

**Remarks of CPUC President Michael Peevey  
Jeffries Alternative Energy and Cleantech Conference  
Tuesday, May 16**

**❖ Intro remarks**

- Good afternoon. I'm here to talk about the actions California is taking to address global warming and to offer my views on what they mean for product developers and investors. So, my talk will describe what California is doing to foster and promote new technologies.
- Global warming is the most serious environmental threat of our time: immediate action is needed to prevent truly calamitous outcomes worldwide.
- Recently we have seen some significant positive shifts:
  - greater public perception of the severity of this threat;
  - growing recognition in much of the business community that action is required;
  - vigorous leadership at the state level; and
  - some real stirrings at the federal level.
- In April Senators Bingaman and Domenici held an all day Senate conference on the need for a national climate standard and proposals for its design.

- Several of the nation's largest companies, including Shell, General Electric, Wal-Mart, and utilities such as Duke Energy, agreed on the need for federal action, with most supporting mandatory standards.
  - Remarkably, the main focus of the conference was not whether to regulate CO<sub>2</sub>, but how to do so.
  - This is a big step forward, but Washington still has a long way to go before we see real progress, particularly at 1600 Pennsylvania Avenue.
- Meanwhile, California and several other states are moving forward:
- Last summer Governor Schwarzenegger
    - set ambitious GHG reduction targets for CA
    - created a high level Climate Action Team; and
    - directed it to develop policy recommendations to achieve the Kyoto-type targets.
  - The CAT has now released its report, and a core recommendation is establishing a multi-sector cap, which would be implemented with a market based approach. It would encompass California's electric utilities, along with other large stationary sources.

- It's tremendously important that the CAT report envisions using a market based framework to implement the cap. Achieving the Governor's climate reduction goals will take ingenuity, innovation and investment. This is only going to happen if we put the market to work.

#### ❖ **Actions at the CPUC**

- In addition to the proposed cap, several other PUC policies will play major roles in meeting our GHG targets. These include:
  - Setting policies that prioritize acquisition of low- or no-carbon resources to meet our energy needs;
  - Providing incentives for utilities to account for GHG emissions as they procure new resources;
  - Promoting RD&D of new technologies.
- I will discuss the latest developments in each area.

#### ❖ **EAP I & II and the Loading Order**

- In 2003 CA adopted an "Energy Action Plan" which lays out a "loading order" concept for resource procurement:
  - #1: energy efficiency and demand-side investment;
  - #2: renewable and distributed energy resources;

- Next is clean fossil-fired generation\_\_CCGTs.
- The EAP was updated last year and remains our primary roadmap.
- During the past year our actions to implement the EAP included initiatives that will have significant GHG reducing impacts in at least three key areas.
  
- ***Energy Efficiency***
  - California has long been a leader in this area, but now we are redoubling our efforts: our basic strategy is to fund all cost-effective measures.
  - Each successive 3 year planning cycle provides a chance to evaluate an ever expanding set of options, as new technologies become cost-competitive.
  - Last Fall we adopted an unprecedented energy efficiency program, authorizing \$2 billion in funding for the IOU's programs during 2006-2008.
  - Over the next ten years we expect our investments in energy efficiency to reduce anticipated load growth by more than half, avoiding the need for 10 new baseload power plants.

➤ ***Renewable energy***

- The CPUC is busy implementing California's Renewable Portfolio Standard—the RPS.
  - We are already looking beyond the original statute, which targeted 20% renewable energy by 2017.
  - We now aim to reach 20% by 2010.
  - We are also identifying steps to achieve Governor Schwarzenegger's goal of 33% of electricity sales from renewables by 2020.
  - I think we're on track to get there: as of the end of last year we had approved contracts that will eventually provide 3200 MW of renewable energy.
  - More is on the way: the utilities are now bringing us the results of their latest round of bidding.
  - We are seeing plenty of wind and geothermal, along with some small hydro and biomass, but also some innovative technologies, such as large scale solar thermal projects.
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- ***Solar power***
    - We are also stepping up our efforts to develop distributed solar energy. Gov's 1,000,000 solar roofs failed.

- Earlier this year the Commission voted to establish the California Solar Initiative. Up there with Germany and Japan.
  - ◆ Nearly \$3 billion in incentives over 10+ years; we hope to provide 3000mw of distributed generation from protopoltaics
  - ◆ Will finance installation of PV and other solar technologies on both existing and new buildings
- We see the program as an investment in
  - ◆ fully commercializing solar technology, and
  - ◆ driving down the installed cost of solar systems.

❖ ***Other Distributed Generation Technologies***

- Meanwhile our existing Self Generation Incentive Program will continue, at least through 2007.
- Pending legislation would extend it ten more years.
- Previously most of the funds allocated to this program went to solar PV installations.
- Now that we have a dedicated stream of funding exclusively for solar energy, these funds will be freed up for other technologies, such as fuel cells, microturbines and other clean DG.

- ❖ All of these efforts are unparalleled in scale in the US.
- ❖ They will play a key role in helping us meet the Governor's GHG emissions reduction goals by reducing our dependence on fossil-fired sources of energy.

❖ **Changing procurement incentives**

- Another set of PUC policies seeks to internalize the costs associated with GHG emissions as the utilities' acquire resources to meet our growing energy needs.
  - In 2004 we adopted a "carbon risk adder" policy that requires utilities to adjust bids for new fossil-fired energy by a set dollar amount to account for the potential cost of complying with likely future carbon mitigation regulations.
  - More recently we have laid the foundation for a more comprehensive system to assure that the risks and social costs of CO<sub>2</sub> emissions are more completely accounted for in utilities' resource choices.
    - In February we adopted a decision to implement a GHG emissions cap on all load-serving entities under our jurisdiction.
    - Last October we adopted a policy statement called the "greenhouse gas performance standard" that

requires that all new utility power plants have emissions that are at least as clean as a combined cycle natural gas plant.

- At the CPUC we recently initiated a new proceeding that will:
  - Focus on implementing the greenhouse gas performance standard, and determine whether it should be a permanent policy or an interim measure as we develop a cap.
  - Later this year we will shift our focus to developing policies to implement the cap and choose among the various options for flexible compliance (such as-- trading, banking, borrowing, and offsets)
  - These policies should create new opportunities for inventors, entrepreneurs and investors by
    - ◆ further stimulating demand for low- and no-carbon technologies;
    - ◆ boosting incentives to reduce CO2 emissions from fossil-fired generation; and
    - ◆ rewarding projects that offset or sequester carbon.



## ❖ Promoting technological innovation

- One last area I would like to highlight is promoting technological innovation.
- This is one of the biggest and most important efforts we can make to combat global warming.
- The CPUC is committed to promoting research, development, and demonstration projects in technologies that will help us reduce GHG emissions by
  - making demand side and renewable resources more effective and cost-competitive; and
  - mitigating the environmental impacts of conventional generation sources and transportation fuels.
- Private sector investors have by far the largest role to play here, but I believe there is an important niche for public funds to fill.
- We are targeting funds to the kinds of projects that are typically underserved by private sector investors.
- Two examples:
  - Up to 5% of the \$3B in the solar initiative can be used for RD&D, especially the second D--demonstration of technologies that have shown potential but still need a boost to get across the “valley of death” and be market ready.

- The California Clean Energy Fund:
  - arose from PG&E bankruptcy settlement;
  - will provide \$50M in equity investments in emerging clean energy technology companies.
  - Is helping to create the nation's first university-based center on energy efficiency at UC Davis.

❖ **Concluding remarks:**

- Climate Change poses a formidable challenge, and many of the companies represented here are already working towards being part of the solution.
- But it won't happen without money: lots of money.
- There are nearly boundless opportunities for profitable new products and business models.
- California has a long track record of groundbreaking environmental policies. Over and over we have seen that made-in-California regulations have been widely copied and made-for-California solutions have found global markets.
- We will continue to push the envelope and I invite all of you to join in the effort to have a growing, prosperous economy that is for less dependent upon fossil fuels. We, collectively, are up to the challenge.