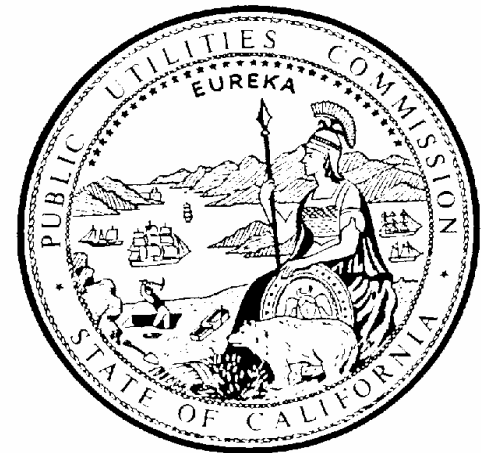


# California's Climate Change Programs

**Dian M. Grueneich, Commissioner**  
**California Public Utilities Commission**

[www.cpuc.ca.gov](http://www.cpuc.ca.gov)

**December 6, 2005**



# California's Energy Utilities

- ❖ Investor Owned Utilities (IOUs) – meet ~ 80% of the state's power demand (~ 46,000 MW peak demand)
  - Pacific Gas & Electric Company (~ 21,000 MW peak demand)
  - Southern California Edison Company (~ 21,000 MW peak demand)
  - San Diego Gas & Electric Company (~ 4,000 MW peak demand)
- ❖ Municipal Utilities – meet ~ 20% of state's demand
  - e.g., Los Angeles Dept. of Water and Power
- ❖ Electric Service Providers (ESPs) – meet ~ 13% of demand in IOU service territories

# Greenhouse Gas Emissions Reductions Strategies in Support of Governor's Goals

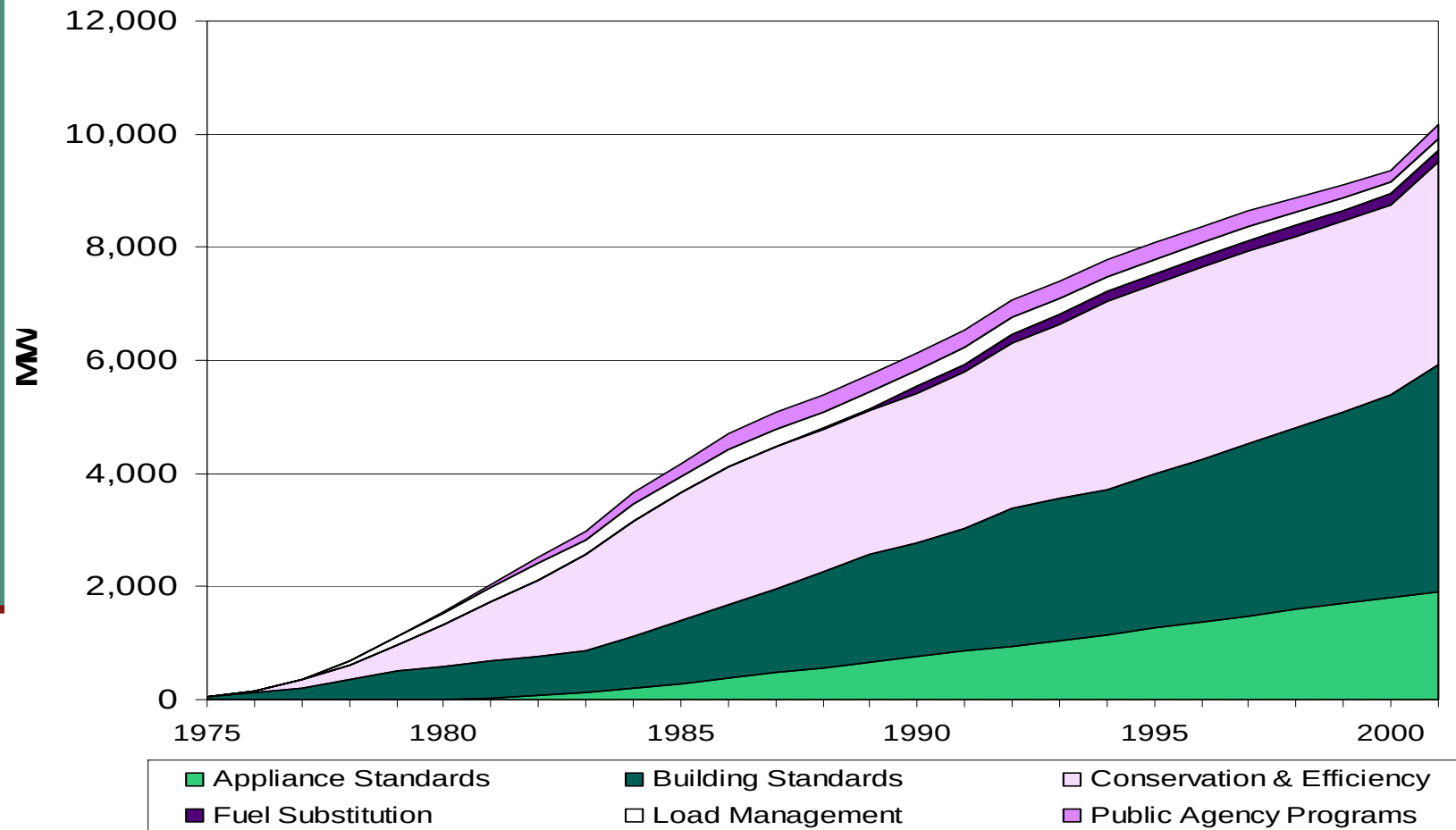
| CPUC Programs                                | GHG Savings<br>(Million Tons CO <sub>2</sub> ) |                     |
|----------------------------------------------|------------------------------------------------|---------------------|
|                                              | 2010                                           | 2020                |
| 33 Percent Renewable Portfolio Standard      | 5                                              | 11                  |
| California Solar Initiative                  | 0.4                                            | 3                   |
| Energy Efficiency Programs through 2013      | 4                                              | 8.8                 |
| Energy Efficiency Programs 2014 through 2020 | NA                                             | 2.6 to 5.1          |
| Combined Heat and Power Initiative           | 0 to 1.1                                       | 0.7 to 4.5          |
| Electricity Sector Carbon Policy             | 0 to 1.6                                       | 2.7                 |
| <b>Total:</b>                                | <b>12.1</b>                                    | <b>28.8 to 35.1</b> |

# CPUC Greenhouse Gas Performance Policy

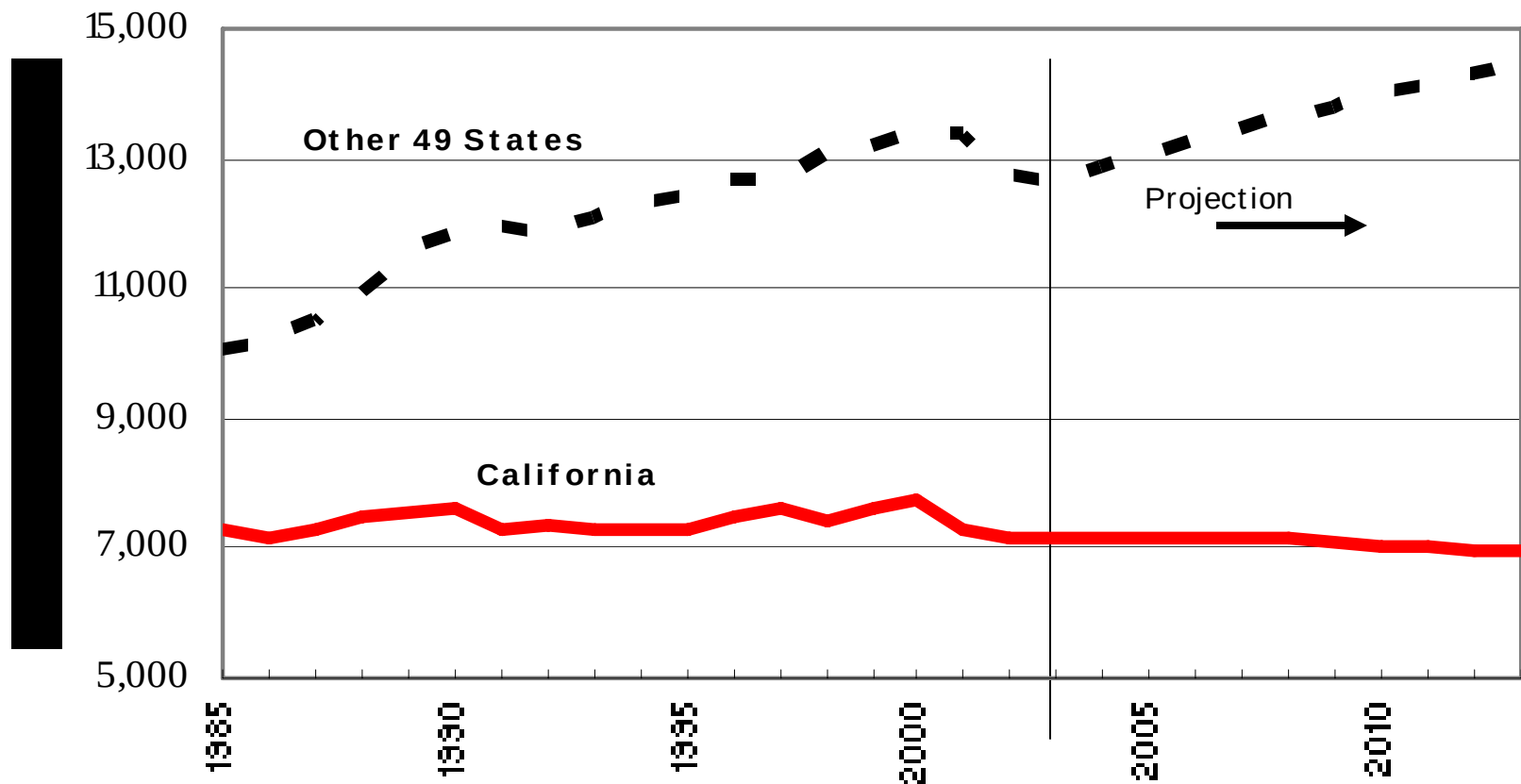
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- ❖ Utilities currently required to use \$8/ton GHG adder in procurement decisions
- ❖ CPUC has adopted a Policy Statement regarding a Greenhouse Gas Performance for all utility investments and procurement
  - Over 20 coal plants in various planning stages throughout the Western United States (14,000 MW)
  - All longer term (more than 3 years) investments and procurement should meet emissions for a combined-cycle natural gas plant

# Historical Impact of Energy Efficiency Programs in California



# Per Capita Consumption: California vs. 49 Other States



Source: NRDC, 2004

# California Energy Action Plan II

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## ❖ “Loading Order” of Resource Additions

- Energy efficiency and demand response are preferred resources
- Renewable generation
- Distributed and self generation
- Clean, conventional generation and transmission

# The Most Aggressive Energy Efficiency Program In the United States

## ❖ Cumulative state-wide targets (2004-2013)

- ❑ 26,506 GWh/yr
- ❑ 5,000 MW off peak
- ❑ 444 MMth/yr
- Eliminates need for 10 new power plants
- Eliminates 8.8 million tons of CO<sub>2</sub> emissions (equal to 1.8 million cars)
- Over 55 percent of incremental energy needs

## ❖ 2006-2008 programs will exceed goals

- ❑ 7,443 GWh/yr (109% of target)
- ❑ 1,525 MW Peak (104% of target)
- ❑ 121,989 Mth/yr (109% of target)
- Eliminates need for 3 new power plants
- Eliminates 3.4 million tons of CO<sub>2</sub> emissions (equal to 650,000 cars)

Sources: *Regulatory Measures to Promote Demand Side Management in California*, Presentation by Commr. Susan Kennedy, National Development and Reform Commission, Beijing, China (September 1, 2003); Source for 2006-2008 Program year data, CPUC Decision 05-09-043



# Funding for Energy Efficiency

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- ❖ \$289 million/year from Public Goods Charge
- ❖ Additional \$110 million in 2004 and \$135 million in 2005
- ❖ \$2 billion in 2006-2008
  - Levelized costs of 3 cents/kWh and 21 cents/therm
  - \$2.7 billion in net savings to consumers
- ❖ \$10 billion in net savings projected for 2004 to 2013

# Next Step: A Comprehensive Procurement Incentives Framework

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- ❖ Financial incentives that align interests of ratepayers, shareholders and management to achieve a proper balance in utility procurement
- ❖ Two related policy considerations:
  - Further institutionalize the loading order of preferred resources in the State's Energy Action Plan.
  - Reduce emissions of greenhouse gases
- ❖ Possible tools:
  - Rewards/penalties based on performance for some or all resource types
  - GHG Emissions cap and trade
  - GHG performance standards
  - Limits based on fossil fuel types