

Policy Options for Existing Power Plant Greenhouse Gas Standards

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Background: GCC's Work with States

- **Founded as a resource for states**
- **Works with states and other stakeholders on Sec. 111(d) through convenings, facilitation, and research**
- **Worked with officials from 15 states to submit comments to EPA**

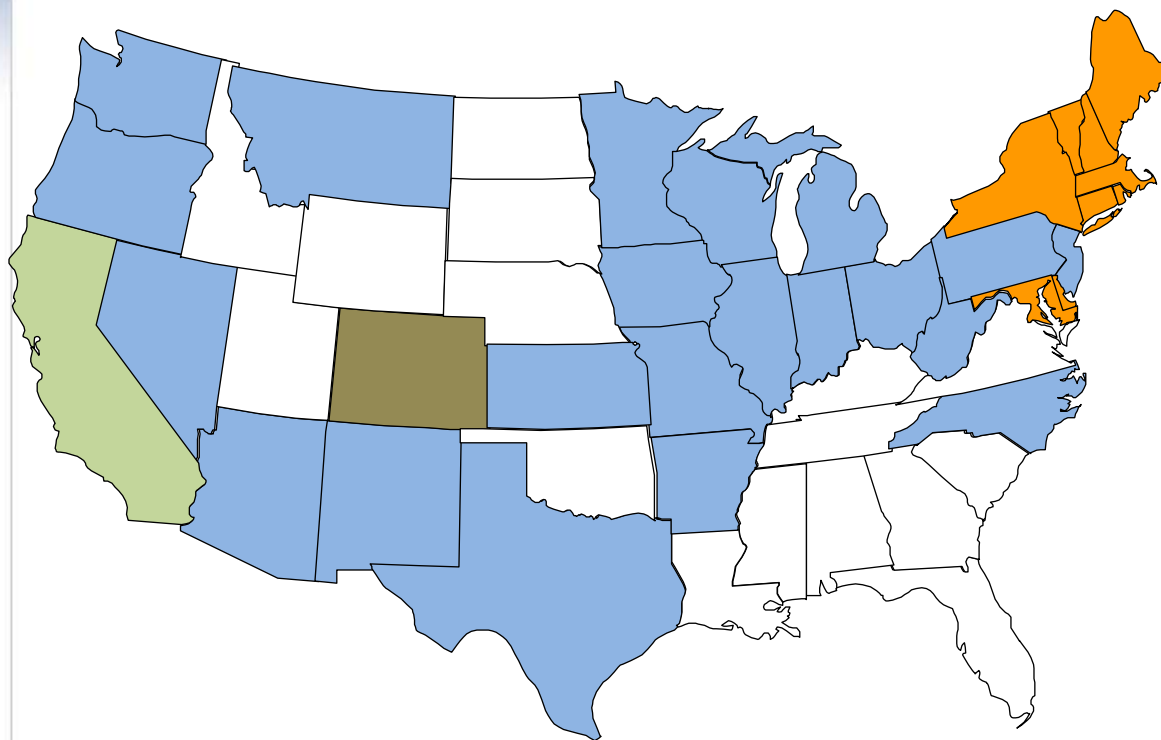


CAA § 111(d) Provides Major Role to States

For existing sources:

- EPA does not establish standards directly
- EPA establishes procedure similar to § 110 state implementation plans
- States submit plans to EPA for approval
- States likely have significant flexibility in how to design plans, but must generally establish standards that meet EPA minimum guidelines

State Flexibility Provides Opportunity to Build on What is Already Working



Renewable & Alternate Energy, Efficiency Standards

Clean Energy Planning

- Colorado Clean Air, Clean Jobs

RGGI

- Electric-sector C&T

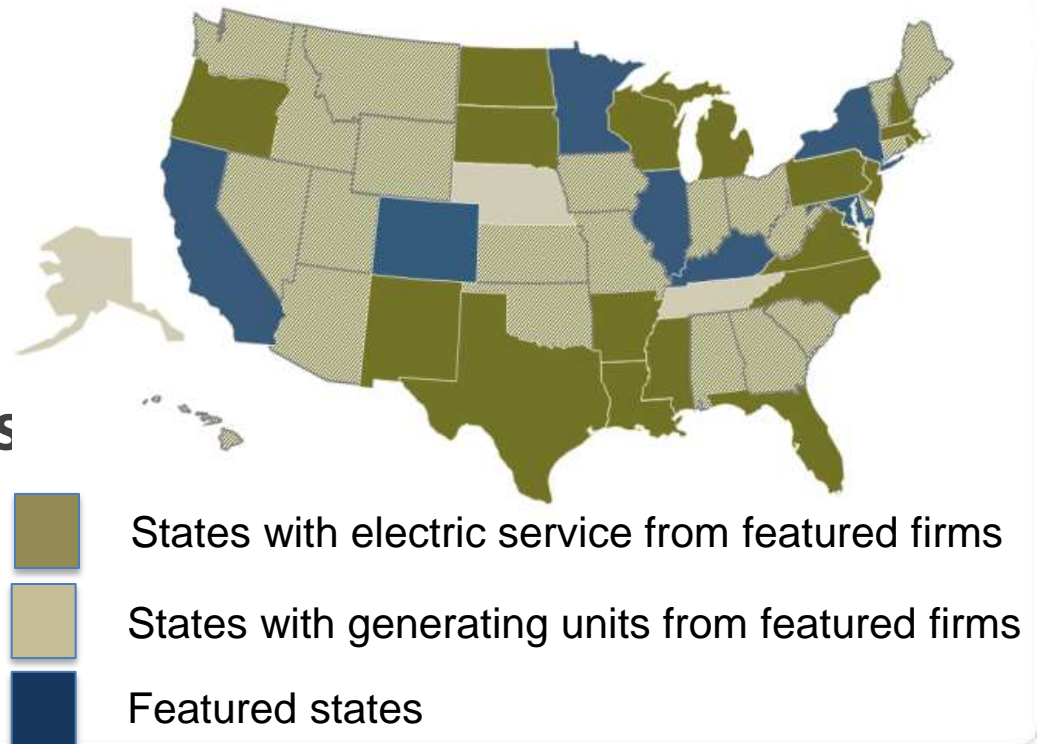
California Suite of Programs

- Stringent RPS
- Multi-sector C&T

Learning from States and Firms

- GCC case studies of state and power company successes in reducing GHGs
- 14 firms, 7 states
- Variety of strategies showcased, including demand-side efficiency

Geographic Representation of Featured States and Firms

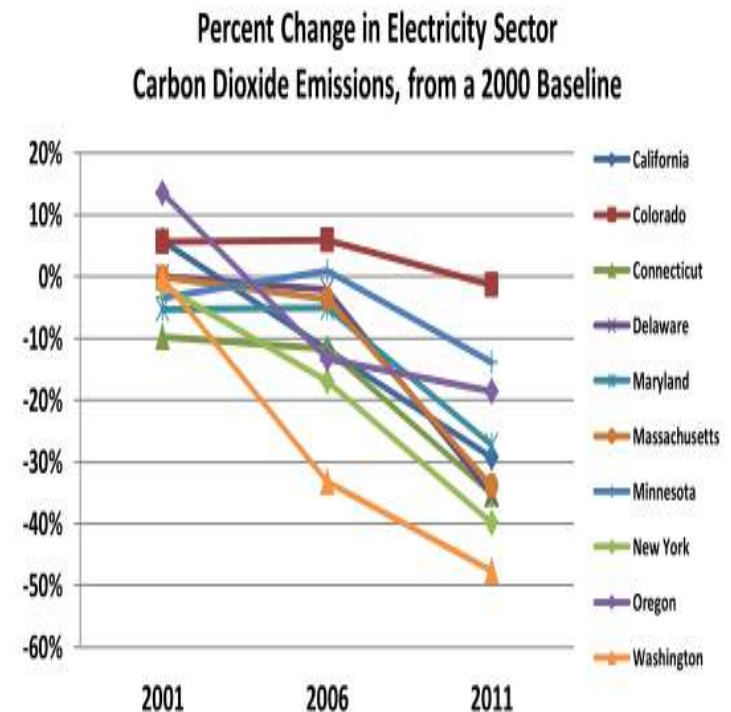


Why Build on State Programs?

- **Cooperative Federalism**
 - Congress, courts have recognized state innovation and leadership
 - Building on state programs can reduce costs, increase benefits, incentivize action
- **Current state programs were developed through extensive democratic processes**
- **States have developed expertise**
- **States can learn from each others' experiences**

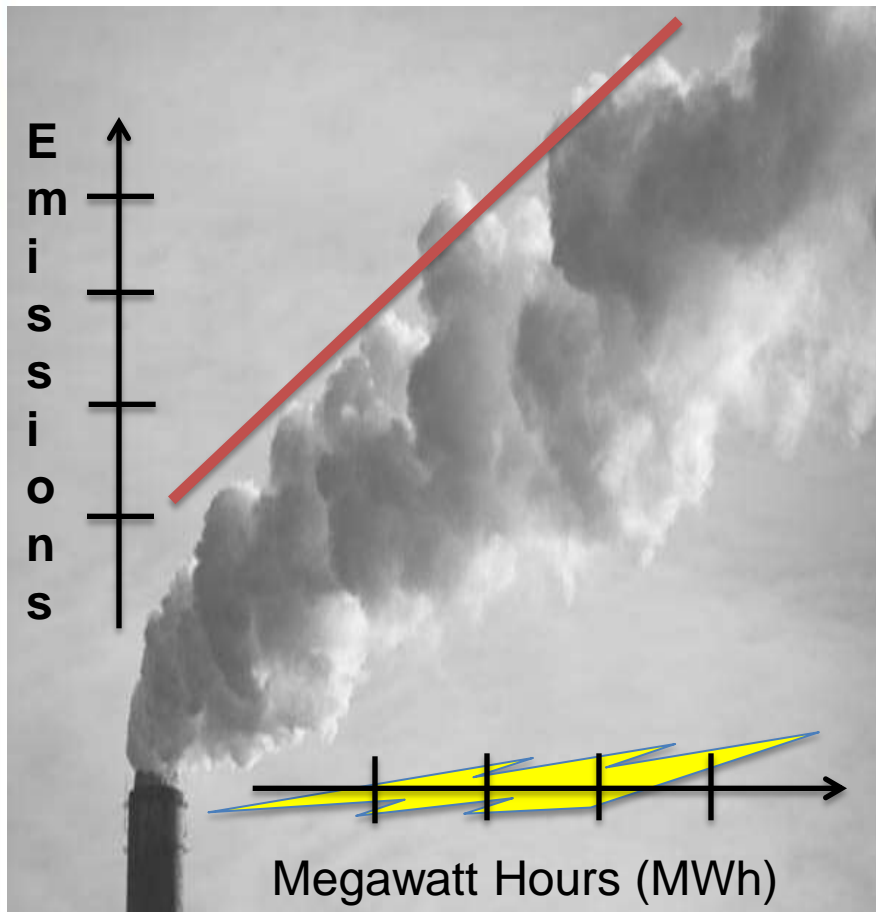
States have Called for Compliance Flexibility

- 15 states urged EPA to set meaningful emission guidelines that provide flexibility to states
- State experience shows most cost-effective reductions from energy efficiency, renewables
- Ask EPA to allow states to use efficiency, renewables, dispatch changes for compliance (and as part of basis for setting standard)



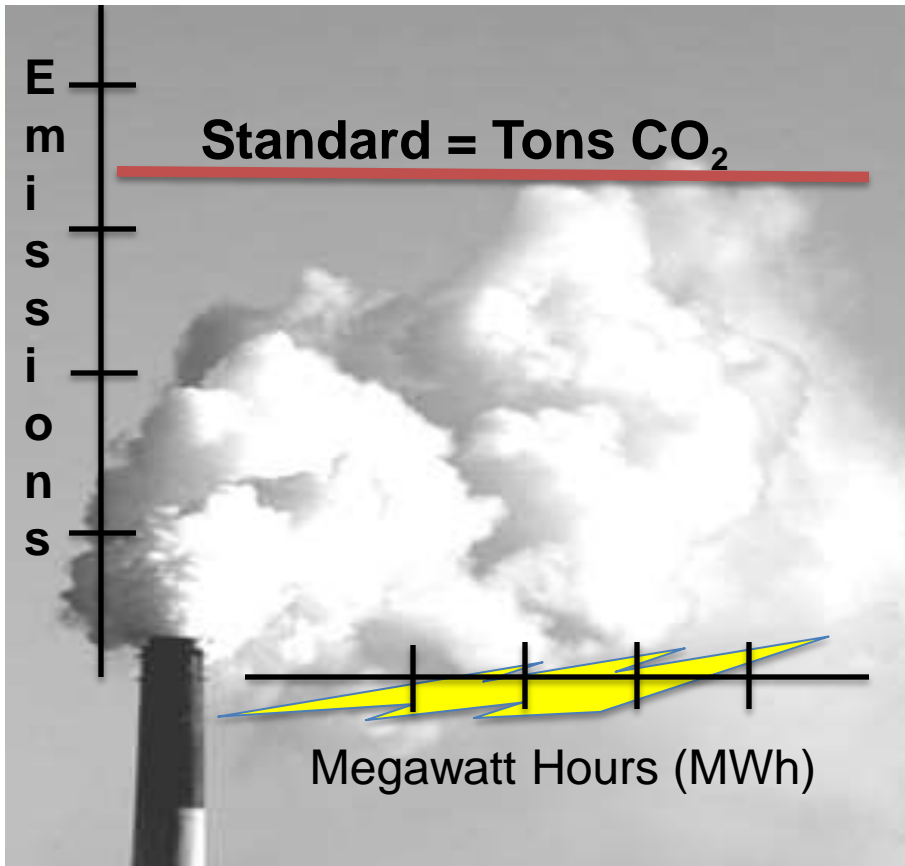
Potential Elements of Flexible Compliance Options

Rate-Based Standards



- **Traditional:** rate-based standard applied to individual source
- **Option: Averaging Rates**
 - Generation fleet must achieve an average rate
 - Could potentially incorporate renewables, energy efficiency
 - Example, NRDC proposal

Option: Emission Budgets



- Absolute limit on emissions
- EPA can offer methodology to translate to emission budget
- Simplest way to integrate offsite efficiency, renewables

Budget Example: Emission Budget & Trading Program



Or Similar

- **Regional Greenhouse Gas Initiative is one model; other states could develop others**
- **Benefits:**
 - Proven success, economic benefits (RGGI: \$1.6 billion)
 - “Plug and Play” approach
 - Easy to incorporate energy efficiency, renewables

Budget Example: State “Portfolio” of Strategies

- Many states already familiar with:
 - Renewable Portfolio Standards
 - Demand-side Efficiency Standards
 - Adjusting Dispatch
- Rigorous “portfolio” approach would allow states to build on what is already working
- Backstop likely required to guarantee reductions
 - Legal and policy design questions remain

Adjust “Portfolio” to Meet Standards



**RPS
Level**



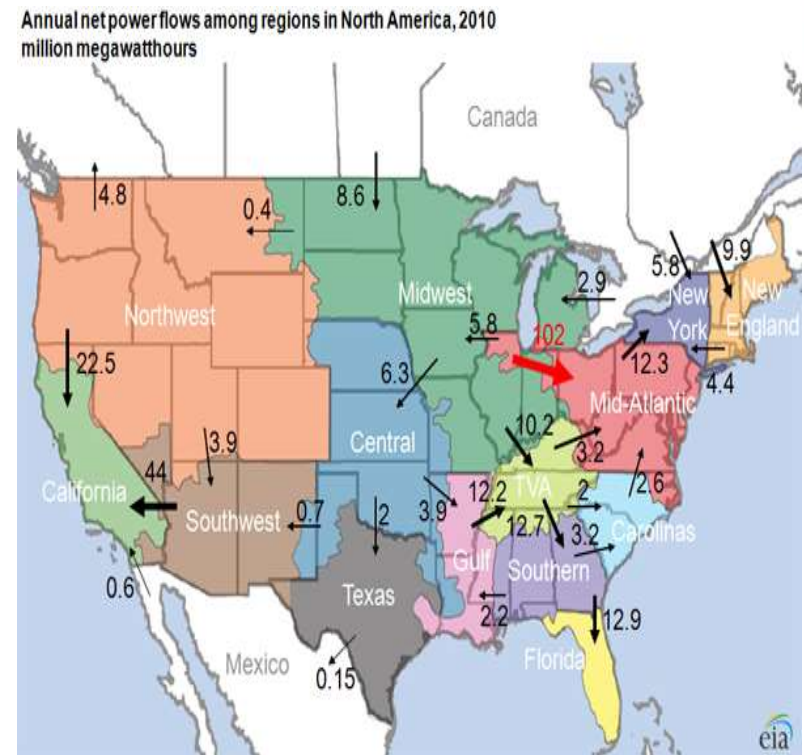
**Efficiency
Standards**



**Resource
Planning or
Dispatch**

Option: Multi-State Approaches

- Electricity system is interconnected
- Multi-state collaborations provide benefits
 - Avoid complication due to interstate flows
 - Can lower compliance costs
 - Lower administrative burden
- One option: collaborate with Regional Transmission Organizations



Thank You

For questions or comments, please contact:

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Resources:

15-State Letter: <http://www.georgetownclimate.org/states-provide-epa-with-a-road-map-for-cutting-carbon-pollution>.

State and Power Company “Successes”:

http://www.georgetownclimate.org/sites/default/files/Reducing_Carbon_Emissions_in_the_Power_Sector-Success-Stories.pdf.

2 Page Backgrounder: <http://www.georgetownclimate.org/fact-sheet-opportunities-for-states-under-epa-carbon-pollution-standards#node-4870>.