PLUG POWER PRESENTATION ON FUEL CELL COMMERCIALIZATION

Fuel Cells Summit III
April 5, 1999

The Plug Power Opportunity

Plug Power

Plug Power has the opportunity to become the first mass manufacturer of Proton Exchange Membrane (PEM) fuel cells - making ourselves a dominant player in providing a disruptive new technology.

- The right first product
- Huge market potential
- The right pathway to market
- A highly leveraged manufacturing strategy

Plug Power will be mass manufacturing in 2001 - 2002

Road to Market Penetration

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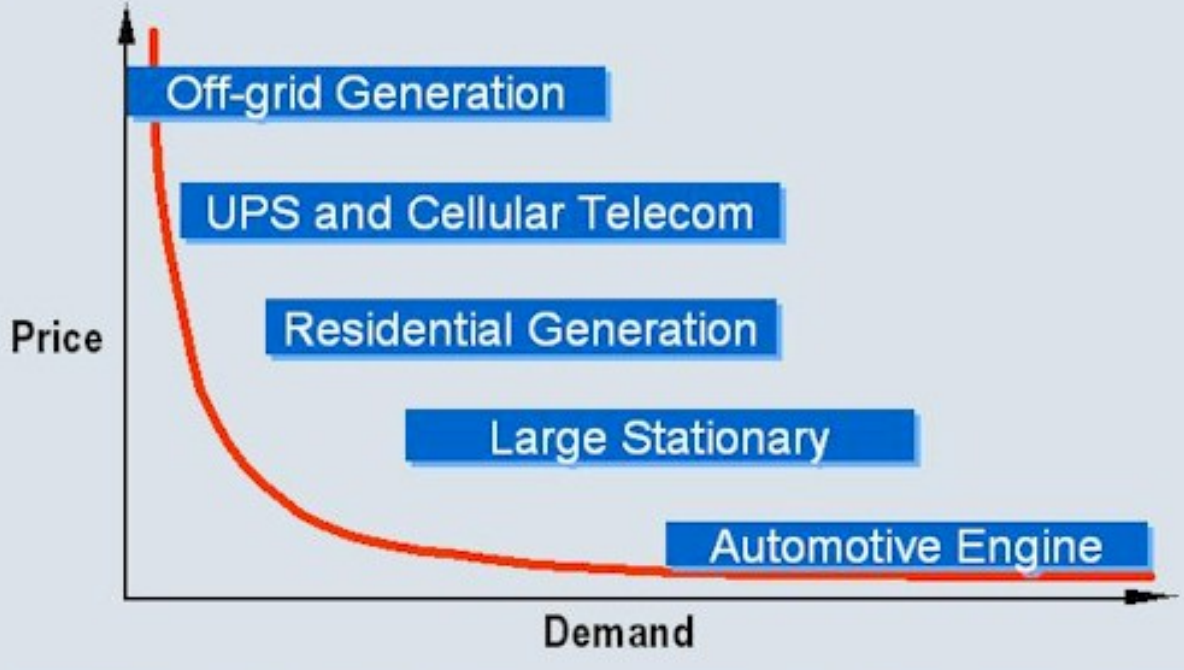

Fuel cells have the potential to penetrate broad markets

Fuel Cell Product Approach

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Fast Development Path

High-Volume Manufacturing

Mass Production

New Designs

Cost Reduction

Experience and Economics of Scale

Complimentary development paths

An Inherently Superior Technology

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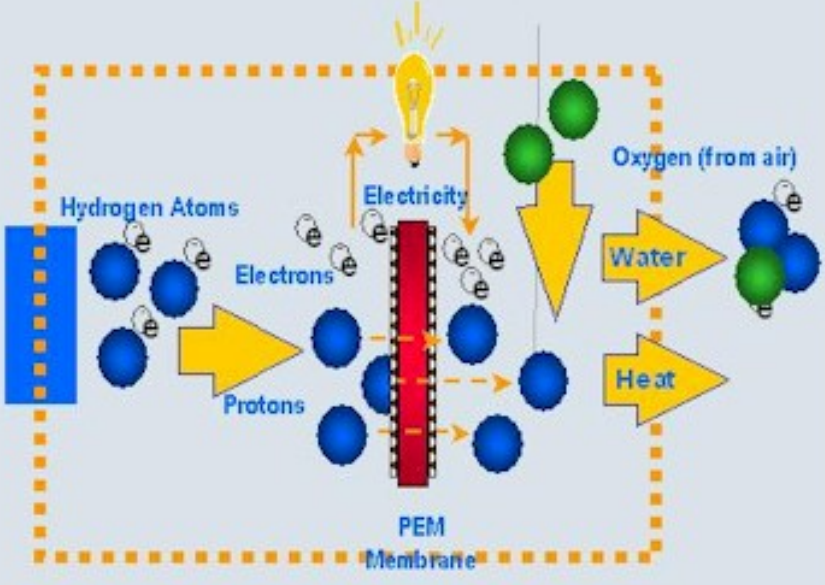
All fuel cell types are advantageous...

- Environmentally clean & efficient
- More efficient than central generation
- No combustion byproducts

PEM Fuel Cells are unique...

- Benign operating environment (< 200°F)
- Adaptable - Can run on a variety of fuels
- Highly amenable to low cost manufacturing (no exotic materials)
- Scales down well to residential market sizes



The first mass produced product will be PEM stationary

The Right Product: Residential

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Favorable Market Dynamics:

- No new infrastructure needed - Leverage natural gas and propane distribution
- The competition (grid-central station generation) is expensive and dirty
- Early adapters are plentiful - demand for off-grid and premium power applications at $1,000/kW
- Plug Power will be the first to mass market at $500/kW....half the capital cost of conventional grid infrastructure

Residential System

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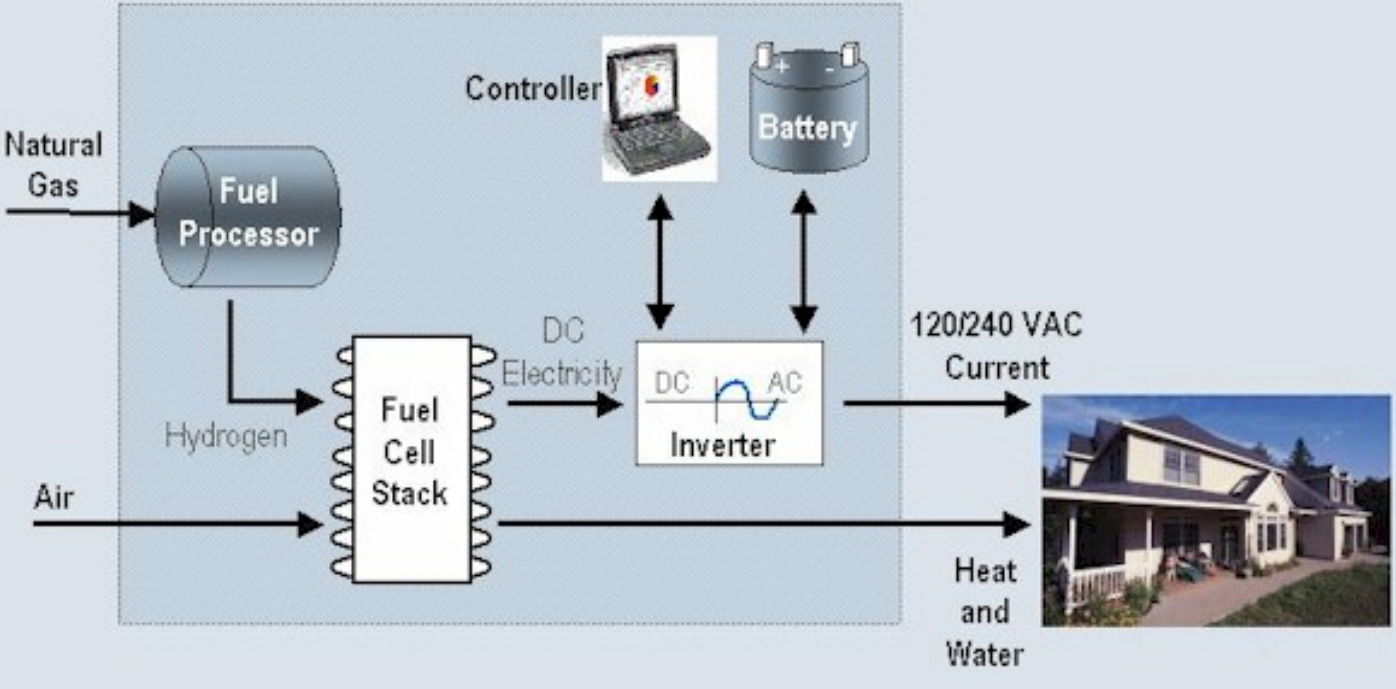

The Magic Is Out of the Bag

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Reduced platinum loading and improved performance reduce cost

Market Entry Potential

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- Off-grid applications, e.g. vacation homes
- Geographies of upper income households with poor grid reliability--a substitute for installed generators
- Rural areas where the electric company installs a fuel cell rather than replacing a mile of power distribution lines for one or two customers, e.g. farm houses
- Remote villages/developing countries...a very fast installation compared to grid power
- UPS applications...reliable distributed power
- Remote cellular telephone antenna sites

Early niche markets provide a strong foothold

U.S. Market – 25 Million Households

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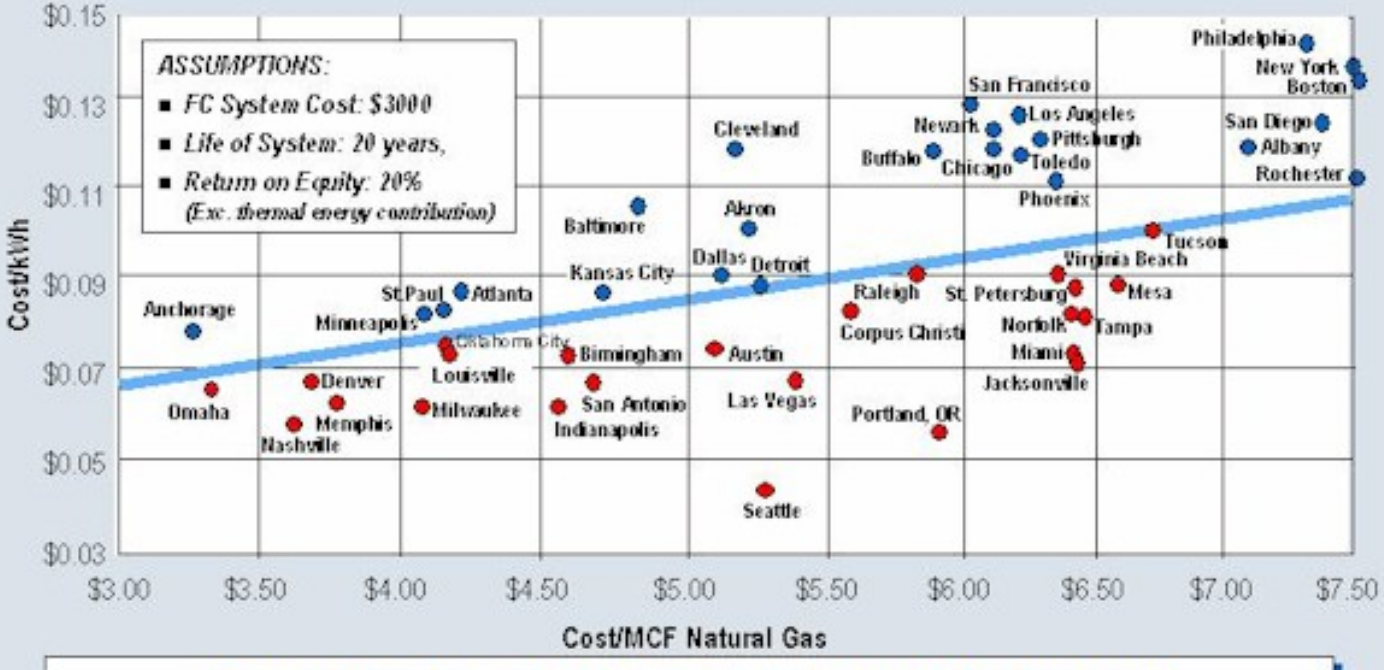

Economical gas-electric spreads of PEM fuel cells (> 5¢/ kW) provide mass market appeal

Europe…50 Million Households

Plug Power

Country	Households (Million)	Total Households w/ Natural Gas (Millions)	1997 Grid Cost (¢/kWh)	Fuel Cell NG Cost (¢/kWh)	Spread* (¢/kWh)
Belgium	4.0	1.5	19.1	10.0	9.1
Austria	3.1	1.5	19.2	10.3	8.9
Germany	36.4	15.0	18.0	9.7	8.3
Netherlands	6.4	6.0	14.8	8.0	6.8
France	22.8	10.0	16.4	10.4	6.0
Spain	12.0	2.5	19.1	13.5	5.6
UK	24.3	13.0	12.5	7.2	5.3

High electric rates & strong environmental concern make fuel cells an attractive option in Europe

The Developing World

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600 million households without electricity

The developing world can leapfrog to wireless distributed generation

Automotive Requirements

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- $50 - $100 per kilowatt cost target
- Small in size
- Lightweight
- Shock resistant
- Quick start-up and response times
- Freezing temperature resistant

Mass production of automotive fuel cells 6 - 10 years away!

Pathway to the Market

Plug Power

GE Fuel Cell Systems will exclusively distribute, install and service Plug Power residential and small commercial fuel cell systems on a worldwide basis

MASSIVE EXISTING NETWORK	GE has the largest global sales & service network in the power systems industry with 130 sales & engineering offices
NAME RECOGNITION	GE - Plug Power co-branding
MULTI-TIER DISTRIBUTION	Local gas distributors, HVAC, energy service companies, electric utilities, retailers will sell directly to end user

GE brand provides immense leverage

Other Government Collaborations

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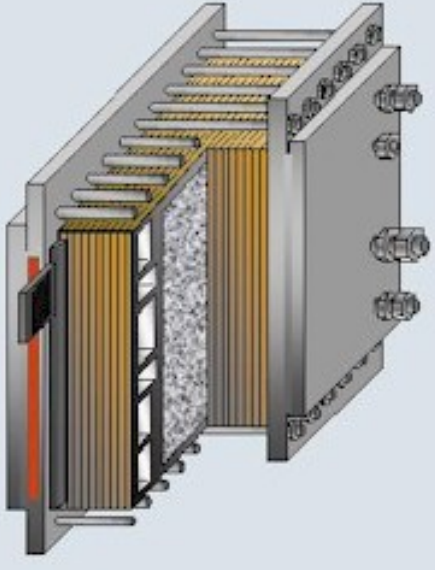

- **NIST**
  - ✓ $9.7 million program to develop next generation of CO tolerant MEAs
- **NYSERDA**
  - ✓ $6 million program with New York State Energy Research & Development Authority for delivery of 80 residential-size fuel cell demonstration systems

Public / private partnerships are essential to our progress!

1997 Milestones

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June — Plug Power formed with 22 employees

July — U.S. Department of Energy Program for Research & Development award of $15 million received

October — Plug Power converts gasoline to electricity with ADL / EPYX, DOE and Los Alamos National Laboratory

Year - End — Plug Power headcount reaches 38

1998 Milestones

Plug Power

January	$1 million grant from Empire State Development Corporation announced
February	Plug Power and Los Alamos National Laboratory establish CRADA (Cooperative Research and Development Agreement
May	The National Energy Resources Organization awards Plug Power R & D Innovation Award
June	Plug Power unveils world's first fuel cell powered house
August	MTI / DTE second round financing
September	Plug Power delivers fuel cell system to Sandia National Laboratories for DOE - sponsored evaluation program
October	$9.8 million NIST award to develop next generation MEA
November	Plug Power demonstrates fuel cell system running on methanol
December	Plug Power successful demonstration of natural gas-based fuel cell systems
December	Plug Power receives $6 million award from New York State Energy Research & Development Authority
Year - End	Plug Power head count rises to 140 employees

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