fuelcellenergy

Company Update

September 2017

Safe Harbor Statement

This presentation contains forward-looking statements, including statements regarding the Company's plans and expectations regarding the development and commercialization of fuel cell technology. All forward-looking statements are subject to risks and uncertainties that could cause actual results to differ materially from those projected. The forward-looking statements speak only as of the date of this presentation. The company expressly disclaims any obligation or undertaking to release publicly any updates or revisions to any such statements to reflect any change in the Company's expectations or any change in events, conditions or circumstances on which any such statements are based. The Company may refer to non-GAAP (generally accepted accounting principles) financial measures in this presentation. The Company believes that this information is useful to understanding its operating results and the ongoing performance of its underlying business. Please refer to the Company's earnings release for further disclosure and reconciliation of non-GAAP financial measures.

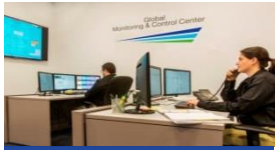
FuelCell at a Glance

Snapshot

Design & Manufacture

Project Development

Turn-key Project Delivery



Plant Operation

- **Delivering clean innovative solutions for the global supply, recovery and storage of energy**
- **Corporate office, R&D and global service in Danbury, CT**
- **Manufacturing facilities in Torrington, CT; Taufkirchen, Germany; and via partner in Pohang, South Korea**
- **More than 50 installations on 3 continents**
- **Produced >6 million MWh's of ultra-clean power**

Company Overview

- FuelCell Energy designs, manufactures, undertakes project development, installs, operates and maintains megawatt-scale fuel cell systems
- Serving utilities, industrial and large municipal power users with solutions that include both utility-scale and on-site power generation, carbon capture, local hydrogen production for transportation and industry, and long duration energy storage
- SureSource™ solutions efficiently and affordably generate predictable energy where it is used via a clean and quiet, electrochemical process

Investment Highlights

- **> $1 Billion recent project awards**
- **Sizeable global market potential** for affordable, efficient and easy to site fuel cell solutions
- **Compelling business model** - power plant sales plus recurring high margin electricity sales from retained Generation portfolio and Services revenue and supported with robust IP
- Targeting **industry leaders** with the market's only MW-class fuel cell solution
- **Versatile** fuel cell platform supports global opportunities with carbon capture, distributed hydrogen & storage
- Project profiles attract private capital
- Balance sheet to support 20 year utility service contracts; total assets >$300 million
- Experienced management team with decades of power industry and industrial experience

Market Overview

TODAY

Energy Generation

$18+ Billion Estimated Market

Utility Grid Support

- Easy and quick to site
- Enhances grid resiliency
- Support Clean and Renewable portfolio standards advancement

On-Site Solutions

- Micro-Grid / CHP
- Easy-to-site resiliency
- Sustainability benefits
- Saving customer money

Gas Pipelines

- Harnessing energy from gas de-pressurization
- High efficiency
- Sustainability benefits

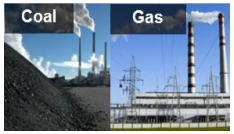
NEAR-TERM

Carbon Capture & Distributed Hydrogen

$32+ Billion Estimated Market

Fuel Cell Carbon Capture

- Affordable & scalable
- Generates power while capturing CO_2
- Collaborating with ExxonMobil
- Pilot project at Southern Co. power station



Distributed Hydrogen

- Leading solution for reducing transportation emissions
- Competitive with gasoline

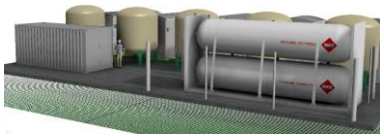
DEVELOPING

Long-Duration Energy Storage

Tens of $ Billions of Estimated Market

Reversible Fuel Cell

- Hydrogen is storage medium
- Site at substations
- Favorable economics for 6+ hours



Global Relationships

North America

Dominion · NRG YIELD · Pacific Gas and Electric Company · Southern California Edison · AVANGRID · LIPA · Pepperidge Farm · Pfizer · UCI Medical Center, University of California, Irvine · Hartford Hospital · ExxonMobil · Southern Company · cenovus energy · Alberta Innovates

Europe

e·on · Friatec · Radisson Blu · The Crown Estate · Federal Ministry of Education and Research · ewz · Canary Wharf Group PLC · Land Securities · Fraunhofer

Asia

KHNP · POSCO Energy · EWP · Korea East West Power Co., Ltd · KWP · Korea Western Power Co., Ltd · SK E&S · KOGAS · Samchully · GS EPS · KOSEP Korea South-East Power Co. · Korea Midland Power Co., Ltd.

Strategic Investors

POSCO ENERGY — Largest IPP in S. Korea
Owns 4% FCEL stock

nrg — Largest IPP in USA
Owns 2% FCEL stock

Finance Providers

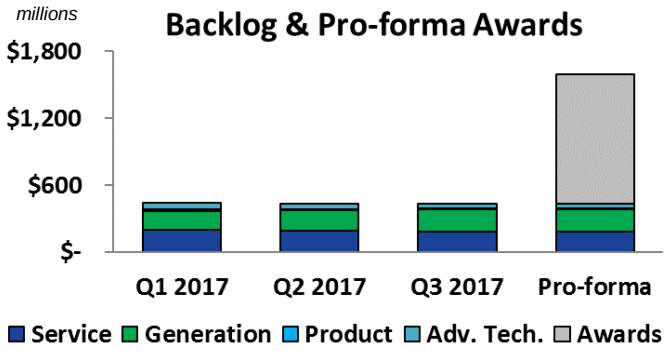
nrg — Extends $40 million project finance facility

PNC · Hercules Technology Growth Capital · Webster Bank · Connecticut Green Bank · DECD State of Connecticut Department of Economic and Community Development

Manufacturing: Connecticut, USA | Germany | South Korea *(via POSCO Energy)*

Financial Model

- Diversified revenue sources:
  - Product
  - Service & license
  - Generation
  - Advanced technologies
- Expanding global installed base
  - Backlog & recent Project awards >$1.5 billion
  - Product sales and expanding Generation portfolio
- Forecasted EBITDA Breakeven - blend of Generation portfolio & Product sales
- Strong project finance interest
  - Predictable power generation profile, strong off-takers, easy-to-site minimizes permitting & land costs



megawatts	Existing	Under constr.	Project awards	Total
Generation Portfolio	11.2	9.3	10.2	30.7
Korean Product Sale			20.0	20.0
LIPA projects			39.8	39.8
Total	11.2	9.3	70.0	90.5

Building sustainable revenue growth and gross profit

Recent Highlights & Catalysts

Recent Business Highlights

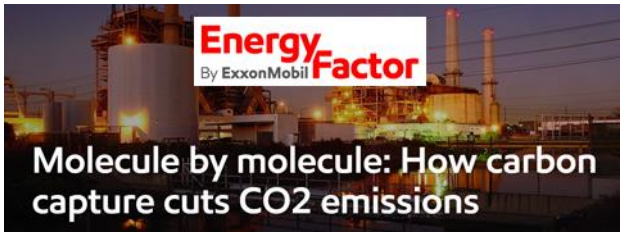
- LIPA fuel cell projects awarded
  - FCE awarded *entire* program of 40 MW
  - LIPA avoiding $76 million transmission upgrade & a planned load-pocket RFP
- 20 megawatt utility fuel cell park project in Asia
- 20 year PPA to sell power to SCE under California BioMAT program / 2nd installation at Tulare wastewater facility
- State of Connecticut passed Act 17-144 for utility ownership & State RFP that potentially enables > 100 megawatts of fuel cell projects
- NRG Yield site hosting SOFC project – same platform as storage solution

250 MW CA Biogas Market Adjustment Tariff

Category	SCE	PG&E	SDG&E
1. Various Biogas	55.5	30.5	24.0
2. Dairy & Other Ag	56.5	33.5	0.0
3. Sustainable Forestry	2.5	47.0	0.5
Total	**114.5**	**111.0**	**24.5**

Near-term Catalysts

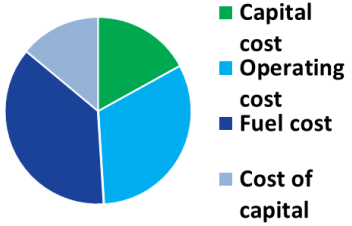
- Market development activity of **>200 MW** with South Korean utilities
- Connecticut: **>100 MW** of fuel cell parks under development with multiple contractual paths (i.e. utility ownership, utility PPAs, State level procurement process, all via PA 17-144)
- Near term On-site opportunities of **10 to 20 MW**
- Follow-on fuel cell carbon capture projects
- Distributed hydrogen projects for transportation



Value Drivers

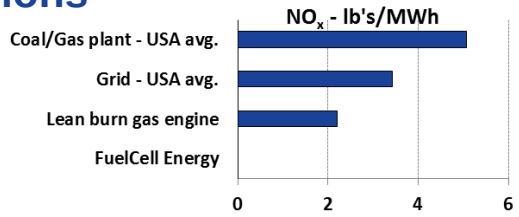
Compelling Economics

- Avoids transmission *(line losses, cost & permitting)*
- REC's / Capacity payments / Carbon credits
- Continued reduction of all cost components



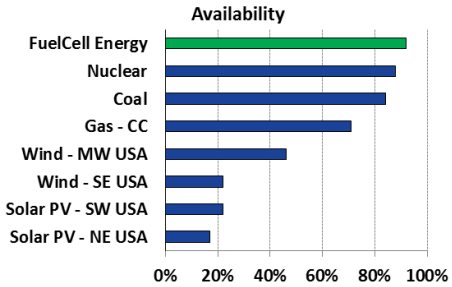
Negligible Emissions

- Easy-to-site *(CARB 2007 certified)*
- Accelerate RPS, CO_2 & NO_x reduction goals
- Clean predictable power



High Availability

- High availability supports economics
- High level of Renewable Energy Credits (REC's) generated *(3-5x the REC's of solar)*



Economic Development Driver

- Urban renewal
- Property & sales tax revenue
- Job creation
- Modest land usage
- Projects attract private capital

Goal: Meet RPS mandates *(i.e. max. REC's)*

	MW's	Acres of land	Annual MWh's
FCE	10	1	~83,000
Solar	50	395	~83,000

Challenge: Limited land availability

	MW's	Acres of land	Annual MWh's
FCE	10	1	~83,000
Solar	0.13	1	~220

Customer Success Stories

Grid Support with CHP

- Power sold to grid
- Heat sold to district heating system
- 59 MW on only 5.2 acres
- Only 14 mo. installation
- World's largest fuel cell park

Grid Support / Urban Redevelopment

- Power sold to grid
- Enhance resiliency
- Brownfield revitalization
- 15 MW on 1 ½ acres
- Only 12 mo. installation

Resiliency for Pharma

- 5.6 MW with steam for company campus
- Predictable power solving grid quality issues
- Immediate savings vs. grid
- Sustainability

Fuel Cell / Solar Integration

- Utility-owned, rate-based
- Enhance resiliency
- 2.8 MW fuel cell on ¼ acre
  - *~23,000 MWh annually*
- 2.2 MW solar on ~9 acres
  - *~3,000 MWh annually*

Enhancing Competitive Advantage

Solving Resiliency Issues & Enhancing ROI

MW-Class Distributed Generation with Combined Cycle Electrical Efficiencies

	FuelCell Energy	Combined cycle gas plant
Size	1.4 MW to 100 MW	400+ MW *(scale req'd for high efficiency)*
Construction/Siting	Months; site WITHIN cities	Years; site AWAY FROM cities
Electrical Efficiency	Plant efficiency: 47-60% Transmission losses: *None!* Delivered efficiency: 47-60%	Plant efficiency: 55-60% Transmission losses: *(6-9%)* Delivered efficiency: 46-54%
Clean Emission Profile (virtually zero NO_x, SO_x, or PM)	Yes ✓	No ⊘
Renewable Fuel Option/REC's	Yes ✓	No ⊘
Combined Heat & Power	Yes ✓	Limited ⊘
Scalable	Yes ✓	No ⊘
Support Urban Redevelopment	Yes ✓	No ⊘
Affordable Carbon Capture	Yes ✓	No ⊘
		

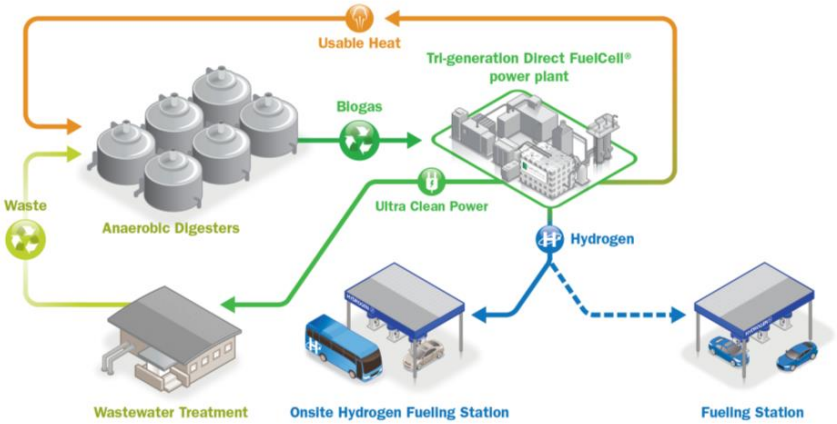
De-carbonizing & NOx Reduction

- Affordable & scalable Carbon Capture
- Generating power while capturing CO_2
- ExxonMobil - collaboration partner
- Demonstration at Southern Co. Plant Barry
- Canadian Oil Sands engineering project

Broadening New Growth Opportunities

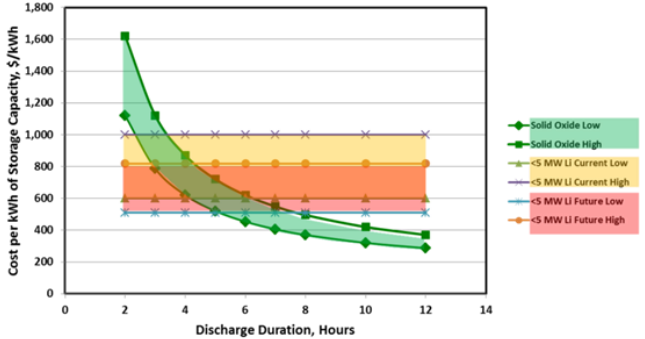
De-carbonizing Transportation

- Tri-generation fuel cell solution providing hydrogen for fuel cell vehicles plus clean reliable power
- Price competitive, clean & negative carbon option

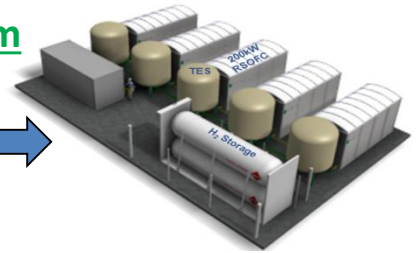


Improving the Value of Energy Storage

- Alternate between power generation (H_2 fuel) & electrolysis
- Add additional low cost H_2 storage (vs. more batteries)



Energy Storage System



Summary: Attractive Long Term Model

Revenue ↑
- $1 billion recent awards
- Diverse revenue streams
- Expanding recurring Services & Generation revenue

Gross Margin ↑
- Strong Generation margins & strengthening Services business
- Strong incremental margins from increased volume
- Advanced Technology benefiting from private contracts

Operating Expenses ↓
- G&A positioned to support growth
- Manufacturing capacity available to support growth

Long-Term Model
- Grow recurring Generation & Service revenue
- Expand global installed base with new projects
- Target Gross Margin: 25-35%
- Estimated EBITDA Breakeven with blend of Product sales and Generation portfolio