



Presentation by  
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# Cleantech Domestic Job Creation

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*The Executive Leadership Solutions<sup>SM</sup> Firm*

## Domestic Job Creation

- Recent Historical Data
- Availability of Talent
- Current & Projected Demand for Cleantech Jobs by Sectors
- Cleantech Clusters
- Trends

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## Recent Historical Data

- Global revenues of the Cleantech industry were estimated in excess of \$150 billion in 2006.
- One of the largest segments was Alternative Energy & Power at approximately \$67 billion.
- This segment is estimated to exceed 70 billion in 2008
- Job creation has steadily rose across the board.

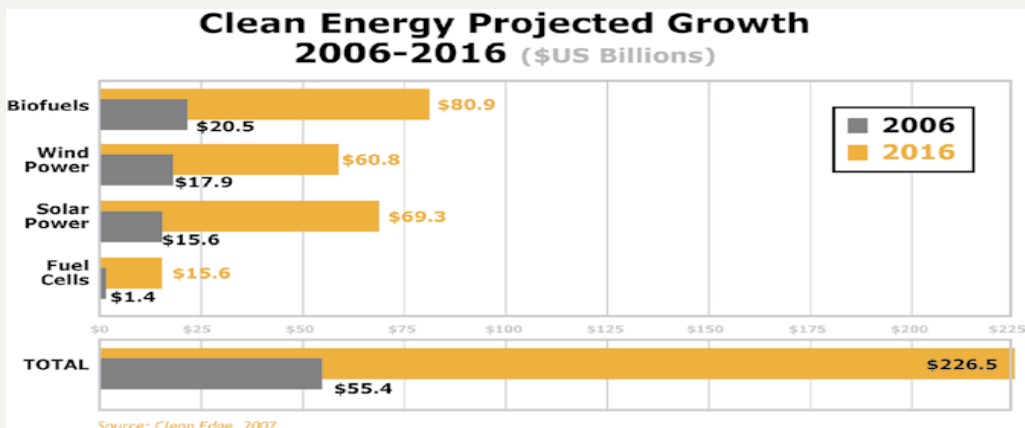
## Jobs by the Numbers

- The Green Energy industry accounts for 14,400 jobs in 2007
- 6,258 are in energy efficiency
- 4,016 in "consulting and support" including legal assistance and funding
- 3,985 in renewable energy
- 120 in university research
- Cleantech Industry is growing three times over other major industries
- Focus: Solar, Conservation, High Efficiency
- Some surveys suggest that Clean Energy Jobs are growing at a 2:1 ratio over other sectors

## Global Markets-Cleantech Growth

- Biofuels reached \$20.5 billion in 2006
- Projected to grow to \$80.9 billion by 2016;
- Wind power is projected to expand from \$17.9 billion in 2006
- Wind Power projected \$60.8 billion in 2016
- Solar photovoltaics (including modules, system components, and installation) will grow from a \$15.6 billion industry in 2006
- Solar growth-\$69.3 billion by 2016
- Fuel cell and distributed hydrogen market will grow from a \$1.4 billion industry
- Fuel cell growth-\$15.6 billion over the next decade.

## Clean Energy Growth-Job Growth



## Current Demand for Cleantech Jobs by Sectors NASDAQ Clean Edge Index

- NASDAQ Clean Edge Index
- 2006 47 companies with a market cap of \$55 billion
- 2007 53 companies with a market cap of \$78 billion
- 2016 Index expected to reach \$226 billion
- Highest growth U.S.-listed companies categories
- Smart-grid developments
- Solar PV manufacturing
- Biofuels and Biomaterials production
- Advanced batteries

## Availability of Talent-Company Type & Size

- Multi-National
- Midsize: \$500 million - \$2 billion
- Venture Capital
- Private Equity

## Cleantech Clusters: Regional Locations

### 2 Primary Regions:

- Northern California
- Boston

### Emerging Region:

- Midwest



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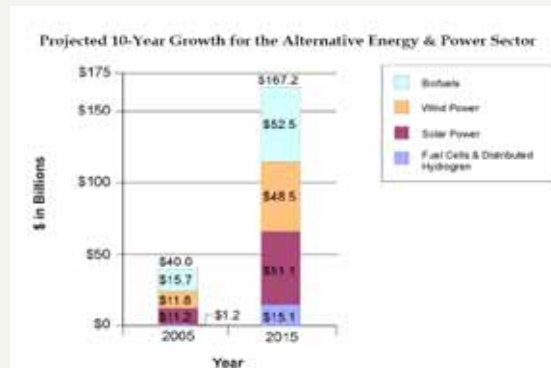
## Cleantech Clusters: Top 5 US Cities

- 1. Austin, TX:** one of the oldest and most developed clusters. Austin's [Clean Energy Incubator](#) has a well-established VC network, university participation (U Texas at Austin).
- 2. San Jose, CA:** The Valley's cleantech firms got about 60 percent of the state's VC funding in 2006. Solar and various other cleantech start-ups are growing rapidly.
- 3. Berkeley, CA:** Berkeley just landed a \$500 million grant from British Petroleum, with additional funding from the state of California.
- 4. Pasadena, CA:** Pasadena's [Entretec](#) is working with a network of investors and partners such as the California Institute of Technology (Caltech) and potentially with NASA's Jet Propulsion Labs. The organization offers support to start-ups while providing introductions, events and pitch opportunities.
- 5. Greater Boston:** The [Massachusetts Renewable Energy Trust](#) takes money from utility bills and redirects it into start-ups and advanced-stage cleantech companies. The Massachusetts Institute of Technology (MIT) in Cambridge, meanwhile, is ramping up its cluster of start-ups with cleantech related business plan contests, networking events and is expected to announce an incubator in March.



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## Cleantech Clusters: Future



As it grows, the cleantech industry has the potential to create a wide range of high-wage and high-skilled jobs in research and development, design and manufacturing and operations and maintenance. There are also the service industry jobs that support these positions (e.g., lawyers, accountants, bankers, and environmental consultants).

## Summary: Search Perspective

- Win
- Win
- Win