



NEW YORK STATE PUBLIC SERVICE COMMISSION
Scott Wilshire, Director of Marketing Engagement

PLUG POWER INC.



HEADQUARTERS
Latham, New York

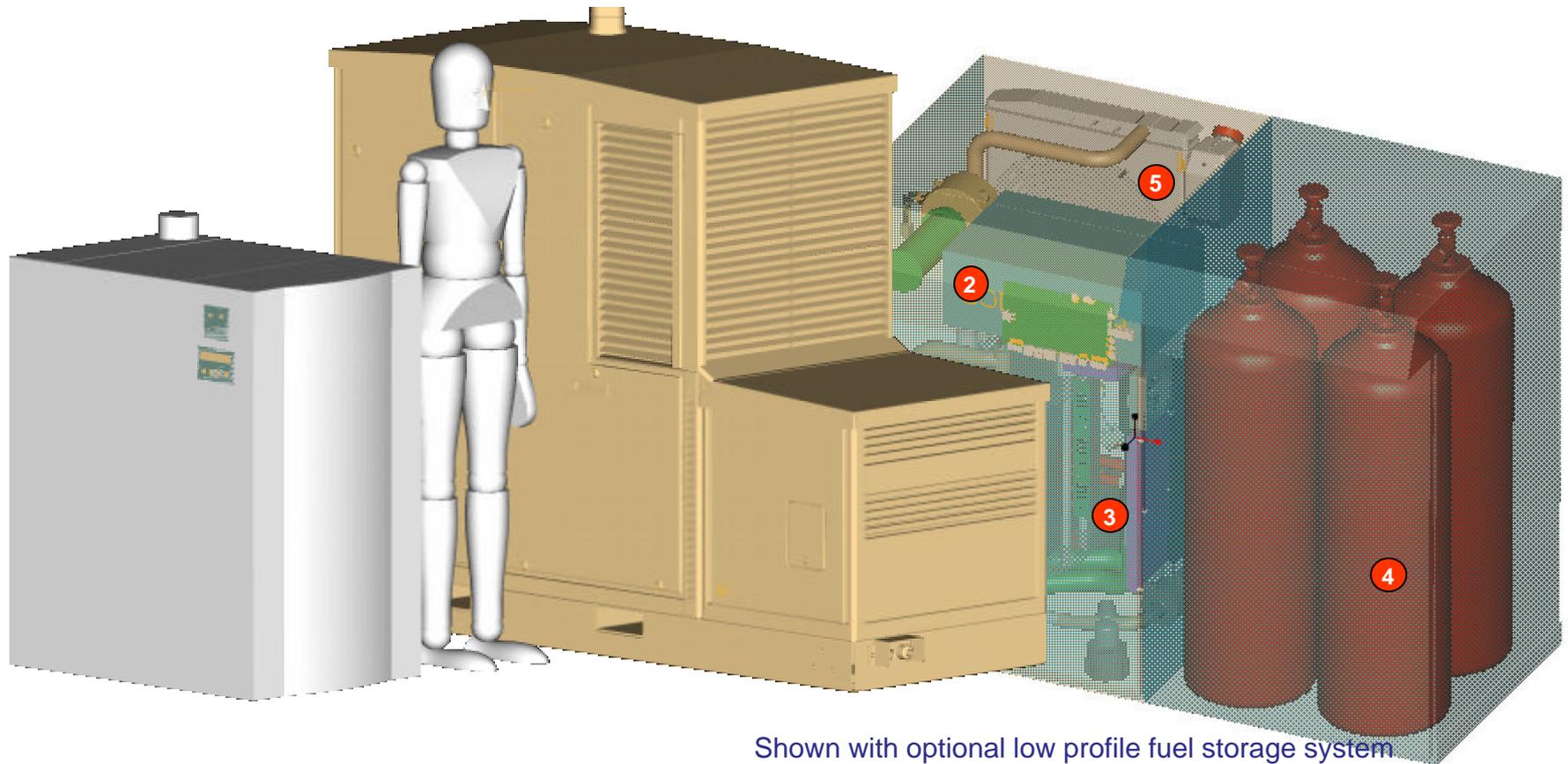


EUROPE
Apeldoorn, Holland

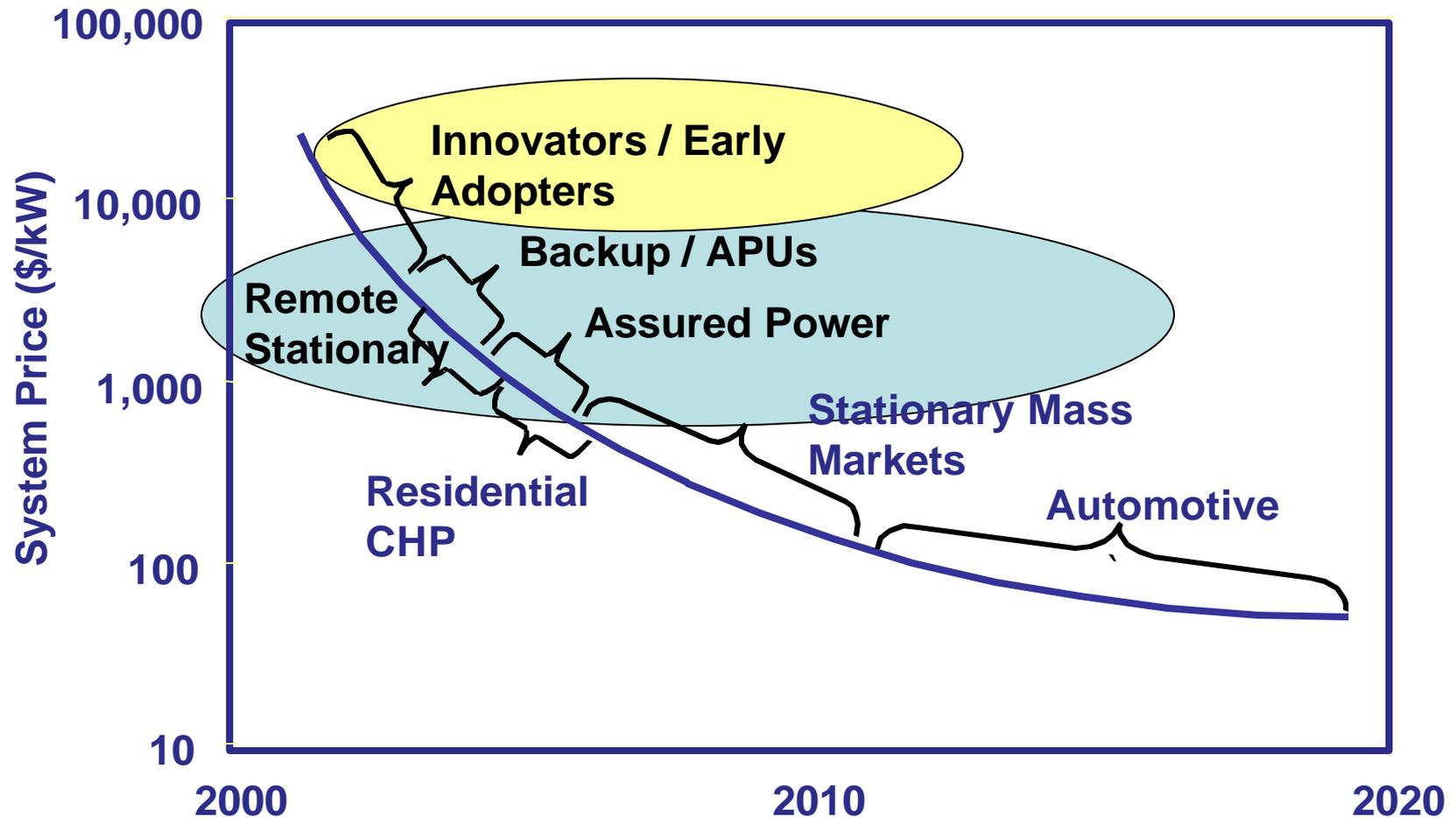
HOW A FUEL CELL WORKS



EVOLUTION OF A TECHNOLOGY



MARKET TIMING AND ADOPTION



TECHNOLOGIES FOR A RENEWABLE FUTURE

❖ Renewable Generation

- Wind / Solar / Hydro / Geo-thermal
- Intermittent

Available

❖ Electrolysis

- Allows energy storage

Available

❖ Fuel Cell Systems

- High efficiency / CHP
- Load following / Available on demand
- Distributed
- Environmental

Progressing

Fuel Cells provide complementary advantages to address some of the challenges of renewable generation

AVAILABILITY OF RESOURCES IN NEW YORK

❖ Fuel Cell use of Natural Gas in Transition

- Plug Power product line transitioning to H₂ as fuel
- Learning done on natural gas applicable to future products
- Use of existing fuel source reduces technology hurdles

❖ Hydrogen Fuel System Development

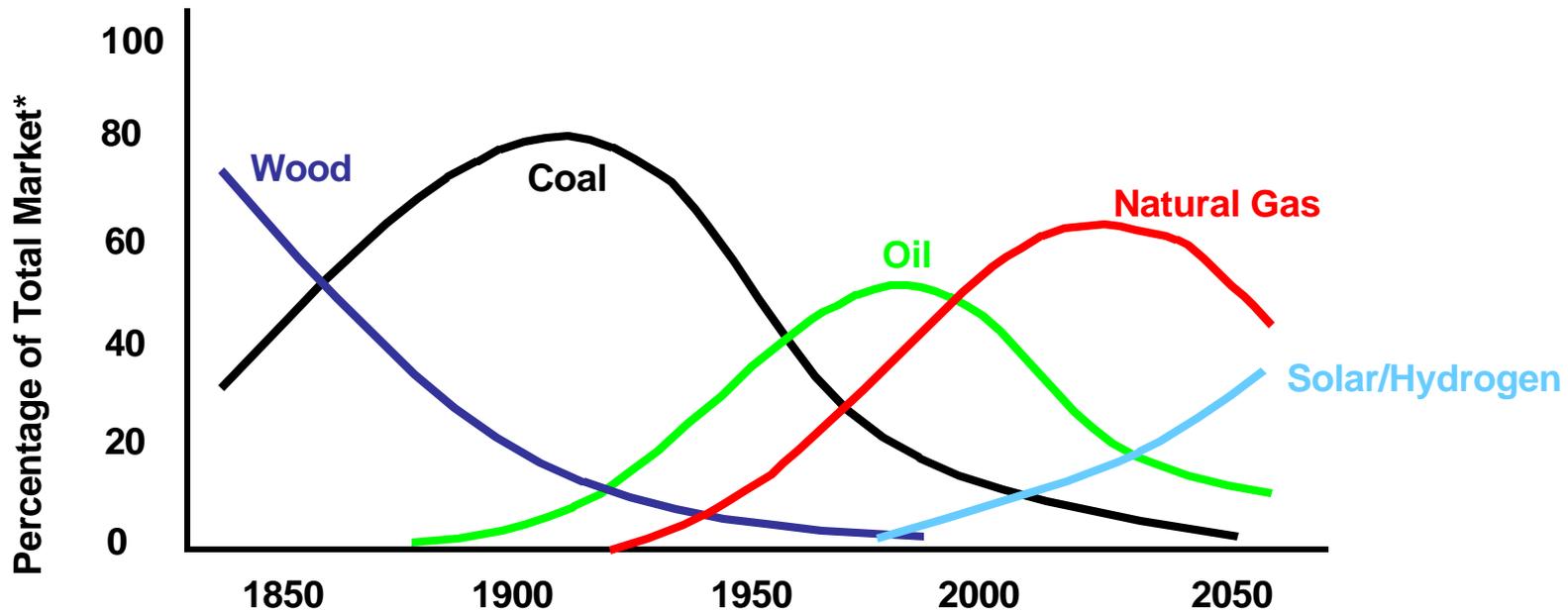
- Major technology focus within Plug Power and industry
- Initial launch product targeting hydrogen applications

❖ Why New York

- Load pockets and grid congestion
- Progressive environment
- Strong alignment with other high technology business
- Aging infrastructure
- Complements diverse mix of intermittent renewables

PROGRESSION TOWARD RENEWABLES

- ❖ Hydrogen is a clean fuel, that when combined with oxygen - either through combustion or an electrochemical process - produces water as a by-product.
- ❖ Hydrogen does not exist naturally, but can be extracted from hydrocarbons or water.
- ❖ Hydrogen may be next in line in our 150 year progression away from carbon intensive fuels.

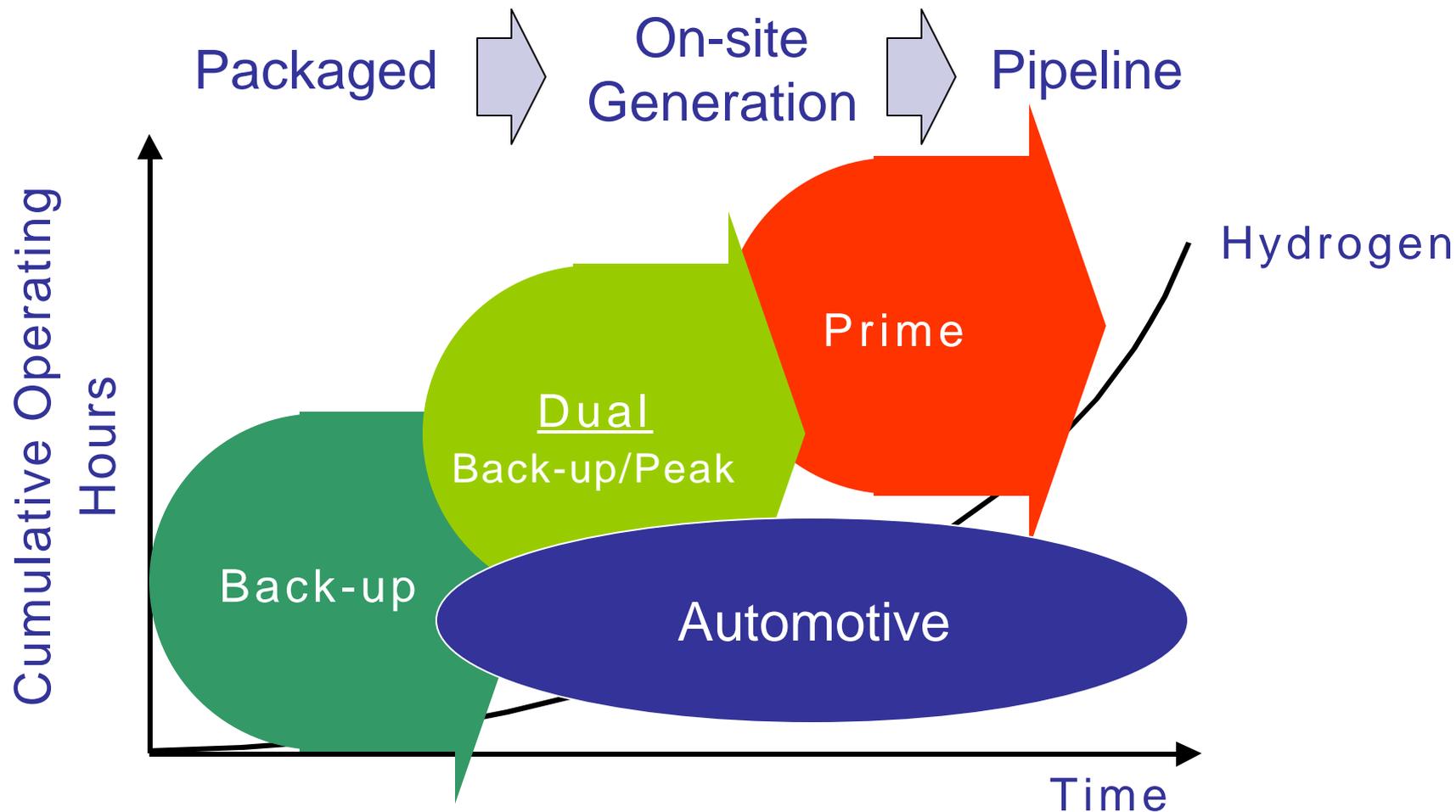


Source: Marchetti and Nakicenovic (1994)

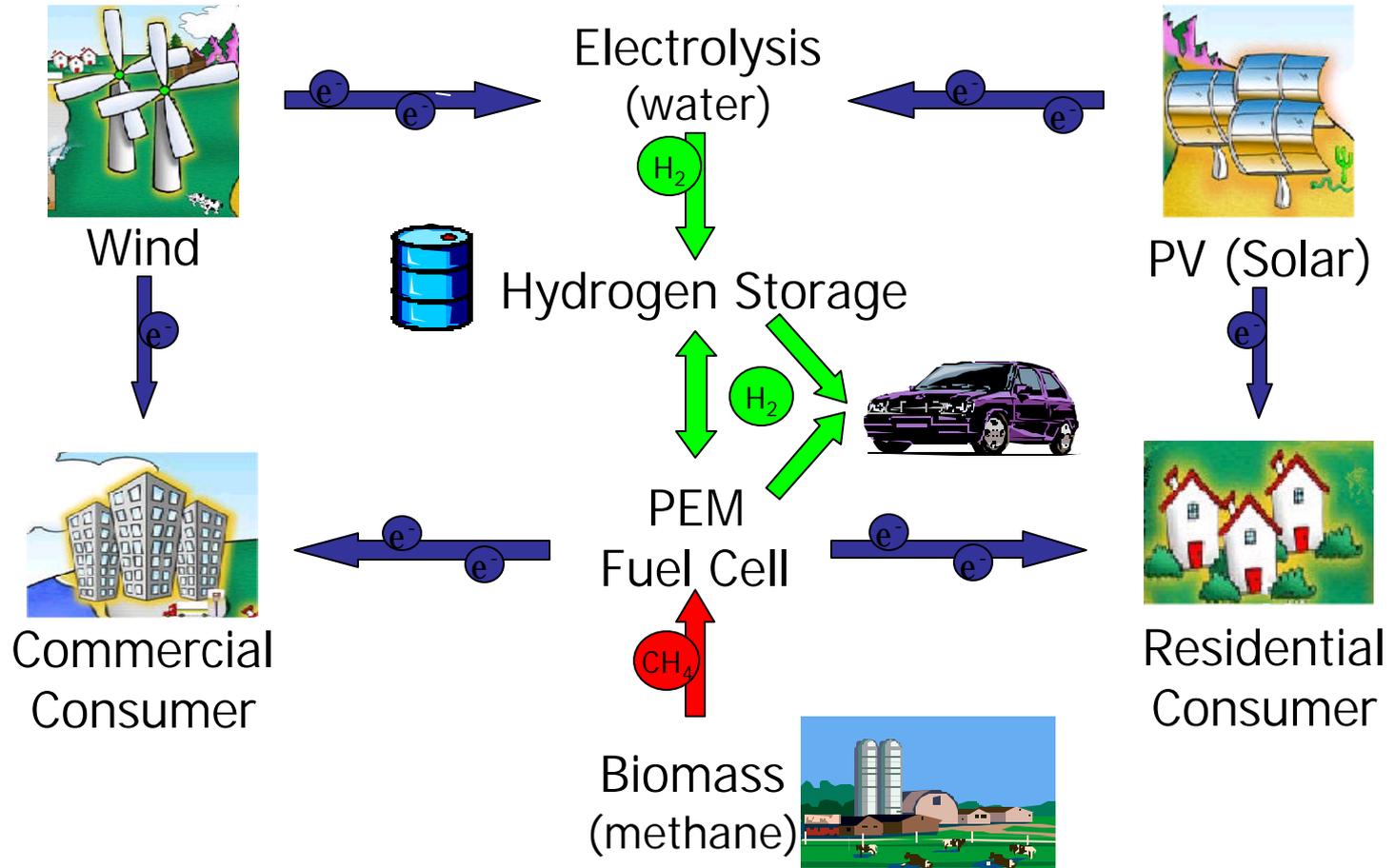
* Nuclear Energy not shown on graph

Hydrogen can be generated by renewables (solar, wind) and used for energy storage

HYDROGEN INFRASTRUCTURE BUILDOUT



A MOSAIC APPROACH



DOE 2003 FUEL CELLS AND HYDROGEN SOLICITATIONS

❖ Stationary Fuel Cells

- \$70M over 5 years. Closed March 27th. Plug Power has proposed on 5 topics (either as prime or sub). Development and demonstration of stationary fuel cells.

❖ Hydrogen and Fuel Cells Demonstration and Validation

- \$250M over 5 years. Expected on or about April 15th. 3-5 awards projected. Auto company/energy company lead. Stationary, Transportation fuel cells and H2 infrastructure.

❖ Hydrogen Storage

- \$30M/year for 5 years. Expected end of May. Universities and national labs as prime. Companies as subcontractors. More fundamentals /materials, some small amount of applied basic sciences and DOE EERE

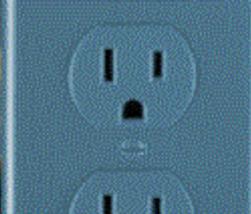
❖ Hydrogen Production

- \$100M over 5 years. Expected in May. On-site H2 generation.

ECONOMIC IMPACT ON NYS

- ❖ Currently the company employs approximately 332 individuals.
- ❖ The average annual salary of a Plug Power employee is approximately \$60,717.
- ❖ Plug Power has paid over \$128 million in wages and compensation to its employees.
- ❖ Plug Power employees have paid in excess of \$7.7 million in New York State income tax.
- ❖ Plug Power has paid over \$46.8 million to New York State suppliers since September 1999.
- ❖ There are approximately 17,000 Plug Power shareholders based in New York State.





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