



CHANGE THE FORECAST FOR WILDLIFE
SOLUTIONS TO GLOBAL WARMING

State & Regional Programs to Address Global Warming

While federal lawmakers consider national policy to reduce global warming pollution, states across the nation are already implementing programs to reduce carbon dioxide and other greenhouse gas (GHG) emissions in their state. These programs range from laws which require an increasing proportion of the state's energy to be generated from renewable (and much lower GHG emitting) fuel sources, to a range of tax and other incentives to encourage the production and use of lower emissions and more efficient energy and automotive technologies.

As the information provided here shows, adoption of these measures is widespread, although the amount of pollution reduction achieved in each state varies greatly. Action is not just at the state level. The recent RGGI "Reggie" agreement amongst north eastern states establishes the first working regional system to control global warming pollution. It will achieve measurable reductions across multiple states using a market based cap and trade system.

Improving Electricity Generation



24 States have established renewable energy mandates, requiring that utilities generate a share of their electricity from renewable energy. Often called **RENEWABLE PORTFOLIO STANDARDS**, these standards require that a certain percentage of a utility's overall or new generating capacity or energy sales must come from renewable resources. *A modified symbol indicates where state renewables goals are non-mandated, unenforceable, or voluntary.*



23 States have authorized **PUBLIC BENEFITS FUNDS** or similar mechanisms that collect revenue from electric utility customers to fund energy efficiency, research and development, renewable energy, low-income rate assistance, and weatherization.

25 States require that customers be informed about the sources of energy used to generate the electricity that they purchase.

34 States offer customers the option of "green pricing", in which consumers pay a premium on their electric bills to have a portion or all of their energy provided from renewable sources.

40 States now allow some customers with their own electric generating systems (such as rooftop solar photovoltaic panels) to sell unused electricity back to their local electric utility—this is also sometimes called "net metering".

Clean Car and Truck Programs



11 States have implemented the **LOW EMISSION VEHICLE PROGRAM**, developed by California, requiring stricter vehicle emissions standards and the promotion of cleaner, advanced technology vehicles.

Several States have installed truck stop electrification (TSE) equipment that allows long haul trucks to plug into a power source at truck stops, allowing trucks drivers to use amenities within the cab without running their diesel engines for long periods.

Financial Incentives



47 States and Puerto Rico have financial incentives available for consumers to purchase and install solar energy equipment. These include **PERSONAL INCOME TAX INCENTIVES** where consumers receive credits or deductions to cover the expense of purchasing and installing renewable energy equipment, and **PROPERTY TAX INCENTIVES** (exemptions, exclusions, or credits) for installation of specified technologies.



17 states provide a **PRODUCTION INCENTIVES** for renewable energy or renewable fuels production.



REBATE PROGRAMS are also offered at the state, local and utility levels to promote the installation of renewable energy equipment. **GRANT AND LOAN PROGRAMS** provide financing assistance for buying and installing renewable energy technology.

Tracking greenhouse gas pollution and reduction

39 States and Puerto Rico have completed **GHG inventories** of their total GHG emissions. These inventories can provide a baseline for planning and for future pollution trading systems.


Several States have also established advisory committees to investigate the potential to capture carbon in state soils, including Nebraska, Wyoming, North Dakota, Oklahoma and Illinois.


LEGISLATIVE ACTION TO STOP GLOBAL WARMING

Alaska

 **FINANCIAL INCENTIVES:** Utility-specific production incentive.

Arizona


 **RENEWABLE PORTFOLIO STANDARD:** 1.1% by 2012 (60% must come from solar-electric).


 **FINANCIAL INCENTIVES:** Solar and wind energy personal income tax credit system.


The Governor issued an Executive Order in 2005 creating stakeholder-based Climate Change Advisory Groups (CCAG), which will make recommendations for reducing GHG emissions in the state later this year.

California

 **RENEWABLE PORTFOLIO STANDARD:** 20% by 2010, 33% by 2020.

 **PUBLIC BENEFIT FUND:** Renewable Resources Trust Fund provides \$135 million annually.


 **LOW EMISSION VEHICLE PROGRAM:** The state pioneered the Clean Cars Program which establishes global warming pollutant emission standards for passenger cars and light-duty vehicles, which are more stringent than the federal government's and have been adopted by 10 other states.


 **FINANCIAL INCENTIVES:** Personal income tax credit for energy efficiency projects, a property tax exemption for solar systems, and rebates and production incentives for grid-connected renewable energy systems.

California's 2001 energy conservation package illustrates the array of energy and climate solutions available to states. The package allocates money for various projects including agricultural energy efficiency, high-efficiency lighting in commercial buildings, innovative peak load reduction, low-interest loans for energy efficiency projects in schools, energy-efficient household appliances and energy efficiency in state buildings.

Governor's plan: By 2010, reduce to 2000 emission levels; By 2020, reduce to 1990 emission levels; By 2050, reduce to 80% below 1990 levels.


Colorado

 **RENEWABLE PORTFOLIO STANDARD:** 10% by 2015, with a 4% minimum from solar technologies.


 **FINANCIAL INCENTIVES:** Energy Saving Partner Program provides cost-effective energy conservation services to low-income households for free.


Numerous local loan, rebate, and incentive programs.

Connecticut


 **RENEWABLE PORTFOLIO STANDARD:** 10% by 2013.


 **PUBLIC BENEFIT FUND:** CT Clean Energy Fund provides \$30 million annually.


 **LOW EMISSION VEHICLE PROGRAM**

 **FINANCIAL INCENTIVES:** Property tax exemption; State grant and rebate programs.

Delaware


 **RENEWABLE PORTFOLIO STANDARD:** 10% by 2019.

 **PUBLIC BENEFIT FUND:** Green Energy Fund annually provides \$1.5 million for renewable/efficiency programs and \$0.8 million for low-income programs.


 **FINANCIAL INCENTIVES:** State grant and rebate program.

Florida

 **RENEWABLE PORTFOLIO STANDARD:** *goal:* 4% by 2007, 7.5% by 2015.

 **FINANCIAL INCENTIVES:** Sales tax exemption for solar equipment.


Georgia

 **FINANCIAL INCENTIVES:** Production incentive.

No-Tillage Assistance Program leases "no-till" equipment to farmers, allowing them to increase soil carbon sequestration.


Hawaii

 **RENEWABLE PORTFOLIO STANDARD:** 10% by 2010, 15% by 2015, 20% by 2020.

 **FINANCIAL INCENTIVES:** Local loan and bond programs.

Personal income tax credit for solar and wind technologies.


Idaho


 **FINANCIAL INCENTIVES:** Personal income tax deduction for solar, wind, and geothermal technologies.

Private grant, state bond and loan programs.

Illinois


 **RENEWABLE PORTFOLIO STANDARD:** *goal:* 2% in 2007, increasing to 8% in 2013.

 **PUBLIC BENEFIT FUND:** Renewable Energy Resources Trust Fund: \$50 million over 10 years.

 **FINANCIAL INCENTIVES:** Clean Energy Community Trust – provides grants, loans and other financial incentives to develop, improve, and implement energy efficiency and renewable energy projects and programs.

Property tax exemption.

Indiana

 **FINANCIAL INCENTIVES:** Indiana Efficiency Loan Fund helps schools, political subdivisions, and public libraries identify and implement energy efficiency projects.

Property tax exemption.

State grant program.

The Indiana DNR and Cinergy (an electric utility company) have a program in which Cinergy donates trees for carbon sequestration on DNR land.

REGIONAL AGREEMENTS

New England States and Eastern Canadian Provinces

The Regional Greenhouse Gas Initiative (RGGI) requires emissions to be stabilized by 2015, with a 10% reduction by 2019, and eventually reducing emissions sufficiently to eliminate any dangerous threat to climate. (Adopted December 2005 by Maine, New Hampshire, Vermont, Connecticut, Delaware, New York, and New Jersey, with four other states likely to adopt the program in the coming years).

West Coast Agreement


In November 2004, the Governors of Washington, Oregon, and California approved a series of detailed recommendations to reduce global warming pollution that the three states have developed over the past year. They will coordinate on many fronts including obtaining fuel-efficient vehicles, reducing emissions from diesel fuel, encouraging renewable energy production, implement uniform efficiency standards, and develop coordinated GHG emission inventories, reporting protocols and accounting methods.


Southwest Climate Change Initiative

New Mexico and Arizona signed an agreement forming the Southwest Climate Change Initiative which establishes a framework for the states to collaborate on strategies to address global warming. Actions include: development of a greenhouse gas inventory, reductions credits, and promoting energy efficiency and renewable energy.


LEGISLATIVE ACTION TO STOP GLOBAL WARMING

Iowa


 **RENEWABLE PORTFOLIO STANDARD:** *goal:* 105 MW from renewable energy (including hydropower).

 **FINANCIAL INCENTIVES:** Excise tax credit, personal tax credit, property tax assessment, sales tax exemption, state grant and loan programs.


Kansas

 **FINANCIAL INCENTIVES:** Property tax exemption, state grant program.


Kentucky


 **FINANCIAL INCENTIVES:** Local loan program for solar water heaters.


Louisiana


 **FINANCIAL INCENTIVES:** Property tax exemption for solar systems.

Maine


 **RENEWABLE PORTFOLIO STANDARD:** 30%.


 **PUBLIC BENEFIT FUND:** Voluntary contribution through utilities to a renewable project fund.

 **LOW EMISSION VEHICLE PROGRAM**

 **FINANCIAL INCENTIVES:** State grant and rebate programs.

Maryland


 **RENEWABLE PORTFOLIO STANDARD:** 7.5% by 2019.


 **FINANCIAL INCENTIVES:** Personal tax credit, property tax exemption, sales tax exemption, state loan and rebate programs.


MD is officially observing the Northeast GHG initiative (RGGI), and is considering becoming a participant at some point.

Massachusetts

 **RENEWABLE PORTFOLIO STANDARD:** 4% by 2009, increasing 1% annually thereafter.

 **PUBLIC BENEFIT FUND:** Renewable Energy Trust Fund allocates \$150 million over five years.

 **LOW EMISSION VEHICLE PROGRAM**


 **FINANCIAL INCENTIVES:** Personal deduction, personal tax credit, production incentive, property tax exemption, sales tax exemption.

State grant, loan, and rebate programs.

Capped CO2 emissions from its six highest-emitting power plants, with a goal of reducing CO2 emissions from those


plants by 10 percent over the next several years.

Michigan


 **FINANCIAL INCENTIVES:** Property tax exemption, state grant and loan programs.

Michigan has a NextEnergy initiative, now privatized, that focuses on technology and development.

Minnesota

 **RENEWABLE PORTFOLIO STANDARD:** *goal:* 1% in 2005, increasing by 1% per year to reach at least 10% in 2015.

 **PUBLIC BENEFIT FUND:** \$16 million annually.


 **FINANCIAL INCENTIVES:** Production incentive, property tax exemption, sales tax exemption; State loan and rebate programs.

In MN an applicant requesting permission to construct a nonrenewable power generating facility must demonstrate that the nonrenewable source selected is less expensive (including environmental costs) than power generated by a renewable energy source.

Mississippi

 **FINANCIAL INCENTIVES:** Production incentive, state loan program.

Missouri


 **FINANCIAL INCENTIVES:** State grant and loan programs.


Revolving loan fund that provides schools and local governments with technological and financial assistance to implement energy efficient upgrades.

A project at Pattonville High School captures methane from a neighboring landfill and burns it to fuel the school's boilers, significantly reducing methane emissions to the atmosphere, eliminating the need to burn natural gas, and avoiding over 2,000 tons of CO2 annually and saving the school \$40,000 annually.


Montana

 **RENEWABLE PORTFOLIO STANDARD:** 5% in 2008; 10% in 2010; 15% in 2015.

 **PUBLIC BENEFIT FUND:** Universal Systems Benefit Program of \$14.9 million annually.


 **FINANCIAL INCENTIVES:** Personal tax credit, property tax exemption and assessment, state loan program.

Nebraska


 **FINANCIAL INCENTIVES:** State loan program.

Nevada

 **RENEWABLE PORTFOLIO STANDARD:** 6% in 2005, rising to 20% by 2015 (5% must come from solar).

 **FINANCIAL INCENTIVES:** Production incentive, property tax assessment and exemption, state rebate program.


New Hampshire

 **FINANCIAL INCENTIVES:** Property tax exemption.


In May 2002 - passed a law to reduce power plant emissions of CO2 to 1990 levels by 2006.

New Jersey

 **RENEWABLE PORTFOLIO STANDARD:** 6.5% by 2008. Considering legislation to increase to 20% by 2020.

 **PUBLIC BENEFIT FUND:** Social benefits charge produced \$358 million from 2001-2003. Funding through 2008 TBD.


 **LOW EMISSION VEHICLE PROGRAM**

 **FINANCIAL INCENTIVES:** Production incentive, sales tax exemption, state grant, loan and rebate programs.

NJ also has mandatory CO2 and methane emissions reporting.

New Mexico

 **RENEWABLE PORTFOLIO STANDARD:** 5% in 2006, rising to 10% in 2011.

 **FINANCIAL INCENTIVES:** Production incentive, sales tax exemption, state bond and grant programs.


The Governor issued an Executive Order in 2005 creating stakeholder-based Climate Change Advisory Groups (CCAG), which will make recommendations for reducing GHG emissions in the state later this year.

Governor set a target for cutting emissions of greenhouse gasses to year 2000 levels by 2012 followed by an additional 10% reduction by 2020 and 75% reduction by 2050.

New Mexico is the only state government to join the Chicago Climate Exchange and they plan to cut government emissions by 4% by the end of 2006.


LEGISLATIVE ACTION TO STOP GLOBAL WARMING

New York

 **RENEWABLE PORTFOLIO STANDARD:** 25% by 2013.


 **PUBLIC BENEFIT FUND:** Systems benefit charge provides \$150 million annual funding.

 **LOW EMISSION VEHICLE PROGRAM**

 **FINANCIAL INCENTIVES:** Green building tax credit provides \$25 million in credits from 2000-2004 to encourage owners and tenants of commercial and residential buildings to incorporate environmentally friendly features.


Personal tax credit, property tax exemption, sales tax exemption, and state grant, loan, and rebate programs.

North Carolina


 **FINANCIAL INCENTIVES:** Personal tax credit, production incentive, property tax exemption, state loan program.


The NC State University Animal and Poultry Waste Management Center is evaluating several hog waste management technologies that would reduce methane emissions by using waste methane to generate energy, instead of releasing it into the atmosphere.

North Dakota

 **FINANCIAL INCENTIVES:** Personal tax credit, property tax assessment and exemption, sales tax exemption.


Ohio

 **PUBLIC BENEFIT FUND:** \$100 million over 10 years.


 **FINANCIAL INCENTIVES:** Property tax and sales tax exemption, state grant and loan programs.

Investigating geologic sequestration through the Ohio Coal Development Office.

Oregon

 **PUBLIC BENEFIT FUND:** allocates \$10 million annually.


 **LOW EMISSION VEHICLE PROGRAM**

 **FINANCIAL INCENTIVES:** Production incentive, property tax exemption, and state grant, loan, and rebate programs.


Enacted a law in 1997 establishing CO₂ standards for new power plants of a required reduction of 17 percent.

The Office of Energy manages two programs that provide assistance to new green power projects.


Pennsylvania


 **RENEWABLE PORTFOLIO STANDARD:** 18% by 2020.


 **PUBLIC BENEFIT FUND:** \$19 million in 2004.


 **FINANCIAL INCENTIVES:** Production incentive, state grant and loan programs, and multiple local grant and loan programs.

Rhode Island


 **RENEWABLE PORTFOLIO STANDARD:** 16% by 2020.

 **PUBLIC BENEFIT FUND:** \$3 million annually for renewables.


 **LOW EMISSION VEHICLE PROGRAM**

 **FINANCIAL INCENTIVES:** Tax credit, production incentive, property tax exemption, sales tax exemption, state grant and loan programs.


South Carolina

 **FINANCIAL INCENTIVES:** State rebate program for solar power.


South Dakota


 **FINANCIAL INCENTIVES:** Property tax exemption.

Tennessee

 **FINANCIAL INCENTIVES:** Production incentive, property tax exemption, state loan program.

Texas


 **RENEWABLE PORTFOLIO STANDARD:** Austin: 20% by 2020.

 **FINANCIAL INCENTIVES:** Property tax exemption.


Lone Star Program – administered by the Texas Energy Conservation Office, provides energy efficiency project financing for state agencies, institutions of higher learning, school districts and local governments.

Renewable generation requirement: 5880 MW by 2015 (500 MW from renewables other than wind).


Utah

 **FINANCIAL INCENTIVES:** Personal tax credit, sales tax exemption.

Vermont


 **RENEWABLE PORTFOLIO STANDARD:** *goal:* Total incremental energy growth between 2005-2012 to be met with new renewables (10% cap).

 **LOW EMISSION VEHICLE PROGRAM**

 **FINANCIAL INCENTIVES:** Production incentive, sales tax exemption, state rebate program.


Methane Pilot Project promotes the use of methane recovery technology on dairy farms.

Virginia

 **FINANCIAL INCENTIVES:** Property tax exemption, state grant program.

Washington

 **LOW EMISSION VEHICLE PROGRAM**

 **FINANCIAL INCENTIVES:** Wind, solar and landfill-gas electric generating facilities are eligible for exemption from state sales and use taxes.


Production incentive, multiple utility loan and rebate programs.


The Commute Trip Reduction law requires employers to participate in a program to change commuters' travel choices and reduce single-occupant vehicle use.


West Virginia

Trying to enact GHG reporting legislation. Testing geologic sequestration (at AEP's Mountaineer plant).

Wisconsin

 **RENEWABLE PORTFOLIO STANDARD:** 2.2% by 2011.

 **PUBLIC BENEFIT FUND:** 4% of the PBF system toward renewables.

 **FINANCIAL INCENTIVES:** Production incentive, property tax exemption, state grant, loan, and rebate programs.

Energy Star™ Homes program provides assistance and incentives to those wishing to build an energy-efficient home or to modify an existing home.

Assists one of its largest dairy farms with manure-to energy technology that generates 750kW of electricity.

Wyoming

 **FINANCIAL INCENTIVES:** Sales tax exemption, state rebate program.

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