GE’s portfolio … structured for growth

- 8 businesses operating in more than 100 countries … 125+ years
- >300,000 employees worldwide

<table>
<thead>
<tr>
<th>Business</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power &amp; Water</td>
<td>17%</td>
</tr>
<tr>
<td>Oil &amp; Gas</td>
<td>11%</td>
</tr>
<tr>
<td>Energy Management</td>
<td>5%</td>
</tr>
<tr>
<td>Aviation</td>
<td>15%</td>
</tr>
<tr>
<td>Healthcare</td>
<td>12%</td>
</tr>
<tr>
<td>Transportation</td>
<td>4%</td>
</tr>
<tr>
<td>Home &amp; Business</td>
<td>6%</td>
</tr>
<tr>
<td>GE Capital</td>
<td>30%</td>
</tr>
</tbody>
</table>
Power & Water … largest industrial business

>37,000 employees  >120 countries

Power Gen Products

Power Gen Services

Distributed Power

Renewables

Water & Process Technologies

Nuclear

Diverse technology & services solutions … >1,000GW installed globally
GE’s capabilities are a differentiator

Aviation heritage
- >60,000 turbines installed\(^1\)
- Aerodynamics, adv. materials, reliability

Engines heritage
- >55,000 gas & diesel engines installed\(^2\)
- Combustion, emissions, efficiency

Research centers
- 7 centers spread across 4 continents
- Investments in software & services

Global footprint
- Global Growth Organization (GGO)
- Global supply chain

Breadth of resources to enable success

\(^1\) Includes Aviation & Aero turbines. For Aviation includes GE (40k), CFM (18k) & EA (0.2k). CFM is a 50/50 JV between GE & Snecma. EA is a 50/50 JV between GE and Pratt & Whitney
\(^2\) Includes engines from GE Transportation & Distributed Power
Mega trends driving growth

↑ Efficiency & ↓ Pollution

Grid firming for

Need for resiliency

Increased gas availability

These trends drive the need for distributed power globally
Why fuel cells?

Technology

Advantages

- High Efficiency
- Ultra low emissions
- Fuel flexible
- Power when you need it
- Power where you need it: Sized for Distributed Power

Converts fuel to electricity chemically

Air In → Excess Air Out

1500°F

Air Electrode

Electrolyte

Fuel Electrode

Fuel In → H₂O+Unused Fuel Out

1500°F

50+ years of development … cost always the challenge
GE – Fuel Cells

SOFC/Recip Hybrid System...

GE differentiation

Advance manufacturing
• Plasma spray technology

Simple Hybrid System
• Integrated gas engine generator set

• 65% system efficiency
• Scalable: 1-10 MW
• Retrofit capability
• Resilience

Innovating to address the fuel cell cost challenge
Hybrid Fuel Cell System

- 1-10 MW electrical output
- 65% Efficiency
- NG Fueled
- Minimal site installation
- Turn down capability
- Low GHG emissions

Clean reliable on-site energy
Distributed power generation

**Industrial/Commercial**
On site power. High efficiency, reliability & low emissions

**Sub-station powering**
Power where it's needed without additional transmission lines.

**Developing regions**
Build out power where you need it without having to create large T&D network

**Retrofit capability**
For existing customers with gas engines.
A look back at GE’s SOFC research

Background:
GE program with DOE 2000-2006:
Sintered Manufacture of SOFC Cells

• Large investment required for sintering factory
• High projected Cost of Electricity
• In 2006 GE abandoned sintering research . . . refocus on low cost manufacturing
Advance manufacturing - Thermal spray

State of the art spray cells:
✓ Leverage GE thermal spray expertise
✓ Larger cell area
✓ Simplified sealing
✓ Low Capex
✓ Low-cost materials set
✓ Repeatable
GE’s Fastworks approach. . .

- Drives speed to market & customer value
- Internal incubation with independent leadership
- Ramping up off site facility with pilot manufacturing capability

Speed, agility and focus of a small start-up ... with access to all the strength of a big company
Building an internal start-up. . .

- LLC under GE Ventures …fully funded by GE
- Independent leadership with Board of Directors
- Currently 24 employees
- Leasing off-site space at NYSERDA’s Saratoga Technology & Energy Park – Malta, NY
- Grand Opening August 26th
Malta pilot facility
50kW demonstration

Hudson Valley Community College (HVCC) Tech smart campus

Test and evaluation platform housed in a 40ft container
Incentives

The US stationary fuel cell market now exceeds 225MW installed, supported primarily by subsidies in five states.

Existing incentives

- Federal business energy investment tax credit
- States - CA, CT, NY, NJ & DE

Incentive and market transformation activities are required to drive adoption and reduce costs through economies of scale.
Globalization

International competition increasing

North America
- 45% global installed capacity (MW)*
  - Drivers: Incentives & DoE market transformation activities

Europe
- 33% of global installed capacity (MW)*
  - Drivers: Callux, ene.field & EU/country programs

Asia Pacific
- 22% of global installed capacity (MW)*
  - Drivers: ENE-FARM & Renewable Portfolio Standards

* Based on data from Bloomberg New Energy Finance