
Climate Change and AB 32: A Utility Perspective



**14th Annual Tri-County Economic Conference
January 25, 2008**

PG&E Supports Greenhouse Gas Reductions

- Charter member of the United States Climate Action Partnership.
- Member of the Clean Energy's Group Clean Air Policy Initiative.
- PG&E was the first investor-owned utility to support enactment of AB32.
- Our customers have invested and continue to invest in customer energy efficiency programs and a clean electric generating portfolio.
- Our electric sector GHG emissions are among the lowest of any utility in the nation.
- PG&E's carbon emissions are already low, about 60% below the average U.S. utility.

PG&E Supports Greenhouse Gas Reductions, cont'd

PG&E has a number of programs underway which will further reduce our carbon footprint:

- Resource additions will follow the State's **Energy Action Plan "Loading Order."**
- **PG&E's ClimateSmart Program** allows customers to make their energy use "climate neutral."
- **PG&E's Advanced Metering Infrastructure (AMI)** rollout supports advances in energy efficiency and demand response.
- The **Emerging Renewable Resource Program (ERRP)** helps move emerging renewable resources toward commercial viability.
- **Plug-in Hybrid Electric Vehicles** will have greater fuel efficiency than today's hybrids.

PG&E's Long-Term Procurement Process

Going forward, PG&E's procurement process follows the Energy Action Plan Loading Order, and provides increased reliability and higher levels of preferred resources.

- Energy Efficiency: meet the energy efficiency quantity targets adopted by the CPUC
- Demand Response: meet the demand response goals as modified by the CPUC
- Renewable Resources: achieve mandated RPS goals
- Distributed Generation: implement the California Solar Initiative
- Residual Need: new dispatchable and operationally flexible resources

Electric Procurement Accomplishments to Date

Since resuming procurement in January 2003, PG&E has worked to restore system reliability and implement the state's policy goals:

- Energy Efficiency: over 700 MW installed energy efficiency projects.
- Demand Reduction: about 650 MW of dependable programs.
- Renewables: over 2,000 MW under contract.
- Since 2001, over 20,000 PG&E customers have installed solar generation at their homes or businesses. This equates to almost 170 MW installed.
- Residual Need: 2,800 MW of efficient gas-fired generation on-line by 2010.

PG&E's Key Climate Policy Principles

Any climate program must be economically sustainable and achieve the environmental objects of the regulation.

- Mandatory emissions reductions are necessary.
- Market-based programs minimize costs and maximize innovation.
- Broad-based participation leads to more cost-effective results.
- Energy efficiency must be a top priority.
- Investment in low and zero-emission generation and technologies is critical.
- Early action deserves to be rewarded – not penalized.

Compliance Options for Achieving Objectives

- **Non-Market based** (command and control):
 - Portfolio Standard: Each entity must keep CO2 emissions rate below a target.
 - Programmatic: e.g. RPS, CEE targets set to achieve reduction goals
- **Market based**:
 - Cap and Trade: Set overall cap on emissions, trading of allowances
 - GHG Tax

Vehicles for Achieving Objectives

- **Federal** – various bills under consideration
 - e.g. Lieberman-Warner Climate Security Act of 2007
- **Regional** - Western Climate Initiative
- **State** - Assembly Bill 32: The California Global Warming Solutions Act of 2006
 - California to reduce GHG Emissions to 1990 levels by 2020, approximately a 25% reduction from 2006 levels

Compliance Responsibility and Cost Impacts – Electric



Fuel Suppliers

e.g., coal mines and production wells



Power Plants



Load-Serving Entities



End Users

Point of Regulation Alternatives

- fuel supplier
- power plant
- load serving entity

Compliance costs will flow through to the end-use customer.

Compliance Responsibility and Cost Impacts – Gas



Fuel Suppliers



Pipelines



Natural gas utilities



End Users

Point of Regulation Alternatives

- fuel supplier
- pipeline
- utility

Compliance costs will flow through to the end-use customer.

PG&E's Climate Change Regulation Objectives

We approach AB32 guided by three key objectives:

- **Ensure environmental integrity** through mandatory, real and verifiable reductions;
- **Manage costs to California consumers and businesses** by pursuing cost-effective reduction strategies and recognizing significant investments our customers have made to reduce GHG emissions;
- **Maintain California's national leadership role** on climate change by creating a model program that can be integrated effectively with future regional, national and international programs.



Questions

