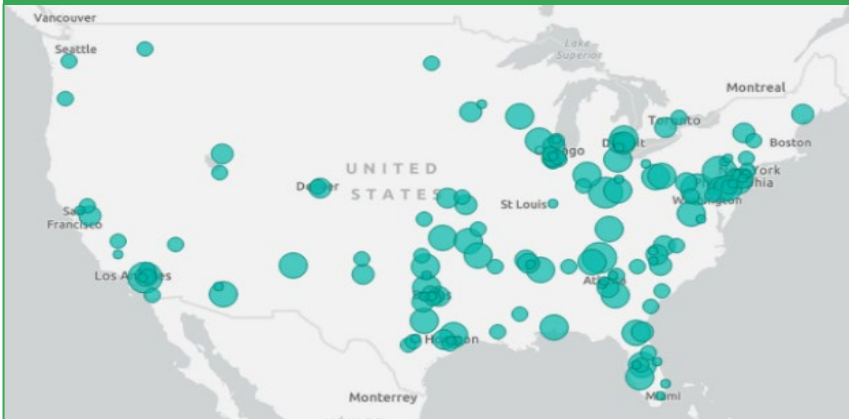
60-200 unit fleets

60%

>60 unit fleets



- Plug’s “GenDrive” fuel cell creates significant productivity gains in high volume warehouses and distribution centers vs. battery alternatives
- 60,000+ Plug Fuel Cells installed
- Installed and operating the largest network of H2 refueling stations in the world
 - Over 200 locations dispensing 45tpd+



Material Handling Expansion for 2023

80
New pedestal sites planned and targeting 3 new pedestal accounts in North America

8
New sites in Europe planned and STEF announced as new pedestal customer

25%
Targeting mid-size offerings which increases the TAM by 25% or 1 million more forklifts

Cost Focus
Plan for continued product cost down and reliability improvements



| | |
|--------------------------------------|---|
| Channels Globally |     |
| European Expansion |    |
| New Multisite Deals New Customers |           |
| Continued Expansion |           |

Mobility & Stationary Power Solutions

Targeting Three Primary New Market Applications

With a robust technology platform established, trucks, planes, and data centers are our logical progression.



Commercial Fleet Vehicles

Class 3 – 8 Middle Mile
Last Mile Transit Bus Fleet



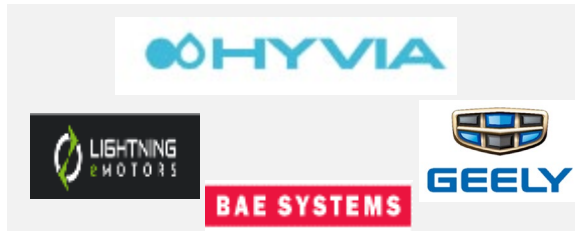
Stationary Power

Megawatt Scale Backup Applications
Continuous Power Generation



Aerospace

UAV/Drones Decarbonize Airports
Regional Passenger
Cargo/Commuter



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
- Building block of Hyvia Master van



Modular Engines Provide Leverage and Enable Multiple Applications



15kW



30kW



85kW



125kW



>1mW

Stationary Business Reaching Inflection in 2024

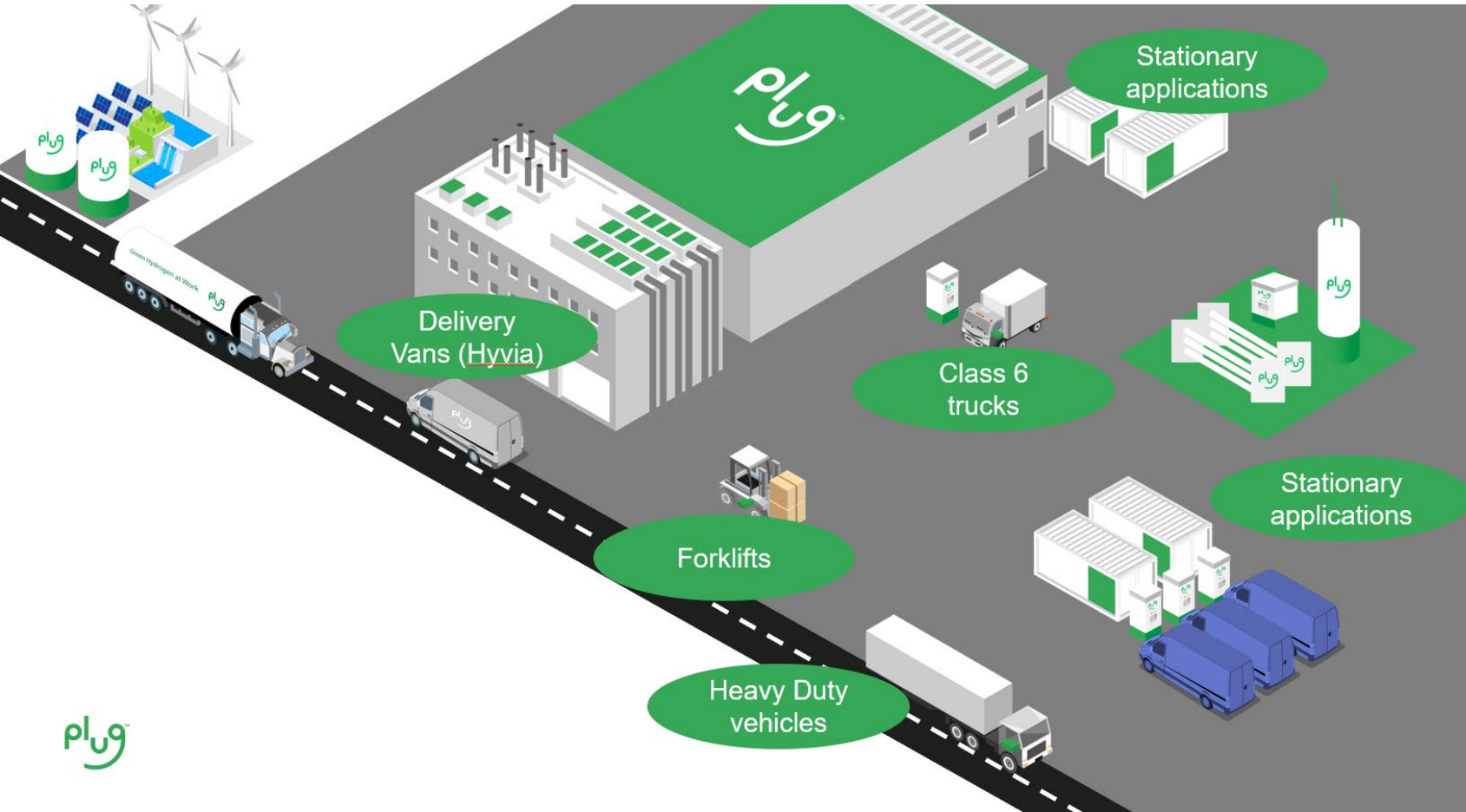


Microsoft Alpha Test Unit at Latham, NY HQ



- Successfully Tested 3MW stationary power unit for Data Centers Back Up with Microsoft
- Plan for 20+ MW units to be commissioned in 2023
- One of the biggest near-term applications is materializing in battery electric vehicle charging stations
 - Available in 1-3 MW for Back Up Power - Prime Power - Peak Power - EV Charging
- 1MW unit uses 65kg of H₂ per hour

Applications Business Outlook



- \$1.6B+ of revenue in 2025
- ~\$9B of Revenue in 2030
- Material Handling
 - \$1B of revenue in 2025
 - Growing sites at 30% CAGR
- Stationary Power
 - 2023: 20-30MW Shipped
 - 2024: 200MW+ Shipped
- Mobility
 - HYVIA targeting 20,000 vehicles sold in 2025, and 100,000 in 2030



Partnerships



Partnerships Enable Green Hydrogen Leadership



- ✓ On October 6th, 2021 Plug Power and SK E&S, part of South Korea's SK Group, formed a joint venture designed to accelerate the use of hydrogen as an alternative energy source in Asian markets
- ✓ This collaboration will provide hydrogen fuel cell systems, hydrogen fueling stations, electrolyzers and green hydrogen to the Korean and other Asian markets
- ✓ The partnership included a \$1.6B strategic investment from SK Group into Plug Power
- ✓ The partnership will leverage SK's leadership in chemicals, petroleum and energy as well as Plug's leading hydrogen platform



- ✓ On June 3rd, 2021 Plug Power and Renault Group launched the HYVIA JV
- ✓ Plug Power and Renault Group's 50/50 JV Leading the Way to a Complete Ecosystem of Fuel Cell Powered LCVs, Green Hydrogen and Refueling Stations Across Europe
- ✓ 2021: beginning of commercialisation with pilot fleet deployments
- ✓ 30%: Targeting market share of fuel cell LCV market in Europe by 2030



- ✓ On February 16th, 2021, Plug Power and Acciona announced plans to form a strategic partnership and joint venture
- ✓ The partnership aims for 20% market share of green hydrogen in Iberia by 2030, with total investment over €2 billion
- ✓ With a 10GW+ renewable power portfolio, Acciona is also Spain's largest 100% renewable power retailer
- ✓ The partnership looks to leverage Acciona's strong relationships in Iberia and Plug's leading hydrogen technology
- ✓ The partnership looks to accelerate the growth of the hydrogen economy in the industrial, mobility and pipeline gas sectors



- ✓ On January 31, 2023 Plug Power and JM announced long-term strategic partnership to strengthen Plug's supply chain and help meet growing demand for fuel cells and electrolyzers
- ✓ JM will become an important strategic supplier of MEA components, providing a substantial portion of Plug's demand for catalysts, membranes, and catalyst coated membranes (CCM)
- ✓ JM brings security of supply of precious metals, and unique recycling capabilities
- ✓ Plug and JM will co-invest in a 5GW (scaling to 10GW over time) CCM manufacturing facility in the United States with production targeted to begin in 2025



- ✓ On October 19, 2022 Plug Power and Olin launched a joint venture to begin with the construction of a 15-ton-per-day hydrogen plant in St. Gabriel, Louisiana
- ✓ The JV, named Hidrogenii, will support reliability of supply and speed to market for green hydrogen throughout North America, setting the foundation for broader collaboration Plug and Olin
- ✓ Plug will be the exclusive marketer of the JV's hydrogen and provide logistical support for delivery, while Olin will provide reliable hydrogen supply and operational expertise



Financials

2023 Goals

\$1.4B

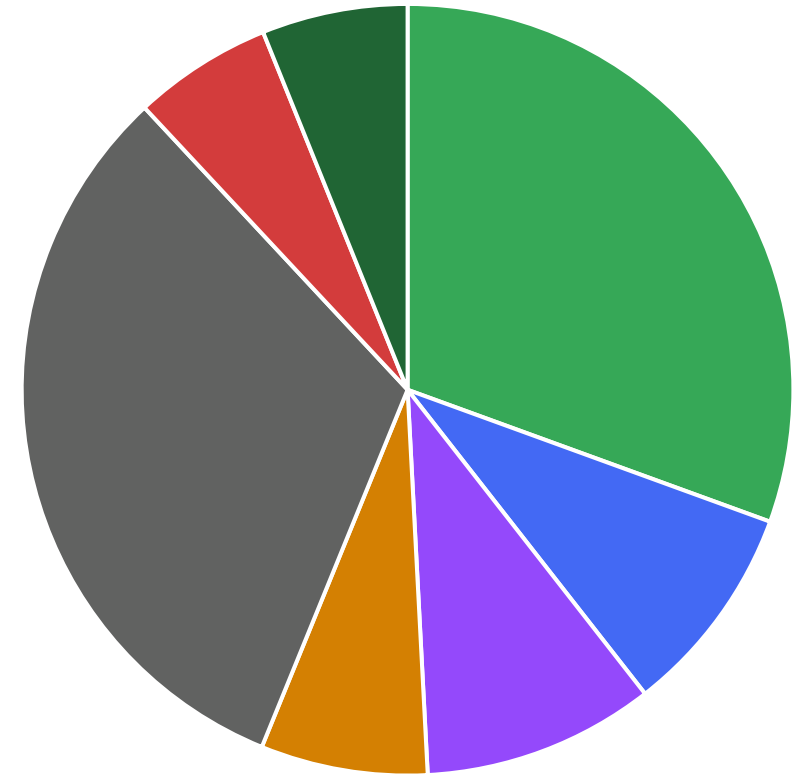
revenue

10%

gross margin



Planned 2023 Sales Mix



- Electrolyzers
- Tanks and Trailers
- MH Equipment
- Fuel
- Liquefiers
- Stationary and Mobility
- Service and PPA

What will Plug financials look like in 2026 and 2030?

2026 Targets

\$5B¹
in Annual Sales

30%
Gross Margin

17%
Operating Income Margin

2030 Targets

\$20B¹
in Annual Sales

35%
Gross Margin

20%
Operating Income Margin

A Global Hydrogen Ecosystem Market Maker Poised for Continued Substantial Growth

Diversified
Technology
Company

Global
Hydrogen
Solution
Platform

Generating
Significant
Earnings & Cash
Flows

Differentiated
Market Position in
Large Global
Markets



¹: Not including Non-Consolidated JV revenue of
2026: \$1.5B
2030: \$5B



Green Hydrogen at WorkTM

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