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Global CLIMATE  
CHANGE

# U.S. State and Regional Action on Climate Change

Judi Greenwald

Director of Innovative Solutions

Pew Center on Global Climate Change

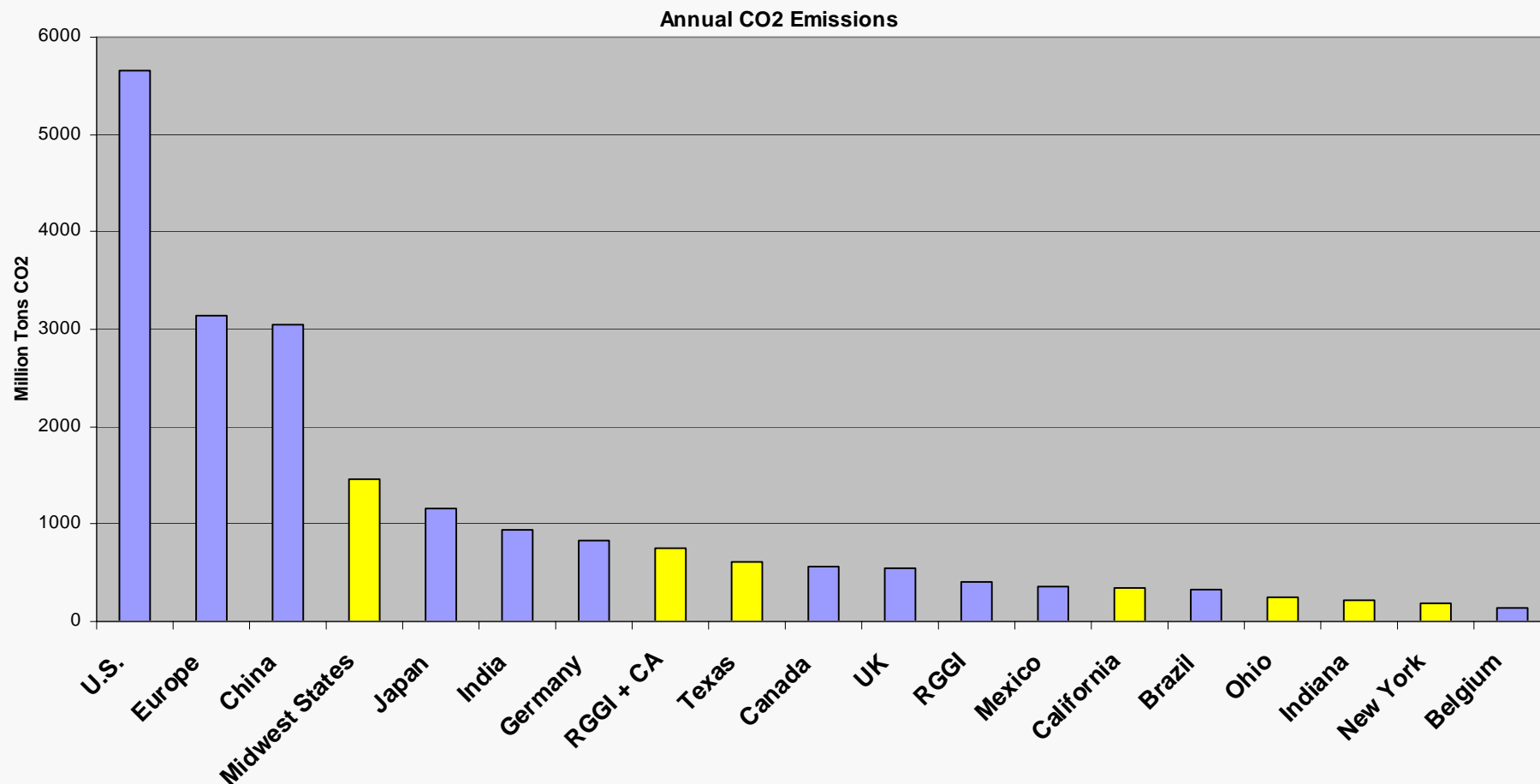
Climate Change Institute

December 1, 2006

- Motivation for state action
- The landscape of state policies that address climate change
- Highlights from states taking the lead
- State policy diffusion

- Concern about climate impacts
- Economic development
- Energy price volatility
- Energy independence
- Air quality concerns
- Traffic congestion
- Other

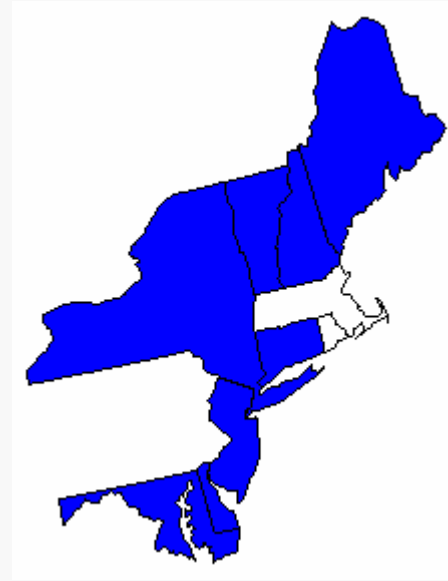
# State Emissions are Significant



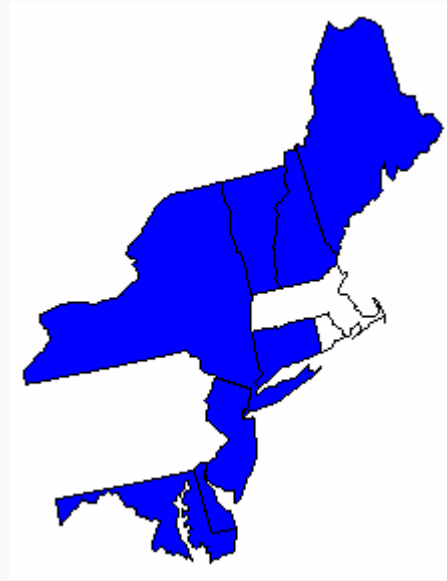
**Note: Emissions are approximate and represent estimates from 1999 and 2000**  
**Sources: Rabe, 2004; EIA, 2003**

- Direct and Indirect GHG Emission Reductions
- Governors and legislators are acting
- Almost Every State is Doing Something:
  - Regional Initiatives
  - Targets, Climate Action Plans and GHG reporting
  - Electricity (renewable energy mandates, carbon adders, public benefit funds, green pricing, REC tracking)
  - Transportation (CA GHG vehicle standards, smart growth, transportation management, cleaner fuels and vehicles)
  - Ag and Forestry (sequestration, renewable energy, biofuels, ethanol)
  - Other (e.g., energy efficiency, waste management)

- Regional cap-and-trade program initially covering power plant CO<sub>2</sub> emissions
- Initiated 2003 by NY Gov. Pataki, RGGI announced Dec. 2005
- First mandatory U.S. GHG cap-and-trade program
- Stabilize emissions at current levels 2009-2015, 10% reduction by 2019
- MD 4/06 legislation brings in MD by 6/07



- August 15, 2006:  
Participating states agree on final model rule for RGGI
- Model rule provides regulatory template for structure/function of RGGI
- Each state must adopt rule through legislation or regulation by Dec. 31, 2008
- RGGI states hope to establish a regional organization to facilitate program



- Potential model for national policy
- First U.S. mandatory cap-and-trade system for GHG emissions
- Possible linkage to EU-ETS, CDM
- Novel standards approach to offsets
- Real data to inform policy

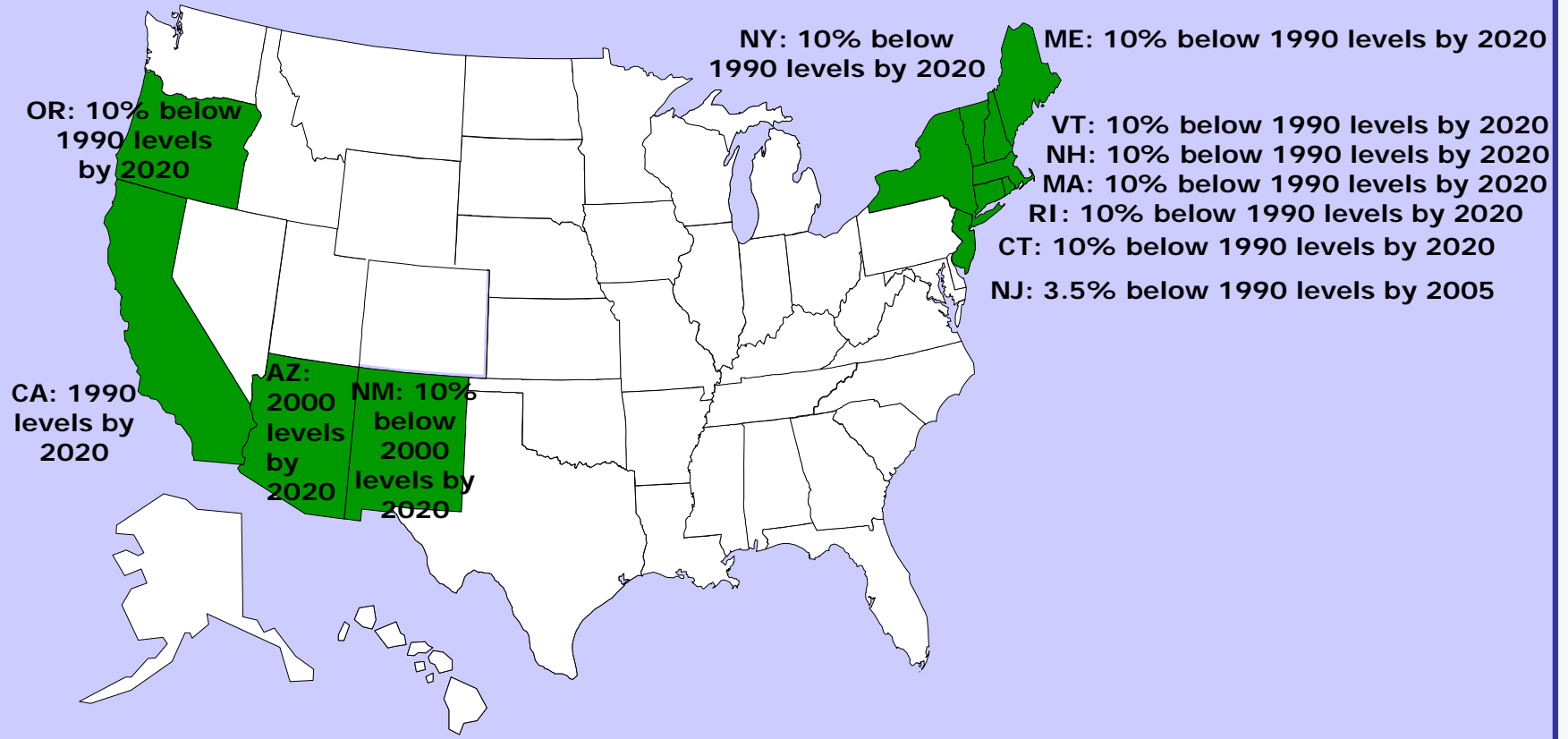
- AB 32: Global Warming Solutions Act of 2006
  - Nunez/Pavley legislation signed Sept. 2006
  - Set California's targets at 1990 levels by 2020
  - First enforceable state-wide program to cap GHG emissions and include penalties
  - Authorizes market-based mechanisms (e.g., cap-and-trade); allows one-year extension on targets in "extraordinary circumstances"

- Governor's Climate Action Team
- SB 1368: greenhouse gas performance standard for new long-term electricity contracts (CEC and CPUC)
- Renewable Portfolio Standard (20% by 2017)
- Vehicle GHG standards: 22% reduction by 2012; 30% by 2016
- CPUC carbon adder
- CPUC proceeding on load-based emissions cap
- Every agency is doing something

- Illinois
  - Executive order mandating a 6% cut in state government's GHG emissions by 2010; also creates Climate Change Advisory Group (October 2006)
- Florida
  - Legislative Energy Commission (June 2006; provides for climate action plan)
- Alaska
  - Legislative Commission on Climate Change (May 2006)

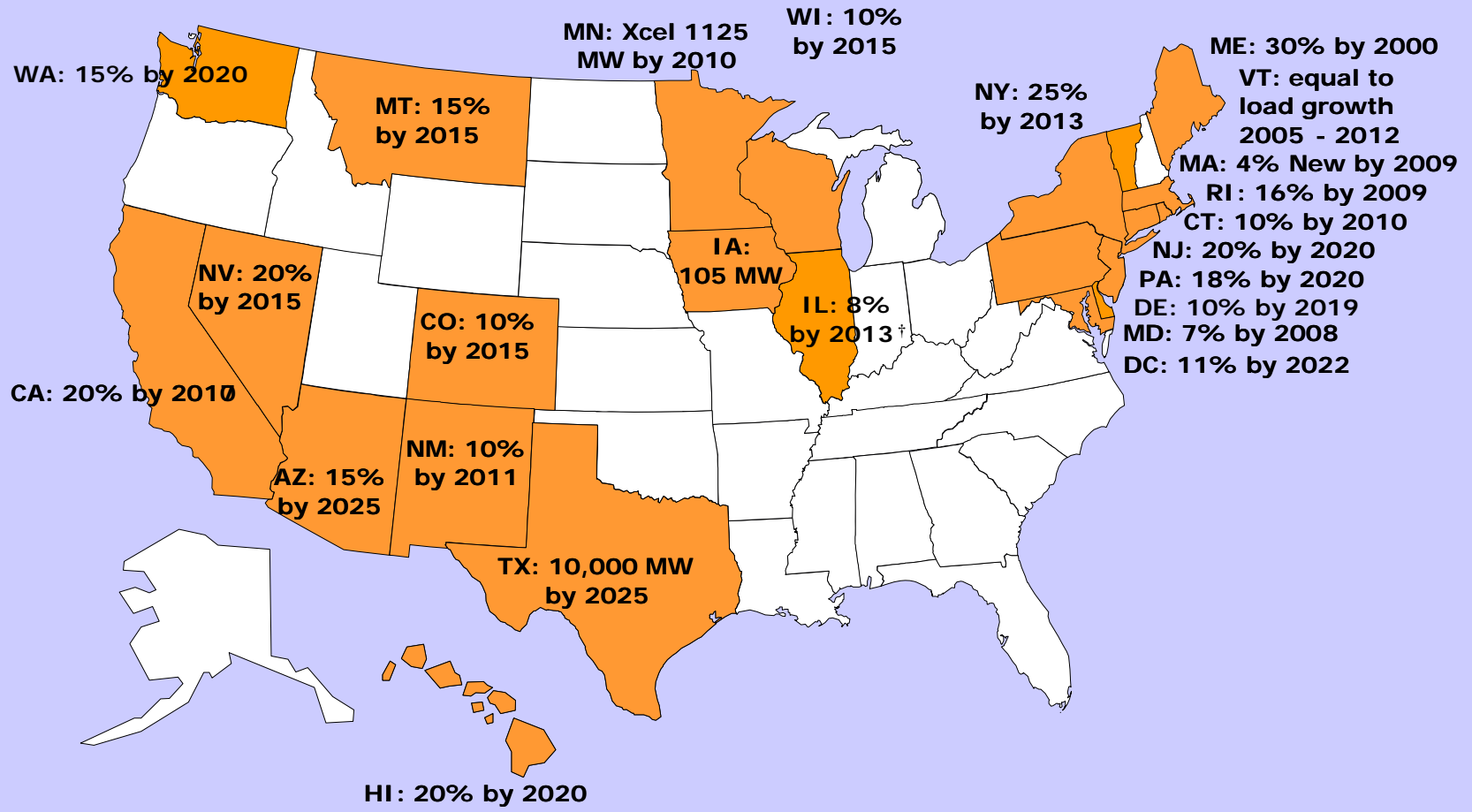
- Arizona
  - Governor's executive order established advisory group to develop climate plan (Feb. 2005)
  - Targets and measures (Sept. 2006): GHG emissions at 2000 levels by 2020, 50% below this by 2040
- New Mexico
  - 2000 levels by 2012, 10% below 2000 by 2020
  - Governor's Climate Change Advisory Group (launched June 2005)
- North Carolina
  - Legislative Commission on Climate Change (Sept. 2005)
- Montana
  - Governor created Climate Change Advisory Council (April 2006)

# State GHG Emission Targets



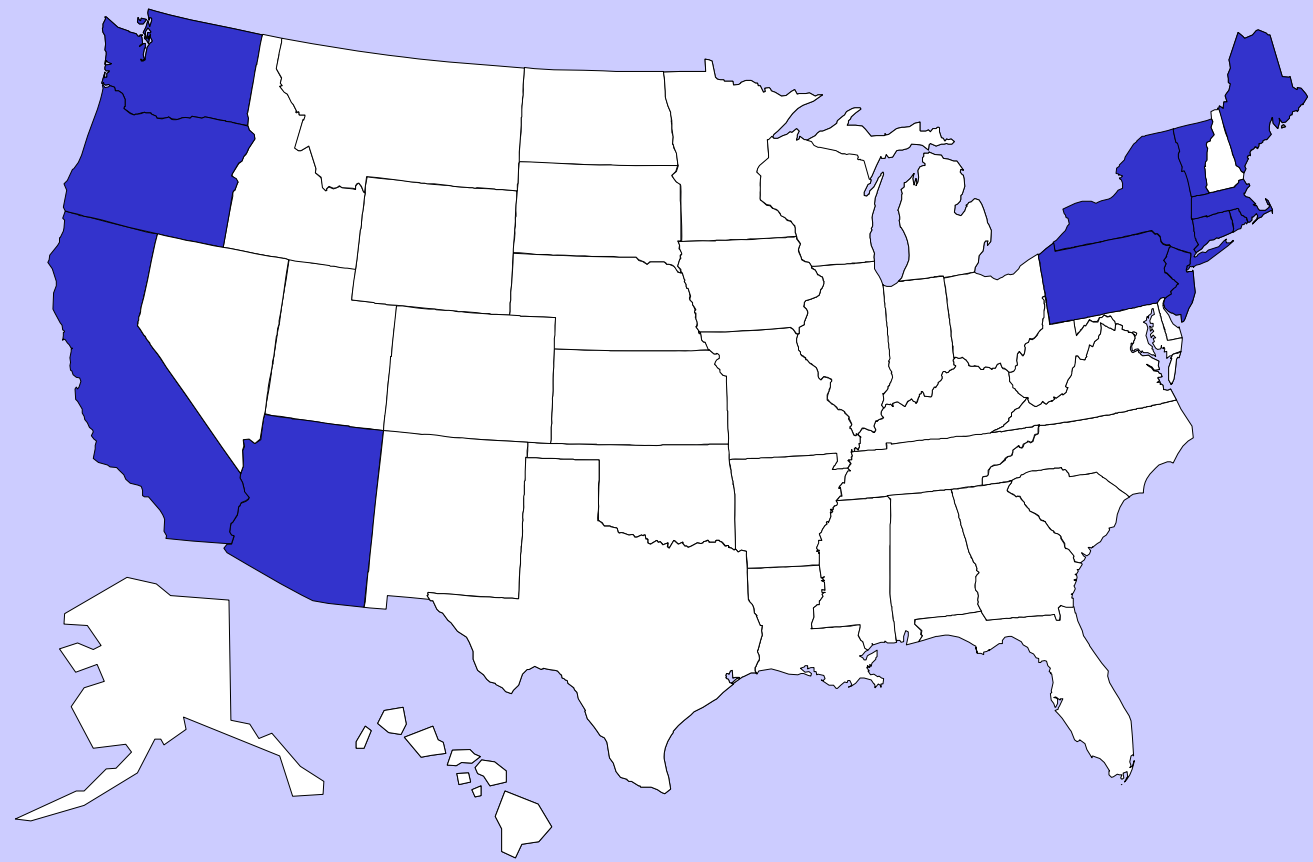
- States tend to have short, medium, and long-term targets (e.g., CA, AZ, NM, etc.)
- Long-term reduction targets of 50-80% come from what scientists say is necessary to stabilize climate
- Short and medium targets (freeze-30% reduction) come from both top-down and bottom-up analysis of what is doable
- Companies set targets using similar reasoning

# Renewable Portfolio Standards



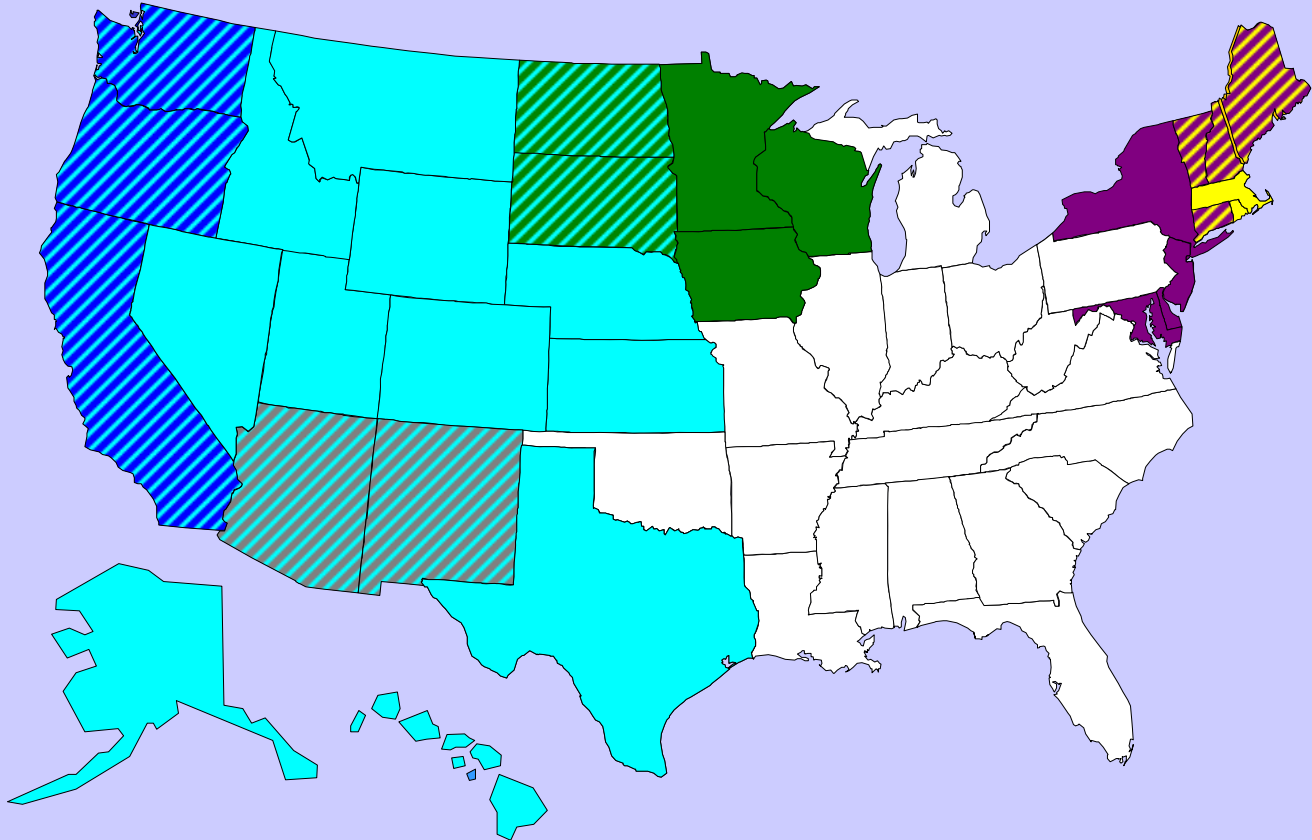
†IL implements its RPS through voluntary utility commitments







# Vehicle GHG Standards



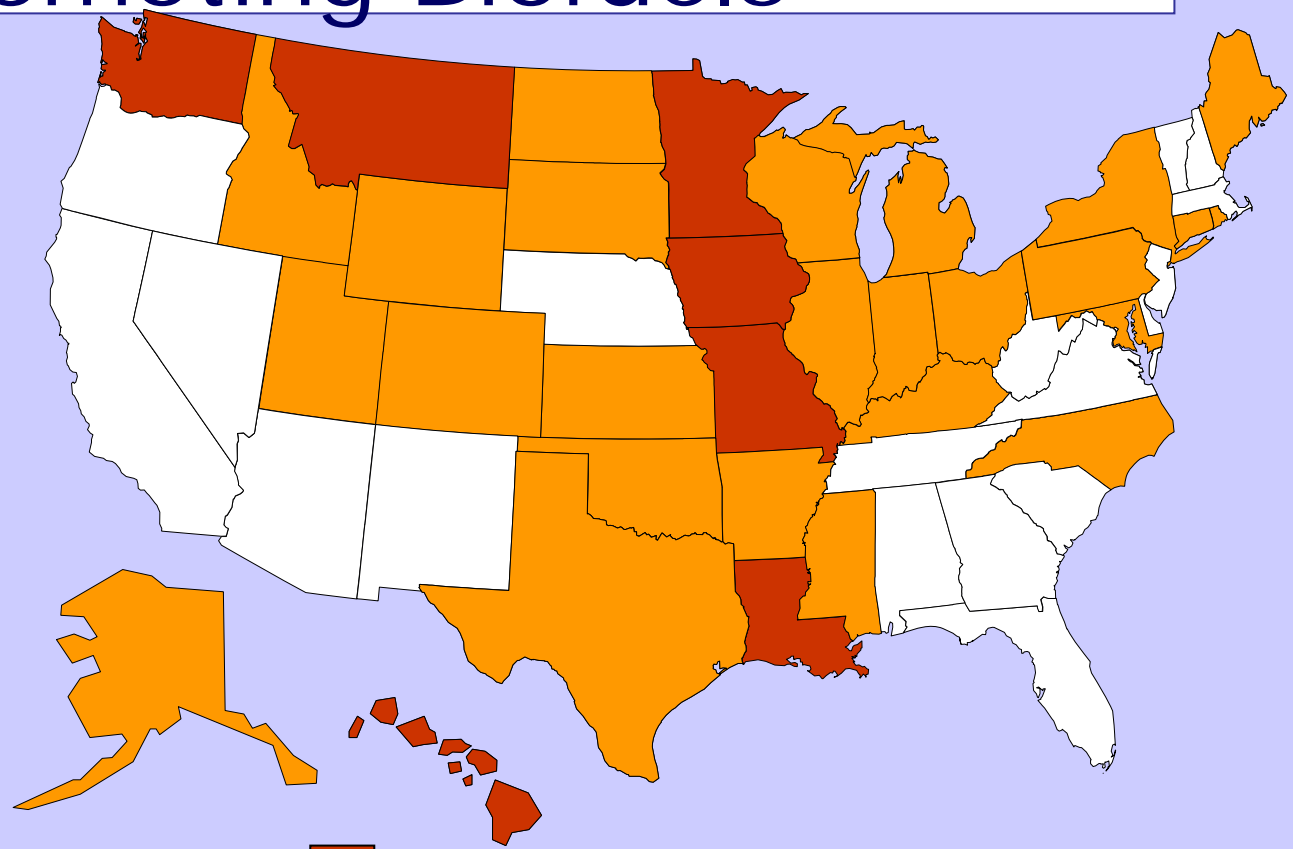
 States Poised to Follow California's GHG Emissions Standards for Vehicles

# Regional Initiatives



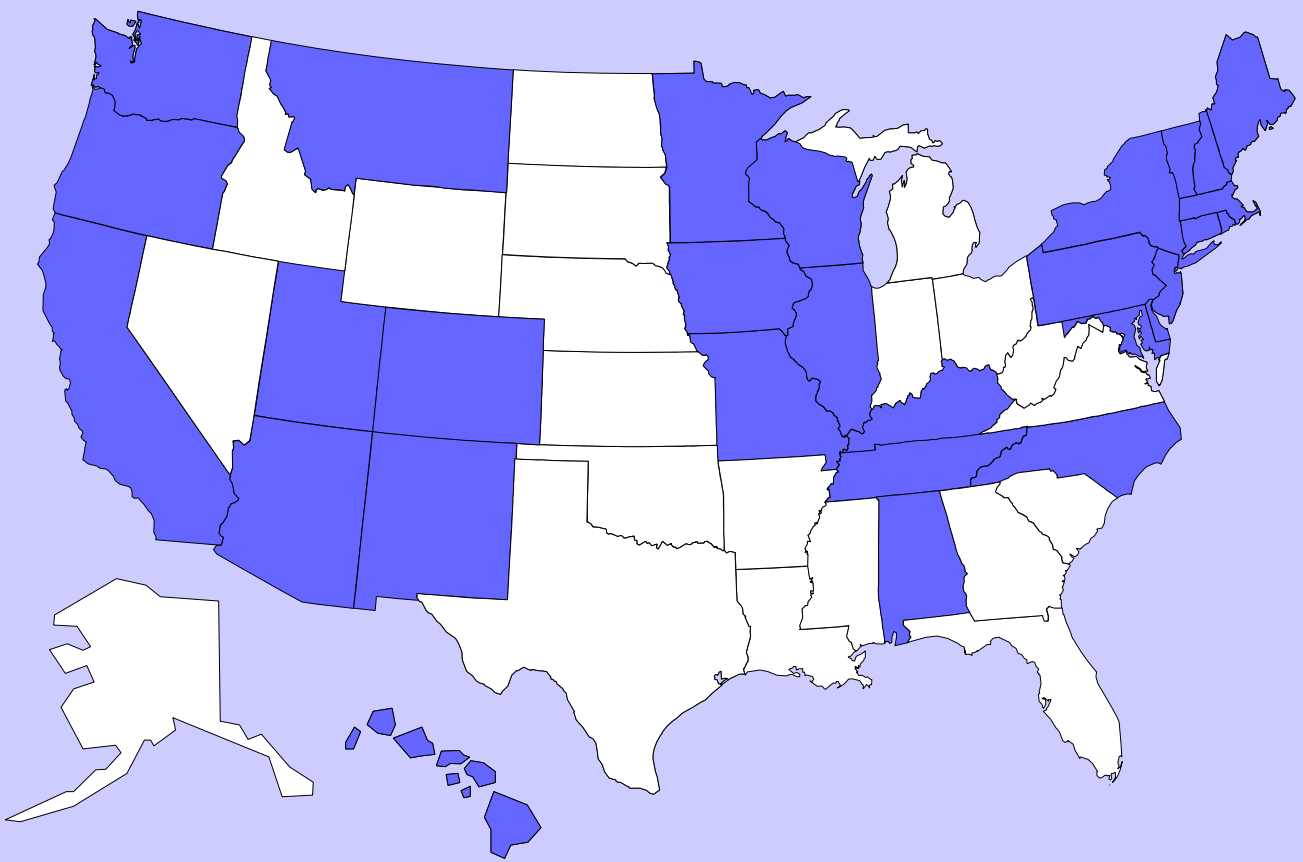
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|--|--|---|----------------------------|---|----------------|
|  | <b>West Coast Governors' Initiative</b>    |  | <b>Powering the Plains</b> |  | <b>NEG_ECP</b> |
|  | <b>Southwest Climate Change Initiative</b> |  | <b>WGA</b>                 |  | <b>RGGI</b>    |

# Mandates and Incentives Promoting Biofuels



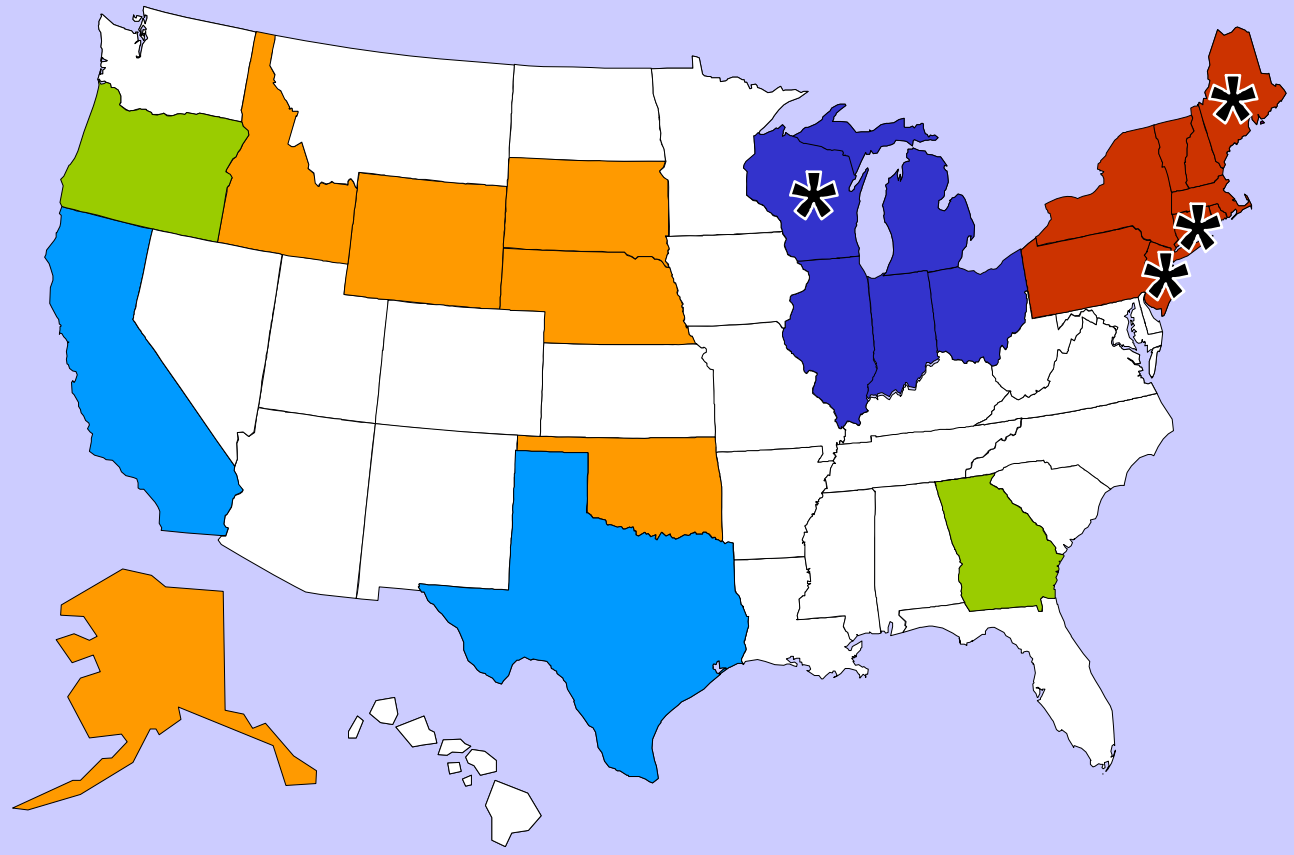
-  Renewable Fuels Standards with Biofuel Mandates
-  Excise Tax Exemptions, Tax Credits, and/or Grants Promoting Biofuel Production and Use

# Climate Action Plans



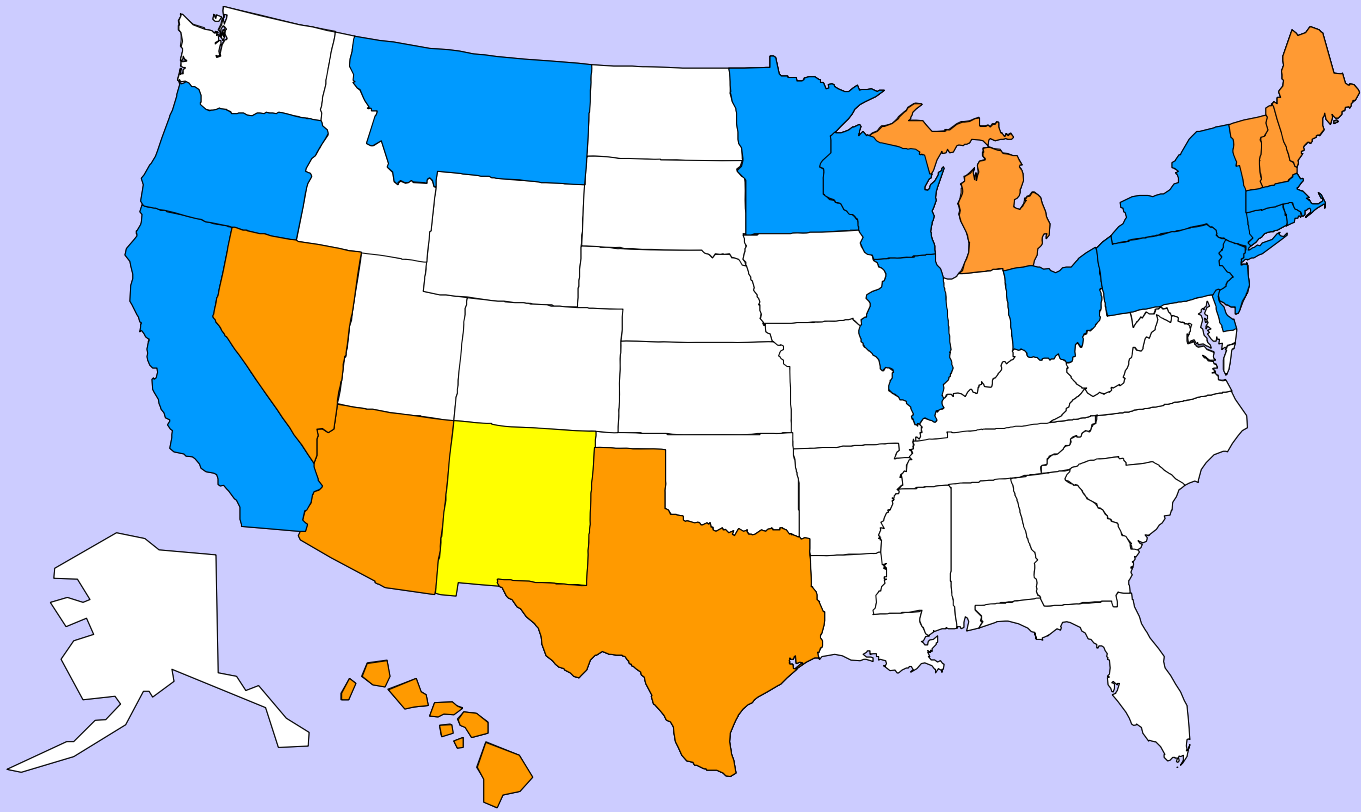
 Completed Climate Action Plans




# GHG Reporting & Registries



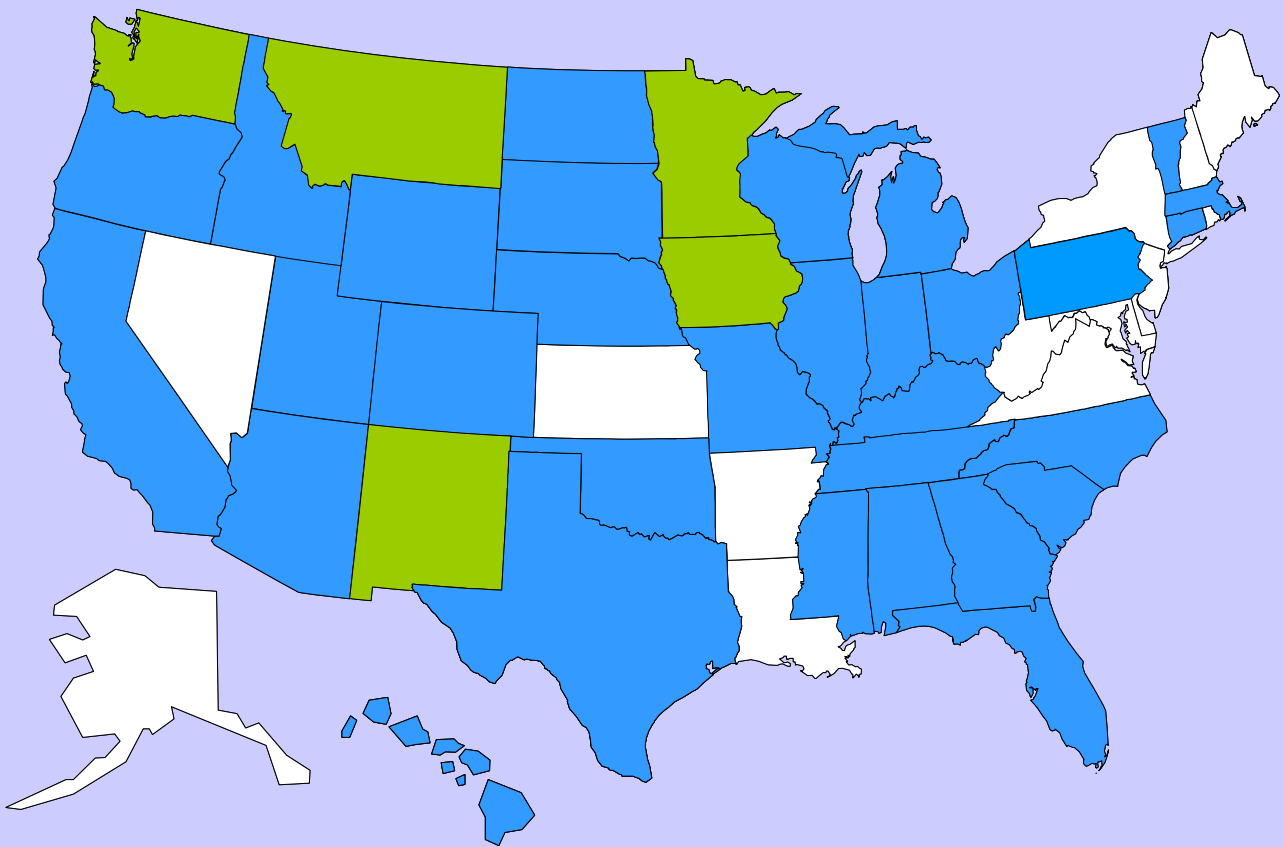
-  Voluntary Registries
-  Eastern Climate Registry
-  Registries in Development
-  Mandatory Reporting
-  Lake Michigan Air Directors
-  Sequestration Board Studying Registries

# Public Benefit Funds



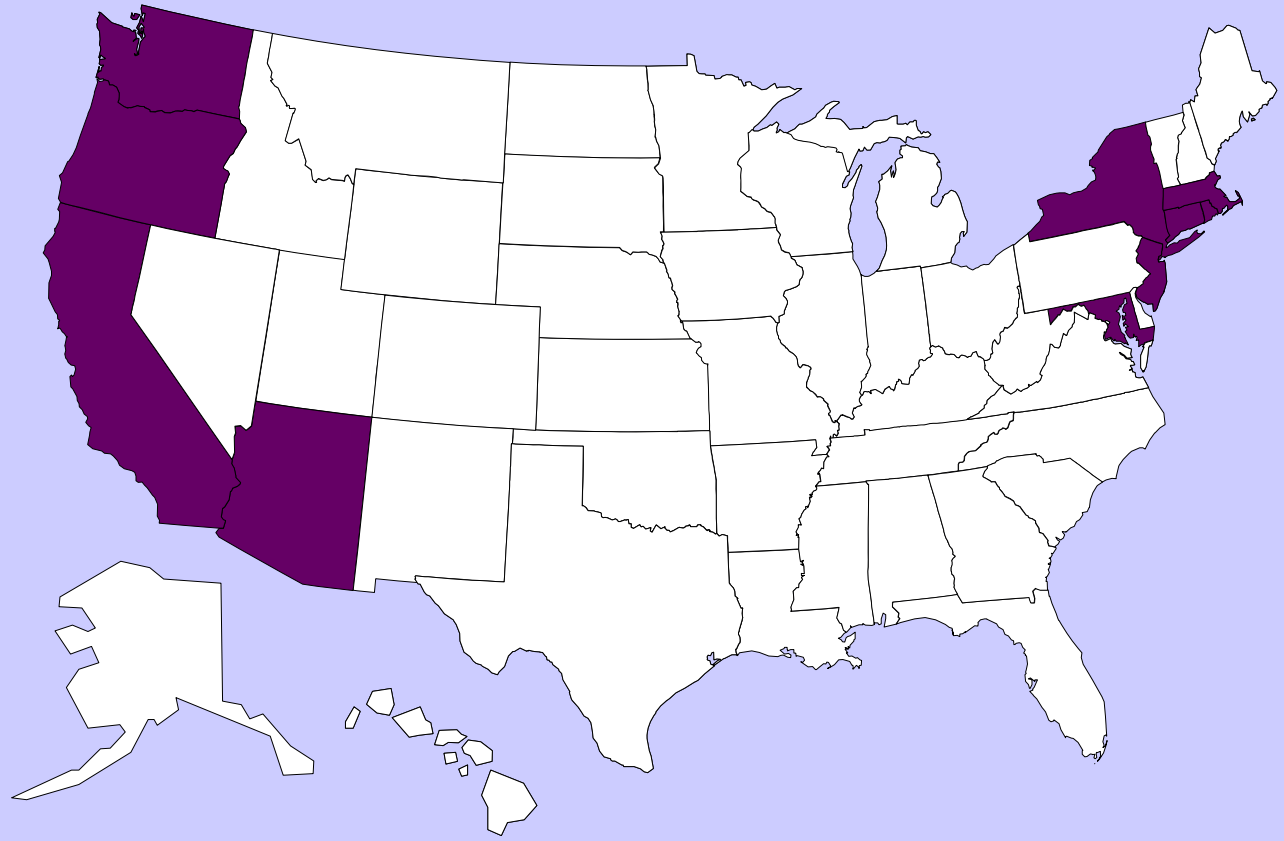
-  Funds that Support Energy Efficiency and Renewable Energy
-  Funds that Support Energy Efficiency
-  Funds in Development

# Green Pricing



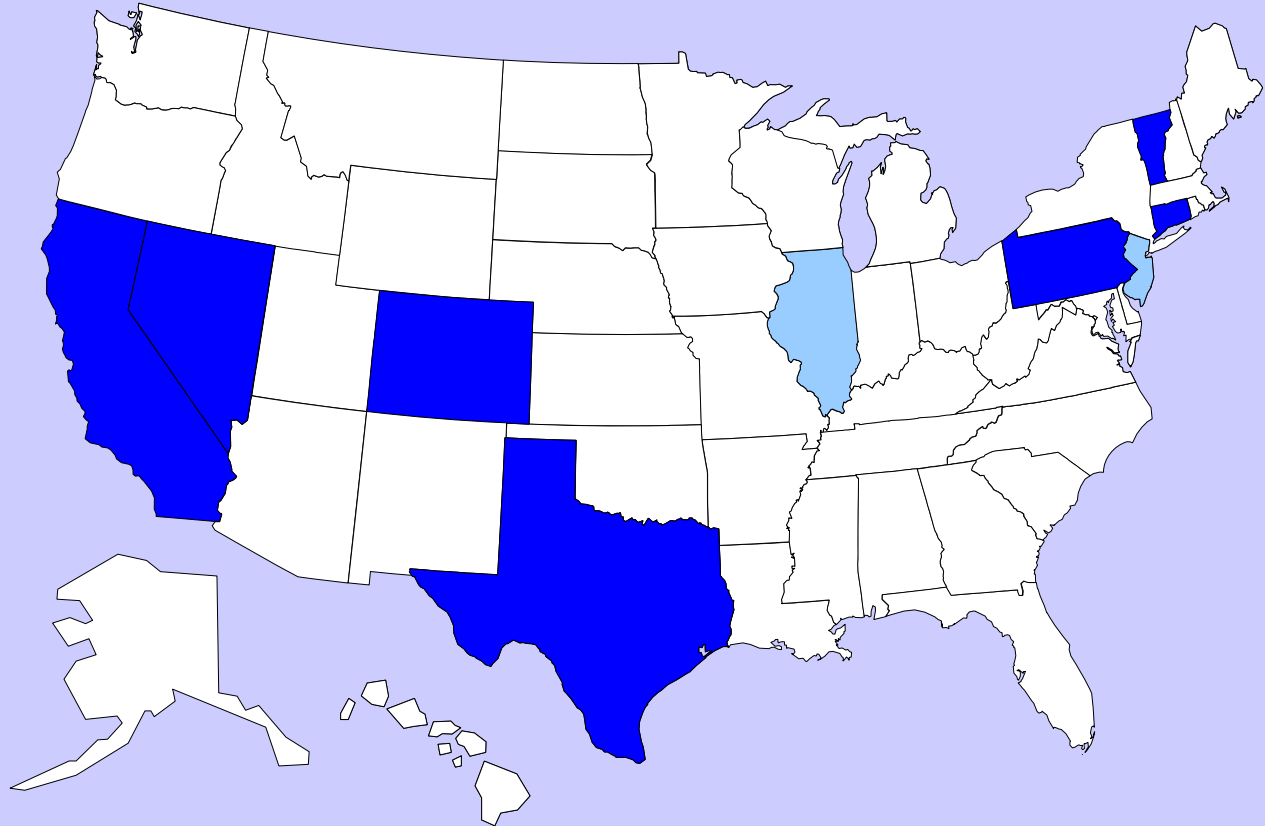
-  Green Pricing Programs
-  Mandatory Green Pricing Programs

# Energy Efficiency



 **Energy Efficiency Standards for Household and Commercial Appliances (beyond Federal standards)**

# States With Energy Efficiency Resource Standards



 **Completed EERS**

 **Pending EERS**

- Pennsylvania (multiple initiatives including AEPS and EDGE)
  - California SB 1368
  - RGGI
  - MA power plant CO<sub>2</sub> emissions rule
  - Western Governors Association recommended incentives for CCS demo projects
  - Powering the Plains: upper midwestern effort
  - Many efforts to promote IGCC
- IGCC is helpful but not sufficient; carbon capture and sequestration is necessary

- States are leading on climate
- Achieving real emissions reductions
- States provide lessons for federal action
- Even with federal action, states will play a key role
- Trend toward regional action
- Multiple drivers, multiple benefits

- Places to start: what can states that are just beginning to think about climate change do?
  - Legislative/Executive Commissions
  - Target setting
  - Joining regional initiatives
  - Renewable energy and/or energy efficiency
  - Biofuels
  - Other?
- What do states need to get started? What kind of help is most useful?

Pew Center on Global Climate Change

[www.pewclimate.org](http://www.pewclimate.org)