



# **Ceres**

***Bringing together investors, companies and environmental organizations to integrate sustainability into the market***

# Ceres: A Dynamic Network

- A **coalition** of 80-plus investors, environmental, and public interest groups.
- A **network** of more than 70 companies representing diverse industries & businesses.
- A **leader** in bringing companies together with their stakeholders in a constructive dialogue on sustainability issues.
- **Initiator** of the Global Reporting Initiative (GRI), and the Investor Network on Climate Risk.

# The Investor Network on Climate Risk

- Growing five-fold since 2003, now **60 + members** and over **\$5 trillion in assets**
- Acting on their fiduciary duty to **manage risks** and **capture the opportunities** (e.g. clean energy)
- Climate change is a **financial & corporate governance** issue



***“Climate change is a topic that should be on the agenda of every Board of Directors” (Goldman Sachs)***

# S&P - May 2007: Picking the Winners In Electric Generation

- **Energy efficiency is likely to emerge as a major part of the solution to climate change**, while IGCC, nuclear, and natural gas are the key contenders for incremental generation needs.
  - More gas capacity will be built in any scenario, but regulators may try to limit dependence on this volatile fuel.
  - If IGCC and CSS are successfully implemented, it is not only carbon friendly, but also a plentiful domestic resource.
  - Nuclear energy will receive a shot in the arm if the waste disposal issue can be resolved.
  - Biomass is economically viable in a carbon-constrained world, especially municipal solid waste plants near large metro areas.
- The cost drivers are clear, the ultimate outcome remains to be seen.

# Fitch Ratings - June 2007

## Carbon: Challenges and Opportunities

- Until carbon capture becomes economic, **DSM may be one of the more effective ways to reduce CO2 emissions**, particularly if the utility has decoupling mechanisms in its rate design to make it volume-insensitive.
- If power prices were to rise due to significantly higher costs (environmental and other), **consumers and regulators would be encouraged to revisit DSM programs.**
- In 2004, even without significant economic incentives to pursue DSM programs, **DSM projects reduced electric usage by approximately 55,000 gigawatt-hours**, which is the equivalent of approximately 10,000 mw of generation operating at a 70% capacity factor.

# DOE Secretary Bodman NARUC - July 2007

“There is no doubt that new energy sources must be developed. **But there is also a clear and growing recognition of the role that prioritizing energy efficiency must play.** As most of you know, the largest source of immediately available new energy is the energy we waste every day. Indeed, it is the cheapest, most abundant, cleanest, most readily available source of energy Americans can access, and your work --- your leadership --- is the key to unlocking its widespread use.”

- Could save \$20 billion annually on energy
- Realign incentives, i.e. decoupling
- 30% improvement in building codes by 2010
- Make the grid ‘solar ready’ and improve T&D infrastructure

## Crude Oil Spot WTI Cushing



May 1, 2007 - May 9, 2008

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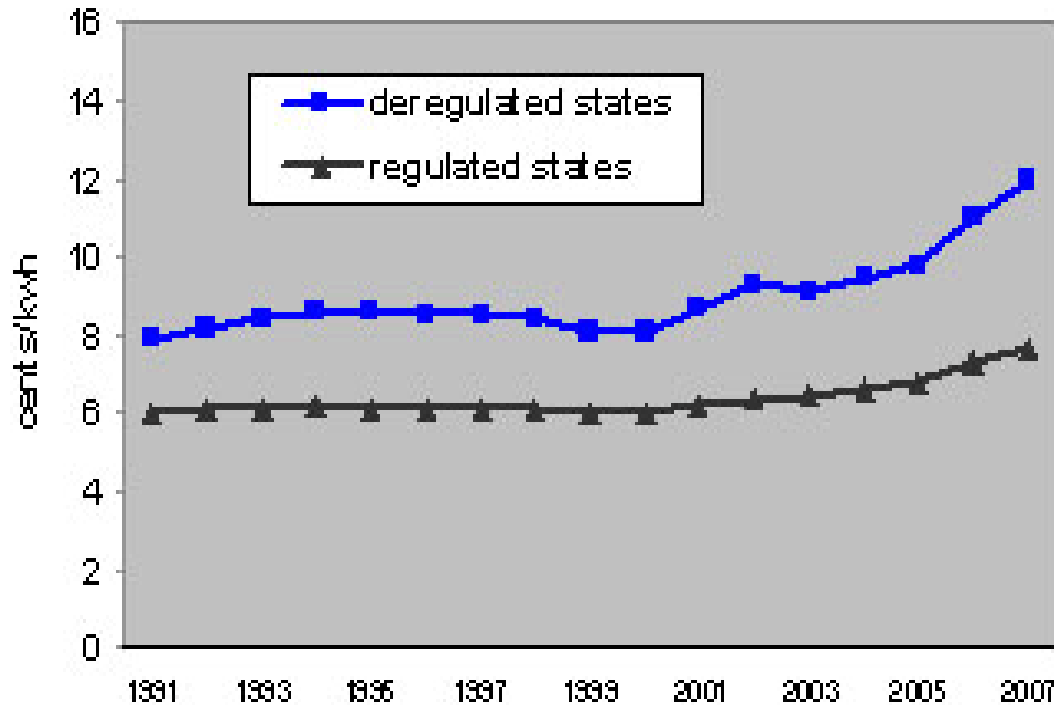
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**The great coal hole** by David Strahan  
*New Scientist*, 17 January 2008

PPI

### TOTAL Average Delivered Retail Electricity Price: Regulated vs Deregulated States

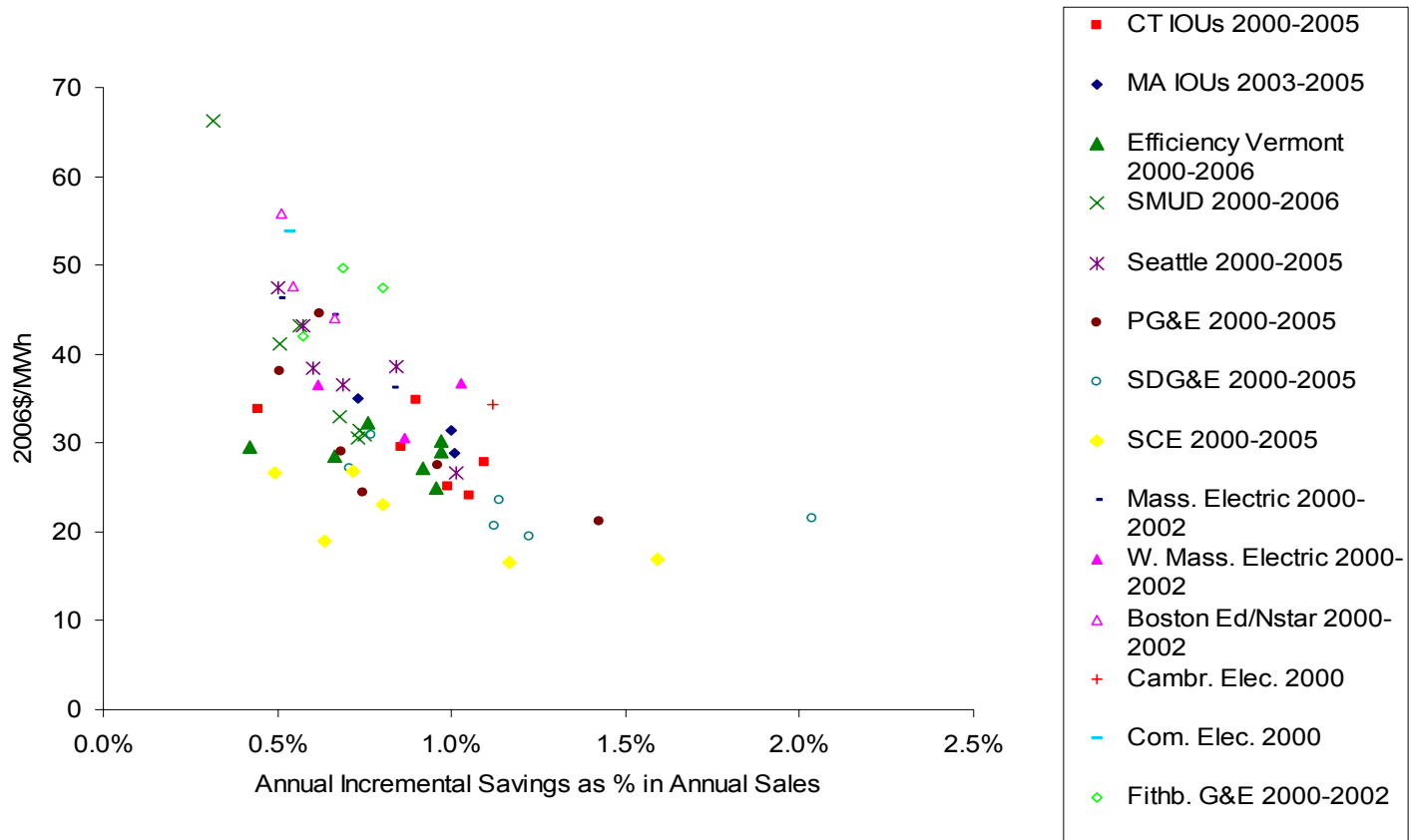


For the 12 months ending in May of each year, through May 2007, EIA Data. Deregulated states include CA, CT, DC, DE, MA, MD, ME, MI, NH, NJ, NY, RI, & TX.

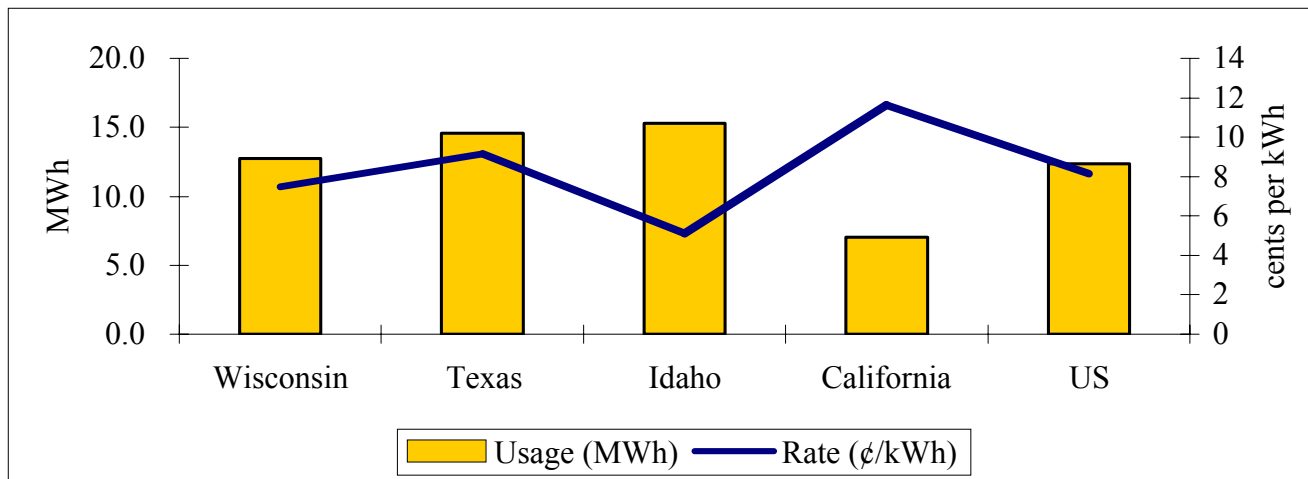
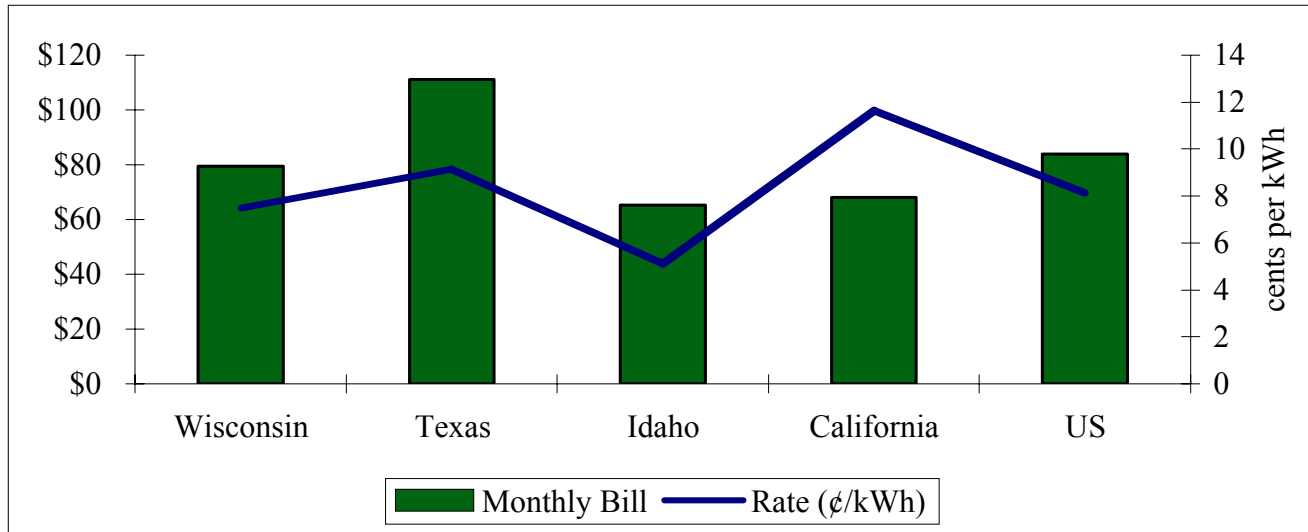
**PPI Forum  
May 2007**



# Electric Utility Energy Efficiency Costs



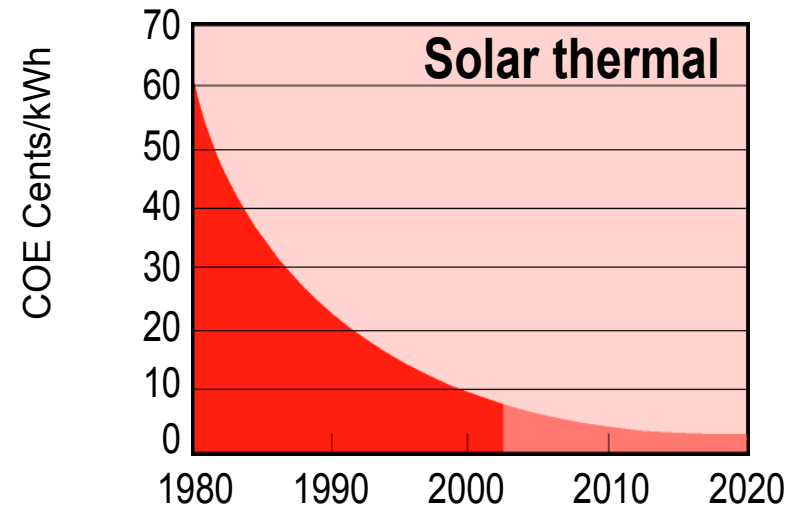
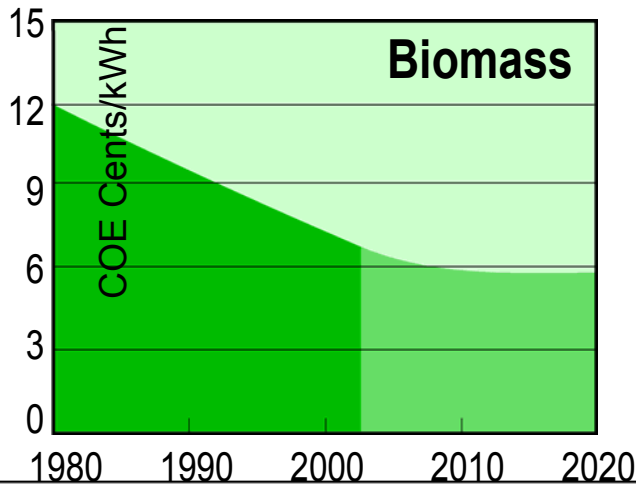
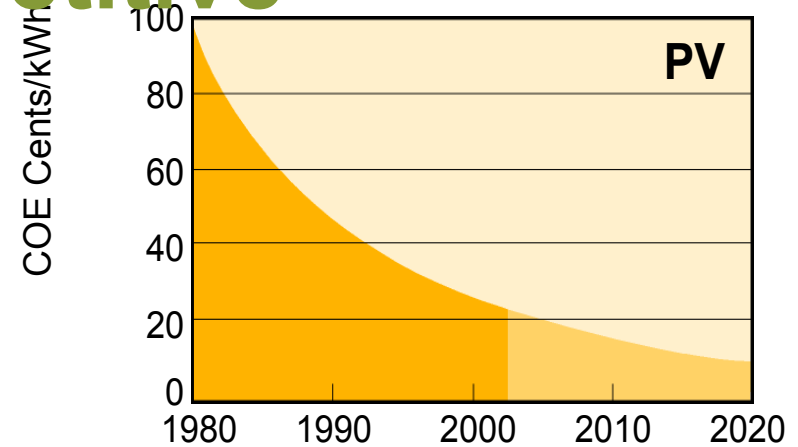
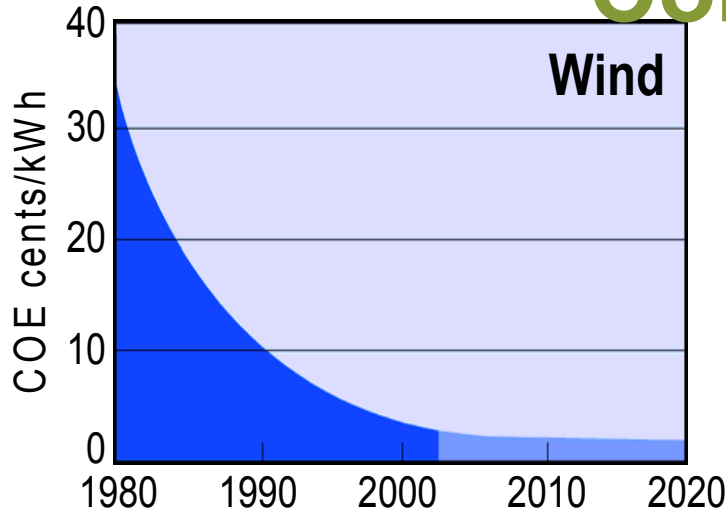
# High Rates Do Not Equal High Bills



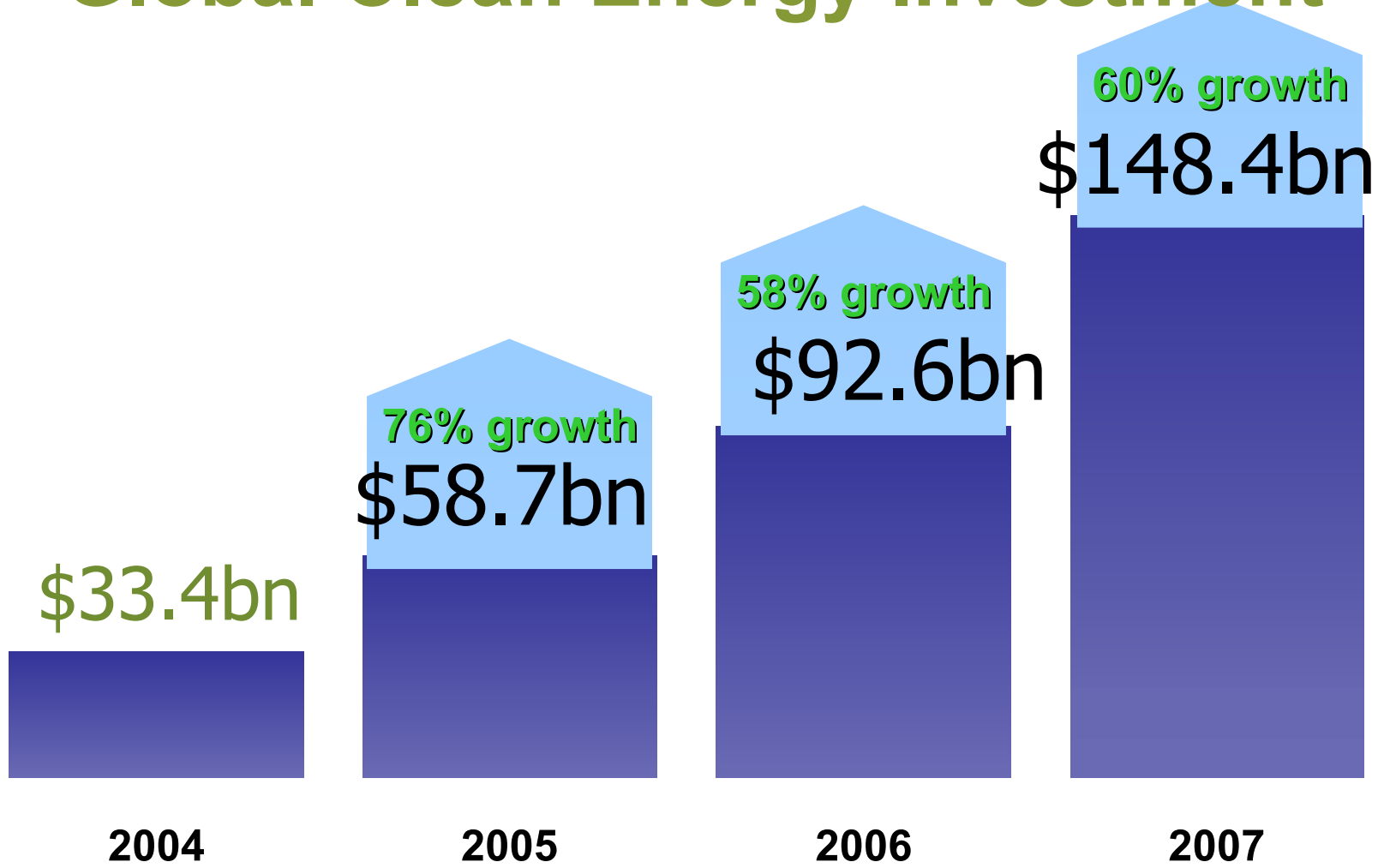
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# Clean Energy Is Increasingly Competitive



# Global Clean Energy Investment



Grossed-up estimate based on disclosed deals. New investment only.

Source: New Energy Finance

# US RE Set Records in 2007

- \$20B invested in RE in US, creating tens of thousands of jobs
- 5,277 MW of wind - 30% of all new capacity
- 314 MW of solar - 125% over 2006
- Geothermal, hydro, biomass all up significantly
- State/federal incentives are key

# DOE - US Wind Energy Potential

- 20% of power gen from wind feasible by 2030
- Reduce nat gas demand by 11%
- Avoids 80GW of forecasted new coal plants
- 20 percent wind can be reliably integrated into the grid for less than 0.5 cents per kWh

# New England ISO

- Fuel cost increases of 200% from 2000 to 2005 - \$6B leaving region annually
- ISO-New England: Efficiency Competes with Supply in “Forward Capacity” Market
  - ✓ Efficiency
  - ✓ Demand Response
  - ✓ Distributed Generation
- Recent first auction results:
  - ✓ 1,188MW Demand
  - ✓ 626MW Supply
- FCM Market Could Grow to \$4-\$5 Billion; New Funds for Efficiency and Demand Side Could Rise to \$500 million

# Economic Development Benefits of EE/RE

- NY - EE programs create 3,700 new jobs each year, saved consumers \$480 million
- Nationwide, efficiency programs spawned 3.5 million new jobs that added nearly \$1 billion of revenue into the economy
- ACEEE - EE could create between 500,000 and 1.5 million jobs in U.S.

# Green Job Growth in CA

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decompressor  
are needed to see this picture.

# Policy Options

- **Prioritize energy efficiency first** - Electric and Natural Gas EE & DR procurement mandate with program design and oversight council
- **Align utility incentives** with increased investment in efficiency
- Develop or strengthen **RPS and/or AEPS**
- Enable long-term **RE contracting**
- Require **net metering** with premium rates paid for RE, clean CHP
- Updated and strengthened **building energy codes** and technical and financial support for those seeking building energy audits
- Provide support for **workforce development**, training and transition
- Set **GHG reduction targets**, join cap-and-trade program, invest funds in EE & RE

# Thank you



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