

DOCKETED

Docket Number:	22-IEPR-05
Project Title:	Emerging Topics
TN #:	243620
Document Title:	Presentation - Plug Power CEC IEPR Workshop
Description:	4B. Brenor Brophy, Plug Power
Filer:	Raquel Kravitz
Organization:	Plug Power
Submitter Role:	Public
Submission Date:	6/20/2022 3:10:42 PM
Docketed Date:	6/20/2022



Plug Power

CEC IEPR Workshop

June 21, 2022

Copyright 2022, Plug Power Inc.



Green Hydrogen at Work™

The most operational experience in emerging hydrogen markets

500M+

Fuel cell hours

40M

Electrolyzer hours

15+ years

PEM integration experience

99%+

Hydrogen availability

165+

Private fueling stations

35+ tons

Hydrogen dispensed daily

Largest PEM supply chain volume (common to fuel cells and electrolyzers)

- Most PEM fuel cell sales in the world
- Largest membrane electrode assembly manufacturer in the N. America
- Building GW scale manufacturing center in New York state

Plug Power Innovation of PEM Systems

- Leading energy density vs competition
- Fast ramp rates
- Performance advantaged stack technology

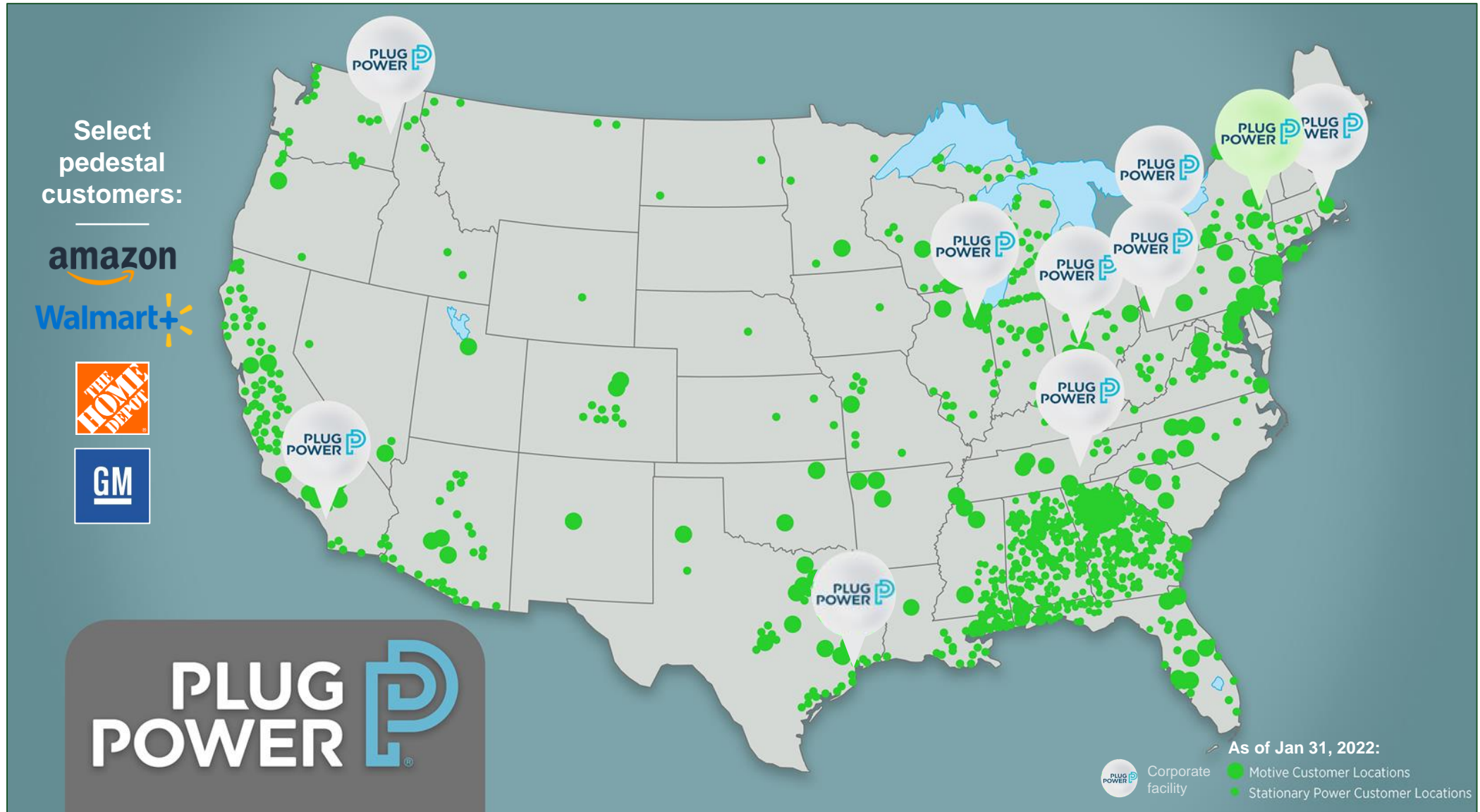
Comprehensive product offerings and support

- Hydrogen liquefaction and transportation technology
- Engineering support for broad end-use applications

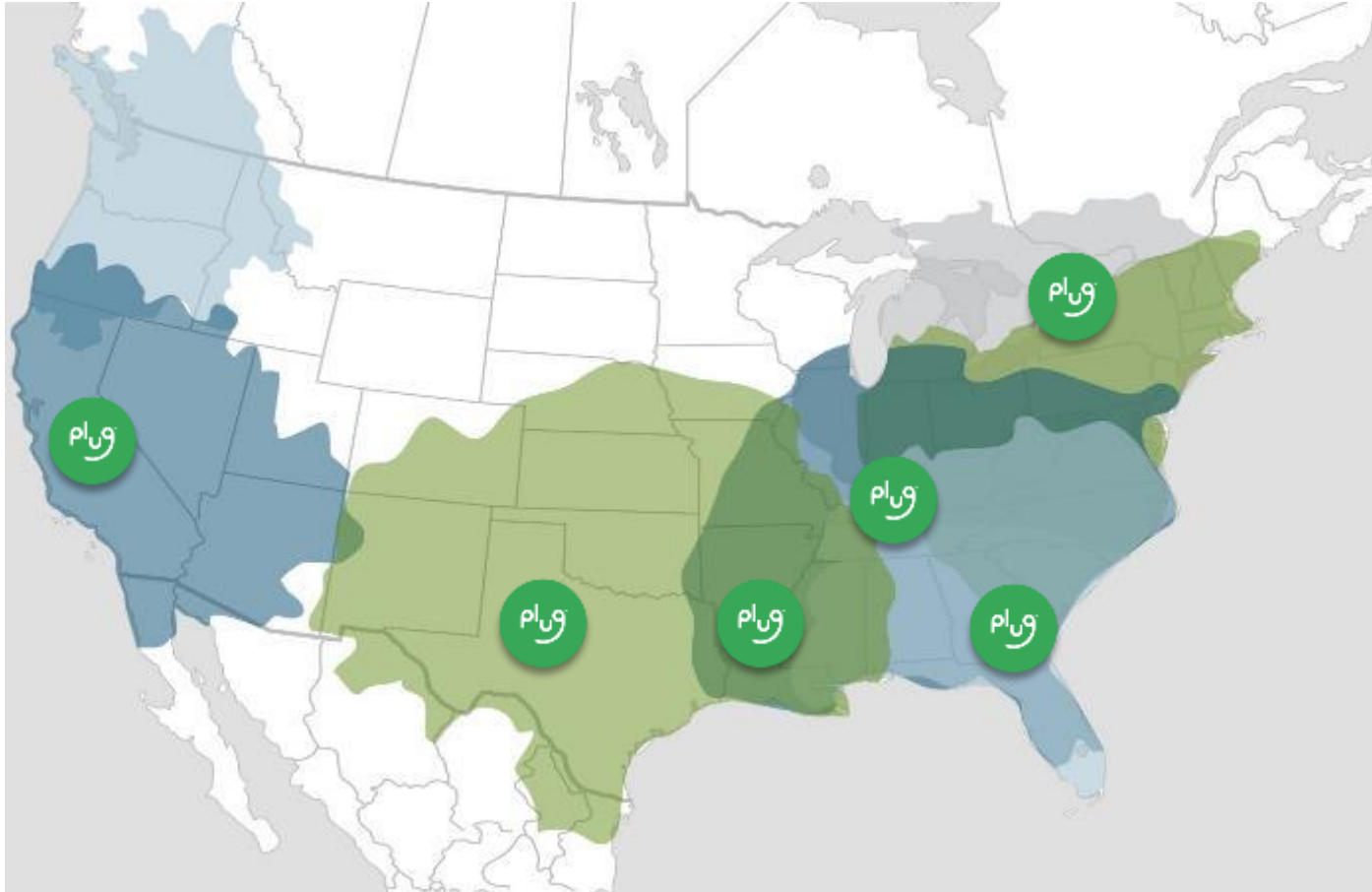
Source: Plug internal analysis (2022)



Plug Power's National Footprint of Customer Sites



North America Green Hydrogen Plant Timeline



- Green hydrogen generation of 500-tons per day by 2025
- Announced green hydrogen plant locations at California, Georgia, Louisiana, New York and Texas
- Broke ground on two plants in 2021, 70 TPD
- More than six plants by year-end 2023
- Thirteen plants by year-end 2025

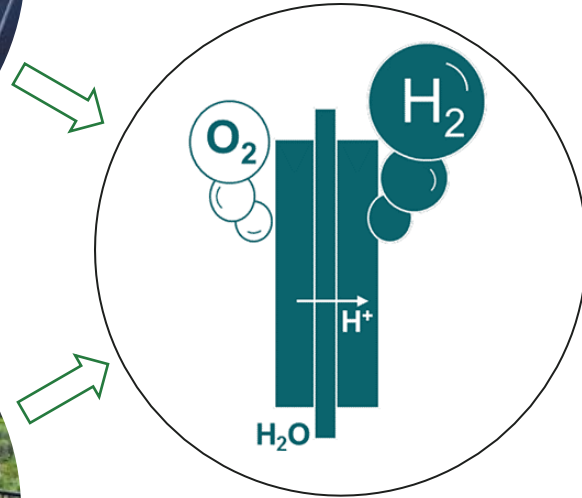
Hydrogen Farm: Sunshine + Water = Clean Fuel



Sunshine



Recycled Water



Electrolysis



Liquefaction

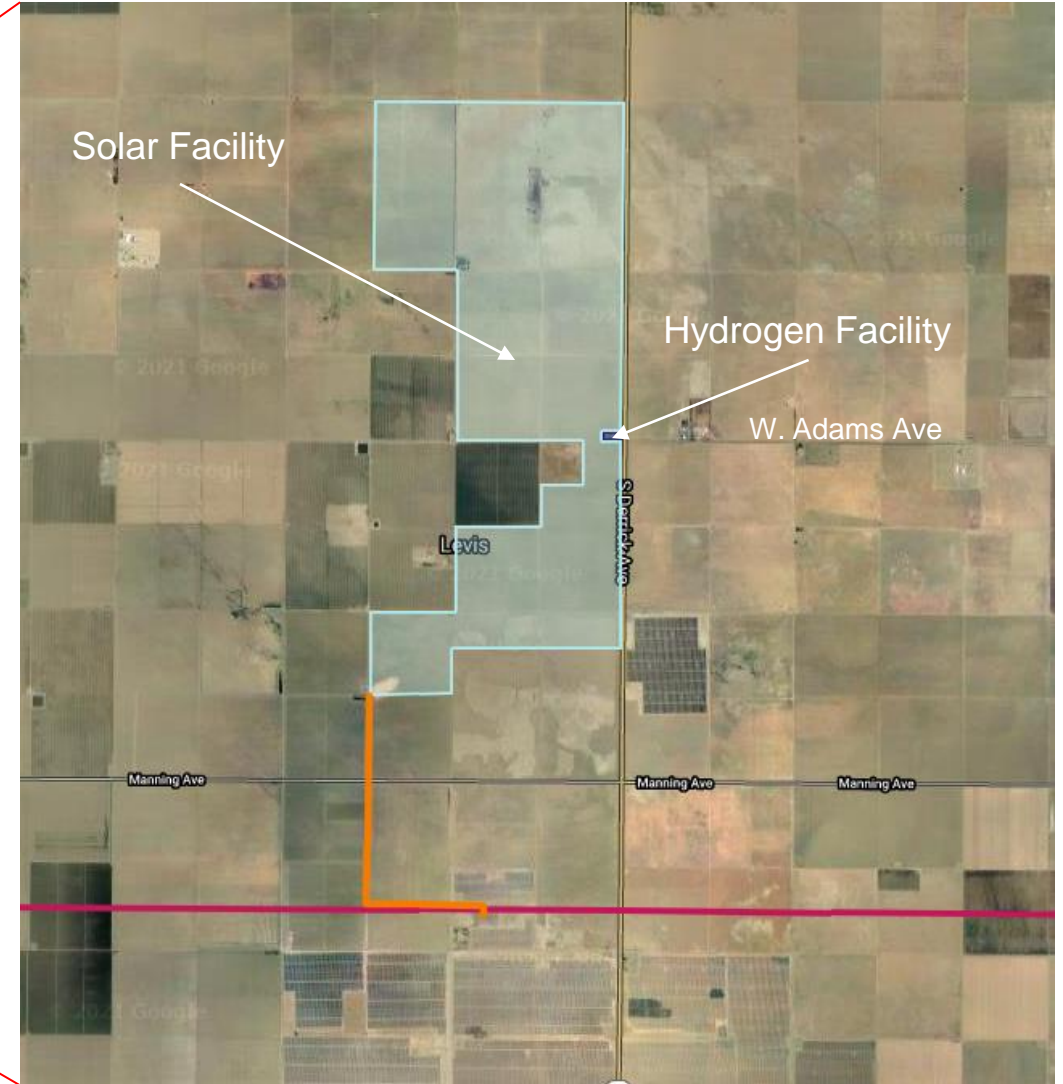
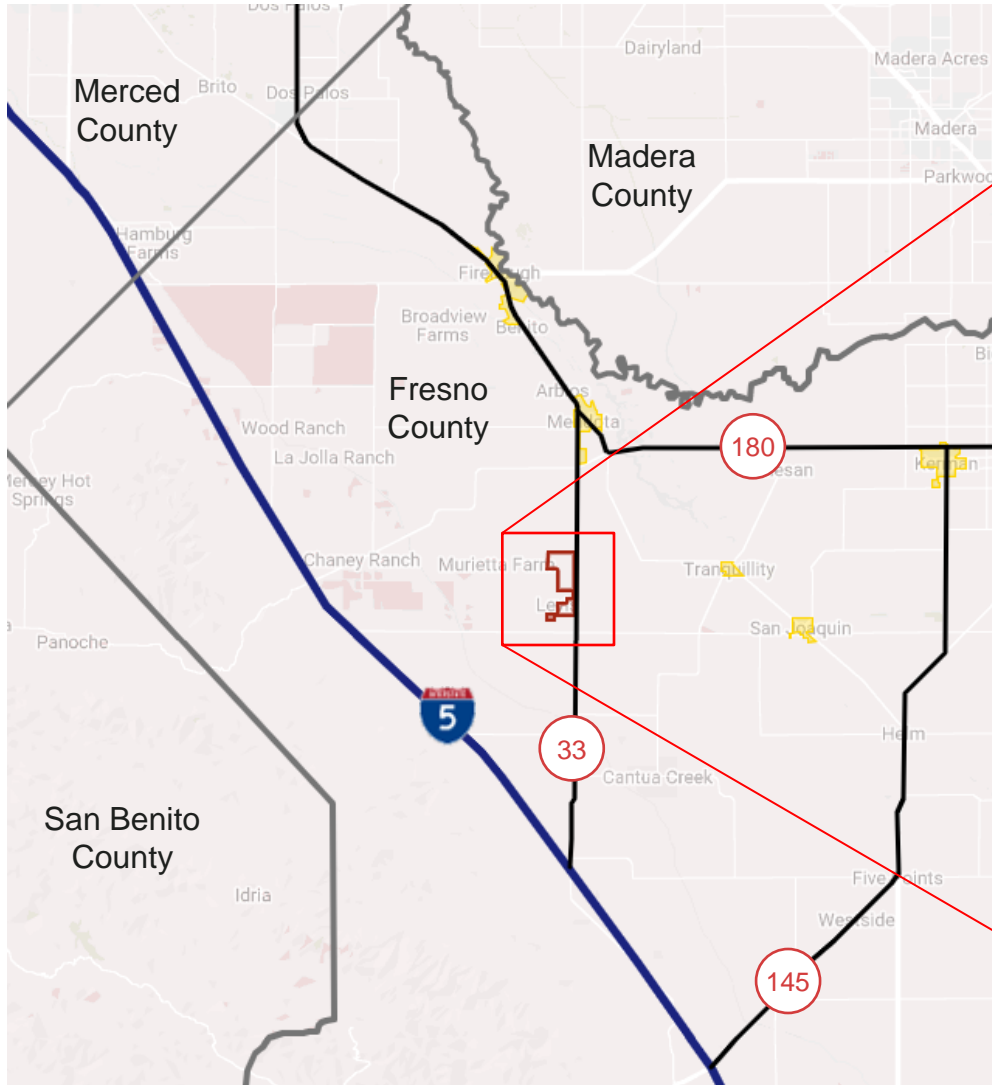


Logistics



Freight

Project Location – Fresno County





- **Statistics**
 - 30,000 kg/day liquid hydrogen
 - 120MW of PEM electrolyzers
 - California's first new hydrogen liquefaction plant in 36 years
 - 2000-acres of priority lease conflict land
 - 300MW solar farm
 - 30-acre Hydrogen production plant
 - 500,000 gallons (134T) LH₂ storage
 - 100% green (annualized energy basis)
 - Including liquefaction and transport
 - Open for business late 2024

- **Water use**
 - 120,000 gallons-per-day of recycled water
 - Project is funding new 1.2M GPD tertiary water treatment plant for City of Mendota
 - City owns the plant
 - We pay full commercial rate for water
 - City gets balance of the water for its own programs
 - Dry cooling only
 - Zero offsite waste discharge



Green Hydrogen at Work™