

State, Regional Climate Change Policy Directions



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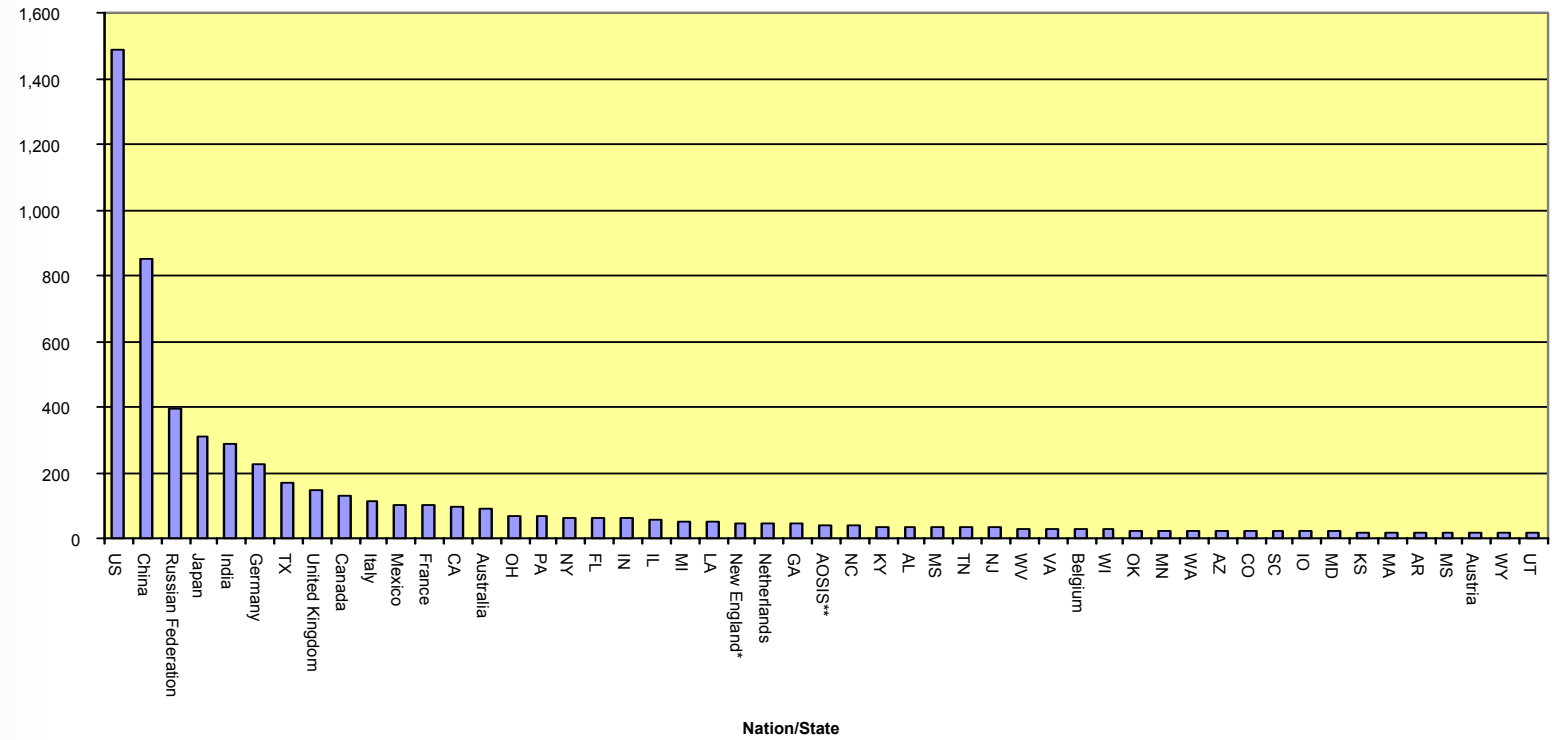


CCAP Background

- Environmental Think Tank
 - Started in 1986 on Acid Rain Issue
 - Economics, policy, stakeholder processes
 - Board of state officials, industry, NGO leaders
 - 501c3

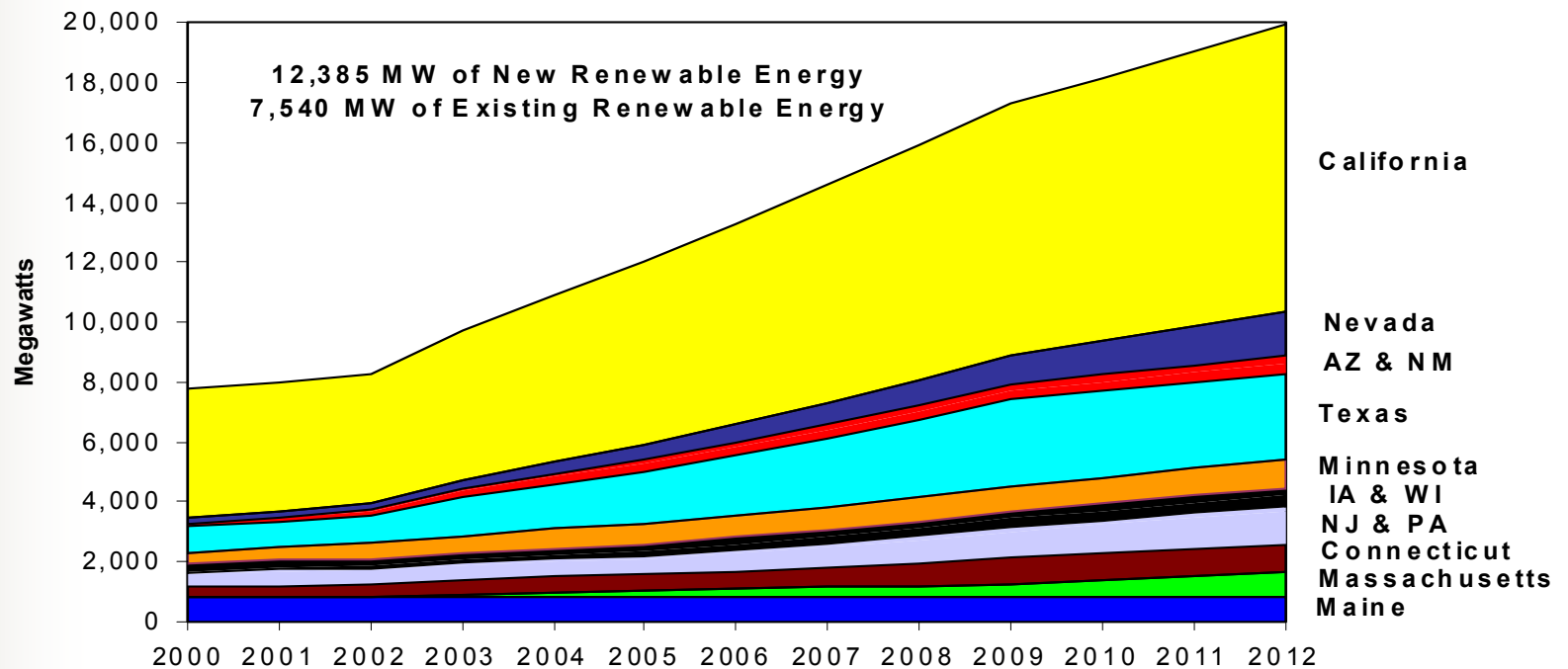
Top 50 Global GHG Emitters

Global GHG Emissions



Sum of State RPS Programs

Renewable Energy Expected From State Standards*



* Projected development assuming states achieve annual RPS targets.



State Actions

- 28 statewide GHG action plans
 - Only a few are highly developed (NJ, NY, CT, RI, New England)
 - More are on the way (ME, MA, Puget Sound, West Coast)
- Many states with individual measures
 - Compendium includes over 100 types
 - List is growing



New State GHG Plans

- Typically include 50 or so actions
 - Cover all sectors
 - Use a variety of mechanisms
 - Include a few big ticket items and many smaller
- Trends
 - Moving toward mandatory and regional programs
 - Increasingly standardized
 - Increasingly public and quantitative
 - Becoming more well-known abroad



GHG Plan Structure

- Targets & Goals
- Baselines
- Action Plans
- Reporting



Decision Criteria

- **Costs** - direct (NPV), and per ton GHG reduction
- **GHG reductions** by 2010, 2020, long term
- **Ancillary costs and benefits** - including economic development
- **Implementation issues** - including feasibility, public and political support, equity
- **Compatibility, transferability**



Mitigation Portfolio

	Mandatory	Voluntary
Transport		
Power supply		
Residential		
Commercial		
Industry		
Ag, Forests		
Waste		



Time Periods

- 2010
 - 0 percent by 1990
- 2020
 - 10 percent below 1990
- Long-term
 - 75 percent reduction



State GHG Targets

■ *US Regions*

- New England Governors/Eastern Canadian Premiers 1990 levels by 2010; 10% below 1990 by 2020

■ *States*

- Connecticut Pursuing NEG/ECP targets
- Iowa 1990 levels by 2000
- Maine Pursuing NEG/ECP targets
- Massachusetts Pursuing NEG/ECP targets
- New Hampshire Pursuing NEG/ECP targets
- New Jersey 3.5% below 1990 by 2005
- New York 5% below 1990 by 2010; 10% below 1990 by 2020
- Oregon Stabilize at 1990 levels, no base year
- Rhode Island Pursuing NEG/ECP targets
- Vermont Pursuing NEG/ECP targets



Policy Recommendations

- Geography
 - State
 - Regional
 - National
- Implementation path
 - Existing authority
 - New legislation



Common Big Ticket Actions

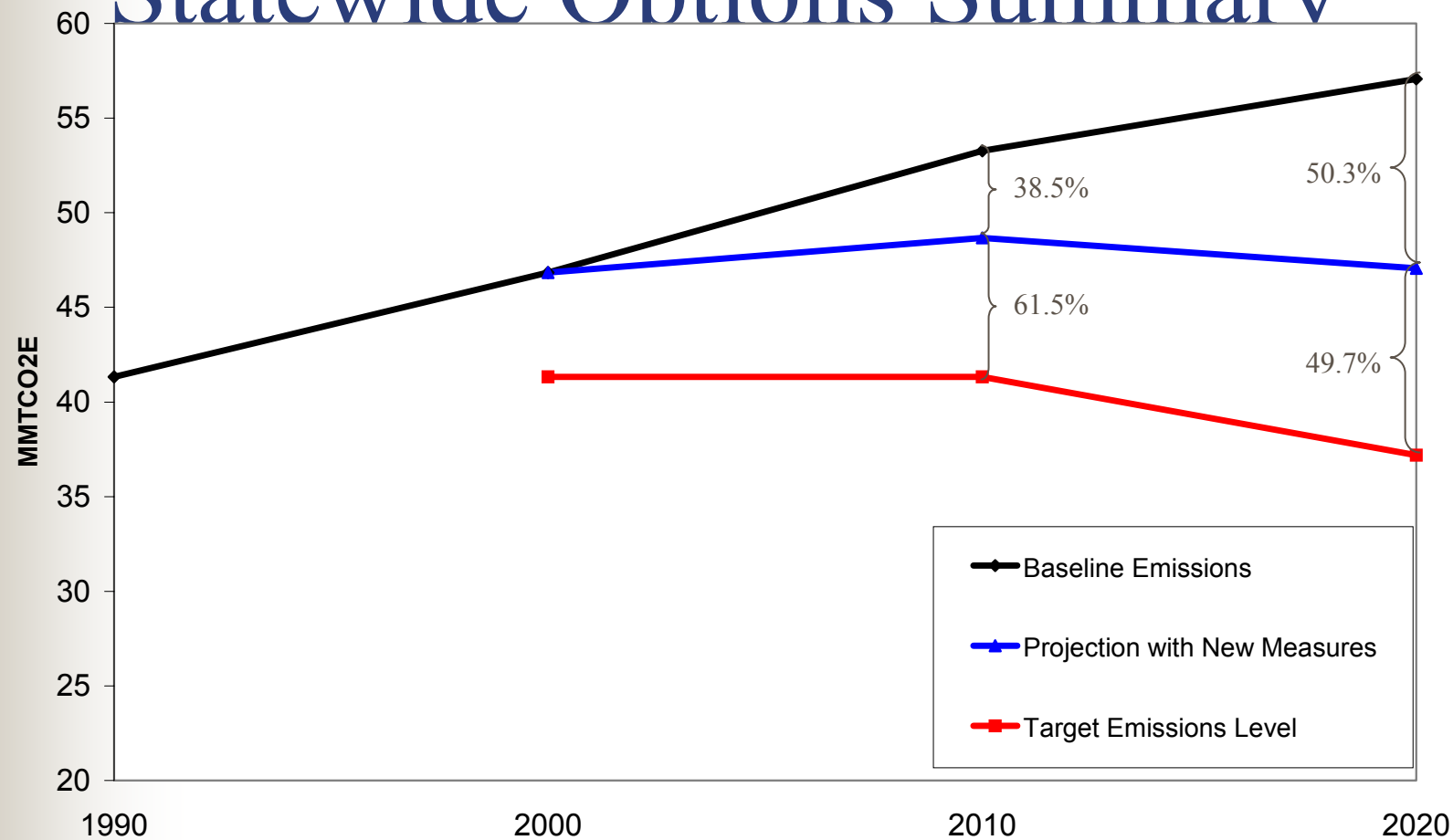
- Renewable energy - RPS, green tags, etc.
- Efficiency programs - Funds, standards
- VMT reduction - financing alternatives
- Vehicle efficiency - CA standards, feebates
- Waste to energy - landfills, recycling
- Combined heat and power



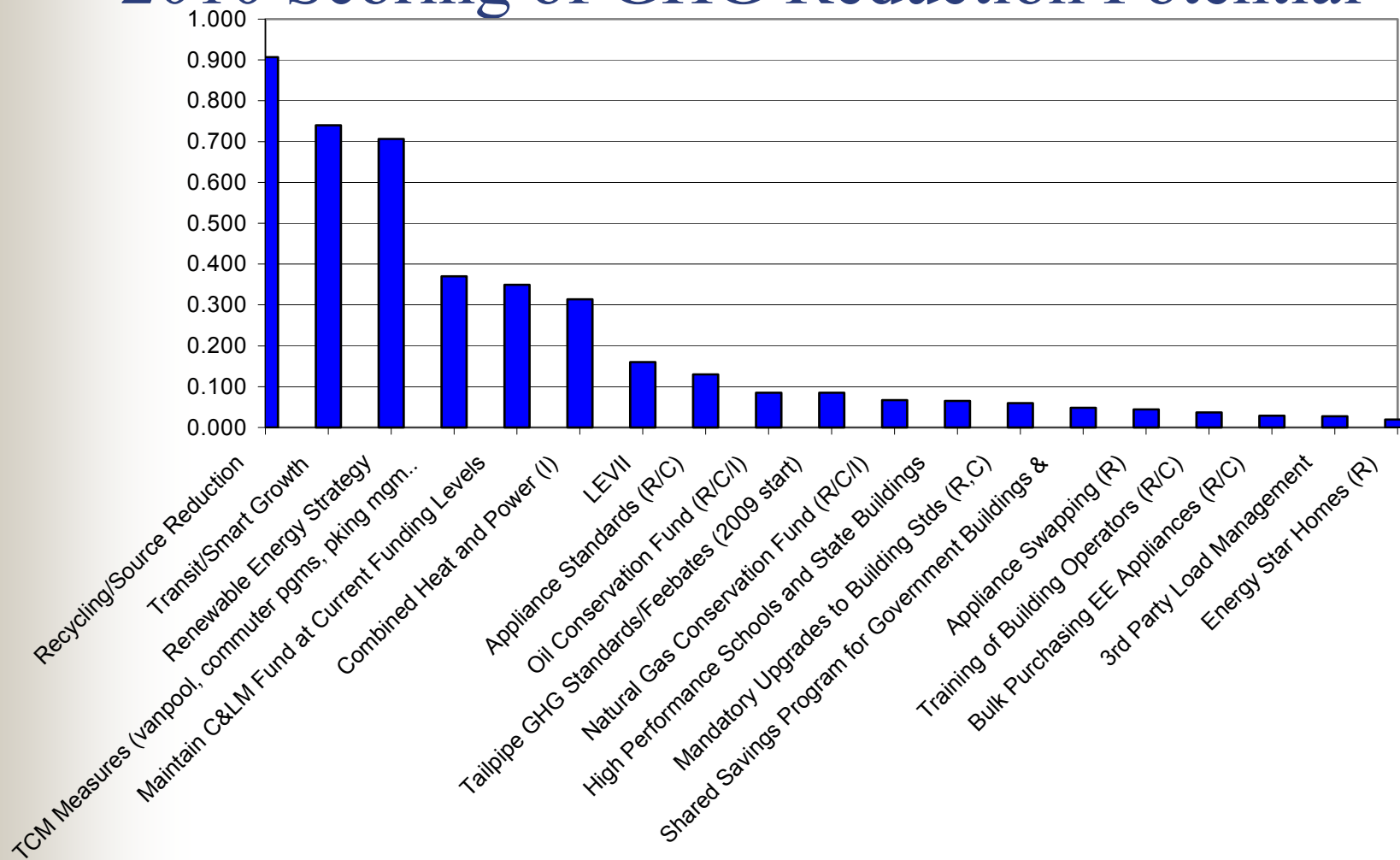
Emerging Issues

- Cap and Trade - utilities
- Oil and Gas Heating - residential, commercial
- Process gases - industrial process
- Smart growth - continued emphasis
- Carbon sequestration - geologic and terrestrial
- Hydrogen - transport and power
- Distributed Generation - clean alternatives

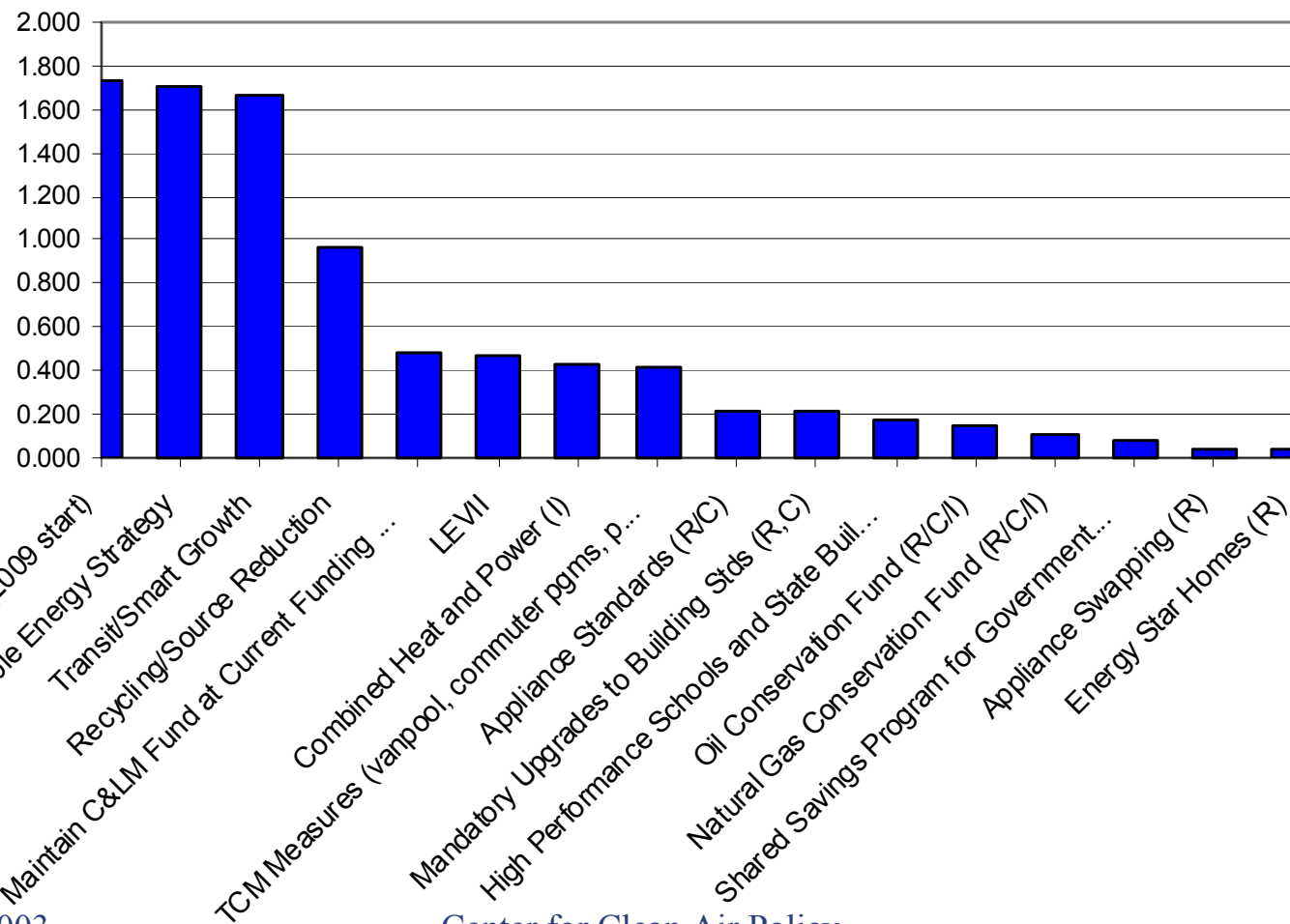
Statewide Options Summary



2010 Scoring of GHG Reduction Potential



2020 Scoring of GHG Reduction Potential





Residential, Commercial, Industrial

- Appliance standards (UC)
- Bulk Purchasing of Appliances (UC)
- Appliance Swapping (UC)
- Heat Pump Water Heater (UC)
- Mandatory Upgrades to Commercial and Residential Buildings (UC)
- High Performance Schools and State-funded Buildings (UC)



Residential, Commercial, Industrial

- Energy Efficiency Mortgages (Pending)
- Revise Energy Conservation Loan Management Program (UC)
- Shared Savings Program for Government Buildings & Benchmarking Program (UC)
- Pilot Fuel Switching Project (UC)
- Weatherization Program (UC)
- Training of Building Operators (UC)



Residential, Commercial, Industrial

- High Performance Commercial Buildings (UC)
- Energy Star Homes (UC)
- Green Campus Initiative (UC/Pending)
- Benchmarking and Tracking Program for Municipal Buildings (Pending)
- Standard Retrofit/Lost Opportunity (Pending)
- C/I Incentives Rebates (Pending)



Residential, Commercial, Industrial

- Restore C&LM Fund (UC)
- 3rd Party Load management (Pending)
- Incorporated selected NEDRI Recommendations (Pending)
- Combined Heat and Power (UC/Pending)
- Negotiated Agreement (UC)
- Oil Conservation Fund (UC)



Residential, Commercial, Industrial

- Natural Gas Conservation Fund (UC/Pending)
- Restore Clean Energy Fund (UC)



Ag, Forestry & Waste

- Reduce non-farm fertilizer use (UC/Pending)
- Install Centralized Manure Digesters (UC/Pending)
- Buy local produce (UC/Pending)
- Promote use of durable wood products over other construction materials (UC)



Ag, Forestry & Waste

- Forest management and forest carbon offsets (UC)
- Open space preservation (UC/Pending)
- Urban tree planting program (UC)
- Support economically viable landfill gas-to-energy projects (UC/Pending)
- Increase recycling, source reduction to 40% (UC)



Electricity Generation

- Renewable Energy (UC/Pending)
- RPS (UC)
- Government Green Power Purchase (UC)
- Green Power Option (UC)
- Production tax credit (UC)
- Green tags (UC)



Electricity Generation

- Energy efficiency (UC)
- Cap and trade (Pending)
- Generation performance standard (Pending)
- Nuclear relicensing sensitivity run (UC)
- Gas price sensitivity run (Pending)



Evolution of Policy

- Nonlinear
 - Steps and bursts
 - Driven by public demand
- Moving to mainstream
 - Standard approaches but still not harmonized
 - Wider in scope and more aggressive
 - Fewer issues “off the table”
- Knowledge transfers across issues, sectors



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