# **Bloomenergy**<sup>®</sup>

# The New Face of Energy

Michael Mushaty November 3, 2011



# **Perception of "Cleantech"**



Bloomenergy<sup>.</sup>

# **The Reality**



Page 3 | Confidential

# **The Reality**

- 1 in 3 humans live without power
- Global population growing rapidly
- Energy demand exceeds supply
- Geopolitical and social instability on the rise
- Increasing Energy Prices

# Pick Your Crisis



We have to change the way we generate and consume energy...

# Bill Gates declared that if he were to allowed one wish to improve humanity's lot over the next 50 years, he would choose an "energy miracle".

# **Energy Problem: Centralized Generation**

### **Power Generation**

### Transmission



- Capital Intensive
- Large CO<sub>2</sub> Footprint
- "Not in my backyard"
- Conversion Loss ~60-70%

- Aging Infrastructure
- Capacity Constrained
- "Run to Fail"
- Transmission Loss ~10-40%

# **Energy Solution: Distributed Generation**



# Hard Infrastructure vs. Flexible Infrastructure



The average power plant in operation today was built in **1964** (using far-from-perfect technology from previous decades).\*



\* Galvin Electricity Initiative



## **Innovation to Adoption to Affordability**



# **Company Overview**



Mission: "To make clean, reliable energy **affordable** for everyone in the world."



Solid oxide fuel cell technology first pioneered for NASA



Kleiner Perkins' first cleantech investment in 2002



Commercial product, Strong demand

# **How Bloom Energy Servers Create Electricity**



# **Compelling Value Propositions**



# **Clean Energy**





### **Bloomenergy**<sup>.</sup>

# **Reliable Performance**



Enough to power 20,000 homes for a year



Equivalent to removing 30,000 Honda Civics from the road for a year

Page 15 | Confidential

Bloomenergy<sup>.</sup>

# Affordability



Cost of Electricity (COE) Using BE's SOFC

# **Bloom Customers**





### Bloomenergy<sup>.</sup>

# **The Future of Energy**



Sitting next to a 1MW generator breathing clean air without noise

Page 18 | Confidential

# Moore's Law as applied to energy....



# Flexibility + Affordability = the Future of Energy



# **The Reality**



Page 21 | Confidential



### **Bloom Energy: Changing the Face of Energy**



# **Bloomenergy**<sup>®</sup>

Be the solution