

# **State Woody Biomass Utilization Policies**

by

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## The Need for a Biomass Policy Database

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Woody biomass utilization can make significant contributions to renewable energy production, wildfire risk reduction, and enhancement of forest health. It may also provide economic and community development opportunities. Consequently, a number of policy initiatives have been implemented in recent years at both the federal and state level to address particular challenges with using woody biomass. The purpose of this database is to provide a comprehensive, up-to-date guide to woody biomass legislation for each state in the country.

A range of policies exists for how to encourage the removal of biomass from forests and subsequent utilization in the production of bioproducts. The state policies identified in this guide attempt to address particular challenges with local utilization whether it is the cost of biomass harvesting, handling and transportation, or manufacturing and consumer markets. A wealth of technical knowledge and experience exists within the states, but little is known among them about their particular approaches.

Each policy included in this report provides a particular type of incentive related to forest biomass removal or forest products utilization. There exists overlap with other industrial sectors like agriculture or energy production but each policy is explicitly relevant to woody biomass utilization. Each policy is also uniquely intended for a particular audience in order to help them overcome local utilization challenges or to create related forest management or economic development opportunities. As such, a great variety of policy incentives are relevant to woody biomass utilization that are not captured in existing databases.

State policies, and their categorization, were identified using three primary sources. First, the Database of State Incentives for Renewable Energy (DSIRE) (<http://www.dsireusa.org/>) provided a wealth of information on state programs and policy definitions. Second, the Reuters FindLaw search engine (<http://www.findlaw.com/casecode/>) was used to search for biomass relevant legislation on a state-by-state basis. Third, state agency contacts, representatives from various professional associations, and local organizations were consulted.

### What is the definition of biomass?

There exist a range of definitions of woody biomass, but for the purpose of this report an inclusive definition is adopted from the *Woody Biomass Utilization Desk Guide* prepared by the UDSA Forest Service (2007):

**Woody biomass** is defined as the by-product of forest management, restoration, and hazardous fuel treatments, including trees and woody plants (limbs, tops, needles, leaves).

**Biomass utilization** is the use of woody biomass resulting in the production of a full range of wood products including timber, engineered lumber, pulp and paper, bioenergy and biobased products like plastics, cellulosic ethanol, and biodiesel.

## Types of Policies Included

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Several types of policies have been implemented to incentivize woody biomass utilization. Approaches range from transportation credits paid on the volume of wood chips transported to an

energy plant, to reduction in vehicle tags and taxes, and consumer credits for purchase of biomass products. This database tracks information on those state policies to facilitate comparison of the types of approaches used in certain areas, policy structures and incentives employed, program administration, and relationships to complementary local and federal actions. Policies are classified into the following seven categories:

### **Tax Incentives:**

- *Sales tax incentives* include the reduction or exemption from the state sales tax for the purchase of qualifying equipment for harvesting, transportation, and manufacturing or processing of biomass.
- *Corporate/Production tax incentives* may include deductions or exemptions from taxes paid by businesses for installing certain types of biomass manufacturing systems. It may also include production tax credits paid for the volume of forest biomass used in production or for the amount of energy produced.
- *Personal tax incentives* include income tax credits and deductions most commonly related to the installation of certain types of renewable energy systems.
- *Property tax incentives* include exemptions, exclusions and credits for the use property (including equipment) used for the siting of qualifying manufacturing facilities or the transport of biomass. Because property taxes are collected locally, states may grant local taxing authorities the option of allowing a property tax incentive.

### **Subsidies and Grants**

- *Cost-share programs* are included in this category and are designed to reduce the purchase price or operations cost of equipment used for biomass harvesting, transportation, or manufacturing. The cost of operations may also be reduced through a waiver of fees, or supplemental resources provided to pay for biomass harvesting or procurement.
- *Grant programs* encourage the use and development of certain types of technologies or programs aimed at biomass utilization. Grants are typically available to commercial, industrial, community and government sectors on a competitive basis to purchase equipment, support research, development and demonstration projects, and to support product commercialization and marketing.
- *Rebate programs* may be offered by state or local governments and utilities to promote the purchase or installation of qualifying biomass manufacturing and processing systems.

### **Rules and Regulations:**

- *Renewable energy standards* commonly require utility companies to use renewable energy to account for a certain percentage of their retail electricity sales or generating capacity within a specified timeframe. A number of other policies are broadly included in this category including: *renewable energy goals* that establish non-binding goals for renewable energy production; *interconnection standards* governing how energy producers connect to the grid; *consumer green power programs* offering the option of buying electricity generated from renewable resources; *net metering* or buy-back of excess power generated from renewable sources; and *public benefit funds* that set aside utility dollars for renewable energy development.

- *Equipment certification* establishes standards for the efficiency or quality of equipment used to process or manufacture biomass (wood pellet burners, biomass boilers).

### **Education and Consultation**

- *Service provision* includes establishing local or state programs to coordinate research on biomass utilization, disseminate technical information, and assist with business planning and grant writing. Other activities may include the creation of business planning tools, organize outreach to potential businesses, or to coordinate existing service programs.
- *Training programs* may include education courses or certificates offered to businesses, employees, agency personnel and others involved in biomass harvesting and utilization in which development of technical expertise is the objective.

### **Financing and Contracting**

- *Business recruitment* is used to promote economic development and job creation by offering specific incentives like *property tax credits* to locate in investment zones or in a business incubator, *tax exemptions* on equipment purchased or individuals employed, and *grants* for investing in certain types of technology. Recruitment incentives are generally temporary measures to support emerging industries.
- *Bonds* allow state and local governments to raise money by borrowing to support construction of biomass utilization facilities, including the installation of wood boilers to heat schools and industrial facilities. The bonding authority may be reimbursed using the savings resulting from the installation of projects.
- *Loans* provide financing for the purchase of qualifying equipment for harvesting biomass, transportation, and processing or remanufacturing. Micro-loans, low-interest, and zero-interest loans may be available to residential, commercial, industrial, transportation, public and nonprofit sectors.
- *Procurement and contracting* requires certain types of products be purchases from qualifying sources or that certain types of contractors be used in biomass processing and delivery. By issue of Executive Order, city ordinance, or state legislation, certain biomass products may be required for use in heating, construction, or operating vehicles or equipment. Financial incentives in the form of *tax credits*, *grants*, and *loans* may be used to encourage procurement/contracting practices where it is not mandated.

### **Database Organization**

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For ease of comparison, the policies in this guide are organized by state and by type of policy incentive. Within each entry summary information is provided about the policy and general details, type of incentive, the target audience, and sources of information.

### **Disclaimer**

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This information is designed to provide up-to-date information on woody biomass incentives. While all efforts have been made to identify all relevant policies within each state, the variability of information and diffuse nature of programs warrants that some information may be incomplete or outdated. Users of this guide should be aware of the dynamic nature of policy legislation surrounding woody biomass and the rapid change and addition of incentives that may result as state legislatures convene.

## Woody Biomass Utilization Policies – State

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### Alabama

**Wood Burning Heating System Deduction** (Code of Ala. § 40-18-15 (16) - This statute allows individual taxpayers a deduction for the installation of a wood-burning heating system. The deduction is equal to the total cost of installation for the conversion from gas or electricity to wood when the system is used as the primary energy source for heating a home. The deduction must be taken for the taxable year during which the conversion was completed. Note that this incentive is for the conversion of an existing system and not for the first-time installation of a wood-burning system (Tax incentive; State income tax deduction; Target audience: Residential). Enacted in 1999.

Source: <http://www.legislature.state.al.us/codeofAlabama/1975/40-18-15.htm>

**Biomass Energy Program** (Alabama Department of Economic and Community Affairs) - The Biomass Energy Program assists businesses in installing biomass energy systems. Program participants receive up to \$75,000 in interest subsidy payments to help defray the interest expense on loans to install approved biomass projects. Technical assistance is also available through the program. (Subsidies and Grants; Interest subsidy payments; Target audience: commercial, industrial, schools, local government, school government, agriculture). Enacted in 1986.

Source: <http://www.adeca.state.al.us/C16/Biomass%20Energy%20Program/default.aspx>

**Electric Power and Renewable Energy** (U.S. Department of Energy's State Energy Program) - The Renewable Energy Demonstrations Activity promoted the adoption of renewable energy through demonstration projects that showcased commercially available renewable energy technologies for biofuels, biomass energy, biogas, and solar energy applications. (Education and Consultation; Public Education and Outreach; Target audience: All). Enacted in 2006.

Source: [http://www.eere.energy.gov/state\\_energy\\_program/grants\\_by\\_state.cfm/state=AL](http://www.eere.energy.gov/state_energy_program/grants_by_state.cfm/state=AL)

**Renewable Fuels Program** (U.S. Department of Energy's State Energy Program) - The Renewable Fuels Program promoted the use of renewable fuels by industry and institutions and provided information on available biomass fuels and on incentives for converting to biomass fuels. (Education and Consultation; Public Education and Outreach; Target audience: Industry, Institution) Enacted in 2005.

Source: [http://www.eere.energy.gov/state\\_energy\\_program/grants\\_by\\_state.cfm/year=2005/state=AL](http://www.eere.energy.gov/state_energy_program/grants_by_state.cfm/year=2005/state=AL)

**Biomass Program** (U.S. Department of Energy's State Energy Program) - Science, Technology & Energy (STE) promoted industrial use of renewable fuels and provided information on available biomass fuels and on incentives for converting from fossil fuels to alternative fuels. It developed brochures and other promotional materials and coordinated with federal agricultural organizations to promote energy efficiency in agriculture. (Education and Consultation; Public Education and Outreach; Target audience: Agriculture) Enacted in 2003

Source: [http://www.eere.energy.gov/state\\_energy\\_program/grants\\_by\\_state.cfm/year=2003/state=AL](http://www.eere.energy.gov/state_energy_program/grants_by_state.cfm/year=2003/state=AL)

## Alaska

**Project Power Loan Program** (Alaska Energy Authority (AS 42.45.010)) - Provides loans to local utilities, local governments, regional and village corporations, village councils, and independent power producers. It is designed for the development or upgrade of small-scale power production facilities, conservation facilities, and bulk fuel storage facilities. This includes energy production, transmission and distribution, and waste energy conservation facilities that depend on fossil fuel, wind power, tidal, geothermal, biomass, hydroelectric, solar, or other energy sources. The loan term is related to the life of the project. Interest rates are the lesser of the average weekly yield of municipal bonds for the 12 months preceding the date of loan. (Financing and Contracting; Loan; Target Audience: Local government, Municipal Utility, Independent power producers) Enacted in 1999.

Source: <http://akenergyauthority.org/programsloan.html>

**Renewable Energy Grant Program** (Alaska Energy Authority; HB 152) - The grant program is intended to provide assistance to utilities, independent power producers, local governments, and tribal governments for feasibility studies, reconnaissance studies, energy resource monitoring, and work related to the design and construction of eligible facilities. In order to be eligible for a grant, projects must be located within Alaska. The enabling legislation states an intention to provide \$50 million in funding annually to the program for five years, but \$100 million was appropriated for the FY 2009 program. The initial allocation plan recommends that 20% of the funding go to reconnaissance, feasibility and resource studies, and the remaining 80% be awarded to final design, permitting and construction projects. (Subsidies and Grants; Grant; Target Audience: Commercial, Local Government, Utility, Tribal, Government) Enacted in 2008.

Source: [http://www.akenergyauthority.org/RE\\_Fund.html](http://www.akenergyauthority.org/RE_Fund.html)

**Sustainable Natural Alternative Power Program** (Golden Valley Electric Association) - Golden Valley Electric's SNAP program encourages members to install renewable energy generators and connect them to their utilities' electrical distribution system by offering an incentive payment based on the system's production on a \$/kWh basis. The producers of renewable power do not keep any of the power they produce. The power they produce is measured separately from their existing home or business energy use by a separate meter. GVEA also developed specific standards for the interconnection of SNAP generators to their distribution system. (Tax Incentive; Production tax credit; Target audience: Commercial, industrial, residential, nonprofit, schools, agricultural, institutional) Enacted in 2003.

Source: <http://www.gvea.com/alternative-energy/snap>

## Arizona

**Arizona Net Metering** (Arizona Public Services Company) - Credited to customer's next bill at utility's retail rate; granted to utility at end of calendar year. Net metering is available to customers with systems up to 100 kilowatts (kW) in capacity that generate electricity using solar energy, wind energy or biomass energy. The program is capped at 15 megawatts (MW) of total aggregate capacity and is conditional on continued funding for the state's Environmental Portfolio Surcharge (EPS). For customers taking service under a time-of-use rate, off-peak generation will be credited against off-peak consumption, and on-peak generation will be credited against on-peak consumption. (Renewable



Energy Standards; Net Metering; Target audiences: Commercial, industrial, residential, non-profit, schools, local government, state government, federal government, agricultural, institutional) Enacted in 2004.

Source: <http://www.aps.com/main/account/orders/EPT/default.html>

**Renewable Portfolio Standard** (ACC Decision No. 69127 (AAC R14-2-1801 et seq.)) – The state’s Renewable Energy Standard has been expanded to 15% by 2025, with 30% of the renewable energy to be derived from distributed energy technologies (~2,000 megawatts). Utilities subject to the RES must obtain renewable energy credits (equal to one kilowatt-hour) from eligible renewable resources to meet 15% of their retail electric load by 2025 and thereafter. Of this percentage, 30% (i.e. 4.5% of total retail sales) must come from distributed renewable resources by 2012 and thereafter. One-half of the distributed renewable energy requirement must come from residential applications and the remaining one-half from nonresidential, non-utility applications. (Regulation; Standard; Target audience: Residential, Utility) Enacted in 2006.

Source: <http://www.cc.state.az/divisions/utilities/electric/environmental.asp>

**Property Tax Assessment for Renewable Energy Property** (A.R.S. § 42-14155; H.B. 2614) - Renewable energy equipment owned by utilities and other entities operating in Arizona is assessed at 20% of its depreciated cost for the purpose of determining property tax. “Renewable energy equipment” is defined as “electric generation facilities, electric transmission, electric distribution, gas distribution or combination gas and electric transmission and distribution and transmission and distribution cooperative property that is located in this state, that is used or useful for the generation, storage, transmission or distribution of electric power, energy or fuel derived from solar, wind or other nonpetroleum renewable sources not intended for self-consumption”. (Tax incentive; Tax credit; Target audience: Utility, other entities that generate, transmit or distribute eligible electricity) Enacted in 2008.

Source: [http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive\\_Code=AZ30F&state=AZ&CurrentPageID=1&RE=1&EE=1](http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive_Code=AZ30F&state=AZ&CurrentPageID=1&RE=1&EE=1)

**Healthy Forest Enterprise Incentives Program** (A.R.S. § 41-1516) - The primary goal of the Healthy Forest Enterprise Incentives Program is to promote forest health in Arizona. The program achieves this by providing incentives for certified businesses that are primarily engaged in harvesting, initial processing or transporting of qualifying forest products. The program offers the following incentives: Use Fuel Tax Reduction (The use fuel tax is reduced from 26 cents to 13 cents a gallon for use class motor vehicle); Transaction Privilege Tax Exemption; Use Tax exemption; Property Tax Reduction; New Job Income Tax Credit (Arizona income tax credit earned over a three-year period for each net new job created, totaling up to \$3,000 per employee) (Tax Incentive; Tax credit; Target audience: Certified businesses with at least 3 employees) Enacted in 2005.

Source: <http://www.azcommerce.com/BusAsst/Incentives/Healthy+Forest+Enterprise+Incentives+Program.htm>

**Renewable Incentives Program** (Arizona Public Services Company) - Through the Renewable Incentive Program, Arizona Public Service (APS) offers customers who install various renewable energy sources the opportunity to sell the credits associated with the energy generated to APS. Other renewables (i.e., biomass) installed by non-residential customers can apply to receive a PBI. APS will evaluate the project to determine if it is able to qualify renewable energy incentives. Incentive amount is performance-based and are available for Electricity

Generators, Thermal Systems & Heat. (Financing and Contracting; Utility Rebate Program; Target audience: commercial, residential) Enacted in 2007.

Source: [http://www.aps.com/main/green/choice/choice\\_23.html?source=hme](http://www.aps.com/main/green/choice/choice_23.html?source=hme)

**Renewable Energy Credit Purchase Program** (UniSource Energy Services) - On-grid small hydro, biomass-biogas systems, pool heating (non-residential only), space cooling, and geothermal (electric, cooling and heating systems) are all eligible to receive PBIs. Biomass Cooling, Biomass Thermal, and Biomass Electric programs are available, and incentive amount is performance-based. (Renewable Energy Standards; Utility Rebate Program; Target audiences: commercial, residential) Enacted in 2004.

Source: <http://www.tep.com/Green>

## Arkansas

**Energy and Value-Added Products from Biomass** (Southeastern Regional Biomass Energy Program) - The purpose of this project is to briefly describe energy and value-added products from biomass workshop, which will be developed specifically for the people of the State of Arkansas as it relates to biomass utilization in the state and region. The workshop will unite biomass experts with Arkansas legislators and key decision makers on this important issue. The two-fold objective of this workshop will be to educate legislators, entrepreneurs, the business and manufacturing community, community leaders and interested citizens on the potential for biomass, and especially Arkansas biomass, in the production of energy and value-added products. Secondly, the information from the workshop will serve as a basis for legislators and decision makers to begin discussing and developing biomass policies in preparation for the 2007 legislative session. Amount: SERBP \$48,000; cost share \$13,362. (Service provision; Education; Target audience: Legislators, entrepreneurs, business, manufacturing) Enacted in 2005.

Source: <http://www.serbep.org>

**Arkansas Net Metering** (Arkansas Code § 23-18-603 et seq.) - Residential renewable-energy systems up to 25 kilowatts (kW) in capacity and nonresidential systems up to 300 kW in capacity are eligible for net metering. Eligible technologies include solar, wind, hydroelectric, geothermal and biomass systems, as well as fuel cells and microturbines using renewable fuels. There is no limit on the aggregate capacity of all net-metered systems. The 2007 amendments allow net-metered customers to carry over any NEG to their following monthly bill at the utility's retail rate. Any NEG remaining at the end of an annual billing cycle is granted to the utility. (Renewable Energy Standards; Net Metering; Target audience: Utility) Enacted in 2007.

Source: [http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive\\_Code=AR03R&state=AR&CurrentPageID=1&RE=1&EE=1](http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive_Code=AR03R&state=AR&CurrentPageID=1&RE=1&EE=1)

**Green Building Standards for State Facilities** (AR Code § 22-3-1801 et seq.) - The act includes Arkansas-specific provisions for LEED and Green Globes certification. Under these provisions, those pursuing LEED certification receive additional credit for the use of composite wood and agri-fiber products, post-consumer recycled content, renewable bio-based materials, carbon-sequestering bio-based materials, and bio-based materials from other certified sources. Those using the Green Globes rating system receive additional credit for carbon-sequestering, bio-based materials and bio-based materials from certified sources. (Regulation; Standard; Target audience: State government, commercial, industrial,

residential, general public/consumer, nonprofit, schools, local government, state government, federal government, agricultural, institutional) Enacted in 2005.

Source: <http://www.1800arkansas.com/energy>

**Interconnection Standards** (Arkansas Code § 23-18-603 et seq.) - Facilities producing electricity using solar, wind, hydro, geothermal and biomass resources are eligible to interconnect and net meter. Currently, net metering is available to residential systems up to 25 kilowatts (kW) in capacity and nonresidential systems up to 300 kW. (Regulation; Standard; Target audience: Commercial, industrial, residential, general public/consumer, nonprofit, schools, local government, state government, federal government, agricultural, institutional) Enacted in 2007.

Source: [http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive\\_Code=AR06R&state=AR&CurrentPageID=1&RE=1&EE=1](http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive_Code=AR06R&state=AR&CurrentPageID=1&RE=1&EE=1)

## California

**Energy: Renewable Energy Resources** (SB 410) - Incentives for reducing fuel costs that are confirmed to the satisfaction of the commission, at solid fuel biomass energy facilities in order to provide demonstrable environmental and public benefits including improved air quality. "Renewable energy credit" includes all renewable and environmental attributes associated with the production of electricity from the eligible renewable energy resource, except for an emissions reduction credit issue pursuant to Section 40709 of the Health and Safety Code and any credits or payments associated with the reduction of solid waste and treatment benefits created by the utilization of biomass or biogas fuels. (Subsidies and Grants; Cost-share; Target audience: industrial) Enacted in 2007.

Source: [http://www.leginfo.ca.gov/pub/07-08/bill/sen/sb\\_0401-0450/sb\\_410\\_bill\\_20070531\\_amended\\_sen\\_v95.html](http://www.leginfo.ca.gov/pub/07-08/bill/sen/sb_0401-0450/sb_410_bill_20070531_amended_sen_v95.html)

**California Feed-In Tariff** (CA Public Utilities Code § 399.20) - The California feed-in tariff allows eligible customer-generators to enter into 10-, 15-, or 20-year standard contracts with their utilities to sell the electricity produced by small renewable energy systems—up to 1.5 megawatt—at time-differentiated market-based prices. The price paid will be based on the CPUC's market price referent (MPR) table, shown in CPUC Resolution E-4137. Time-of-use adjustments will be applied by each utility and will reflect the increased value of the electricity to the utility during peak periods and its lesser value during off-peak periods. A special, higher-level rate is provided for solar electricity generated between 8 a.m. and 6 p.m. (Subsidies and Grants; Cost-share; Target audience: Commercial, industrial, residential) Enacted in 2008.

Source: <http://www.cpuc.ca.gov/PUC/energy/electric/RenewableEnergy/feedintariffs.htm>

**Public Benefits Funds for Renewables and Efficiency** (AB 995 and SB 1194) - The Existing Renewable Facilities Program provides production incentives, based on kilowatt-hours generated, to support existing renewable energy facilities. All existing Renewable Facilities Program funds are available for eligible existing solid-fuel biomass facilities and solar thermal electric facilities. The Consumer Education Program provides funds to promote renewable energy and help build the market for emerging renewable technologies. Public goods surcharge – allows utility companies to charge a fee to rate payers in order to support renewable energy production; allows the utility to be competitive with non-renewable energy sources. (Subsidies and Grants; Cost-share; Target audience: Commercial, industrial, residential; general public/consumer; utility; institutional) Enacted in 2000.

Sources: <http://www.cpuc.ca.gov/static/energy/electric/energy+efficiency/index.htm>; <http://www.energy.ca.gov/renewables>

**Biomass Standard Contract** (Southern California Edison Company) - Southern California Edison Company offers a production incentive to customers who generate electricity with eligible biomass-energy systems, including landfill gas, municipal solid waste, wood and wood waste, fuel cells, digester gas, and sewer gas. The production incentive payment is tied to the Market Price Referent, which increases annually. Participants will receive the rate that is available when their project comes on-line for the duration of their contract period. The Market Price Referent for 2008 varies from \$92.71 per megawatt-hour (MWh) to \$95.72 per MWh, depending on the length of the contract. (Subsidies and grants; Cost-share; Target audiences: Commercial, industrial, agriculture) Enacted in 2007.

Source: <http://www.sce.com/EnergyProcurement/bsc.htm>

**Renewable Energy Credits** (California Public Utilities Commission rulemaking 06-03-004) - Allows Distributed Generation owners to keep or sell the renewable energy credits (RECs) associated with their facilities. At this time in California, the sale of RECs is only allowed in voluntary markets. The CPUC is now reviewing whether unbundled RECs should be allowed for RPS compliance. If the CPUC allows unbundled RECs to be used towards the RPS then DG owners would be able to sell their RECs to utilities. (Subsidies and Grants; Cost-Share; Target audience: Distributed Generation owners) Enacted in 2007.

Source: <http://www.epa.gov/CHP/funding/funding/calcadrenewableenergycreditsr.html>

**Biofuels Production Mandate and Alternative Fuel Use Study** (Executive Order S-06-06) - The State of California plans to use biomass resources from agriculture, forestry, and urban wastes to provide transportation fuels and electricity to satisfy California's fuel and energy needs. To increase the use of biomass in fuel production, the state will produce its own biofuels at a minimum of 20% by 2010, 40% by 2020, and 75% by 2050. The Bioenergy Action Plan includes: research and development of commercially viable biofuels production and advanced biomass conversion technologies; evaluation of the potential for biofuels to provide a clean, renewable source for hydrogen fuel; and increases the purchase of flexible-fuel vehicles to 50% of total new vehicles purchased by state agencies by 2010. (Financing and Contracting; Initiative; Target audience: industrial) Enacted in 2006.

Source: [http://www.energy.ca.gov/bioenergy\\_action\\_plan](http://www.energy.ca.gov/bioenergy_action_plan) (Bioenergy Action Plan)

**Renewable Fuels Program** (U.S. Department of Energy's State Energy Program) - Promote the use of renewable fuels by industry and institutions and provided information on available biomass fuels and on incentives for converting to biomass fuels. This includes agriculture, bioenergy and bio-based products, waste management and recycling, and water systems. (Service Provision; Initiative; Target audience: industrial) Enacted in 2005.

Sources: [http://www.eere.energy.gov/state\\_energy\\_program/grants\\_by\\_state.cfm/year=2005/state=CA](http://www.eere.energy.gov/state_energy_program/grants_by_state.cfm/year=2005/state=CA)  
<http://www.calrenewablefuels.com/index.html>

**Loans for Energy Efficiency Projects** (California Energy Commission) - The California Energy Commission has \$26 million in loan funds available for energy efficiency projects at a low fixed interest rate of 3.95 percent. The maximum amount per project is \$3 million and the timeframe for repayment is 15 years. (Financing and Contracting; Loan; Target audiences: Cities, counties, special districts, public schools, public hospitals, and other public-care facilities) Enacted in 2007.

Source: [http://www.energy.ca.gov/contracts/efficiency\\_pon.html](http://www.energy.ca.gov/contracts/efficiency_pon.html)

**Supplemental Energy Payments** (California Energy Commission) - California has supplemental energy payments (SEPs) available to eligible renewable energy generators for the above market costs of procurement by California's retail sellers to fulfill their renewable portfolio standard (RPS) obligation. As of August 2007, total funding available is \$734 million. The following types of fuels/technologies are considered to be eligible - solar thermal electric, photovoltaics, landfill gas, wind, biomass, hydroelectric, geothermal electric, geothermal heat pumps, municipal solid waste, anaerobic digestion, small hydroelectric, tidal energy, wave energy, ocean thermal, biodiesel, and fuel cells using renewable fuels. (Tax incentive; Rebate; Target audience: All renewable energy facilities) Enacted in 2007.

Source: <http://www.energy.ca.gov/renewables/documents/index.html#overall>

**Renewable Energy Portfolio** (CA Public Utilities Code § 399.11 et seq.) - Legislative mandate to increase the percentage of renewable retail sales by at least 1% per year to reach at least 20% by end of 2010; goal of 33% by end of 2020. Tradable RECs may be allowed after the CPUC and Energy Commission conclude that the Western Renewable Energy Generation Information System (WREGIS) is operational and when other criteria are met. (Regulation; Renewable Energy Standards; Target audience: Investor-Owned Utility, Electric Service Providers, Small and Multi-Jurisdictional Utilities and Community Choice) Enacted in 2003.

Source: <http://www.energy.ca.gov/portfolio/index.html>

**Personal Income Tax Law and the Corporation Tax Law** (AB 6) - This bill would allow a taxpayer to take a deduction for depreciation, with respect to specified qualified capital expenditures that reduce greenhouse gas emissions and specified qualified capital investments for renewable energy, over a 3-year period, as provided. "Qualified capital investments" means equipment used to produce, generate, or store renewable energy from biomass, solar, wind and hydrogen sources. (Tax incentive; Tax credit; Target audience: Taxpayers) Enacted in 2006.

Source: <http://www.legislature.ca.gov>

**Sales and Use Tax Law** (AB 769) – The Sales and Use Tax Law imposes a tax on the gross receipts from the sale in this state of, or the storage, use, or other consumption in this state of, tangible personal property, and provides various exemptions from that tax. This bill would additionally exempt from that tax fuel that is used to transport biomass, as defined. (Tax incentive; Tax exemption; Target audience: County agencies, City agencies) Enacted in 2007.

Source: [http://www.leginfo.ca.gov/pub/07-08/bill/asm/ab\\_0751-0800/ab\\_769\\_bill\\_20070222\\_introduced.html](http://www.leginfo.ca.gov/pub/07-08/bill/asm/ab_0751-0800/ab_769_bill_20070222_introduced.html)

## Colorado

**Clean Energy Development Authority** (House Bill 1150 and Colorado Revised Statutes 40-9.7) - The Colorado Clean Energy Development Authority is created and may issue bonds to finance projects that involve the production, transportation, and storage of clean energy. Clean energy includes fuels that are manufactured by, and energy derived from, the following: biodiesel; biomass research such as biogas, agricultural or animal waste and landfill gas; ethanol; and fuel cells that do not use fossil fuels. (Financing and contracting; Bonds; Target audience: Industrial) Enacted in 2007.

Source: [http://www.eere.energy.gov/afdc/progs/all\\_state\\_summary.php/afdc/0](http://www.eere.energy.gov/afdc/progs/all_state_summary.php/afdc/0)

**Funding for Alternative Fuel Feedstock Production** (HB 1203) - The Colorado General Assembly encourages the Governor's Office of Energy Management and Conservation to set a high priority on funding projects that assess the potential for carbon sequestration and agricultural bioenergy production in the state. Agricultural bioenergy production means the agricultural production of grain or biomass that is used to generate electricity or heat for agricultural, municipal, or industrial use, or that is converted into diesel, ethanol, hydrogen gas, or other fuels for energy production or transportation. (Subsidies and Grants; Cost-share; Target audience: Agriculture) Enacted in 2007.

Source: [http://www.eere.energy.gov/afdc/progs/all\\_state\\_summary.php/afdc/0](http://www.eere.energy.gov/afdc/progs/all_state_summary.php/afdc/0)

**The Woody Biomass Program** (Governor's Energy Office) - Replaced traditional fuels with biomass. It supported biomass efforts to use woody wastes from forest thinnings and urban weather destruction events; other agricultural wastes such as plant remains after harvests; animal wastes (manure and body parts) from slaughter facilities and farming operations; and grown-for-energy-conversion plantings. It brought together all member groups within targeted industries to form coalitions or working groups to further biomass use plans. It employed demonstrations using off-the-shelf material and devices to showcase energy possibilities. It prepared, published, and disseminated comprehensive reports on the efforts. (Education and Consultation; Initiative; Target audiences: Colorado Communities) Enacted in 2007.

Source: <http://www.colorado.gov/energy/renewables/Woody-Biomass.asp>

**Market-Based Green Tag Program for Electricity from Forest Biomass and Coal** (U.S. Department of Energy's State Energy Program) - The idea is to sell green tags from the biomass portion of the electricity generated through co-firing to residents, businesses and government agencies to help offset the additional cost of biomass when compared to coal. Green tags can be sold to anyone and are not limited by geography or utility service territory. To market and sell green tags from the power, project partners will perform the following: identify and meet regulatory and green power certification requirements; work with certification programs to negotiate certification of forest biomass; develop a green tag pricing policy for the power provider; conceive and implement a business model for selling green tags to consumers; develop a marketing plan and materials for the program; implement the green tags program; and document the program results. (Service provision; Initiative) Enacted in 2003.

Source: [http://www.eere.energy.gov/state\\_energy\\_program/project\\_detail.cfm/sp\\_id=552](http://www.eere.energy.gov/state_energy_program/project_detail.cfm/sp_id=552)



**Community Biomass for Thermal Usage Program** (Governor's Energy Office) - \$100,000 has been allocated for this program from the Colorado Clean Energy Fund. The purpose of this partnership program is to provide financial support for biomass-heating projects that utilize community-based biomass sources. Funding for feasibility studies or economic analyses may be considered in rare cases. Financial support from multiple stakeholders must be committed before a project can receive additional funding through the program. Priority given to projects that use community produced wood chips or Colorado manufactured pellets. High-priority is given to projects that "include supply from fuel-reduction, restoration activities, local collection sites, and/or projects that demonstrate long term availability of biomass supply." Residential and large industrial projects are not eligible for funding. (Financing and Contracting; Loan; Target audience: Colorado Communities) Enacted in 2007.

Source: <http://www.colorado.gov/energy/renewables/CommunityBiomass.asp>

**Colorado Biomass Market Transformation** (U.S. Department of Energy's State Energy Program) - The Colorado Governor's Office of Energy Management and Conservation (OEMC) funded studies, demonstrated technologies, shared results, and developed internal expertise. Through Rebuild Colorado, OEMC helped state and local governments implement \$100 million worth of facility upgrade projects with performance contracts. The bio-based fuel of choice in Colorado is wood chips from forest thinning projects for use in heating buildings. State and local governments, particularly in forested areas, are motivated to thin forests to reduce the danger of forest fires so the ability to use the forest thinnings for energy is viewed as a win-win prospect. This activity implemented eight projects that will save \$1.6 million and use 20,000 tons of wood chips per year. (Education and Consultation; Loan) Enacted in 2005.

Source: [http://www.eere.energy.gov/state\\_energy\\_program/project\\_detail.cfm/sp\\_id=819](http://www.eere.energy.gov/state_energy_program/project_detail.cfm/sp_id=819)

**Colorado Net Metering** (4 CCR 723-3, Rule 3664) - Credited to customer's next bill; IOS: utility pays customer at end of calendar year for excess kWh credits at the average hourly incremental cost for that year. Electricity generated at a customer's site can be applied toward meeting a utility's renewable-generation requirement under Colorado's renewable portfolio standard (RPS). The RPS mandates that 4% of the renewables requirement be met with solar energy; half of this percentage must come from solar electricity generated at customers' facilities. (Renewable Energy Standards; Net Metering; Target Audiences: Commercial, industrial, agricultural) Enacted in 2008.

Source: [http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive\\_Code=CO26R&state=CO&CurrentPageID=1&RE=1&EE=1](http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive_Code=CO26R&state=CO&CurrentPageID=1&RE=1&EE=1)

**Colorado Renewable Portfolio Standard** (Colorado Public Utilities Commission) - Colorado's renewable portfolio standard requires that all investor-owned utilities follow a RPS schedule of five percent renewable energy for the years 2008-2010, 10 percent for 2011-2014, 15 percent for 2015-2019, and 20 percent for the year 2020 and for each following year. All electric cooperatives with more than 40,000 customers must achieve one percent renewable energy by 2008, three percent by 2011, six percent by 2015, and 10 percent by 2020 and for subsequent years. Tradable renewable energy credits (RECs) may be used to satisfy the standard. Utilities that do not generate the required amount of electricity from renewable energy sources may purchase RECs from utilities that exceed the requirement. Eligible technologies: Photovoltaics, Landfill

Gas, Wind, Biomass, Hydroelectric, Geothermal Electric, Fuel Cells, "Recycled Energy" (Regulation; Renewable Portfolio Standard; Target Audiences: Utility, Municipal Utility, Investor-Owned Utility; Rural Electric Cooperative) Enacted in 2006.

Source: [http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive\\_Code=CO24R&state=CO&CurrentPageID=1&RE=1&EE=0](http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive_Code=CO24R&state=CO&CurrentPageID=1&RE=1&EE=0)

**Local Option – Property Tax Exemption for Renewable Energy Systems** (CRS § 30-11-107.3) - Colorado enacted legislation in April 2007 (SB 145) to authorize counties and municipalities to offer property or sales tax rebates or credits to residential and commercial property owners who install renewable energy systems on their property. Eligible renewable energy property is defined as "any fixture, product, system, device or interacting group of devices that produce electricity from renewable resources, including, but not limited to, photovoltaic systems, solar thermal systems, small wind systems, biomass systems, or geothermal systems". (Tax incentive; Tax exemption; Target audiences: Residential, commercial) Enacted in 2007.

Source: [http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive\\_Code=CO49F&state=CO&CurrentPageID=1&RE=1&EE=1](http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive_Code=CO49F&state=CO&CurrentPageID=1&RE=1&EE=1)

**Local Option – Sales Tax Exemption for Renewable Energy Systems** (CRS § 31-20-101.3) - Colorado enacted legislation in April 2007 (SB 145) to authorize counties and municipalities to offer property or sales tax rebates or credits to residential and commercial property owners who install renewable energy systems on their property. Eligible renewable energy property is defined as "any fixture, product, system, device or interacting group of devices that produce electricity from renewable resources, including, but not limited to, photovoltaic systems, solar thermal systems, small wind systems, biomass systems, and geothermal systems. (Tax incentive; Tax exemption; Target audiences: Residential, Commercial) Enacted in 2007.

Source: [http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive\\_Code=CO50F&state=CO&CurrentPageID=1&RE=1&EE=1](http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive_Code=CO50F&state=CO&CurrentPageID=1&RE=1&EE=1)

## Connecticut

**Operational Demonstration Program** (Conn. Gen. Stat. § 16-245n) - The program supports proposals for demonstration projects that have a high likelihood of developing into a commercial product within a reasonable period of time -- generally, five years for fuel cells and three years for most other clean-energy technologies (including biomass). Projects must have a capacity of at least one kilowatt (kW), or the functional equivalent for hydrogen generation. The maximum amount of funding for each individual award is \$750,000. (Subsidies and Grants; Grant; Target audiences: Commercial) Enacted in 2006.

Source: <http://www.ctcleanenergy.com/default.aspx?tabid=98>

**New Energy Technology Program** (Connecticut Office of Policy and Management) - Connecticut's New Energy Technology program aims to develop innovative energy-efficient technologies (including biomass) and renewable-energy technologies in order to save energy, improve air



quality and generate employment opportunities in Connecticut. Individual awards up to \$10,000. (Subsidies and Grants; Grant; Target audiences: Any Connecticut resident or any company located in Connecticut that has 30 or fewer employees) Enacted in 2007.

Source: <http://www.opm.state.ct.us/pdpd2/grants/net.htm>

**On-Site Renewable DG Program** (Connecticut Clean Energy Fund) - Connecticut's On-Site Renewable Distributed Generation (DG) Program provides grants to support the installation of systems that generate electricity at commercial, industrial and institutional buildings. The total funding allocated for all selected projects under the On-Site Renewable DG Program is \$66.24 million through 2010. All projects must have a minimum system capacity of 10 kilowatts (kW). (Subsidies and Grants; Grant; Target audiences: Commercial, Industrial, Schools, Local government, State government, Institutional) Enacted in 2005.

Source: <http://www.ctcleanenergy.com/default.aspx?tabid=95>

**Project 150 Initiative** (Connecticut Clean Energy Fund & Conn. Gen. Stat. § 16-244c) - Requires the state's two electric distribution companies -- CL&P and UI -- to enter into long-term electricity purchase agreements to obtain at least 150 megawatts (MW) of "Class I" renewable energy.(includes biomass) Pricing under these contracts includes a premium of up to 5.5¢ per kilowatt-hour (kWh). (Regulation; Initiative; Target audience: Commercial, Renewable energy project developers) Enacted in 2003.

Source: <http://www.ctcleanenergy.com/default.aspx?tabid=97>

**Green Power Purchase Plan** (Executive Order 2) - The executive order directs state-government agencies and universities to purchase an increasing amount of electricity generated by renewable resources (including sustainable biomass). Under terms of the order, the state government has a goal to increase "Class I" renewable-energy purchases to 20% of electricity used in 2010, 50% in 2020 and 100% in 2050. The order also authorizes the use of savings generated by state energy efficiency and conservation projects to fund green power purchases. (Regulation; Initiative: Target audience: State government) Enacted in 2004.

Source: [http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive\\_Code=CT07R&state=CT&CurrentPageID=1&RE=1&EE=1](http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive_Code=CT07R&state=CT&CurrentPageID=1&RE=1&EE=1)

**Renewable Energy Project** (U.S. Department of Energy's State Energy Plan) - The Renewable Energy Project explored opportunities to obtain Renewable Energy Credits for the state from its fuel cell installation at the Connecticut Juvenile Training School and other renewable energy sites, instituted a renewable energy project at a Department of Corrections facility, attended and participated in Solar Connecticut and Biomass Working Group meetings, and worked with other state agencies on renewable programs and projects that are part of Connecticut's Climate Change Action Plan. (Service Provision; Initiative; Target audience: Commercial, industrial, energy project developers) Enacted in 2006.

Source: [http://apps1.eere.energy.gov/state\\_energy\\_program/grants\\_by\\_state.cfm/state=CT](http://apps1.eere.energy.gov/state_energy_program/grants_by_state.cfm/state=CT)

**Connecticut Biomass Working Group** (U.S. Department of Energy's State Energy Program) - The Connecticut energy office participated in a biomass working group as part of the Northeast Regional Biomass Program. It worked with the Department of Environmental Protection to exchange information and improve communication as it related to biomass activities and opportunities. (Service provision; Initiative; Target audiences: all) Enacted in 2003.

Source: [http://apps1.eere.energy.gov/state\\_energy\\_program/grants\\_by\\_state.cfm/year=2003/state=CT](http://apps1.eere.energy.gov/state_energy_program/grants_by_state.cfm/year=2003/state=CT)

**Connecticut Clean Energy Fund** (Conn. Gen. Stat. § 16-245n) - A surcharge on Connecticut ratepayers' utility bills provides the funding for the CCEF. Connecticut Innovations has utilized a variety of funding mechanisms to support the mission of the CCEF, including grants and rebates, convertible debt, equity investments and subsidies for various ventures. In addition, each of Connecticut's municipal electric utilities is required by statute (Conn. Gen. Stat. § 7-233y) to establish a fund to provide renewable energy, energy efficiency, conservation and load-management programs. (Tax incentive; Initiative; Target audiences: all) Enacted in 1998.

Source: <http://www.ctinnovations.com/funding/ccef/about.php>

**Energy Conservation Loan** (C.G.S. 32-315, et seq.) - Energy Conservation Loans for single families are available through the Connecticut Housing Investment Fund (CHIF) to owners of one- to four-family homes who meet established income limits for family size and location. These loans may be used for a variety of energy conservation improvements (including biomass). Interest rates vary in accordance with the borrower's family size and income, and the loan may be repaid over 10 years. (Financing and Contracting; Loan; Target audience: Residential, multi-family residential) Enacted in 2006.

Source: [http://www.chif.org/owner\\_borrowers/index.shtml#energy](http://www.chif.org/owner_borrowers/index.shtml#energy)

**Connecticut Net Metering** (Conn. Gen. Stat. § 16-243h (HB 7432)) - Connecticut's two investor-owned utilities -- Connecticut Light and Power Company (CL&P) and United Illuminating Company (UI) -- are required to provide net metering to customers that generate electricity using "Class I" renewable-energy resources, which include solar, wind, landfill gas, fuel cells, sustainable biomass, ocean-thermal power, wave or tidal power, low-emission advanced renewable-energy conversion technologies, and hydropower facilities up to two megawatts (MW) in capacity. (Renewable Energy Standards; Net Metering; Target audiences: all) Enacted in 2007.

Source: [http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive\\_Code=CT01R&state=CT&CurrentPageID=1&RE=1&EE=1](http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive_Code=CT01R&state=CT&CurrentPageID=1&RE=1&EE=1)

**Green Building Standards for State Facilities** (Conn. Gen. Stat. § 16a-38k (HB 7432)) - Adopted building construction regulations for state facilities. The construction standards must be consistent with or exceed the U.S. Green Building Council's LEED Silver rating for new commercial construction and major renovation projects, or an equivalent standard, including a two-globe rating under the Green Globes USA design program. Also established mandatory efficiency requirements for certain equipment purchased by the state. (Regulation; Standard; Target audiences: Local government, State government) Enacted in 2007.

Source: [http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive\\_Code=CT13R&state=CT&CurrentPageID=1&RE=1&EE=1](http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive_Code=CT13R&state=CT&CurrentPageID=1&RE=1&EE=1)

**Renewable Portfolio Standard** (Conn. Gen. Stat. § 16-245a et seq.) - Required each electric supplier and each electric distribution company wholesale supplier to demonstrate that no less than 5% of its total output or services is generated by qualifying renewable-energy resources by January 1, 2006. The requirement increases to 23% by January 1, 2020. The RPS also requires that 4% be derived from combined heat and power (CHP) systems and energy efficiency by 2010. (Regulation; Standard; Target audience: Utility, Retail supplier) Enacted in 1998.

Source: <http://www.dpuc.state.ct.us/Electric.nsf/All?OpenView&Start=1&Count=30&Expand=4.6#4.6>

**Property Tax Exemption for Renewable Energy** (HM 7432) - Connecticut provides a property tax exemption for "Class I" renewable energy systems (includes "a biomass gasification plant that utilizes land clearing debris, tree stumps or other biomass that regenerates or the use of which will not result in a depletion of resources, provided such biomass is cultivated and harvested in a sustainable manner" that generate electricity for private residential use. The exemption is available for systems installed on or after October 1, 2007, that serve single-family homes or multi-family dwellings limited to four units. (Tax incentive; Tax credit; Target audience: Commercial, industrial, residential, multi-family residential, agricultural) Enacted in 2007.

Source: [http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive\\_Code=CT07F&state=CT&CurrentPageID=1&RE=1&EE=1](http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive_Code=CT07F&state=CT&CurrentPageID=1&RE=1&EE=1)

## Delaware

**Research and Development Grants** (29 Del. C. § 8051 et seq.) - The Delaware Department of Natural Resources and Environmental Control will accept proposals for program grants for qualifying projects that improve the engineering, adaptation or development of products or processes that directly relate to renewable energy technology. The Research and Development Program offers grants up to 35% of the cost of qualifying projects and shall not exceed \$250,000 per project. (Subsidies and Grants; Grant; Intended audience: Commercial, Institutional) Enacted in 1999.

Source: [http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive\\_Code=DE04F&state=DE&CurrentPageID=1&RE=1&EE=1](http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive_Code=DE04F&state=DE&CurrentPageID=1&RE=1&EE=1)

**Green Energy Fund** (26 Del. C. § 1014) - Provides cash grants from the Green Energy Fund for renewable energy technology installation. Funds may also support energy efficiency education programs. Funds for the public benefit programs are collected from Delmarva Power and Light customers (the state's only investor-owned utility). (Subsidies and Grants; Grant; Intended audience: Commercial, industrial, residential, general public/consumer, utility, institutional) Enacted in 1999.

Source: [http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive\\_Code=DE01R&state=DE&CurrentPageID=1&RE=1&EE=1](http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive_Code=DE01R&state=DE&CurrentPageID=1&RE=1&EE=1)

**Delaware Net Metering** (26 Del. C. § 1014(d) & SB 8) - In Delaware, net metering is available to any customer that generates electricity using renewable fuels. The maximum capacity of a net-metered system is 25 kilowatts (kW) for residential customers of DP&L, DEC and municipal

electric utilities; two megawatts (MW) per meter for non-residential customers of DP&L; and 500 kW per meter for non-residential customers of DEC and municipal utilities. (Renewable Energy Standards; Net Metering; Intended audience: all) Enacted in 2008.

Source: [http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive\\_Code=DE02R&state=DE&CurrentPageID=1&RE=1&EE=1](http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive_Code=DE02R&state=DE&CurrentPageID=1&RE=1&EE=1)

**Renewable Portfolio Standard** (26 Del. C. § 351 et seq. & SB 328) - Senate Bill 74 established a renewable portfolio standard (RPS) requiring retail electricity suppliers to purchase 10% of the electricity sold in the state from renewable sources (includes sustainable biomass) by 2019. Senate Bill 19 of 2007 increased the RPS target to 20%. (Regulation; Standard; Intended audiences: Utility, Retail supplier) Enacted in 2008.

Source: [http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive\\_Code=DE02R&state=DE&CurrentPageID=1&RE=1&EE=1](http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive_Code=DE02R&state=DE&CurrentPageID=1&RE=1&EE=1)

## Florida

**Development of an Integrated Biomass Resource Plan and Network for Florida** (Southeastern Regional Biomass Energy Program) - The goal of this project is to offset petroleum imports by building a Florida bio-based economy. The objectives center around policy formulation and support. Two major tasks are planned. The first task involves creating a portfolio of biomass resource maps and identifying installed and potential biomass energy production capacity (to include biofuel refineries). The second task seeks to create a Florida Biomass Network that will assist the Florida Energy Office (FEO) with strategic planning for its biomass program and advise the FEO on specific biomass projects. Amount: SERBP \$48,000; cost share \$12,000. (Education and Consultation; Education) Enacted in 2005.

Source: <http://www.serbep.org>

**Bioenergy Development Program** (U.S. Department of Energy's State Energy Program) - The Bioenergy Development Program fostered the development of biomass technology and increased the use of biomass energy. It provided for the education and promotion to the public of biomass energy as a reliable, market-ready alternative energy source that is available to all segments of society. Activities included hosting a statewide biomass network to facilitate information sharing, and conducted continuing research and demonstration of biomass and biogas technologies and practices. Projects linked biomass gasification technologies with production of alternative energy fuels such as hydrogen and ethanol. (Education and Consultation; Education) Enacted in 2006.

Source: [http://apps1.eere.energy.gov/state\\_energy\\_program/grants\\_by\\_state.cfm/state=FL](http://apps1.eere.energy.gov/state_energy_program/grants_by_state.cfm/state=FL)

**Florida Farm to Fuel Grants Program** (Fla. Stat. § 570.957)- In 2007, the Florida Legislature established the Farm to Fuel Grants Program to provide matching grants for demonstration, commercialization, research and development projects relating to bioenergy. As part of this program, the Legislature appropriated \$25 million in matching grants. The Program intends to stimulate investment in energy projects that produce bioenergy from Florida-grown crops or biomass. (Subsidies and Grants; Grant; Intended audience: Commercial, nonprofit, schools, local government, utility) Enacted in 2007.

Source: <http://www.floridafarmtofuel.com/grant.htm>

**Renewable Energy Technologies Grant Program** (Fla. Stat. § 377.804) - The Renewable Energy Technologies Grants Program was established in June 2006 (SB 888) to provide renewable energy matching grants for demonstration, commercialization, research, and development projects relating to renewable energy technologies.(Subsidies and Grants; Grant; Intended audience: Commercial, nonprofit, schools, local government, utility) Enacted in 2006.

Source: <http://www.dep.state.fl.us/energy/energyact/grants.htm>

**Biomass Project** (U.S. Department of Energy's State Energy Program) - The Biomass Project fostered development of biomass technology and increased the use of biomass energy. It provided for the education and promotion to the public of biomass energy as a reliable, market-ready alternative energy source that is available to all segments of society. It created resource maps of biomass and biofuels potential in Florida, developed a statewide biomass network to facilitate information sharing, and conducted continuing research and demonstration of biomass and biofuels technologies and practices.(Service Provision; Initiative) Enacted in 2006.

Source: [http://apps1.eere.energy.gov/state\\_energy\\_program/grants\\_by\\_state.cfm/state=FL](http://apps1.eere.energy.gov/state_energy_program/grants_by_state.cfm/state=FL)

**Florida Net Metering** (HB 7135) - In March 2008, the Florida Public Service Commission (PSC) adopted rules for net metering and interconnection for renewable-energy systems up to two megawatts (MW) in capacity. The PSC rules apply only to the state's investor-owned utilities; the rules do not apply to electric cooperatives or municipal utilities. (Renewable Energy Standards; Net Metering; Intended audiences: all) Enacted in 2008.

Source: [http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive\\_Code=FL19R&state=FL&CurrentPageID=1&RE=1&EE=1](http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive_Code=FL19R&state=FL&CurrentPageID=1&RE=1&EE=1)

**Renewable Energy Production Tax Credit** (HB 7134) - This annual corporate tax credit is equal to \$0.01/kWh of electricity produced and sold by the taxpayer to an unrelated party during a given tax year. (Tax incentive; Tax credit; Intended audiences: Commercial) Enacted in 2006.

Source: <http://www.dep.state.fl.us/energy/energyact/incentives.htm>

**Renewable Energy Property Tax Exemption** (Fla. Stat. § 196.175 & HB 7135) - Improved real property upon which a renewable energy source device is installed and operated is entitled to an exemption in the amount of the original cost of the device, including the installation cost. The exemption does not include the cost of replacing, removing or improving existing property in the course of the installation. (Tax incentive; Tax credit; Intended audience: Commercial, industrial, residential) Enacted in 2008.

Source: [http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive\\_Code=FL66F&state=FL&CurrentPageID=1&RE=1&EE=1](http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive_Code=FL66F&state=FL&CurrentPageID=1&RE=1&EE=1)

## Hawaii

**Technology Innovation Activity** (U.S. Department of Energy's State Energy Program) - The Technology Innovation activity identified and promoted opportunities that advance technology innovation and use of renewable resources for utility and stationary power and transportation. It complemented and supported the state's biomass, geothermal, and hydrogen programs and other advanced renewable energy technology programs. (Education and Consultation; Initiative) Enacted in 2005.

Source: [http://apps1.eere.energy.gov/state\\_energy\\_program/grants\\_by\\_state.cfm/year=2005/state=HI](http://apps1.eere.energy.gov/state_energy_program/grants_by_state.cfm/year=2005/state=HI)

**Farm and Aquaculture Sustainable Projects Loan** (HB 2261) - Hawaii enacted legislation which created a loan program for agriculture and aquaculture renewable energy projects. Farmers and Aquaculturists may receive loans for projects involving photovoltaic (PV) energy, hydroelectric power, wind power generation, methane generation, bio-diesel and ethanol production. Loans may provide up to 85% of the project cost (up to a maximum of \$1,500,000) for a term of up to forty years. (Financing and Contracting; Loan; Intended audiences: Agriculture, Aquaculture) Enacted in 2008.

Source: [http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive\\_Code=HI27F&state=HI&CurrentPageID=1&RE=1&EE=1](http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive_Code=HI27F&state=HI&CurrentPageID=1&RE=1&EE=1)

**Hawaii Net Metering** (HRS § 269-101 et seq.) - Hawaii's original net-metering law was enacted in 2001 and expanded in 2004 by HB 2048, which increased the eligible capacity limit of net-metered systems from 10 kilowatts (kW) to 50 kW. Net metering is available on a first-come, first-served basis to residential and "small commercial" customers (including government entities) that generate electricity using solar, wind, biomass or hydroelectric systems. (Renewable Energy Standards; Net Metering; Intended audiences: Commercial, Residential, Local government, State government, Federal government) Enacted in 2001.

Source: <http://www.hawaii.gov/dbedt/info/energy>

**Renewables and Efficiency in State Facilities and Operations** (HRS §196) - Section 2 of this Act details requirements for renewable energy and energy efficiency in Hawaii's public schools. An amount of \$5,000,000 was appropriated to develop a photovoltaic, net metered pilot project in the schools for the 2006-2007 fiscal year. In order to reduce project costs, installation of photovoltaic systems must be timed to occur in conjunction with major roof repairs or replacements in the school buildings, and all systems must use net metering. Projects must recapture the system costs within three quarters of the useful life of the system. HRS §196-9 aims to promote energy efficiency and environmental standards for state facilities, motor vehicles, and transportation fuels.(Agency Budgets; Standard; Intended audiences: Schools, state government) Enacted in 2006.

Source: <http://www.hawaii.gov/dbedt/info/energy/efficiency/state/>

**Priority Permit Processing for Green Buildings** (HRS §46-19.6) - Requires each county agency that issues building, construction, or development-related permits to establish a procedure for priority processing of permit applications for construction projects incorporating energy and environmental design building standards. The priority processing will be provided at no additional cost. Meeting the "energy and environmental design building standards" can be achieved by earning either a LEED silver rating, a two green globes rating, or other comparable state-approved, nationally recognized, and consensus-based guideline, standard, or system. (Regulation; Standard; Intended audiences: County agencies) Enacted in 2006.

Source: [http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive\\_Code=HI25F&state=HI&CurrentPageID=1&RE=1&EE=1](http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive_Code=HI25F&state=HI&CurrentPageID=1&RE=1&EE=1)

**Interconnection Standards** (HRS § 269-101 et seq.) - Hawaii has established both simplified interconnection rules for small renewables and separate rules for all other distributed generation. Simplified interconnection procedures for net metering are available for solar, wind, biomass and hydroelectric systems up to 50 kilowatts (kW) in capacity. (Regulation; Standard; Intended audiences: Commercial, industrial, residential, nonprofit, schools, state government, federal government (Enacted in 2004)

Source: <http://www.state.hi.us/dbedt/ert/interconnection/interconnection.html>

**Renewable Portfolio Standard** (HRS § 269-91 et seq.) - Hawaii's renewable portfolio goal was replaced with an enforceable renewable portfolio standard (RPS) upon the enactment of SB 2474 Under the new standard, 20% of electricity must be generated from renewable resources by the end of 2020. (Regulation; Standard; Intended audience: Utility) Enacted in 2003.

Source: <http://www.hawaii.gov/dbedt/info/energy>

**High Technology Business Investment Tax Credit** (HRS § 235-110.9) - Hawaii is the only state in the nation to offer a 100% tax credit on an equity investment in a qualified high tech business (QHTB). The purpose of this credit is to encourage investment in Hawaii's high tech companies. A "qualified high technology business" is defined as "a business that conducts more than fifty per cent of its activities in qualified research." "Qualified research" includes "non-fossil fuel energy-related technology". (Tax incentive; Tax credit; Intended audience: Industrial) Enacted in 2003.

Source: <http://www.state.hi.us/tax/announce/2003ann01.htm>



## Idaho

**Renewable Energy Project Bond Program** (Idaho Statutes 67-8901 et seq.) - Allows independent (non-utility) developers of renewable energy projects in the state to request financing from the Idaho Energy Resources Authority. The authority was created to finance the construction of electric generation and transmission projects by electric utilities. SB 1192 extended the financing opportunities to independent renewable energy producers that are not "qualifying facilities" under the federal Public Utility Regulatory Policies Act of 1978. (Financing and Contracting; Bonds; Intended audiences: Commercial, Independent power producer) Enacted in 2005.

Source: [http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive\\_Code=ID06F&state=ID&CurrentPageID=1&RE=1&EE=1](http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive_Code=ID06F&state=ID&CurrentPageID=1&RE=1&EE=1)

**Renewable Energy Grant** (Bonneville Environmental Foundation) - Using revenues generated from the sales of Green Tags, Bonneville Environmental Foundation, a not-for-profit organization, accepts proposals for funding for renewable energy projects located in the Pacific Northwest. Any private person, organization, local or tribal government located in the Pacific Northwest may participate. Projects that generate electricity are preferred. Acceptable projects include solar photovoltaics, solar thermal electric, wind, hydro, biomass and animal waste-to-energy. If a BEF grant is requested for a generating project, the BEF share will not exceed 33% of total capital costs and 0% of operating costs. (Subsidies and Grants; Grant; Intended audiences: Nonprofit, local government; tribal government) Enacted in 2005.

Source: <http://www.b-e-f.org/grants/index.shtm>

**Biofuels Infrastructure Grant** (HB 150) - The purpose of this legislation is to provide grants for up to 50% of the cost of the project for Idaho retail fuel dealers who choose to invest in qualified fueling infrastructure projects dedicated to providing biofuels to their customers. Funds can be used for installing new fueling infrastructure dedicated to offering biofuels for retail sale, or for upgrading existing fueling infrastructure that is documented as being incompatible with biofuels, including cleaning existing storage tanks. (Subsidies and Grants; Grant; Intended audience: Commercial, industrial) Enacted in 2007.

Source: [http://www.energy.idaho.gov/about/Biofuels\\_BIG\\_program.pdf](http://www.energy.idaho.gov/about/Biofuels_BIG_program.pdf)

**Fuels for Schools** (USDA) - Our mission is to facilitate and promote the beneficial use of woody biomass "waste" created by forest management treatments. Improved use of forest biomass has many benefits: it can improve air quality by reducing slash pile burning, lower land management costs, improve forest health and resilience, economically assist in protecting communities and watersheds from wildfire, provide low cost, locally sourced heating fuel, reduce fossil fuel consumption, and create rural jobs. (Education and Consultation; Initiative; Intended audiences: Schools) Enacted in 2004.

Source: <http://www.fuelsforschools.info>



**Low-Interest Energy Loan Program** (Idaho Office of Energy Resources) - The Idaho Office of Energy Resources administers low-interest loan programs for energy efficiency projects, and for active solar, wind, geothermal, hydropower and biomass energy projects. The interest rate is 4% with a 5-year repayment term. Loans are available for retrofit only, with the exception of some renewable resources. Amount: Residential: \$1,000 to \$15,000; Commercial: \$1,000 to \$100,000; Agricultural: Up to \$100,000; Renewable Loans: Up to \$100,000; Schools, Hospitals, Healthcare Facilities: Up to \$100,000. (Financing and Contracting; Loan; Intended audience: Commercial, Residential, Schools, Local Government, State Government, Agricultural, Institutional, Hospitals) Enacted in 2003.

Source: [http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive\\_Code=ID02F&state=ID&CurrentPageID=1&RE=1&EE=1](http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive_Code=ID02F&state=ID&CurrentPageID=1&RE=1&EE=1)

**Net Metering** (Avista Utilities, Idaho Power, Rocky Mountain Power) - Idaho does not have statewide net-metering rules. However, each of the state's three investor-owned utilities has developed a net-metering tariff that has been approved by the Idaho Public Utilities Commission (PUC). The framework of the utilities' net-metering programs is similar in that each utility: (1) offers net metering to customers that generate electricity using solar, wind, hydropower, biomass or fuel cells; (2) limits residential systems to 25 kilowatts; (3) limits aggregate net-metered capacity to 0.1% of the utility's retail peak generation in 2000; and (4) restricts any single customer from generating more than 20% of the aggregate capacity of all net-metered systems. (Renewable Energy Standards; Net Metering; Intended audiences: Commercial, residential, agricultural) Enacted in 1997.

Source: <http://www.avistautilities.com/services/renewable/incentives/idaho/Pages/default.aspx>

**Residential Alternative Energy Tax Deduction** (IC § 63-3022C) - This statute allows taxpayers an income tax deduction of 40% of the cost of a solar, wind, geothermal, and certain biomass energy devices used for heating or electricity generation. Taxpayers can apply this 40% deduction in the year in which the system is installed and can also deduct 20% of the cost each year for three years thereafter. The maximum deduction in any one year is \$5,000. The total maximum deduction is \$20,000. (Tax incentive; Tax credit; Intended audiences: Residential) Enacted in 2007.

Source: [http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive\\_Code=ID01F&state=ID&CurrentPageID=1&RE=1&EE=1](http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive_Code=ID01F&state=ID&CurrentPageID=1&RE=1&EE=1)

**Residential Energy Equipment Sales Tax Refund** (Idaho Code, § 63-3622QQ) - Idaho offers a sales-and-use tax rebate for qualifying equipment and machinery used to generate electricity from fuel cells, low-impact hydro, wind, geothermal resources, biomass, cogeneration, solar and landfill gas. Purchasers qualify for a rebate only if the equipment is used to develop a facility or a project capable of generating at least 25 kW of electricity. To receive the rebate, the taxpayer must pay any sales and use tax on the purchase. (Tax incentive; Tax credit; Intended audiences: Commercial, Industrial, Residential) Enacted in 2005.

Source: [http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive\\_Code=ID08F&state=ID&CurrentPageID=1&RE=1&EE=1](http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive_Code=ID08F&state=ID&CurrentPageID=1&RE=1&EE=1)

**Biofuel Fueling Infrastructure Tax Credit** (Idaho Statutes 63-3029M) - Qualified biofuel fueling infrastructure is eligible for a credit of up to 6% of the qualified investment against the corporate income tax. The allowable credit cannot exceed 50% of the income tax liability of the taxpayer. (Tax incentive; Tax credit; Intended audience: Commercial, industrial) Enacted in 2007.

Source: [http://www.eere.energy.gov/afdc/progs/all\\_state\\_summary.php/afdc/0](http://www.eere.energy.gov/afdc/progs/all_state_summary.php/afdc/0)

## Illinois

**Biogas and Biomass to Energy Grant Program** (20 ILCS 687/6-3) - The focus of the Biogas and Biomass to Energy Grant Program, through the RERP, is to demonstrate the use of biogas and biomass for on-site energy generation at facilities in Illinois. The biogas and biomass grant program will provide a 50% cost-share for energy feasibility studies or for the installation of equipment for these purposes. (Subsidies and Grants; Cost-Share; Intended audiences: all) Enacted in 1997.

Source: [http://www.commerce.state.il.us/dceo/Bureaus/Energy\\_Recycling/Energy/Clean+Energy/01-Biogas+and+Biomass.htm](http://www.commerce.state.il.us/dceo/Bureaus/Energy_Recycling/Energy/Clean+Energy/01-Biogas+and+Biomass.htm)

**Illinois Clean Energy Community Foundation Grants** (§ 220 ILCS 5/16-111.1) - The ICECF provides grants, on a competitive basis, to programs and projects that improve energy efficiency, develop renewable-energy resources, and preserve and enhance natural areas and wildlife habitats in Illinois. Grants support wind, solar (both solar thermal and solar electric applications), biomass, fuel cells and other forms of distributed generation. Award amounts will be considered on a case-by-case basis, taking into account cost-effectiveness of the project, project innovation, simple project payback, other sources of funding and owner contribution. (Subsidies and Grants; Grant; Intended audiences: Nonprofit, schools, local government) Enacted in 1999.

Source: <http://www.illinoiscleanenergy.org/grants.asp>

**Renewable Energy Resources Trust Fund** (Public Act 095-0481 § 5-910 et seq.) - The Renewable Energy Resources Trust Fund (RERTF) supports renewables through grants, loans and other incentives administered by the Illinois Department of Commerce and Economic Opportunity (DCEO). The RERTF is supported by a surcharge on customers' electric bills and gas bills known as the Renewable Energy Resource and Coal Technology Development Assistance Charge. Participation is required for investor-owned utilities, but voluntary for municipal utilities and electric cooperatives. (Financing and Contracting; Loan; Intended audiences: Commercial, industrial, residential, general public/consumer, utility, institutional) Enacted in 1997.

Source: [http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive\\_Code=IL01R&state=IL&CurrentPageID=1&RE=1&EE=1](http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive_Code=IL01R&state=IL&CurrentPageID=1&RE=1&EE=1)

**Illinois Net Metering** (§ 220 ILCS 5/16-107.5) - Systems up to 40 kilowatts (kW) in capacity that are intended primarily to offset the customer's own electrical requirements are eligible. While Illinois's investor-owned utilities and alternative retail electricity suppliers must offer

net metering, the state's municipal utilities and electric cooperatives are generally not required to do so. (Renewable Energy Standards; Net Metering; Intended audiences: all) Enacted in 2007.

Source: [http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive\\_Code=IL13R&state=IL&CurrentPageID=1&RE=1&EE=1](http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive_Code=IL13R&state=IL&CurrentPageID=1&RE=1&EE=1)

**Green Power Purchasing** (State of Illinois) - In January 2007, the State of Illinois established a goal for state agencies to purchase 3% of their power from renewable sources by the end of 2007, 4% by the end of 2008, and 5% by the end of 2009.(Regulation; Standard; Intended audiences: State government) Enacted in 2007.

Source: <http://www.illinois.gov/PressReleases/ShowPressRelease.cfm?SubjectID=18&RecNum=5902>

**Renewable Portfolio Standard** (§ 20 ILCS 3855/1-75) - The purpose of the Illinois Power Agency is to develop electricity procurement plans for state utilities supplying over 100,000 Illinois customers to ensure “adequate, reliable, affordable, efficient, and environmentally sustainable electric service at the lowest total cost.” The Agency is charged with competitively procuring energy supply according to the plans (as appropriate), and with meeting a renewable portfolio standard of 25% by 2025. (Regulation; Standard; Intended audiences: Utility) Enacted in 2007.

Source: [http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive\\_Code=IL04R&state=IL&CurrentPageID=1&RE=1&EE=1](http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive_Code=IL04R&state=IL&CurrentPageID=1&RE=1&EE=1)

## Indiana

**Energy Efficient State Building Initiative** (Executive Order 08-14) - New state buildings must meet LEED Silver certification standard, a two-globe rating under the Green Globe rating system, Energy Star certification, or another nationally recognized rating system. (Regulation, Initiative, Intended audiences: State government) Enacted in 2008.

Source: [http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive\\_Code=IN08R&state=IN&CurrentPageID=1&RE=1&EE=1](http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive_Code=IN08R&state=IN&CurrentPageID=1&RE=1&EE=1)

**The alternative Power and Energy Program** (U.S. Department of Energy's State Energy Program) - The Alternative Power and Energy Program provided financial assistance to the Indiana public and the commercial, industrial, and agricultural sectors for installing alternative energy systems for thermal, power generation, and other non-transportation applications of alternative or renewable energy. Eligible projects included applications of solar, wind, hydro, biogas, waste-to-energy, energy recycling, fuel cells, and biomass energy systems. The program promoted and developed wind resources through the Indiana Wind Working Group, promotion of the USDA Section 9006 program, participation in the Great Lakes Biomass State and Regional Partnership, and the Midwest CHP Initiative. (Financing and Contracting; Loan; Intended audience: Commercial, industrial, agricultural, general public) Enacted in 2006.

Source: [http://apps1.eere.energy.gov/state\\_energy\\_program/grants\\_by\\_state.cfm/year=2006/state=IN](http://apps1.eere.energy.gov/state_energy_program/grants_by_state.cfm/year=2006/state=IN)

## Iowa

**Grants for Energy Efficiency and Renewable Energy Research** (Iowa Code § 266.39C) - Research grants are awarded in two broad categories: renewable energy and energy efficiency. Past grants have supported research in biofuels, wind-resource assessment, photovoltaic (PV) research, biomass gasification, energy-efficient livestock-confinement ventilation, process-manufacturing efficiency, and commercial building HVAC control. (Subsidies and Grants; Grant; Intended audience: Commercial, industrial, transportation, agricultural) Enacted in 1990.

Source: <http://www.energy.iastate.edu/Funding/GrantProgram.htm>

**Mandatory Utility Green Power Option** (Iowa Code § 476.47) - All electric utilities operating in Iowa, including those not rate-regulated by the Iowa Utilities Board (IUB), are required to offer green power options to their customers. These programs allow customers to make voluntary contributions to support the development of renewable energy sources in Iowa. (Regulation, Initiative, Intended audiences: Utility) Enacted in 2004.

Source: [http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive\\_Code=IA03R&state=IA&CurrentPageID=1&RE=1&EE=1](http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive_Code=IA03R&state=IA&CurrentPageID=1&RE=1&EE=1)

**Fostering Bio-Products Markets: Markey Conditioning for an Iowa Rebuild America Community** (U.S. Department of Energy's State Energy Program) - This project significantly increased the use and procurement of biomass-based technologies and products in an Iowa Rebuild America community. Bioproduct markets include biofuels, lubricants and fluids, construction materials, biobased furniture, and mulch and soil conditioners. The project developed and issued the RFP to select the target community, coordinated the efforts, assisted with data collection and analysis, and reported project activities and outcomes to the U.S. Department of Energy. (Service Provision, Initiative) Enacted in 2005.

Source: [http://apps1.eere.energy.gov/state\\_energy\\_program/project\\_detail.cfm/sp\\_id=839](http://apps1.eere.energy.gov/state_energy_program/project_detail.cfm/sp_id=839)

**Alternative Energy Revolving Loan Program** (Iowa Code § 476.46) - The AERLP provides loan funds to individuals and organizations that seek to build renewable energy production facilities in Iowa. Eligible renewable energy technologies include solar, biomass, wind and small hydro. Successful applicants will receive a single, low-interest loan that consists of a combination of AERLP funds and matching lender-provided funds. The AERLP provides 50% of the total loan at 0% interest, with a maximum of \$1 million. The remainder of the loan is provided by a lender at market rate. (Financing and Contracting; Loan; Intended audience: Commercial, industrial, residential) Enacted in 1996.

Source: <http://www.energy.iastate.edu/AERLP/index.htm>

**Iowa Energy Bank** (Iowa Code 473.19 et seq) - Iowa's Energy Bank Program provides a variety of energy assistance services for state public agencies, schools, and some non-profit organizations. Eligible organizations include public and private K-12 schools, community colleges, area education agencies, hospitals, local government, private colleges and state agencies. One of the program's primary goals is to make budget-neutral energy improvements for participating agencies and organizations. This is possible by facilitating loans and alternative financing options

that can be repaid by the energy savings resulting from energy improvement projects. (Financing and Contracting; Loan; Intended audiences: Nonprofit, schools, local government, state government, institutional) Enacted in 2008.

Source: [http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive\\_Code=IA05F&state=IA&CurrentPageID=1&RE=1&EE=1](http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive_Code=IA05F&state=IA&CurrentPageID=1&RE=1&EE=1)

**Iowa Net Metering** (Iowa Code § 476.41 et seq.) - Iowa's net-metering subrule, adopted by the IUB in July 1984, applies to customers that generate electricity using alternate energy production facilities (AEPs). Net metering is available to all customer classes of Iowa's two investor-owned utilities -- MidAmerican Energy and Interstate Power and Light (IPL). Although Iowa's net-metering subrule requires utilities to purchase customers' net excess generation (NEG) at the utility's avoided-cost rate, subsequent rule waivers allow MidAmerican Energy and IPL customers to carry NEG (as a kilowatt-hour credit) forward for use in future months. (Renewable Energy Standards; Net Metering; Intended audiences: Commercial, industrial, residential) Enacted in 1984.

Source: [http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive\\_Code=IA02R&state=IA&CurrentPageID=1&RE=1&EE=1](http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive_Code=IA02R&state=IA&CurrentPageID=1&RE=1&EE=1)

**Alternative Energy Law** (Iowa Code § 476.41 et seq.) - Iowa requires its two investor-owned utilities -- MidAmerican Energy and Alliant Energy Interstate Power and Light (IPL) -- to own or to contract for a combined total of 105 megawatts (MW) of renewable generating capacity and associated energy production, which can include small hydropower facilities. (Regulation; Standard; Intended audiences: Utility) Enacted in 2007.

Source: [http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive\\_Code=IA01R&state=IA&CurrentPageID=1&RE=1&EE=1](http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive_Code=IA01R&state=IA&CurrentPageID=1&RE=1&EE=1)

**Renewable Energy Production Tax Credit (Corporate)** (IA Code § 476C) - Under Iowa Code § 476C, a production tax credit of 1.5¢ per kilowatt-hour is available for energy generated and sold by eligible wind energy generators and other renewable energy facilities, including biomass and solar. This credit may be applied toward the state's personal income tax, business tax, financial institutions tax, or sales and use tax. (Tax Incentive; Tax Credit; Intended audiences: Commercial, industrial, schools, rural electric cooperative; agricultural) Enacted in 2005.

Source: [http://www.state.ia.us/government/com/util/energy/renewable\\_tax\\_credits.html](http://www.state.ia.us/government/com/util/energy/renewable_tax_credits.html)

**Renewable Energy Production Tax Credit (Personal)** (IA Code § 476C) - Under Iowa Code § 476C, a production tax credit of 1.5¢ per kilowatt-hour is available for energy generated and sold by eligible wind energy generators and other renewable energy facilities, including biomass and solar. To qualify for the credit, a renewable energy facility must be at least 51% owned by specifically defined qualifying owners, and must be approved as eligible by the IUB. (Tax incentive; Tax Credit; Intended audiences: Commercial, industrial, schools, rural electric cooperative; agricultural) Enacted in 2008.

**Energy Replacement Generation Tax Exemption** (Iowa Code § 437A.6) - Iowa imposes a replacement generation tax of 0.06 cents (\$0.0006) per kWh on various forms of electricity generated within the state. This tax is imposed in lieu of a property tax on generation facilities.

However, under the Energy Replacement Generation Tax Exemption, all energy generated by methane gas conversion property (including digester gas facilities) and wind energy conversion property is exempt from the replacement generation tax. (Tax incentive; Tax exemption; Intended audience: Commercial, industrial, residential) Enacted in 2001.

Source: [http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive\\_Code=IA10F&state=IA&CurrentPageID=1&RE=1&EE=1](http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive_Code=IA10F&state=IA&CurrentPageID=1&RE=1&EE=1)

## **Kansas**

**Kansas Biomass Energy Resources Assessment** (U.S. Department of Energy's State Energy Program) - The Kansas Biomass Energy Resources Assessment assessed, at the county level, the magnitude of production/generation and geographic distribution. It presented alternative uses of selected components of the Kansas biomass resource base. It also evaluated the economic and technical feasibility of using these resources for alternative energy, evaluated the potential for producing and using other biomass energy crops and resources, determined and calculated supply curves for each feedstock assessed, with projections of supply and costs over the next 10 years, and assessed the economic and technical feasibility of each component. (Education and Consultation; Assessment) Enacted in 2003.

Source: [http://apps1.eere.energy.gov/state\\_energy\\_program/grants\\_by\\_state.cfm/year=2003/state=KS](http://apps1.eere.energy.gov/state_energy_program/grants_by_state.cfm/year=2003/state=KS)

**Renewable Energy Property Tax Exemption** (Kansas Statutes 79-201) - This statute exempts renewable energy equipment from property taxes. Renewable energy includes wind, solar thermal electric, photovoltaic, biomass, hydropower, geothermal, and landfill gas resources or technologies that are actually and regularly used predominantly to produce and generate electricity. In addition, beginning in the 2002 tax year all personal property used to collect, refine, and treat landfill gas or transport landfill gas from a landfill to a transmission pipeline (i.e., not necessarily used for electricity generation) is also exempt from property taxes. (Tax incentive; Tax exemption; Intended audiences: Commercial, industrial, residential) Enacted in 1999.

Source: [http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive\\_Code=KS02F&state=KS&CurrentPageID=1&RE=1&EE=1](http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive_Code=KS02F&state=KS&CurrentPageID=1&RE=1&EE=1)

**Biomass-to-Energy Plant Tax Credit** (Kansas Statutes 74-8949b) - An income tax credit for expenditures in new construction or expansion of an existing plant after December 3, 2005 and before January 1, 2011. The credit is 10 percent of the qualified investment on the first \$250 million invested, and 5 percent of the qualified investment over \$250 million. In addition to the income tax credit, a taxpayer is entitled to a deduction from Kansas adjusted gross income of the amortizable costs of a new facility equal to 55 percent of the amortizable costs of the facility for the first taxable year, and 5 percent for the next nine taxable years. Biomass-to-Energy plant property is exempt from all property taxes for the 10 taxable years immediately after construction or installation. To finance the construction of a Biomass-to-Energy plant, the Kansas Development Finance Authority can issue revenue bonds in amounts sufficient to pay the costs of construction or expansion. (Tax incentive; Tax exemption; Intended audience: Commercial) Enacted in 2006.

Source: <http://www.ksrevenue.org/taxcredits-biomass.htm>

## Kentucky

**Kentucky Net Metering** (KRS § 278.465 et seq.) - In April 2008, Kentucky enacted legislation (SB 83) that expanded its net-metering law by requiring utilities to offer net metering to customers that generate electricity with photovoltaic (PV), wind, biomass, biogas or hydroelectric systems up to 30 kilowatts (kW) in capacity. If the electricity fed back to the utility by the customer exceeds the electricity supplied by the utility during a billing period, the customer is credited for excess generation at the utility's retail rate. This credit will appear on the customer's next bill and will carry forward indefinitely. Credits are not transferable. (Renewable Energy Standards; Net Metering; Intended audience: Commercial, residential, nonprofit, schools, local government, state government, agricultural, institutional) Enacted in 2008.

Source: [http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive\\_Code=KY07R&state=KY&CurrentPageID=1&RE=1&EE=1](http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive_Code=KY07R&state=KY&CurrentPageID=1&RE=1&EE=1)

**Tax Credit for Renewable Energy Facilities** (KRS § 154.27-010 et seq.) - A renewable energy facility is defined as one that generates at least 50 kW of electricity from solar power or at least 1 MW from wind power, biomass resources, landfill gas, hydropower or similar renewable resources. The electricity must be sold to an unrelated party. The minimum investment in any renewable energy facility must be \$1 million in capital expenditure which is defined to include various non-capital costs such as labor. The tax credit allows approved facilities to receive a credit up to 100% of Kentucky income tax and the limited liability tax for projects that construct, retrofit or upgrade facilities that generate power from renewable resources. In addition, companies may also receive a sales tax incentive of up to 100% of the Kentucky sales and use tax paid (on or after the activation date) on materials, machinery and equipment used to construct, retrofit or upgrade an eligible project. (Tax incentive; Tax credit; Intended audiences: Commercial) Enacted in 2007.

Source: [http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive\\_Code=KY25F&state=KY&CurrentPageID=1&RE=1&EE=1](http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive_Code=KY25F&state=KY&CurrentPageID=1&RE=1&EE=1)

**Sales Tax Exemption for Large-Scale Renewable Energy Projects** (KRS § 154.27-010 et seq.) - A renewable energy facility is defined as one that generates at least 50 kW of electricity from solar power or at least 1 MW from wind power, biomass resources, landfill gas, hydropower or similar renewable resources. The electricity must be sold to an unrelated party. The minimum investment in any renewable energy facility must be \$1 million in capital expenditure which is defined to include various non-capital costs such as labor. The tax credit allows approved facilities to receive a credit up to 100% of Kentucky income tax and the limited liability tax for projects that construct, retrofit or upgrade facilities that generate power from renewable resources. In addition, companies may also receive a sales tax incentive of up to 100% of the Kentucky sales and use tax paid (on or after the activation date) on materials, machinery and equipment used to construct, retrofit or upgrade an eligible project. (Tax incentive; Tax exemption; Intended audience: Commercial) Enacted in 2007.

Source: [http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive\\_Code=KY26F&state=KY&CurrentPageID=1&RE=1&EE=1](http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive_Code=KY26F&state=KY&CurrentPageID=1&RE=1&EE=1)



## Louisiana

**Revision, Update and Distribution of the Booklet Biomass Energy Resources in Louisiana** (Southeastern Regional Biomass Energy Program) - The goal of this project is to develop a publication on biomass use and potential for energy in Louisiana. The publication will be distributed to legislators, policy-makers, planners and other individuals with an interest in developing efficient energy systems for the economies of Louisiana and other states with similar biomass resources. Amount: SERBP \$48,000; cost share \$11,029 (Education and consultation; Education) Enacted in 2005.

Source: <http://www.serbep.org/>

**Renewable Biomass Resources Program** (U.S. Department of Energy's State Energy Program) - The Renewable Biomass Resources Program developed a comprehensive, interactive Web-based database that identifies, quantifies, and geographically locates all potential renewable energy resources in the state and evaluated the economic development potential and the environmental impact of alternative farming and silvicultural practices. (Service provision, Initiative) Enacted in 2008.

Source: [http://apps1.eere.energy.gov/state\\_energy\\_program/grants\\_by\\_state.cfm/year=2006/state=LA](http://apps1.eere.energy.gov/state_energy_program/grants_by_state.cfm/year=2006/state=LA)

**Louisiana Net Metering** (La. R.S. 51:3061 et seq.) - Louisiana's rules, based largely on those in place in Arkansas, require investor-owned utilities, municipal utilities and electric cooperatives to offer net metering to customers that generate electricity using solar, wind, hydropower, geothermal or biomass resources. Residential systems up to 25 kilowatts (kW) in capacity, and commercial and agricultural systems up to 300 kW in capacity are eligible for net metering. (Renewable Energy Standards; Net Metering; Intended audiences: Commercial, residential, agricultural) Enacted in 2003.

Source: [http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive\\_Code=LA02R&state=LA&CurrentPageID=1&RE=1&EE=1](http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive_Code=LA02R&state=LA&CurrentPageID=1&RE=1&EE=1)

**Renewable Fuels Standard** (Louisiana Revised Statutes 3:4674) - Within six months after ethanol produced in the state exceeds an annual production volume of 50 million gallons and the average wholesale price of a gallon Louisiana-manufactured ethanol, is equal to or below the average wholesale price of a gallon of regular unleaded gasoline for a period of 60 days, 2% of the total gasoline sold by volume in the state must be denatured ethanol produced from domestically grown feedstock or other biomass materials. Within six months after the cumulative monthly production of biodiesel produced in the state equals or exceeds 10 million gallons annually, 2% of the total diesel sold by volume in the state must be biodiesel produced from domestically grown feedstock. These requirements may also be met through the production of an "alternate renewable fuel" defined as a liquid fuel that is domestically produced from renewable biomass, can be used in place of ethanol or biodiesel, and meets the definition of renewable fuel in the Energy Policy Act of 2005.(Regulation; Standard; Intended audiences: Utility) Enacted in 2006.

Source: <http://www.legis.state.la.us/lss/lss.asp?doc=206106>



## Maryland

**Maryland Net Metering** (Md. Public Utility Companies Code § 7-306) - Maryland's net-metering law has been expanded four times since it was originally enacted in 1997. In their current form, the rules apply to all utilities -- investor-owned utilities (IOUs), electric cooperatives and municipal utilities. Net metering is available statewide until the aggregate capacity of all net-metered systems reaches 1,500 MW. Net excess generation (NEG) is carried over at the utility's retail rate to the customer's next bill for 12 months. Any NEG remaining in a customer's account after a 12-month period is granted to the utility with no compensation for the customer. (Renewable Energy Standards; Net Metering; Intended audiences: Commercial, residential, schools, local government, state government, federal government) Enacted in 1997.

Source: <http://www.energy.maryland.gov/facts/renewable/netmetering.asp>

**Renewable Energy Portfolio Standard** (Md. Public Utility Companies Code § 7-701 et seq.) - Maryland's Renewable Energy Portfolio Standard requires electricity suppliers (all utilities and competitive retail suppliers) to use renewable energy sources to generate a minimum portion of their retail sales. Beginning in 2006, electricity suppliers are to provide 1% of retail electricity sales in the state from Tier 1 renewables and 2.5% from Tier 2 renewables. The renewables requirement increases gradually, ultimately reaching a level of 20% from Tier 1 resources in 2022 and beyond, and 2.5% from Tier 2 resources from 2006 through 2018. Legislation enacted in April 2007 (SB 595) added a provision requiring electricity suppliers to derive 2% of electricity sales from solar energy in addition to the 7.5% renewables derived from other Tier 1 resources as outlined in the initial RPS law. (Regulation; Renewable Energy Standards; Intended audiences: Utility, Retail electricity suppliers) Enacted in 2004.

Source: <http://www.psc.state.md.us/psc/electric/rps/home.htm>

**Clean Energy Production Tax Credit (Corporate)** (Md. TAX-GENERAL Code § 10-720) - Maryland offers a production tax credit for electricity generated by wind, geothermal energy, solar energy, hydropower, small irrigation power, municipal solid waste and biomass resources. Eligible biomass resources include anaerobic digestion, landfill gas, wastewater-treatment gas, and cellulosic material derived from forest-related resources (excluding old-growth timber and mill residues consisting of sawdust or wood shavings), from waste pallets and crates, or from agricultural sources. Administration may claim a credit equal to 0.85 cents per kilowatt-hour (\$0.0085/kWh) against the state income tax, for a five-year period, for electricity generated by eligible resources. The credit for electricity generated by co-firing is 0.5 cents per kilowatt-hour (\$0.005/kWh). The electricity generated must be sold to an unrelated person during the taxable year. (Tax incentive; Tax credit; Intended audience: Commercial, industrial, residential, utility, agricultural) Enacted in 2000.

Source: [http://energy.maryland.gov/incentives/allprograms/cep\\_taxcredit.asp](http://energy.maryland.gov/incentives/allprograms/cep_taxcredit.asp)

**Clean Energy Production Tax Credit (Personal)** - Maryland offers a production tax credit for electricity generated by wind, geothermal energy, solar energy, hydropower, small irrigation power, municipal solid waste and biomass resources. Eligible biomass resources include anaerobic digestion, landfill gas, wastewater-treatment gas, and cellulosic material derived from forest-related resources (excluding old-growth

timber and mill residues consisting of sawdust or wood shavings), from waste pallets and crates, or from agricultural sources. Administration may claim a credit equal to 0.85 cents per kilowatt-hour (\$0.0085/kWh) against the state income tax, for a five-year period, for electricity generated by eligible resources. The credit for electricity generated by co-firing is 0.5 cents per kilowatt-hour (\$0.005/kWh). The electricity generated must be sold to an unrelated person during the taxable year. (Tax incentive; Tax credit; Intended audience: Commercial, residential, multi-family residential, agricultural) Enacted in 2000.

Source: [http://energy.maryland.gov/incentives/allprograms/cep\\_taxcredit.asp](http://energy.maryland.gov/incentives/allprograms/cep_taxcredit.asp)

**Wood Heating Fuel Exemption** (Md. TAX-GENERAL Code § 11-207) - This statute exempts from the state sales tax all wood or "refuse-derived" fuel used for heating purposes. This exemption applies to residential use only. (Tax incentive; Tax exemption; Intended audience: Residential)

Source: [http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive\\_Code=MD01F&state=MD&CurrentPageID=1&RE=1&EE=1](http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive_Code=MD01F&state=MD&CurrentPageID=1&RE=1&EE=1)

## Massachusetts

**Clean Energy Pre-Development Financing Initiative** (Massachusetts Technology Collaborative) - The Clean Energy Pre-Development Financing Initiative offers grants and loans to support the development of grid-connected renewable energy systems in New England. Eligible technologies or resources include wind energy; naturally flowing water and hydroelectric power; landfill gas; anaerobic digestion; and low-emission, advanced power-conversion technologies using "eligible biomass fuel," as provided for in 225 CMR 14.05(1)(a)6. Biomass and wind-energy projects must have a minimum capacity of three megawatts (MW), and hydroelectric, landfill gas and digester gas projects must have a minimum capacity of 250 kilowatts (kW). Projects must be designed to lead to the development of new renewable grid-connected generating capacity for the wholesale electricity market. Therefore, more than 50% of the renewable energy produced must be provided to the wholesale market. (Subsidies and Grants; Grant; Intended audiences: Local government, state government, federal government) Enacted in 2005.

Source: [http://www.masstech.org/grants\\_and\\_awards/CE/predev\\_overview.htm](http://www.masstech.org/grants_and_awards/CE/predev_overview.htm)

**Large Onsite Renewables Initiative** (Massachusetts Renewable Energy Trust Fund) - Program funds support grid-tied renewable-energy projects (excluding PV) greater than 10 kilowatts (kW) in capacity that are located at commercial, industrial, institutional and public facilities that will consume more than 25% of the renewable energy generated by the project on-site. The applicant and project site must be a customer of a Massachusetts investor-owned electric distribution utility or a municipal utility that pays into the Renewable Energy Trust. Grant awards may be used to facilitate the installation of renewable-energy projects on existing buildings (retrofits) or in conjunction with new construction/major renovation projects, including green buildings. (Subsidies and Grants; Grants; Intended audiences: Commercial, industrial, schools, local government, state government, federal government, multi-family residential, institutional) Enacted in 2006.

Source: [http://www.masstech.org/renewableenergy/large\\_renewables.htm](http://www.masstech.org/renewableenergy/large_renewables.htm)

**Renewable Energy Trust Fund** (M.G.L. ch. 40J, § 4E [amended by S.B. 2768]) - The renewable energy fund, known as the Massachusetts Renewable Energy Trust (MRET), is supported by a non-bypassable surcharge of surcharge of \$0.0005 per kilowatt-hour (0.5 mill/kWh), imposed on customers of all investor-owned electric utilities and competitive municipal utilities in Massachusetts. The RET may provide grants, contracts, loans, equity investments, energy production credits, bill credits and rebates to customers. (Agency budgets; Initiative; Intended audiences: Commercial, industrial, residential, general public/consumer nonprofit, schools, utility, agricultural, institutional) Enacted in 1997.

Source: <http://www.mtpc.org/RenewableEnergy/index.htm>

**Green Power Purchasing Commitment** (Executive Order 484) - This order establishes numerous energy targets and mandates for state government buildings under control of the executive office. The order directed state government agencies to procure 15% of annual electricity consumption from renewable sources by 2012 and 30% by 2020. This mandate may be achieved through procurement of renewable energy supply, purchase of renewable energy certificates (RECs), and/or through the production of on-site renewable power. Only renewable sources that qualify for the Massachusetts renewable portfolio standard (RPS) are eligible. (Regulation; Initiative; Intended audience: State government) Enacted in 2007.

Source: [http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive\\_Code=MA15R&state=MA&CurrentPageID=1&RE=1&EE=1](http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive_Code=MA15R&state=MA&CurrentPageID=1&RE=1&EE=1)

**The Biomass Energy Policy and Market Development Program** (U.S. Department of Energy's State Energy Program) - The Biomass Energy Policy and Market Development Program promoted biomass with a comprehensive biomass energy policy initiative to improve the policy and market conditions and foster biomass economic development. The project informed the Renewable Portfolio Standard eligibility criteria for biomass projects and forestry management, assessed the regional woody biomass resource, and evaluated the potential for rural economic development. It increased the use of biofuels and biodiesel for building heating through outreach, formal collaboration with other state agencies to formalize comprehensive biomass energy policy and implementation plan, engaging with public and private sectors to inform policy discussions and understand and address issues, promote project activities within state agencies and private market to adopt bioenergy fuels, legal review and input, outreach policy and project development to industry, municipalities, concerned citizens, and renewable energy developers. (Service provision; Initiative; Intended audiences: Industry, municipalities, citizens, renewable energy developers) Enacted in 2006.

Source: [http://apps1.eere.energy.gov/state\\_energy\\_program/grants\\_by\\_state.cfm/year=2006/state=MA](http://apps1.eere.energy.gov/state_energy_program/grants_by_state.cfm/year=2006/state=MA)

**Business Expansion Initiative** (Business Expansion Initiative Solicitation [No. 2007-BEI-01]) - The Massachusetts Technology Collaborative (MTC), as administrator of the state's Renewable Energy Trust Fund, offers loans to support renewable energy companies entering or expanding within the manufacturing stage of commercial development. Companies that currently, or plan to, manufacture renewable energy technology products in Massachusetts are generally eligible. Products may be new or existing, or a combination of the two. (Financing and Contracting; Loan; Intended audiences: Commercial, industrial) Enacted in 2007.

Source: <http://www.masstech.org/renewableenergy/BEI/index.html>

**Sustainable Energy Economic Development Initiative** (Massachusetts Technology Collaborative) – Provides financial assistance to support renewable energy companies in the early stage of development. Applicants are companies that generally have a unique technology but have not yet demonstrated commercial viability to an extent sufficient to attract venture capital. Awards of up to \$500,000 are available as a convertible loan on a competitive basis. (Financing and Contracting; Loan; Intended audience: Commercial, industrial) Enacted in 2004.

Source: <http://www.masstech.org/SEED>

**Clean Energy Pre-Development Financing Initiative** (Renewable Energy Trust Fund) - Provides financial assistance to support renewable-energy companies in the early stage of development. Applicants are companies that generally have a unique technology but have not yet demonstrated commercial viability to an extent sufficient to attract venture capital. Awards of up to \$500,000 are available as a grant. (Subsidies and Grants; Grant; Intended audiences: Commercial, industrial, nonprofit, local government, state government, federal government) Enacted in 2005.

Source: [http://www.masstech.org/grants\\_and\\_awards/CE/predev\\_overview.htm](http://www.masstech.org/grants_and_awards/CE/predev_overview.htm)

**Massachusetts Net Metering** (M.G.L. ch. 164, § 1G [amended by S.B. 2768]) - The state's investor-owned utilities must offer net metering. Municipal utilities are not obligated to offer net metering, but they may do so voluntarily. Massachusetts also allows “neighborhood net metering” for neighborhood-based Class I, II or III facilities that are owned by (or serve the energy needs of) a group of 10 or more residential customers in a single neighborhood and served by a single utility. If a neighborhood facility has NEG at the end of a billing period, the credits are awarded to designated neighborhood customers that have an ownership interest in the facility. The amount of NEG attributed to each such customer is determined by the allocation provided by the neighborhood net metering facility. Credits may be carried forward to the next month indefinitely. (Renewable Energy Standards; Net Metering; Intended audiences: Commercial, industrial, residential, nonprofit, schools, local government, state government, federal government, agricultural, institutional) Enacted in 1997.

Source: <http://www.mtpc.org/cleanenergy/howto/interconnection/netppa.htm>

**Energy Reduction Plan for State Buildings** (Executive Order 484) - All new construction and significant renovation projects over 20,000 square feet must meet the Massachusetts LEED Plus green building standard established by the Commonwealth of Massachusetts Sustainable Design Roundtable. For projects smaller than 20,000 square feet, all projects shall at least meet the minimum energy performance standards established by the Roundtable. (Regulation; Standard; Intended audiences: Schools, local government, state government, institutional) Enacted in 2007.

Source: [http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive\\_Code=MA13R&state=MA&CurrentPageID=1&RE=1&EE=1](http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive_Code=MA13R&state=MA&CurrentPageID=1&RE=1&EE=1)

**Renewable Portfolio Standard** (M.G.L. ch. 25A, § 11F [amended by S.B. 2768]) - In April 2002, the Massachusetts Department of Energy Resources (DOER) adopted RPS regulations that required all retail electricity providers in the state to utilize new renewable-energy sources for

at least 1% of their power supply in 2003, increasing to 4% by 2009. Through December 31, 2008, eligible renewables include solar photovoltaics (PV); solar thermal-electric energy; wind energy; ocean thermal, wave or tidal energy; fuel cells utilizing renewable fuels; landfill gas; low-emission advanced biomass power conversion technologies using fuels such as wood, by-products or waste from agricultural crops, food or animals, energy crops, biogas, or liquid biofuels; and geothermal energy. Previously operational biomass facility retrofitted with advanced conversion technologies could also qualify. (Regulation; Standard; Intended audiences: Utility) Enacted in 1997.

Source: <http://www.state.ma.us/doer/rps/index.htm>

**Alternative Energy and Energy Conservation Patent Exemption (Corporate)** (MGL ch. 62, § 2(a)(2)(G)) - Massachusetts offers a corporate excise tax deduction for (1) any income -- including royalty income -- received from the sale or lease of a U.S. patent deemed beneficial for energy conservation or alternative energy development by the Massachusetts Department of Energy Resources, and (2) any income received from the sale or lease of personal or real property or materials manufactured in Massachusetts and subject to the approved patent. (Tax incentive; Tax credit; Intended audience: Commercial) Enacted in 1979.

Source: <http://www.state.ma.us/doer/programs/renew/renew.htm#taxcred>

**Alternative Energy and Energy Conservation Patent Exemption (Personal)** (MGL ch. 62, § 2(a)(2)(G)) - Massachusetts offers a personal income tax deduction for any income received from the sale of a patent or royalty income from a patent deemed beneficial for energy conservation or alternative energy development. This deduction is unique among incentives in that it targets patents and not simply real property. (Tax incentive; Tax credit; Intended audience: General public/consumer) Enacted in 1979.

Source: <http://www.state.ma.us/doer/programs/renew/renew.htm#taxcred>

## Michigan

**Biomass Curriculum** (U.S. Department of Energy's State Energy Program) - This proposal seeks funding for the development of education curriculum materials on biomass-based technologies for use in middle schools and high schools. This project will address the multidisciplinary field of bioenergy and bio-product development. The biomass energy curriculum project will be conducted by Michigan Association of Conservation Districts (MACD). MACD will create a network of partners who are interested in promoting biomass energy to develop curriculum for middle school and high school students. The curriculum will cover the following:

- History of biomass energy
- Converting biomass into usable sources
- Carbon cycle and photosynthesis
- Biobased options and primary barriers of biomass technologies
- Harvesting, storage, and handling considerations for cellulosic biomass.

(Education and Consultation; Education; Intended audiences: Middle schools, High schools) Enacted in 2003.

Source: [http://www.eere.energy.gov/state\\_energy\\_program/project\\_detail.cfm/sp\\_id=600](http://www.eere.energy.gov/state_energy_program/project_detail.cfm/sp_id=600)

**Biomass Energy Program Grants** (U.S. Department of Energy's State Energy Program) - The Michigan Biomass Energy Program (MBEP) provides funding for state bioenergy and biofuels projects on a regular basis. Funding categories typically include biofuels and bioenergy education, biofuels infrastructure, and biomass technology development and demonstrations. Grant award amounts vary. It also educated potential suppliers of proven technology and feedstocks about the market opportunities and barriers for developing energy resources in Michigan. (Subsidies and Grants; Grant; Intended audiences: Nonprofit, schools, local government, state government) Enacted in 2008.

Source: <http://www.michigan.gov/biomass>

**Low-Income and Energy Efficiency Fund** (MCL § 460.10d) - The purpose of the LIEEF is to provide energy assistance for low-income customers, to provide conservation and efficiency measures to reduce energy use and energy bills of low-income customers, and to promote energy efficiency among all customer classes. The PSC decided that 75% of monies awarded will support grants for energy-efficiency projects and energy assistance for low-income residents, and the remaining 25% will support grants for energy-efficiency projects to benefit all customer classes. Renewable-energy projects -- including wind turbines, photovoltaic (PV) systems, anaerobic digesters and other biomass projects -- have received funding from the LIEEF. (Subsidies and Grants; Grant; Intended audience: Commercial, industrial, residential, nonprofit, schools, local government, state government, agricultural, institutional) Enacted in 2000.

Source: [http://www.michigan.gov/mpsc/0,1607,7-159-16370\\_27289---,00.html](http://www.michigan.gov/mpsc/0,1607,7-159-16370_27289---,00.html)

**Michigan Net Metering** (Michigan Public Service Commission) - Under the current rules, systems that generate electricity using solar, wind, geothermal, biomass (including waste-to-energy and landfill gas) or hydropower are eligible. Any customer net excess generation (NEG) is carried over to the customer's next bill, at the utility's retail price of generation, for a 12-month period. Any NEG remaining at the end of a 12-month billing cycle is awarded to the utility, and the value of these credits will be used to offset program costs. Customer-generators retain ownership of all renewable-energy credits (RECs) associated with the generation of electricity. (Renewable Energy Standards; Net Metering; Intended audiences: Commercial, Industrial, Residential, Nonprofit, Schools, Local Government, State Government, Tribal Government, Fed. Government, Agricultural, Institutional) Enacted in 2008.

Source: <http://www.michigan.gov/netmetering>

**Renewable Payroll Credit** (MCL § 208.1429) - Businesses certified by the NextEnergy Authority that locate in the NextEnergy Zone of Detroit to develop "alternative energy technologies," as defined by the Michigan Next Energy Authority Act, may claim a credit for their qualified payroll amount. If the credit exceeds the tax liability of the business for the tax year, the portion of the credit exceeding the tax liability will be refunded. (Tax incentive; Tax credit; Intended audiences: Commercial, industrial) Enacted in 2002.

Source: [http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive\\_Code=MI07F&state=MI&CurrentPageID=1&RE=1&EE=1](http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive_Code=MI07F&state=MI&CurrentPageID=1&RE=1&EE=1)

**Alternative Energy Personal Property Tax Exemption** (MCL § 207.821 et seq.) - The Michigan Next Energy Authority Act of 2002 created a property tax exemption designed to promote the development, commercialization, and manufacturing of a broad range of alternative energy technologies. Property exempt from personal property tax includes: (1) alternative energy systems less than 2 megawatts, or integrated combinations of alternative energy systems of no more than 10 megawatts (2) alternative energy vehicles (3) the personal property of an alternative energy technology business (4) the personal property of a business not engaged in alternative-energy technology that is used solely for the purpose of researching, developing or manufacturing alternative. (Tax incentive; Tax exemption; Intended audiences: Commercial, industrial) Enacted in 2002.

Source: <http://www.michigan.org/medc/ttc/Alternative.Energy/Financial.Incentives>

## Minnesota

**Minnesota Power Grant Program** (Minnesota Power Grant Program) - Minnesota Power Grant Program offers grants of up to \$50,000 to its commercial, industrial, and agricultural customers who use innovative technologies, improve manufacturing processes, undertake renewable electric energy projects or who need project design assistance. Eligible projects include renewable energy products, new electro-technologies that lower energy costs per unit of production in a manufacturing process, innovative technologies that are new and underutilized in the regional marketplace, and the inclusion of energy-efficient options in the design phase of a project.

0 to 100 kW \$10,000;

101 to 300 kW \$25,000;

Over 300 kW \$50,000.

(Subsidies and Grants; Grant; Intended audiences: Commercial, industrial, agricultural)

Source: <http://www.mnpower.com/powergrant/grants.htm>

**Xcel Energy – Renewable Development Fund Grants** (Minn. Stat. § 116C.779) - Renewable-energy technologies eligible for funding typically include wind, biomass, solar, hydroelectric generators and fuel cells. Funding is generally split between new development projects that result in the production of renewable energy, and research and development. Amount varies by RFP details;

--Individual projects in the Energy Production category: \$2 million (2007 solicitation);

--Individual projects in the R&D category: \$1 million (2007 solicitation)

(Subsidies and Grants; Grant; Intended audiences: Commercial, Industrial, Residential, Nonprofit, Schools, Local Government, Utility, State Government, Tribal Government, Fed. Government, Agricultural, Institutional) Enacted in 1999.

Source: [http://www.xcelenergy.com/XLWEB/CDA/0,3080,1-1-1\\_27620\\_37621-801-2\\_171\\_256-0,00.html](http://www.xcelenergy.com/XLWEB/CDA/0,3080,1-1-1_27620_37621-801-2_171_256-0,00.html)



**Biomass Harvest Guidelines** (Minnesota Forest Resources Council) - Provides guidance to loggers on appropriate biomass harvesting methods, location of harvest and allowable intensity (removal) Developed in conjunction with MN Harvest Guidelines pursuant to the State Forest Practices Act. (Regulation; Initiative; Intended audiences: Logging companies, purchasers of biomass) Enacted in 2005.

Source: <http://www.frc.state.mn.us/FMgdline/BHGC.html>

**Environmental and Economic Incentives for Growing Hybrid Poplars to Meet Minnesota's Demands for Biomass Products and Energy** (U.S. Department of Energy's State Energy Program) - Technical assistance programs focused on helping industry achieve cost reductions through pollution prevention. This project advanced industrial improvements in energy efficiency, environmental performance, and productivity that result in lower raw material and energy use, improved labor and capital productivity, and reduced generation of wastes and pollutants. This project is part of a longer range program objective to help industry save money and become more competitive by identifying and implementing energy efficient and pollution preventing technologies as an integrated strategy. It conducted plant assessments that focused on opportunities to implement technologies in the facilities. (Regulation; Initiative) Enacted in 2005.

Source: [http://www.eere.energy.gov/state\\_energy\\_program/project\\_detail.cfm/sp\\_id=879](http://www.eere.energy.gov/state_energy_program/project_detail.cfm/sp_id=879)

**Energy Investment Loan Program** (Minn. Stat. § 216C.09) - Minnesota's Energy Investment Loan Program will buy down up to 50% of the loan principal to 0% interest for any specific renewable energy, energy efficiency or energy conservation "capital improvement" measure with a simple payback of 10 years or less in an existing building (50% of total project cost, up to \$500,000). Each specific project must pass a 10-year simple payback threshold based on total costs and energy savings, energy payments and/or incentives from other sources. (Financing and Contracting; Loan; Intended audience: Schools, local government, hospitals) Enacted in 2001.

Source: <http://www.epa.gov/CHP/funding/funding/minmenergyinvestmentloanprogr.html>

**Next Generation Energy Act of 2007** (State of Minnesota) - Establishes a mandate that utility companies in the state generate at least 25% of their power from renewable sources by 2025 (30% by 2025 for Xcel Energy) (Regulation; Mandate; Intended audiences: Utility companies) Enacted in 2007.

Source: <https://www.revisor.leg.state.mn.us/bin/bldbill.php?bill=H0436.0.html&session=ls85>

**Xcel Energy Wind and Biomass Generation Mandate** (Minn. Stat. § 216B.2423 et seq.) - A separate law (Minn. Stat. § 216B.2424) required Excel Energy to build or contract for 110 MW of electricity generated from biomass resources. As of January 2007, this portion of the mandate is being fulfilled by district energy in St. Paul, a poultry-waste project in Benson, and a third biomass project in Virginia/Hibbing. In May 2008, the mandate was amended to confine the the definition of eligible farm-grown, closed- loop biomass to herbaceous crops, trees, agricultural waste, and aquatic plant matter that is used to generate electricity and to specifically exclude mixed municipal solid waste from eligibility. (Regulation; Mandate; Intended audience: Utility companies) Enacted in 1997.

Source: [http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive\\_Code=MN03R&state=MN&CurrentPageID=1&RE=1&EE=1](http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive_Code=MN03R&state=MN&CurrentPageID=1&RE=1&EE=1)



**Minnesota Net Metering** (Minn. Stat. § 216B.164) - Customer receives a check for NEG at the end of each month, calculated at the "average retail utility energy rate" (basically the utility's retail rate) Applies to all investor-owned utilities, municipal utilities and electric cooperatives. All "qualifying facilities" up to 40 kilowatts (kW) in capacity are eligible.\* There is no limit on statewide capacity. Each utility must compensate customers for customer net excess generation (NEG) at the "average retail utility energy rate," defined as "the total annual class revenue from sales of electricity minus the annual revenue resulting from fixed charges, divided by the annual class kilowatt-hour sales." This rate is basically the same as a utility's retail rate. The purchase of NEG at a utility's retail rate distinguishes Minnesota's net-metering law from net-metering laws and programs in most other states. (Renewable Energy Standards; Net Metering; Intended audiences: Commercial, industrial, residential) Enacted in 1981.

Source: [http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive\\_Code=MN01R&state=MN&CurrentPageID=1&RE=1&EE=1](http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive_Code=MN01R&state=MN&CurrentPageID=1&RE=1&EE=1)

**Business Tax Credit** (State of Minnesota) - Business tax credit of 1.9¢/kWh for projects installed by December 31, 2007 for 10 years. (Tax incentive; Tax credit; Intended audiences: Businesses)

Source: <http://www.state.mn.us/portal/mn/jsp/content.do?id=-536881350&subchannel=-536881511&sc2=null&sc3=null&contentid=536885915&contenttype=EDITORIAL&programid=536885394&agency=Commerce#Biomass>

## Mississippi

**Biomass Program** (U.S. Department of Energy's State Energy Program) - The Biomass Program provided technical assistance to commercial, private, and non-private agencies to develop and market biomass and added-value products. It served as a marketing group for identified sources in Mississippi and promoted clean renewable energy sources as alternatives to air quality and environmental security in the future. It promoted and encouraged a biodiesel program to be used by the state office buildings for backup generation. (Regulation; Initiative; Intended audiences: Commercial, private, non-private agencies) Enacted in 2006.

Source: [http://apps1.eere.energy.gov/state\\_energy\\_program/grants\\_by\\_state.cfm/year=2006/state=MS](http://apps1.eere.energy.gov/state_energy_program/grants_by_state.cfm/year=2006/state=MS)

**Energy Investment Loan Program** (Miss. Code § 57-39-39) - Mississippi offers low-interest loans for renewable energy and energy efficiency projects (including biomass). All projects must demonstrate that they will reduce a facility's energy costs. The interest rate is 3% below the prime rate, with a maximum loan term of seven years. Loans range from \$15,000 to \$300,000. This program is supported by a revolving loan fund of \$7 million, established through federal oil overcharge funds. (Financing and Contracting; Loan; Intended audiences: Commercial, industrial) Enacted in 1989.

Source: <http://www.mississippi.org/content.aspx?url=/page/2744&#loanprgm>

## Missouri

**Biomass Power Program** (U.S. Department of Energy's State Energy Program) - The Biomass Power Program worked with various parties, including poultry growers, confined animal feeding operations, and utilities, to explore, demonstrate and assist with project development in connection with the use of biomass materials as energy sources. It explored the use of methane from animal wastes as an energy source and of various biomass resources for electrical generation and for use as heat sources. It also evaluated tax credit applications and certified tax credits under the state's Wood Energy Tax Credits, which provides an incentive for the conversion of waste wood biomass to energy sources. (Education and Consultation; Consultation) Enacted in 2006.

Source: [http://www.eere.energy.gov/state\\_energy\\_program/grants\\_by\\_state.cfm/year=2006/state=MO](http://www.eere.energy.gov/state_energy_program/grants_by_state.cfm/year=2006/state=MO)

**The Bioenergy and Biobased Products Program** (U.S. Department of Energy's State Energy Program) - The Bioenergy and Biobased Products Program evaluated tax credit applications and certified tax credits under the state's Wood Energy Tax Credits, which provided an incentive for the conversion of waste wood biomass to energy sources. It managed the Biomass Marketing Study being conducted by the University of Missouri and funded through the Biomass State Regional Partnership program, worked with the Department of Corrections to investigate the use of wood for heating and cooling at Missouri correctional facilities, and investigated the feasibility of using wood to heat and cool rural schools. (Education and Consultation; Consultation) Enacted in 2006.

Source: [http://www.eere.energy.gov/state\\_energy\\_program/grants\\_by\\_state.cfm/year=2006/state=MO](http://www.eere.energy.gov/state_energy_program/grants_by_state.cfm/year=2006/state=MO)

**Department Biomass Team** (U.S. Department of Energy's State Energy Program) - The Department Biomass Team coordinated and provided support for the department's bioenergy and biobased products work. It supported department policies and operational procedures developed to guide the activities of the department and ensure optimal response to bioenergy and biobased product development opportunities and fostered a holistic approach that led to improved efficiencies (internal, industrial and utility), the increased use of biomass resources, and improvements in environmental quality. (Education and Consultation; Consultation) Enacted in 2005.

Source: [http://www.eere.energy.gov/state\\_energy\\_program/grants\\_by\\_state.cfm/year=2005/state=MO](http://www.eere.energy.gov/state_energy_program/grants_by_state.cfm/year=2005/state=MO)

**Biopower Decisions Tools Project** (U.S. Department of Energy's State Energy Program) - The Biopower Decision Tools Project conducted informational and marketing activities to get the word out about the Biopower Decision Tools biomass energy analysis kit. It supported rural electric cooperatives and others who wished to use the Biopower Decision Tools kit to analyze the potential for bioenergy investments. (Education and Consultation; Education) Enacted in 2005.

Source: [http://www.eere.energy.gov/state\\_energy\\_program/grants\\_by\\_state.cfm/year=2005/state=MO](http://www.eere.energy.gov/state_energy_program/grants_by_state.cfm/year=2005/state=MO)

**Renewable Energy Assessment and Outreach** (U.S. Department of Energy's State Energy Program) - The Renewable Energy Assessment and Outreach activity coordinated and supported bioenergy and bio-based products work by hosting cross-programmatic discussions with staff involved in permitting, enforcement, financial, and technical assistance and policy. Department policies and operational procedures were developed, and a holistic approach was fostered that leads to improved efficiencies (internal, industrial, and utility), the increased use of biomass resources, and improvements in environmental quality. It also provided tax incentives to eligible companies for the use of wood waste. (Education and Consultation; Education) Enacted in 2003.

Source: [http://www.eere.energy.gov/state\\_energy\\_program/grants\\_by\\_state.cfm/year=2003/state=MO](http://www.eere.energy.gov/state_energy_program/grants_by_state.cfm/year=2003/state=MO)

**Midwest Green-E Certification** (U.S. Department of Energy's State Energy Program) - The Midwest Green-E Certification activity participated in the Midwest stakeholder group to develop a "Green-e" standard for the Midwest. It advocated for including biomass in the standard, in addition to wind and solar. This standard could facilitate green tag purchases and sales in Missouri. (Regulation; Initiative; Intended audiences: Midwest Stakeholder Groups) Enacted in 2005.

Source: [http://www.eere.energy.gov/state\\_energy\\_program/grants\\_by\\_state.cfm/year=2005/state=MO](http://www.eere.energy.gov/state_energy_program/grants_by_state.cfm/year=2005/state=MO)

**Energy Loan Program** (R.S. Mo. § 640.651-640.686) - This loan program, administered by the Energy Center of the Missouri Department of Natural Resources, is available for energy efficiency and renewable energy projects for public and governmental buildings and structures. Loan amounts are based on projected energy savings, resulting in monetary savings that is used to repay the loan. Financing is available at a fixed interest rate below the market rate, and repayment schedules are determined on an individual project basis.

- Public Schools (K-12) - 50%

- City and County Governments - 25%

- Public Higher Education Institutions - 25%

(Financing and Contracting; Loan; Intended audiences: Schools, local government, institutional, public hospitals, water treatment facilities) Enacted in 1989.

Source: <http://www.dnr.mo.gov/energy/financial/loan.htm>

**Bio-processing Input Procurement Strategies** (Southeastern Regional Biomass Energy Program) - This project is designed to investigate the procurement and marketing strategies that industries based on crop residue and energy crops will utilize. These products include biomass residues from corn and cereals, dedicated energy crops such as current grass and clover varieties, and energy crops such as switch grass, hybrid willow and other fast growing trees. A biomass procurement and marketing focus will provide a unique perspective that may be applied to all bio-processors of new agricultural biomass products and technologies. Amount: SERBP \$44,000; cost share \$12,500. (Financing and Contracting; Loan) Enacted in 2005.

Source: <http://www.serbep.org>

**Missouri Net Metering** (SB 54) - Net metering is available until the total rated generating capacity of net-metered systems equals 5% of a utility's single-hour peak load during the previous year. However, in a given calendar year, the aggregate capacity of all approved applications for interconnection is limited to 1% of a utility's single-hour peak load for the previous calendar year. If a customer's existing metering equipment is not capable of measuring the net amount of electricity produced or consumed, or if it is necessary for the utility to install "additional distribution equipment to accommodate the customer-generator's facility," then the customer must pay for these costs. (Renewable Energy Standards; Net Metering; Intended audiences: Commercial, Industrial, Residential, General Public/Consumer, Nonprofit, Schools, Local Government, State Government, Fed. Government, Agricultural, Institutional) Enacted in 2007.

Source: [http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive\\_Code=MO07R&state=MO&CurrentPageID=1&RE=1&EE=1](http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive_Code=MO07R&state=MO&CurrentPageID=1&RE=1&EE=1)

**Renewable Electricity Standard** (R.S. Mo. § 393.1020 et seq.) - Missouri created a renewable energy and energy-efficiency objective for the state's investor-owned utilities in June 2007. Each utility must make a "good-faith effort" to generate or procure electricity generated by eligible renewable-energy resources, so that by 2012, 4% of total retail electric sales is generated by eligible renewables. The goal increases to 8% by 2015, and to 11% by 2020. (Regulation; Standards; Intended audiences: Investor-Owned Utility) Enacted in 2008.

Source: [http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive\\_Code=MO08R&state=MO&CurrentPageID=1&RE=1&EE=1](http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive_Code=MO08R&state=MO&CurrentPageID=1&RE=1&EE=1)

**Wood Energy Production Credit** (R.S. Mo. § 135.3 et seq.) - Allows individuals or businesses processing Missouri forestry industry residues into fuels an income tax credit of \$5.00 per ton of processed material. Any amount of credit exceeding the tax due by a company in the year of production may be carried over to a subsequent taxable year, not to exceed four years. (Tax incentive; Tax credit; Intended audiences: Commercial, industrial) Enacted in 1997.

Source: <http://www.dnr.mo.gov/energy/deprograms.htm>

## Montana

**Mandatory Utility Green Power Option** (MCA § 69-8-210) - In Montana, regulated electric utilities are required to offer customers the option of purchasing electricity generated by certified, environmentally-preferred resources that include, but are not limited to, wind, solar, geothermal and biomass. NorthWestern Energy implemented a green-power program ("E+ Green") in June 2003. (Subsidies and Grants; Cost-Share; Intended audiences: NorthWestern Energy Purchasers) Enacted in 2003.

Source: [http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive\\_Code=MT04R&state=MT&CurrentPageID=1&RE=1&EE=1](http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive_Code=MT04R&state=MT&CurrentPageID=1&RE=1&EE=1)

**Renewable Energy Grant** (Bonneville Environmental Foundation) - Using revenues generated from the sales of Green Tags, Bonneville Environmental Foundation (BEF), a not-for-profit organization, accepts proposals for funding for renewable energy projects located in the Pacific Northwest. Projects that generate electricity are preferred. Acceptable projects include solar photovoltaics, solar thermal electric, wind,

hydro, biomass and animal waste-to-energy. If a BEF grant is requested for a generating project, the BEF share will not exceed 33% of total capital costs and 0% of operating costs. (Subsidies and Grants; Grant; Intended audience: Nonprofit, local government, tribal government) Enacted in 2000.

Source: <http://www.b-e-f.org/grants/index.shtm>

**Alternative Energy Investment Tax Credit (Corporate)** (MCA § 15-32-401 et seq.) - Commercial and net metering alternative energy investments of \$5,000 or more are eligible for a tax credit of up to 35% against individual or corporate tax on income generated by the investment. The credit is applied only against taxes due as a consequence of taxable or net income produced by one of the following: --A manufacturing plant that is located in Montana and that produces alternative energy generating equipment. --A new business facility or the expanded portion of an existing business facility for which the alternative energy generating equipment supplies, on a direct contract sales basis, the basic energy needed; or --The alternative energy generating equipment in which the investment was made, for the credit being claimed. (Tax incentive; Tax credit; Intended audience: Commercial, industrial) Enacted in 2001.

Source: <http://www.deq.state.mt.us/energy/Renewable/TaxIncentRenew.asp#15-32-401>

**Alternative Energy Investment Tax Credit** (MCA § 15-32-401 et seq.) - Commercial and net metering alternative energy investments of \$5,000 or more are eligible for a tax credit of up to 35% against individual or corporate tax on income generated by the investment. The credit is applied only against taxes due as a consequence of taxable or net income produced by one of the following: --A manufacturing plant that is located in Montana and that produces alternative energy generating equipment. --A new business facility or the expanded portion of an existing business facility for which the alternative energy generating equipment supplies, on a direct contract sales basis, the basic energy needed; or --The alternative energy generating equipment in which the investment was made, for the credit being claimed. (Tax incentive; Tax Credit; Intended audiences: Residential) Enacted in 2001.

Source: <http://www.deq.state.mt.us/energy/Renewable/TaxIncentRenew.asp#15-32-401>

**Property Tax Abatement for Production and Manufacturing Facilities** (HB 3) - In May 2007, Montana enacted legislation that allows a property tax abatement for new renewable energy production facilities, new renewable energy manufacturing facilities, and renewable energy research and development equipment. Eligible facilities and equipment are assessed at 50% of their taxable value. Qualifying renewable energy manufacturing facilities are those (1) that produce materials, components or systems to convert solar, wind, geothermal, biomass, biogas or waste heat resources into useful energy, and (2) whose annual production of renewable energy equipment makes up at least half of the facility's total production. Qualifying renewable energy production facilities include biomass gasification, biomass, biogas and geothermal facilities. (Tax incentive; Tax credit; Intended audiences: Industrial) Enacted in 2007.

Source: [http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive\\_Code=MT41F&state=MT&CurrentPageID=1&RE=1&EE=1](http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive_Code=MT41F&state=MT&CurrentPageID=1&RE=1&EE=1)

**Alternative Energy Investment Tax Credit (Personal)** (MCA § 15-32-401 et seq.) - Commercial and net metering alternative energy investments of \$5,000 or more are eligible for a tax credit of up to 35% against individual or corporate tax on income generated by the investment. The credit is applied only against taxes due as a consequence of taxable or net income produced by one of the following: -A manufacturing plant that is located in Montana and that produces alternative energy generating equipment. -A new business facility or the expanded portion of an existing business facility for which the alternative energy generating equipment supplies, on a direct contract sales basis, the basic energy needed; or -The alternative energy generating equipment in which the investment was made, for the credit being claimed. This credit is available to taxpayers purchasing an existing facility as well as to those building a new facility. (Tax incentive; Tax credit; Intended audience: Commercial, industrial) Enacted in 2001.

Source: <http://www.deq.state.mt.us/energy/Renewable/TaxIncentRenew.asp#15-32-401>

**Residential Alternative Energy System Tax Credit** (MCA § 15-32-201) - Residential taxpayers who install an energy system using a recognized non-fossil form of energy on their home after 12/31/01 are eligible for a tax credit equal to the amount of the cost of the system and installation of the system, not to exceed \$500. The tax credit may be carried over for the next four taxable years. This includes a system that produces electric power from biomass or solid wood wastes. (Tax incentive; Tax credit; Intended audiences: Residential) Enacted in 2001.

Source: <http://www.deq.state.mt.us/energy/Renewable/TaxIncentRenew.asp#15-32-201>

**Generation Facility Corporate Tax Exemption** (MCA § 15-6-225) - New electricity generating facilities built in Montana with a nameplate capacity of less than 1 MW and using an alternative renewable energy source are exempt from property taxes for 5 years after start of operation "Alternative renewable energy source" means a form of energy or matter, such as solar energy, wind energy, geothermal energy, conversion of biomass, fuel cells that do not require hydrocarbon fuel, small hydroelectric generators producing less than 1 megawatt, or methane from solid waste. (Tax incentive; Tax credit; Intended audiences: Commercial, industrial) Enacted in 2001.

Source: <http://www.deq.state.mt.us/energy/Renewable/TaxIncentRenew.asp#15-6-225>

**Corporate Property Tax Reduction for New/Expanded Generating Facilities** (MCA § 15-24-1402) - Montana generating plants producing 1 megawatt or more by means of an alternative renewable energy source are eligible for the new or expanded industry property tax reduction on the local mill levy during the first nine years of operation. The tax reduction applies only to taxes levied for the local high schools and elementary schools and for the local government offering the reduction. (Tax incentive; Tax credit; Intended audience: Commercial, industrial) Enacted in 1981.

Source: <http://www.deq.state.mt.us/energy/Renewable/TaxIncentRenew.asp#15-24-1401>

**Renewable Energy Systems Exemption** (MCA § 15-6-224) - Montana's property tax exemption for recognized nonfossil forms of energy generation or low emission wood or biomass combustion devices may be claimed for 10 years after installation of the property. The exemption is allowed for single-family residential dwellings up to \$20,000 in value and for multifamily residential dwellings or a nonresidential structure up to \$100,000 in value. (Tax incentive; Tax Credit; Intended audience: Commercial, industrial, residential, multi-family residential, agricultural) Enacted in 2005.

Source: [http://deq.mt.gov/Energy/renewable/taxincentrenew.asp#15-6-201\(4\)](http://deq.mt.gov/Energy/renewable/taxincentrenew.asp#15-6-201(4))

## Nebraska

**Dollar and Energy Savings Loan** (Nebraska Energy Office) - This program makes available low interest loans for residential and commercial energy efficiency improvements. This incentive applies mainly to energy efficiency improvements. However, renewable energy projects are eligible under one of two criteria. A project may be eligible if it is included in a list of "pre-qualified improvements." This list includes a variety of energy efficiency measures as well as the purchase of alternative fuel vehicles. Pre-qualified improvements have minimum efficiency standards which are listed on their respective forms. Projects not listed as pre-qualified improvements may be eligible with the submission of an energy audit that verifies that the project will have a reasonable payback period (varies by improvement type). (Financing and Contracting; Loan; Intended audiences: Commercial, Residential, Nonprofit, Local Government, Multi-Family Residential, Agricultural) Enacted in 2006.

Source: <http://www.neo.ne.gov/loan>

**Nebraska Net Metering** (Nebraska Public Power District) - The utility is offering net metering to generating facilities of 25 kW or less that are certified as qualifying facilities (QFs) under the federal Public Utilities Regulatory Policies Act (PURPA). The definition of QF generally includes most renewable-energy technologies, as well as combined-heat-and-power (CHP) systems. Under the tariff, net metering is available to retail electric customers of NPPD through a single bi-directional meter. Systems must be designed to supply all or a portion of the customer's electrical load. Net excess generation (NEG) produced during a billing period is carried forward as a monetary credit on the customer-generator's next bill. (Renewable Energy Standards; Net Metering; Intended audiences: Commercial, Industrial, Residential, Nonprofit, Schools, Local Government, State Government, Federal Government, Agricultural, Institutional) Enacted in 2007.

Source: [http://www.nppd.com/My\\_Business/Commercial\\_Services/Additional\\_Files/distributed\\_generation.asp](http://www.nppd.com/My_Business/Commercial_Services/Additional_Files/distributed_generation.asp)

## Nevada

**Wood Use Center** (FireSafe Council of Nevada) - One of several community prioritized projects to help mitigate the hazard of wildfire within a Community Wildfire Protection Plan. Instead of burning residual material from fuels reduction and property cleanup, urban and rural property owners bring that biomass to a sort center at an existing transfer station where they currently bring their other recyclables and their garbage.



There, it is sorted for different uses, and sold to help pay for further fuels reduction work in the community. (Service Provision; Initiative; Intended audiences: Urban and Rural Property Owners) Enacted in 2005.

Source: <http://www.sbcouncil.org/Nevada-County-Wood-Use-Center>

**Nevada Net Metering** (NAC 704.8901 et seq.) - Systems up to one megawatt (MW) in capacity that generate electricity using solar, wind, geothermal, biomass and certain types of hydropower are generally eligible, although systems greater than 100 kilowatts (kW) in capacity may be subject to certain costs at the utility's discretion. F16Systems must be designed to offset part or all of a customer-generator's electricity requirements. A system is not eligible for net metering if its generating capacity exceeds the greater of (1) the limit on demand that the class of customer of the customer-generator may place on the utility's system, or (2) 150% of the customer's peak demand. Each investor-owned utility operating in Nevada must offer net metering until the aggregate capacity of all net-metered systems in its service territory equals 1% of the utility's peak capacity. For all net-metered systems, customer net excess generation (NEG) is carried over to the following month as a kilowatt-hour credit, apparently without expiration. (Renewable Energy Standards; Net Metering; Intended audiences: Commercial, industrial, residential) Enacted in 1997.

Source: <http://pucweb1.state.nv.us/PUCN/RenewableEnergy.aspx>

**Energy and Environmental Design Requirements** (NRS 701.215 et seq.) - Nevada's energy policy mandates that the state energy office prepare a state energy reduction plan which requires state agencies, departments, and other entities in the Executive Branch to reduce grid-based energy purchases for state-owned buildings by 20% by 2015. (Regulation; Standard; Intended audience: State government) Enacted in 2005.

Source: <http://dem.state.nv.us/EnergyPlan/plangovsltr.shtml>

**Fuel Mix and Emissions Disclosure** (NRS §704.763) - Beginning October 1, 2001, each electric utility must disclose fuel mix and emissions information to its customers, according to regulations established by the Nevada Public Service Commission. The disclosure must be in a standard format, provided in bill inserts twice a year, as well as on utility web sites. The disclosure must include the average mix of fuel sources used to create electricity, average emissions, customer service information, and information on low-income energy programs. (Regulation; Standard; Intended audience: Utility) Enacted in 2001.

Source: [http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive\\_Code=NV02R&state=NV&CurrentPageID=1&RE=1&EE=1](http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive_Code=NV02R&state=NV&CurrentPageID=1&RE=1&EE=1)

**Energy Portfolio Standard** (NRS 704.7801 et seq.) – Requires 6% in 2005, rising to 20% by 2015; 5% of the energy portfolio must be solar Beyond solar, qualifying renewable energy resources include biomass, geothermal energy, wind, certain hydropower, and waste tires. (Regulation; Standard; Intended audience: Investor-Owned Utility) Enacted in 1997.

Source: <http://pucweb1.state.nv.us/PUCN/RenewableEnergy.aspx>

**Property Tax Abatement for Green Buildings** (NRS § 701A.110) - Buildings which earn a Silver rating can receive a 25% property tax abatement, Gold can receive a 30% abatement, and 35% can be awarded to Platinum certificates. (Tax incentive; Tax credit; Intended audience: Commercial, industrial) Enacted in 2007.

Source: <http://energy.state.nv.us/LEED/AB621.htm>

**Renewable Energy Producers Property Tax Abatement** (NRS § 701A.220) - New or expanded businesses in Nevada may apply to the Commission on Economic Development to qualify for a 10-year, 50% property tax abatement for real and personal property used to generate electricity from renewable energy resources or for a facility for the production of an energy storage device. The generation facility must have a capacity of at least 10 kW and use biomass, solar, or wind resources as its primary source of energy. (Tax incentive; Tax credit; Intended audiences: Commercial, Utility, Renewable Energy Power Producers) Enacted in 1997.

Source: [http://www.expand2nevada.com/incentive\\_program.html](http://www.expand2nevada.com/incentive_program.html)

## **New Hampshire**

**Renewable Energy Generation Incentive Program** (HB 1628) - The public utilities commission shall make and administer a one-time incentive payment of \$3 per watt of nominal generation capacity up to a maximum payment of \$6,000, or 50 percent of system costs, whichever is less, per facility to any residential owner of a small renewable generation facility, that would qualify as a Class I or Class II source of electricity, has a total peak generation capacity of less than 5 kilowatts, begins operation on or after July 1, 2008, and is located on or at the owner's residence. (Subsidies and Grants; Cost-Share; Intended audience: Owners of small renewable generation facilities) Enacted in 2008.

Source: <http://www.nh.gov/oep/programs/energy/RenewableEnergyIncentives.htm>

**New Hampshire Bio-Oil Feasibility Study** (U.S. Department of Energy's State Energy Program) - Forestry operations and forest-based industries comprise the third largest sector of New Hampshire's economy, employing over 11, 500 people and generating \$3.9 billion in goods and services. Research has shown that a market for low-grade wood is essential to the economics of sustainable forest management. The production of bio-oil by wood pyrolysis may revitalize the low-grade wood market. Bio-oil offers a low NOx and SOx, carbon-neutral, energy source that can contribute to energy security through, fuel diversity, distributed generation and indigenous origin. (Subsidies and Grants; Feasibility Study) Enacted in 2002.

Source: [http://www.eere.energy.gov/state\\_energy\\_program/project\\_detail.cfm/sp\\_id=246](http://www.eere.energy.gov/state_energy_program/project_detail.cfm/sp_id=246)

**Renewable Energy Program** (U.S. Department of Energy's State Energy Program) - The Renewable Energy Program established a baseline contribution—measured in million Btu energy use for solar (photovoltaic and thermal), biomass/biofuels (biodiesel, wood chips, and other), wind (electric), and hydro (electric); provided technical assistance either directly or through special projects to state agencies, local groups,

industries, citizens, and businesses seeking to be involved in renewable energy; and implemented the Natural Flora Utilization Project, which included monitoring of state-leased biomass resources and enhancement of sustainable forestry practices in local communities. (Service Provision, Initiative) Enacted in 2006.

Source: [http://www.eere.energy.gov/state\\_energy\\_program/grants\\_by\\_state.cfm/year=2006/state=NH](http://www.eere.energy.gov/state_energy_program/grants_by_state.cfm/year=2006/state=NH)

**Renewable Energy and Energy Efficiency Business Loan** (New Hampshire Business Resource Center) - The New Hampshire Business Resource Center and Ocean National have partnered to sponsor the Renewable Energy and Energy Efficiency Business Loan Program. This program offers small businesses a reduced interest rate loan for the purchase of structural and equipment improvements that improve energy efficiency. A variety of energy efficient measures are eligible for this loan, as are renewable energy systems. Participants will use energy cost savings to repay the loan; these loans are targeting projects that will cost at least \$10,000. (Financing and Contracting; Loan; Intended audience: Small businesses) Enacted in 2006.

Source: <http://www.nheconomy.com/pdf/BusinessLoanBrochure.pdf>

**New Hampshire Net Metering** (New Hampshire Statutes § 362-A:9) - New Hampshire requires all electric utilities selling power in the state to offer net metering to homeowners and small businesses that generate electricity using renewable-energy systems up to 100 kilowatts (kW) in capacity. The aggregate capacity of all net-metered systems in a utility's service territory is limited to 1.0% of the utility's annual peak energy demand. Any customer net excess generation (NEG) during a billing cycle is credited to the customer "over subsequent billing periods." (Renewable Energy Standards; Net Metering; Intended audiences: Commercial, Industrial, Residential) Enacted in 1998.

Source: <http://nh.gov/oep/programs/energy/RenewableEnergyIncentives.htm>

**Renewable Portfolio Standard** (New Hampshire Statutes, Chapter 362-F) – New Hampshire Requirement: 23.8% by 2025. Technology Minimum: 0.3% solar electric 6.5% existing biomass 1.0% existing small hydropower. (Regulation; Standard; Intended audience: All electricity suppliers) Enacted in 2007.

Source: [http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive\\_Code=NH09R&state=NH&CurrentPageID=1&RE=1&EE=1](http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive_Code=NH09R&state=NH&CurrentPageID=1&RE=1&EE=1)

**Property Tax Exemption for Renewable Energy** (New Hampshire Statutes § 72:61 et seq.) - New Hampshire allows cities and towns to offer an exemption on residential property taxes in the amount of the assessed value of a renewable-energy system used on the property. Eligible technologies include solar-energy systems (photovoltaic systems, solar space-heating systems, solar water-heating systems, passive solar-energy systems); wind-energy systems, and wood-fired central heating systems. (Tax incentive; Tax credit; Intended audience: Residential) Enacted in 1976.

Source: <http://nh.gov/oep/programs/energy/RenewableEnergyIncentives.htm>

## New Jersey

**Clean Energy Rebate Program** (New Jersey Board of Public Utilities) - New Jersey's 1999 electric restructuring legislation provides for investments in energy efficiency and renewable energy through a "Societal Benefits Charge" (SBC) collected from all customers of electric public utilities. In March 2001, the New Jersey Board of Public Utilities (BPU) approved funding for renewable-energy programs, including a customer-sited renewables rebate program for homes, businesses, institutions and non-profits. Eligible technologies include fuel cells, photovoltaic (PV) systems, small wind-energy systems and/or sustainable biomass-energy technologies. Eligible systems should be sized to produce no more than 100% of the historical or expected (if new construction) amount of electricity consumed at a system's site. Financial incentives for systems larger than one megawatt (MW) are available through the state's Renewable Energy Project Grants and Financing Program. (Financing and Contracting; Loan; Intended audiences: Commercial, Residential, Nonprofit, Schools, Local Government, State Government, Federal Government, Institutional) Enacted in 1999.

Source: <http://www.njcleanenergy.com/renewable-energy/programs/core-rebate-program/incentives/core-rebate-program>

**New Jersey Net Metering** (N.J. Stat. § 48:3-87) - New Jersey's net-metering rules and interconnection standards apply to all residential, commercial, and industrial customers of the state's investor-owned utilities (and certain competitive municipal utilities and electric cooperatives). Eligible systems include those that generate electricity using solar, wind, geothermal, wave, tidal, landfill gas or sustainable biomass resources. The maximum individual system capacity is two megawatts (MW). Many supporters of distributed generation believe that New Jersey has the best standards for net metering in the United States. Customer-generators have several compensation options for net excess generation:

1. Customer-generator receives month-to-month credit for NEG at the full retail rate and is compensated for remaining NEG at the avoided-cost of wholesale power at the end of an annualized period.
2. Customer-generator is compensated for all NEG on a real-time basis according to the PJM power pool real-time locational marginal pricing rate, adjusted for losses by the respective zone in the PJM.
3. Customer generator may enter into a bilateral agreement with their electric supplier or service provider for the sale and purchase of NEG. Real-time crediting is permitted. (Renewable Energy Standards; Net Metering; Intended audiences: Commercial, industrial, residential) Enacted in 1999.

Source: <http://www.njcleanenergy.com>

**Energy Efficiency in New School Construction** (NJ Executive Order #24) - Requires all new school designs to incorporate LEED Version 2.0 guidelines to achieve maximum energy efficiency and environmental sustainability in school facilities. The Executive Order also requires that the New Jersey Economic Development Authority establish a subsidiary corporation, The New Jersey Schools Construction Corporation (SCC), to be responsible for the school facilities project and the state's compliance with the new order. (Regulation; Standard; Intended audience: Schools) Enacted in 2002.

Source: [http://www.njsda.gov/Innovations/High\\_Performance\\_Schools/index.htm](http://www.njsda.gov/Innovations/High_Performance_Schools/index.htm)

**High Performance Building Standards in New State Construction** (SB 843) - The standard requires that new buildings larger than 15,000 square feet constructed for the sole use of state entities achieve US Green Building Council LEED Silver certification, a two-globe rating on the Green Building Initiative Green Globe rating system, or a comparable numeric rating from another accredited sustainable building certification program. (Regulation; Standard; Intended audience: State government) Enacted in 2008.

Source: <http://www.state.nj.us/treasury/dpmc/index.html>

**Environmental Information Disclosure** (N.J. Stat. § 48:3-87) - New Jersey mandates the disclosure of fuel mixes and emissions information by each electricity supplier or basic generation service provider serving retail customers (residential, commercial and industrial). The New Jersey Board of Public Utilities (BPU) adopted environmental disclosure standards in July 1999. Disclosure information must be published in a standardized label format and distributed as part of advertising materials, customer billing materials and customer contracts. Information must be updated in semi-annual mailings. This disclosure requirement applies to every electricity supplier and every electricity product, regardless of whether or not the supplier is making an environmental claim about the electricity product. (Regulation; Standard; Intended audience: Utility) Enacted in 1999.

Source: <http://www.bpu.state.nj.us>

**Interconnection Standards** (N.J. Stat. § 48:3-87) - Under the current law the BPU is authorized to allow utilities to cease offering net metering if the aggregate capacity of net metered systems reaches 2.5% the state peak electricity demand. (Regulation; Standard; Intended utility: Commercial, residential) Enacted in 1999.

Source: <http://www.njcleanenergy.com>

**Renewable Portfolio Standard** (N.J. Stat. § 48:3-49 et seq.) - New Jersey's renewable portfolio standard (RPS) -- one of the most aggressive in the United States -- requires each supplier/provider serving retail customers in the state to include in the electricity it sells 22.5% qualifying renewables by 2021. "Class I" renewable energy is defined as electricity derived from solar energy, wind energy, wave or tidal action, geothermal energy, landfill gas, anaerobic digestion, fuel cells using renewable fuels, and certain other forms of sustainable biomass. (Regulation; Standard; Intended audiences: Utility) Enacted in 1999.

Source: <http://njcleanenergy.com/renewable-energy/program-updates/solar-transition/solar-transition>

## New Mexico

**Biomass Program** (U.S. Department of Energy's State Energy Program) - Identified, assessed, and implemented forest and dairy biomass projects. Activities included electricity generation and thermal applications, monitoring and evaluation, and distribution of a study on projects to

the communities and schools around the state. The program also conducted public workshops on forest-dairy biomass, a detailed engineering study to evaluate a school in New Mexico, and a biomass project. (Education and Consultation; Initiative) Enacted in 2005.

Source: [http://www.eere.energy.gov/state\\_energy\\_program/grants\\_by\\_state.cfm/year=2005/state=NM](http://www.eere.energy.gov/state_energy_program/grants_by_state.cfm/year=2005/state=NM)

**The Biomass Utilization Activity** (U.S. Department of Energy's State Energy Program) - Evaluated the wood biomass resource available in the Las Vegas and Ruidoso areas to determine whether it can be used to produce electricity or other by-products and evaluated market penetration for biomass use. The Biomass Project built a central heating system for the Jemez Mountain Public School, which uses biomass fuels such as wood chips from surrounding forests. (Service Provision; Initiative) Enacted in 2003.

Source: [http://www.eere.energy.gov/state\\_energy\\_program/grants\\_by\\_state.cfm/year=2003/state=NM](http://www.eere.energy.gov/state_energy_program/grants_by_state.cfm/year=2003/state=NM)

**New Mexico Net Metering** (17.9.571.7 NMAC et seq.) - In January 2007, the New Mexico Public Regulation Commission (PRC) extended the availability of net metering to systems up to 80 megawatts (MW) in capacity. Net metering is available to all qualifying facilities (QFs), as defined by PURPA. (In general, "qualifying facilities" under PURPA include renewable-energy systems and combined-heat-and-power systems.) Customers are credited or paid for monthly net excess generation (NEG) at the utility's avoided-cost rate. (Renewable Energy Standards; Net Metering; Intended audiences: Commercial, industrial, residential) Enacted in 2007.

Source: [http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive\\_Code=NM01R&state=NM&CurrentPageID=1&RE=1&EE=1](http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive_Code=NM01R&state=NM&CurrentPageID=1&RE=1&EE=1)

**Renewable Energy Production Tax Credit – Corporate** (N.M. Stat. § 7-2A-19) - Enacted in 2002, the New Mexico Renewable Energy Production Tax Credit provides a tax credit against the corporate income tax of one cent per kilowatt-hour for companies that generate electricity from wind or biomass. (\$0.01/kWh for wind and biomass) Wind and biomass: First 400,000 MWh annually for 10 years (i.e. \$4,000,000/year) (Tax incentive; Tax credit; Intended audiences: Commercial, industrial) Enacted in 2002.

Source: <http://www.cleanenergynm.org>

**Renewable Energy Production Tax Credit** (N.M. Stat. § 7-2-18.18) - The New Mexico Renewable Energy Production Tax Credit provides a tax credit against the personal income tax of one cent per kilowatt-hour for companies that generate electricity from wind or biomass. (\$0.01/kWh for wind and biomass). Wind and biomass: First 400,000 MWh annually for 10 years (i.e. \$4,000,000/year) Total generation from both the corporate and personal tax credit programs combined must not exceed two million megawatt-hours of production annually. (Tax incentive; Tax credit; Intended audiences: Commercial, industrial, residential; agricultural) Enacted in 2007.

Source: <http://www.cleanenergynm.org>

**Biomass Equipment and Materials Deduction** (NM Stat. § 7-9-98) – In 2005 New Mexico adopted a policy to allow businesses to deduct the value of biomass equipment and biomass materials used for the processing of biopower, biofuels or biobased products in determining the amount of Compensating Tax due. The rate is 5% of the value of the property or service. Compensating Tax is designed to protect New Mexico businesses from unfair competition from out-of-state business not subject to a sales or gross receipts tax. This biomass Compensating Tax deduction is analogous to a sales tax exemption for renewable energy equipment available in some other states. (Tax incentive; Tax credit; Intended audience: Commercial, industrial) Enacted in 2005.

Source: [http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive\\_Code=NM06F&state=NM&CurrentPageID=1&RE=1&EE=1](http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive_Code=NM06F&state=NM&CurrentPageID=1&RE=1&EE=1)

**Alternative Energy Manufacturer's Tax Credit** (S. B. 463 / N.M. Stat. § 7-9J-1 et seq.) - Allows manufacturers of alternative energy products and components to receive a tax rebate. The credit is limited to 5 percent of the taxpayer's qualified expenditures, such as manufacturing equipment, that were purchased after July 1, 2006. Any remaining portion of the tax credit can be carried forward for up to 5 years. (Tax incentive; Tax credit; Intended audience: Commercial, industrial) Enacted in 2006.

Source: [http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive\\_Code=NM19F&state=NM&CurrentPageID=1&RE=1&EE=1](http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive_Code=NM19F&state=NM&CurrentPageID=1&RE=1&EE=1)

## New York

**High-Efficiency Biomass Heating Technologies** (NYSERDA) - Nine projects valued at more than \$2.5 million will compare energy and emissions performance for wood-burning equipment, including residential and commercial wood boilers, pellet stoves, wood stoves, and emerging grass-pellet technologies. NYSERDA's program will perform a comprehensive scientific evaluation of several different advanced and conventional biomass technologies to characterize emissions and energy efficiency in specialized combustion laboratories. The technologies to be evaluated include both residential- and commercial-scale boilers with various fuel types under different operating conditions. (Subsidies and Grants; Grant) Enacted in 2008.

Source: [http://www.nyserda.org/Press\\_Releases/2008/PressRelease20083009.asp](http://www.nyserda.org/Press_Releases/2008/PressRelease20083009.asp)

**System Benefits Charge** (New York PSC Opinion No. 96-12 [Cases 94-E-0952 et al.]) - \$1.86 billion through 2011; New York's system benefits charge (SBC), established in 1996 by the New York Public Service Commission (PSC), supports energy efficiency, education and outreach, research and development, and low-income energy assistance. To support the SBC program, the state's six investor-owned electric utilities collect funds from customers through a surcharge on customers' bills. Each year from 2006-2011, each utility must collect and remit to the New York State Energy Research and Development Authority (NYSERDA) a sum equal to 1.42% of the utility's 2004 revenue. (Agency Budgets; Initiative; Intended audience: Commercial, Industrial, Residential, General Public/Consumer, Utility, Institutional) Enacted in 1996.

Source: <http://www.getenergysmart.org>



**Renewable Power Procurement Policy** (Executive Order No. 111) - The renewable-power procurement component of this order commits the state government to purchase a portion of its electric power from renewable energy resources -- at least 10% from resources such as wind, solar thermal, photovoltaics (solar electric), sustainably managed biomass, tidal, geothermal, methane waste and fuel cells by 2005, increasing to 20% by 2010. State entities can fulfill their renewable power procurement obligations through on-site generation or by purchasing renewable energy on the open market. (Regulation; Initiative; Intended audience: State government) Enacted in 2001.

Source: <http://www.nyserda.org/programs/exorder111.asp>

**Biomass Resource Program** (NYSERDA) - The Biomass Resources Program emphasizes the use of low-cost waste biomass such as agricultural and forestry waste streams to products including fuels and chemicals. Projects that convert biomass to fuels, chemicals, and energy products use methods that include anaerobic digestion, acid or enzyme hydrolysis, gasification, pyrolysis, and combustion. The largest source of biomass is wood and wood wastes, a renewable and sustainable resource. (Regulation; Initiative)

Source: <http://www.powernaturally.org/programs/BiomassResources/default.asp?i=2>

**New York Net Metering** (NY CLS Public Service, Article 4 § 66-j and § 66-1) - 10 kW for solar; 25 kW for residential wind; 125 kW for farm-based wind; 400 kW for farm-based biogas. Generally credited to customer's next bill at utility's retail rate. (NEG associated with wind turbines greater than 10 kW is credited monthly at avoided-cost rate). Accounts reconciled annually at avoided-cost rate. (Renewable Energy Standards; Net Metering; Intended audiences: Residential, agricultural) Enacted in 1997.

Source: <http://www.dps.state.ny.us/distgen.htm>

**Green Building Requirements for Municipal Buildings** (Local Law No. 86) - City funded new construction or substantial reconstruction projects with an estimated cost of more than \$2 million must meet LEED Silver Certification standards; except Schools (G) and Hospitals (H-2) need only meet LEED Certification standards; Other requirements vary by technology and capital cost. (Regulation; Standard; Intended audience: Local government) Enacted in 2005.

Source: [http://www.nyc.gov/html/dob/html/guides/green\\_buildings.shtml](http://www.nyc.gov/html/dob/html/guides/green_buildings.shtml)

**Environmental Disclosure Program** (NY PSC Opinion 98-19, Case 94-E-0952) - In December 1998, the New York Public Service Commission (PSC) issued an order creating the Environmental Disclosure Program, requiring electric suppliers to provide information to customers regarding the environmental impacts of electricity products. All suppliers must disclose fuel mix compared to a statewide average, as well as the quantities of emissions of sulfur dioxide, nitrogen oxides and carbon dioxide. (Regulation; Standard; Intended audience: Utility) Enacted in 1998.

Source: <http://www.dps.state.ny.us/EnvDisclosureLabel.html>

**Renewable Electricity Goal** (LIPA 2004-2013 Energy Plan) - The initiative is outlined in LIPA's 2004-2013 Energy Plan, approved in June 2004, and states an intention to comply with the state requirement that 24% of electricity generation come from renewable resources by 2013. For LIPA, this will entail an 8-10% increase in renewable energy procurement, met through periodic requests for proposals (RFPs) for renewable generation. (Regulation; Standard; Intended audience: Utility) Enacted in 2004.

Source: <http://www.lipower.org/cei/>

**Renewable Portfolio Standard** (NY PSC Order, Case 03-E-0188) - New York's RPS has a target of 25% by 2013. Of this, approximately 19.3% of the target will be derived from existing (2004) renewable energy facilities and one percent (1%) of the target is expected to be met through voluntary green power sales. (Regulation; Standard; Intended audience: Investor-Owned Utility) Enacted in 2004.

Source: <http://www.dps.state.ny.us/03e0188.htm>

**Solar, Wind and Biomass Systems Exemption** (NY CLS Real Property Tax, Article 4 § 487) - The law intends to encourage the installation of solar, wind and farm-waste energy equipment systems and to ensure property owners that their real property taxes will not increase as a result of the installation of these systems. The amount of the exemption is equal to the increase in assessed value attributable to the solar, wind or farm-waste energy system. (Tax incentive; Tax credit; Intended audience: Commercial, industrial, residential; agricultural) Enacted in 2002.

Source: <http://www.orps.state.ny.us/assessor/manuals/vol4/part1/section4.01/sec487.htm>

## North Carolina

**Assessing Renewable Resources** (U.S. Department of Energy's State Energy Program) - The Assessing Renewable Resources activity assessed potential energy generation from biomass, solar, and hydropower sources. An estimate of current and projected energy production from these sources was completed. Near-term commercial processes for converting renewable energy into useful fuels and power will be outlined. (Education & Consultation; Consultation) Enacted in 2004.

Source: [http://apps1.eere.energy.gov/state\\_energy\\_program/grants\\_by\\_state.cfm/year=2004/state=NC](http://apps1.eere.energy.gov/state_energy_program/grants_by_state.cfm/year=2004/state=NC)

**Clean Technology Demonstration** (U.S. Department of Energy's State Energy Program) - The Clean Technology Demonstration project developed demonstration projects of commercially available technologies and techniques that focused on clean energy technologies such as fuel cells, biomass, wind, solar, and geothermal. It was included under Clean Technology Demonstration area. (Education and Consultation; Consultation) Enacted in 2004.

Source: [http://apps1.eere.energy.gov/state\\_energy\\_program/grants\\_by\\_state.cfm/year=2004/state=NC](http://apps1.eere.energy.gov/state_energy_program/grants_by_state.cfm/year=2004/state=NC)

**Local Option Green Building Initiative** (N.C. Gen. Stat. § 153A-340; SB 1597) - To encourage sustainable building practices, North Carolina law allows all counties and cities to provide reductions or partial rebates for building permit fees. To qualify for a fee reduction, buildings must meet guidelines established by the Leadership in Energy and Environmental Design (LEED) program, the Green Globes program, or another nationally recognized certification program. (Subsidies and Grants; Cost-Share; Intended audiences: Commercial, residential) Enacted in 2007.

Source: [http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive\\_Code=NC48F&state=NC&CurrentPageID=1&RE=1&EE=1](http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive_Code=NC48F&state=NC&CurrentPageID=1&RE=1&EE=1)

**Biomass Market Development for North Carolina** (Southeastern Regional Biomass Energy Program) - The State Energy Office (SEO) will facilitate permanent establishment of the North Carolina Biomass Council (NCBC) through a subcontract with the North Carolina Solar Center (NCSC). The Council will provide consultation to the North Carolina Energy Policy Council, the SEO, and the North Carolina General Assembly on implementation of bioenergy studies and demonstration projects through the establishment of a biomass deployment roadmap for North Carolina. A biomass waste exchange website will be created, launched, and marketed, dedicated to listing and trading biomass wastes and other biomass products. This resource will be used by businesses—particularly in the agri-business sector—to access value added opportunities. Amount: SERBP \$48,000; cost share \$10,000. (Subsidies and Grants; Cost-Share) Enacted in 2005.

Source: <http://www.serbep.org/>

**Renewables in Schools Projects** (U.S. Department of Energy's State Energy Project) – The Renewables in Schools Projects improved the energy efficiency of schools by providing renewable energy demonstration projects that can be replicated at other school sites in North Carolina. These systems included solar hot water systems, day lighting systems, solar electric systems, wind energy systems, and biomass to energy conversion systems. (Education and Consultation; Education; Intended audience: Schools) Enacted in 2006.

Source: [http://apps1.eere.energy.gov/state\\_energy\\_program/grants\\_by\\_state.cfm/state=NC](http://apps1.eere.energy.gov/state_energy_program/grants_by_state.cfm/state=NC)

**North Carolina Green Business Fund** (HB 1473) - The North Carolina Green Business Fund provides funding to North Carolina organizations to encourage the development and commercialization of "promising" renewable energy and green building technologies. Grants of up to \$100,000 are available for the development of commercial innovations and applications in the biofuels industry, sustainable building practices and private sector investment in renewable energy technologies. (Subsidies and Grants; Grant; Intended audience: Commercial, Nonprofit, Local Government, State Government, Agricultural, Institutional) Enacted in 2007.

Source: <http://www.ncscienceandtechnology.com>

**NC GreenPower Production Incentive** (NCUC Order, Docket No. E-100, Sub 90) - NC GreenPower, a statewide green-power program designed to encourage the use of renewable energy in North Carolina, offers production payments for grid-tied electricity generated by solar, wind, small hydro (10 megawatts or less) and biomass resources. NC GreenPower is an independent, nonprofit organization created by state-government officials, electric utilities, nonprofit organizations, consumers, renewable-energy advocates and other stakeholders. (Subsidies and

Grants; Incentives; Intended audience: Commercial, Industrial, Residential, Nonprofit, Schools, Local Government, State Government, Agricultural, Institutional) Enacted in 2003.

Source: <http://www.ncgreenpower.org>

**Development for Biobased Technologies and Products through DOE's Energy Efficiency and Renewable Energy Programs** (U.S. Department of Energy's State Energy Program) - The North Carolina Energy Office, in conjunction with the North Carolina Solar Center at North Carolina State University, the New Uses Council, and the Environmental and Energy Study Institute are working together to promote greater awareness and adoption of biobased fuels and products through an array of DOE EERE's outreach programs. The primary goal of this project is to increase EERE's outreach partners' understanding and awareness of biomass resources, uses, and technologies, thereby encouraging broader adoption of biobased products. (Service Provision; Initiative) Enacted in 2004.

Source: [http://apps1.eere.energy.gov/state\\_energy\\_program/project\\_detail.cfm/sp\\_id=748](http://apps1.eere.energy.gov/state_energy_program/project_detail.cfm/sp_id=748)

**Energy Improvement Loan Program** (N.C. Gen. Stat. § 143-345.18) - North Carolina's Energy Improvement Loan Program (EILP) is available to businesses, local governments, public schools, community colleges, and nonprofit organizations for projects that include energy efficiency improvements and renewable energy systems. Loans with an interest rate of 1% are available for certain renewable-energy and energy-recycling projects. Eligible renewable-energy projects generally include solar, wind, small hydropower (less than 20 megawatts) and biomass. Loans with a rate of 3% are available for projects that demonstrate energy efficiency, energy cost savings or reduced energy demand. (Financing and Contracting; Loan; Intended audiences: Commercial, Industrial, Nonprofit, Schools, Local Government) Enacted in 2001.

Source: <http://www.energync.net/funding/eilp.html>

**North Carolina Net Metering** (NCUC Order, Docket No. E-100, Sub 83) - In October 2005, the North Carolina Utilities Commission (NCUC) adopted an order requiring the state's three investor-owned utilities -- Progress Energy, Duke Energy and Dominion North Carolina Power -- to make net metering available to customers that own and operate systems that generate electricity using photovoltaics (solar-electric energy), wind or biomass resources. The maximum capacity of net-metered residential systems is 20 kilowatts (kW); the maximum capacity of net-metered nonresidential systems is 100 kW. Net metering is available on a first-come, first-served basis in conjunction with the utility's interconnection standards, up to an aggregate limit of 0.2% of the utility's North Carolina jurisdictional retail peak load for the previous year. (Renewable Energy Standards; Net Metering; Intended audiences: Commercial, Industrial, Residential, Nonprofit, Schools, Local Government, State Government, Tribal Government, Fed. Government, Agricultural, Institutional) Enacted in 2005.

Source: <http://www.ncuc.commerce.state.nc.us>

**Interconnection Standards** (NCUC Order, Docket No. E-100, Sub 101) - The N.C. Utilities Commission (NCUC) adopted comprehensive interconnection standards for distributed generation in June 2008. The NCUC standards, which are similar to the Federal Energy Regulatory

Commission's (FERC) interconnection standards for small generators, govern interconnection to the distribution systems of the state's three investor-owned utilities: Progress Energy, Duke Energy and Dominion North Carolina Power. The standards apply to all state-jurisdictional interconnections (including interconnection of three-phase generators) regardless of the capacity of the generator, the voltage level of the interconnection, or whether the customer intends to offset electricity consumption or sell electricity. (Regulation; Standards; Intended audiences: Commercial, Industrial, Residential, Nonprofit, Schools, Local Government, State Government, Fed. Government, Agricultural, Institutional) Enacted in 2008.

Source: <http://www.ncuc.commerce.state.nc.us>

**Renewable Energy and Energy Efficiency Portfolio Standard** (N.C. Gen. Stat. § 62-2 et seq) - North Carolina's Renewable Energy and Energy Efficiency Portfolio Standard (REPS) requires all investor-owned utilities in the state to supply 12.5% of 2020 retail electricity sales (in North Carolina) from eligible energy resources by 2021. Municipal utilities and electric cooperatives must meet a target of 10% renewables by 2018 and are subject to slightly different rules. (Regulation; Standard; Intended audience: Municipal Utility, investor-owned utility, rural electric cooperative) Enacted in 2007.

Source: <http://www.ncuc.commerce.state.nc.us>

**Renewable Energy Tax Credit (Corporate)** (N.C. Gen. Stat. § 105-129.15 et seq.) - In 1999 North Carolina's various renewable-energy tax credits were revised and unified into a statute that addresses nearly all renewables. The revised statute provides for a tax credit of 35% of the cost of renewable energy property constructed, purchased or leased by a taxpayer and placed into service in North Carolina during the taxable year. Renewable-energy equipment expenditures eligible for the tax credit include the cost of the equipment and associated design; construction costs; and installation costs less any discounts, rebates, advertising, installation-assistance credits, name-referral allowances or other similar reductions. (Tax incentive; Tax credit; Intended audience: Commercial, industrial) Enacted in 1999.

Source: <http://www.ncsc.ncsu.edu>

**Renewable Energy Tax Credit (Personal)** (N.C. Gen. Stat. § 105-129.15 et seq.) - Renewable-energy equipment expenditures eligible for the tax credit include the cost of the equipment and associated design; construction costs; and installation costs less any discounts, rebates, advertising, installation-assistance credits, name-referral allowances or other similar reductions. Under North Carolina's tax code, the allowable credit may not exceed 50% of a taxpayer's liability for the year, reduced by the sum of all other credits. (Tax incentive; Tax credit; Intended audience: Commercial, residential, multi-family residential) Enacted in 1977.

Source: <http://www.ncsc.ncsu.edu>

## North Dakota

**Biomass Energy Task Force** (North Dakota Alliance for Renewable Energy) - NDARE promotes development and use of home grown biodiesel as it also helps reduce our dependence on foreign oil and adds value to North Dakota resources. As with ethanol, NDARE works to improve public awareness and help provide verifiable information to help increase public acceptance and demand for advancing development of new technologies that adds to the diversity of feedstocks and processes for biodiesel and biofuel production. (Education and Consultation; Education) Enacted in 2007.

Source: <http://www.ndare.org/#bio>

**Feasibility Study of a Biomass Supply for the Spiritwood Industrial Park** (R-001-003) - Program Funding: \$109,000; Total Project Costs: \$474,000; The objective is to perform a detailed technical evaluation of the prospects for integrating a biomass supply into Spiritwood Station. Great River Energy proposes to co-fire up to 10 percent biomass in Spiritwood Station, Jamestown, ND. (Subsidies and Grants; Grant) Enacted in 2008.

Source: <http://www.nd.gov/ndic/renew-project.htm>

**25 X 25 Initiative** (HB 1515) - \$2.5 million appropriation for a biomass demonstration project and biomass incentives. (Regulation; Initiative) Enacted in 2007.

Source: <http://www.governor.nd.gov/media/news-releases/2007/02/070215a.html>

**25 X 25 Initiative** (HB 1020) - \$1 million for biomass and hemp research and education efforts at the NDSU experiment station and extension service. A \$7 million agriculture greenhouse at NDSU to help develop new sources of raw materials for biofuels, including cellulose and switchgrass; as well as agronomic research on oilseeds and corn to achieve higher biofuels production per acre. (Regulation; Initiative) Enacted in 2007.

Source: <http://www.governor.nd.gov/media/news-releases/2007/02/070215a.html>

**25 X 25 Initiative** (SB 2288) - \$3 million general fund appropriation, with authority to leverage an additional \$17 million for a renewable energy grant fund within the Industrial Commission for projects promoting North Dakota-produced energy, including: biodiesel, biomass, coal, ethanol, geothermal, hydroelectric, hydrogen, natural gas, oil, solar, and wind. (Regulation; Initiative) Enacted in 2007.

Source: <http://www.governor.nd.gov/media/news-releases/2007/02/070215a.html>

**North Dakota Net Metering** (ND Administrative Code 69-09-07-09) - North Dakota's net-metering rules apply both to renewable-energy generators and cogenerators (combined-heat-and-power systems) up to 100 kilowatts (kW) in capacity. Net metering is available to all customer classes. There is no statewide limit on the total capacity of all net-metered systems. If a customer has net excess generation (NEG) at the end of a monthly billing period, the utility must purchase the NEG at the utility's avoided-cost rate. (Renewable Energy Standards; Net Metering; Intended audiences: Commercial, industrial, residential) Enacted in 1991.

Source: <http://www.nd.gov/dcs/Energy>

**Biomass Incentive and Research Program** (North Dakota Industrial Commission) - The mission of the Biomass Incentive and Research Program is to promote the growth of North Dakota's biomass industry efforts through research and development. The Program's responsibilities include establishing an incentive program to assist the agricultural community to demonstrate the production, harvest, storage and delivery of biomass feedstock on a commercial scale to a private sector end user, provide funds for incentives, including producer payments to provide income support during the critical biomass stand establishment period of two years without harvest, in the case of native grasses, or other perennial biomass crops, work in cooperation with the Game and Fish Department to establish a private land open to sportsmen program biomass demonstration project, and establish a project on a scale sufficient to enable at least one group of cooperating agricultural producers, and preferably two groups in different regions of the state, to produce, harvest, store and deliver biomass feedstock to an end user at commercial scale. The 2007 Legislature established a Biomass Incentive and Research Fund and authorized that the Industrial Commission may transfer up to \$2,000,000 for this program from other Industrial Commission agricultural programs. See printed documents for further information. (Service provision; Program) Enacted in 2007.

Source: <http://www.nd.gov/ndic/biomass-infopage.htm>

**Renewable and Recycled Energy Objective** (ND Century Code 49-02-24 et seq.) - Eligible resources include electricity produced solar, wind, biomass, hydropower, geothermal, hydrogen derived from another eligible resource, and recycled energy systems producing electricity from currently unused waste heat resulting from combustion or other processes. In March 2007, the North Dakota enacted legislation (H.B. 1506) establishing an objective that 10% of all retail electricity sold in the state be obtained from renewable energy and recycled energy by 2015. (Regulation; Standard; Intended audience: Utility) Enacted in 2006.

Source: <http://www.nd.gov/dcs/Energy>

**Renewable Energy Tax Credit (Corporate)** (ND Century Code 57-38-01.8) - North Dakota allows any corporation to claim an income tax credit of 3% per year for five years for the cost of equipment and installation of a system that uses geothermal, solar, biomass ("Biomass energy device" is defined as "a system using agricultural crops, wastes, or residues; wood or wood wastes or residues; animal wastes; landfill gas; or other biological sources to produce fuel or electricity") or wind energy and that is installed after December 31, 2000. If the eligible device is part of a system that uses other energy sources, only the portion of the system that uses geothermal, solar, biomass or wind energy is eligible. If the



amount of the credit exceeds a taxpayer's tax liability, the excess credit may be carried over to each of the five succeeding taxable years. (Tax credit; Tax incentive; Intended audience: Commercial, industrial) Enacted in 2001.

Source: <http://www.nd.gov/tax/genpubs/energy.pdf>

**Renewable Energy Tax Credit (Personal)** (ND Century Code 57-38-01.8) - North Dakota allows any individual to claim an income tax credit of 3% per year for five years for the cost of equipment and installation of a system that uses geothermal, solar, biomass ("Biomass energy device" is defined as "a system using agricultural crops, wastes, or residues; wood or wood wastes or residues; animal wastes; landfill gas; or other biological sources to produce fuel or electricity") or wind energy and that is installed after December 31, 2000. If the eligible device is part of a system that uses other energy sources, only the portion of the system that uses geothermal, solar, biomass or wind energy is eligible. If the amount of the credit exceeds a taxpayer's tax liability, the excess credit may be carried over to each of the five succeeding taxable years. (Tax incentive; Tax credit; Intended audience: Residential) Enacted in 2001.

Source: <http://www.nd.gov/tax/genpubs/energy.pdf>

**25 X 25 Initiative** (SB 2081) - Investment Tax Credits with the potential to generate investments in 10 renewable energy projects per year. If five projects with \$10 million in investments qualify annually, \$100 million in projects could be initiated during the biennium. (Tax incentive; Tax credit) Enacted in 2007.

Source: <http://www.governor.nd.gov/media/news-releases/2007/02/070215a.html>

## Ohio

**Advanced Energy Program Grants – Distributed Energy and Renewable Energy** (ORC § 4928.61 et seq. [Ohio Advanced Energy Fund]) - The Ohio Department of Development's (ODOD) Office of Energy Efficiency (OEE) is offering grants on a first-come, first-served basis for the installation of new distributed energy resources (DER) projects and non-residential renewable-energy projects. Distributed energy resources (DER) projects, defined in the current solicitation as modular technologies that generate and deliver electricity to customers at or near the point of use. Eligible applications include industrial heat recovery and combined heat and power (CHP), microturbines, and clean-burning reciprocating engines. The maximum grant award is \$100,000 or 25% of the project's cost, whichever is less. (Subsidies and Grants; Grant; Intended audience: Commercial, Industrial, Nonprofit, Schools, Local Government, State Government, Agricultural, Institutional)

Source: <http://www.odod.state.oh.us/cdd/oe/elfgrant.htm>

**Advanced Energy Fund** (ORC 4928.61 et seq.) - The Fund supports the Advanced Energy Program, which at different times has provided grants for renewable energy and energy efficiency projects to different economic sectors. Grant funds are awarded through periodic Notices of Funding Availability (NOFAs) which may each focus on specific technologies or economic sectors. The Fund is administered by the Ohio

Department of Development's Office of Energy Efficiency (OEE) and replenished through a uniform fee on the electric bills of customers of the state's four investor-owned utilities. The fee amount is determined by dividing an aggregate revenue target for a given year -- as determined by the Ohio Department of Development (ODOD) -- by the number of customers of electric distribution utilities in Ohio during the previous year. (Subsidies and Grants; Grant; Intended audience: Commercial, Industrial, Residential, General Public/Consumer, Utility, Institutional) Enacted in 1999.

Source: <http://www.odod.state.oh.us/cdd/oe/elfgrant.htm>

**Biomass Project** (U.S. Department of Energy's State Energy Program) - Increased the development and use of biomass energy resources in Ohio and created new markets and employment for farmers and foresters. Biomass use spurred the development of new processing, distribution, and service industries in rural communities. It investigated benefits, obstacles, and issues related to recovering methane from livestock operations and other biomass resources. The Biomass Task Force allowed industry to receive technical, permitting, and regulatory assistance and financing options. It promoted technologies to reduce energy costs, produce energy for business operations, reduce organic wastes, reduce waste streams, and provide environmental benefits. (Agency Budgets; Initiative) Enacted in 2004.

Source: [http://apps1.eere.energy.gov/state\\_energy\\_program/grants\\_by\\_state.cfm/year=2004/state=OH](http://apps1.eere.energy.gov/state_energy_program/grants_by_state.cfm/year=2004/state=OH)

**The Advanced Energy Technologies – Renewables and Cogeneration Program** (U.S. Department of Energy's State Energy Program) - Seeded the market with commercially available distributed generation (DG) technologies and applications to develop the proper mindset of the market toward DG to set the stage for future development of fuel cell technology. It participated in the demonstration of commercially available fuel cell projects. It operated the Ohio alternative fuel transportation grant fund and reported progress quarterly. It investigated benefits, obstacles, and issues related to recovering methane from livestock operations and other biomass resources to produce energy and reduce organic waste. It operated the Ohio Alternative Fuel Transportation Grant Fund and reported progress quarterly. (Regulation; Initiative) Enacted in 2006.

Source: [http://apps1.eere.energy.gov/state\\_energy\\_program/grants\\_by\\_state.cfm/state=OH](http://apps1.eere.energy.gov/state_energy_program/grants_by_state.cfm/state=OH)

**Biomass Program** (U.S. Department of Energy's State Energy Program) - Increased the development and use of biomass energy resources to promote energy sustainability and a cleaner environment. It formed an interagency Biomass Task Force (BTF) to investigate benefits, obstacles, and issues related to recovering methane from livestock operations and other biomass resources for the purpose of producing energy and reducing organic waste. The BTF hosted a workshop in 2006 to promote resources available through Title IX of the Farm Bill. (Service provision; Initiative) Enacted in 2005.

Source: [http://apps1.eere.energy.gov/state\\_energy\\_program/grants\\_by\\_state.cfm/year=2005/state=OH](http://apps1.eere.energy.gov/state_energy_program/grants_by_state.cfm/year=2005/state=OH)

**Ohio Net Metering** (ORC 4928.67) - Ohio's net-metering law requires electric distribution utilities and competitive retail electric service providers to offer net metering to customers who generate electricity using wind energy, solar energy, biomass, landfill gas, hydropower, fuel

cells or microturbines. Each utility is only required to offer net metering until the total generating capacity of all participating customers equals 1% of the utility's aggregate customer peak demand in Ohio. In March 2007, PUCO revised its rules to allow net-metered customers to request refunds of net excess generation (NEG) credits accumulated over a 12-month period. (Renewable Energy Standards; Net Metering; Intended audiences: Commercial, industrial, residential) Enacted in 1999.

Source: <http://www.puco.ohio.gov/PUCO/Consumer/Information.cfm?id=8510>

**Renewable Energy Supply Chain** (U.S. Department of Energy's State Energy Program) - Supported outreach activities that linked Ohio companies with major renewable energy players both within and outside of the state and aligned and linked Ohio's research community with Ohio's industry strengths in renewable energy technologies (e.g. solar PV, wind and biomass), and developed a Renewable Energy Supply Chain database. (Education and Consultation; Outreach) Enacted in 2005.

Source: [http://apps1.eere.energy.gov/state\\_energy\\_program/grants\\_by\\_state.cfm/year=2005/state=OH](http://apps1.eere.energy.gov/state_energy_program/grants_by_state.cfm/year=2005/state=OH)

**Biomass Task Force** (U.S. Department of Energy's State Energy Program) - Investigated benefits, obstacles, and issues related to recovering methane from livestock operations and other biomass resources to produce energy and reduce organic waste. (Education and Consultation; Research) Enacted in 2003.

Source: [http://apps1.eere.energy.gov/state\\_energy\\_program/grants\\_by\\_state.cfm/year=2003/state=OH](http://apps1.eere.energy.gov/state_energy_program/grants_by_state.cfm/year=2003/state=OH)

**Energy Efficiency in New School Construction** (Ohio School Facilities Commission Resolution 07-0124) - The Ohio School Facilities Commission (OSFC) administers funds appropriated by the Ohio General Assembly for the construction of new schools and renovations of existing schools. In September 2007 the OSFC approved a resolution requiring that all new school construction projects not already in the design phase achieve LEED Silver certification, with a goal of achieving LEED Gold certification. The overall program is expected to fund projects in at least 140 school districts in subsequent rounds, all of which will be required to abide by the sustainable building standard described above. (Regulation; Standard; Intended audience: Schools) Enacted in 2007.

Source: <http://www.osfc.state.oh.us/>

**Environmental Disclosure** (ORC §4928.10) - In 2000, the Ohio Public Utilities Commission adopted rules requiring electricity suppliers to disclose environmental information to retail customers in accordance with the state's 1999 restructuring law. Retail providers must disclose fuel mix and emissions data for each electricity product offered. Fuel mix and emissions of carbon dioxide, sulfur dioxide and nitrogen oxides must be presented relative to the regional average. The amount of high-level and low-level radioactive waste generated also must be disclosed. (Regulation; Standard; Intended audience: Utility) Enacted in 1999.

Source: [http://www.puc.state.oh.us/PUCO/Consumer/information.cfm?doc\\_id=1191](http://www.puc.state.oh.us/PUCO/Consumer/information.cfm?doc_id=1191)

**Interconnection Standards** (ORC 4928.11) - Ohio exempts certain property from real and personal property taxation, state sale and use taxes, and the state's corporate franchise tax where applicable. The exemption applies to property used in energy conversion, thermal-efficiency improvements and the conversion of solid waste to energy. Eligible technologies include solar-thermal systems, photovoltaic systems, wind, biomass, landfill gas and waste-recovery systems. Upon receipt of certification from the tax commissioner, such property is exempt from Ohio's sales and use tax. (Regulation; Standard; Intended audience: Commercial, Industrial, Residential, Nonprofit, Schools, Local Government, State Government, Federal Government) Enacted in 1999.

Source: <http://www.puco.ohio.gov/PUCO/Consumer/Information.cfm?id=4080&terms=interconnection&searchtype=1&fragment=False>

**Alternative Energy Resource Standard (25% Renewable or Advanced Energy by 2025)** (SB 221) - Under the standard, utilities must provide 25% of their retail electricity supply from alternative energy resources by 2025, with specific annual benchmarks for renewable and solar energy resources (see details below). Additionally, utilities are required to implement energy efficiency and peak demand reduction programs that achieve a cumulative energy savings of 22% by the end of 2025, and reduce peak demand by 1.0% in 2009 and 0.75% annually thereafter through 2018. Additionally, new or existing mercantile customer-sited advanced energy resources and renewable energy resources that the customer commits into a utility's demand-response, energy efficiency or peak demand programs are also eligible. (Regulation; Standard; Intended audiences: Electric Distribution Utilities and Electric Service Companies) Enacted in 2008.

Source: <http://www.odod.state.oh.us/cdd/oe/>

**Energy Conversion Facilities Corporate Tax Exemption** (ORC 5709.20 et seq.) - Ohio exempts certain property from real and personal property taxation, state sale and use taxes, and the state's corporate franchise tax where applicable. The exemption applies to property used in energy conversion, thermal-efficiency improvements and the conversion of solid waste to energy. Eligible technologies include solar-thermal systems, photovoltaic systems, wind, biomass, landfill gas and waste-recovery systems. Upon receipt of certification from the tax commissioner, such property is exempt from Ohio's sales and use tax. (Tax incentive; Tax exemption; Intended audience: Commercial, industrial) Enacted in 1978.

Source: [http://www.odod.state.oh.us/cdd/oe/c\\_i\\_cfe.htm](http://www.odod.state.oh.us/cdd/oe/c_i_cfe.htm)

**Energy Conversion Facilities Property Tax Exemption** (ORC 5709.20 et seq.) - Ohio exempts certain property from real and personal property taxation, state sale and use taxes, and the state's corporate franchise tax where applicable. The exemption applies to property used in energy conversion, thermal-efficiency improvements and the conversion of solid waste to energy. Eligible technologies include solar-thermal systems, photovoltaic systems, wind, biomass, landfill gas and waste-recovery systems. Upon receipt of certification from the tax commissioner, such property is exempt from Ohio's sales and use tax. (Tax incentive; Tax exemption; Intended audience: Commercial, industrial) Enacted in 1978.

Source: [http://www.odod.state.oh.us/cdd/oe/c\\_i\\_cfe.htm](http://www.odod.state.oh.us/cdd/oe/c_i_cfe.htm)

**Energy Conversion Facilities Sales Tax Exemption** (ORC 5709.20 et seq.) - Ohio exempts certain property from real and personal property taxation, state sale and use taxes, and the state's corporate franchise tax where applicable. The exemption applies to property used in energy conversion, thermal-efficiency improvements and the conversion of solid waste to energy. Eligible technologies include solar-thermal systems, photovoltaic systems, wind, biomass, landfill gas and waste-recovery systems. Upon receipt of certification from the tax commissioner, such property is exempt from Ohio's sales and use tax. (Tax incentive; Tax exemption; Intended audience: Commercial, industrial) Enacted in 1978.

Source: [http://www.odod.state.oh.us/cdd/oeec/c\\_i\\_cfe.htm](http://www.odod.state.oh.us/cdd/oeec/c_i_cfe.htm)

## Oklahoma

**Planning for an Oklahoma Forest Industry Technology Institute** (U.S. Department of Energy's State Energy Program) - As the first step in a planned three step process designed to establish an Oklahoma Forest Industry Technology Institute, this project will include benchmarking the Oklahoma forest industry against national standards; identifying industry needs specific to Oklahoma companies; identifying key processes, products or methods that address pollution reduction and resource consumption; and developing project evaluation criteria. Total funding: \$200,000. (Service provision; initiative) Enacted in 2001.

Source: [http://apps1.eere.energy.gov/state\\_energy\\_program/project\\_detail.cfm/sp\\_id=117](http://apps1.eere.energy.gov/state_energy_program/project_detail.cfm/sp_id=117)

**Community Energy Education Management Program** (Oklahoma Department of Commerce) - The Oklahoma Department of Commerce offers a revolving loan fund for local governments to make energy efficient improvements to government buildings. All eligible projects should increase energy efficiency, reduce energy consumption, project a positive return on investment and be paid back within six years of the loan award. Funds from this program can be used to pay for a technical assistance report/audit, energy conservation measures and operation and maintenance procedures that would contribute to overall reduced energy consumption. Generally, the loans will not be more than \$150,000, and the average loan amount is around \$60,000. An eligible local government may have only one active loan open at any time. (Financing and Contracting; Loan; Intended audience: Local government) Enacted in 2007.

Source: [http://www.okcommerce.gov/index.php?option=com\\_content&task=view&id=339&Itemid=425](http://www.okcommerce.gov/index.php?option=com_content&task=view&id=339&Itemid=425)

**Energy Loan Fund for Schools** (Oklahoma Department of Commerce) - The Oklahoma Department of Commerce has established a loan/lease fund for public and non-profit K-12 schools to improve energy efficiency. Two categories of funding are available for schools to reduce energy consumption: Category One funding will pay for technical and energy audits, the development of Energy Management Plans, and any professional services that contribute to the planning and design of energy reduction systems and measures. Category II funding covers the actual acquisition and installation of energy conservation measures. All projects must be shown to reduce energy consumption, have a positive return on investment, and be able to be repaid within six years. An eligible school district may only have one active loan at a time. (Financing and Contracting; Loan; Intended audiences: Schools) Enacted in 2007.

Source: <http://www.okcommerce.gov/index.php?option=content&task=view&id=286&Itemid=95#4>

**Oklahoma Net Metering** (O.A.C. § 165:40-9) - The OCC's rules require investor-owned utilities and electric cooperatives under the commission's jurisdiction to file net-metering tariffs for customer-owned renewable-energy systems and combined-heat-and-power (CHP) facilities up to 100 kilowatts (kW) in capacity. Net metering is available to all customer classes. There is no limit on the amount of aggregate net-metered capacity. Utilities are not allowed to impose extra charges for customers signed up for net metering, nor are they allowed to require new liability insurance as a condition for interconnection. Utilities are also not required to purchase net excess generation (NEG) from customers. However, a customer may request that the utility purchase NEG. In the utility agrees, then NEG will be purchased at the utility's avoided-cost rate. (Renewable Energy Standards; Net Metering; Intended audience: Commercial, Industrial, residential, general public/consumer) Enacted in 1988.

Source: <http://www.occ.state.ok.us>

**High Performance Building Standards in State Buildings** (HB 3394) - In June 2008, the governor of Oklahoma signed legislation requiring the state to develop a high-performance building certification program for state construction and renovation projects. The standard, which will be developed by the Oklahoma Department of Central Services (DCS), must meet the certification guidelines of either the U.S. Green Building Council's (USGBC) LEED system or the Green Building Initiative's Green Globes rating system. The requirement will apply to new construction or substantial renovation projects that begin the design phase after July 1, 2008 in buildings larger than 10,000 square feet. Substantial renovations are defined as projects that cost in excess of 50% of the value of the facility. In order to be considered a state project for the purposes of the standard, state funds or state-insured funds must constitute at least 50% of the project cost. State agencies are directed to meet the highest level of certification attainable under a payback period of 5 years or less. (Regulation; Standard; Intended audience: State government) Enacted in 2008.

Source: [http://www.ok.gov/DCS/Construction\\_& Properties/index.html](http://www.ok.gov/DCS/Construction_& Properties/index.html)

## Oregon

**Mandatory Utility Green Power Option** (SB 838) - Requires all electric utilities to offer customers an optional green-power program. A "significant portion" of the electricity sold by a utility as green power must be generated using qualifying renewables, including wind energy, solar-thermal energy, solar-electric energy, ocean energy, geothermal energy, hydropower and/or certain forms of biomass energy. Each utility must inform customers of the sources of the electricity included in its green-power program. (Subsidies and Grants; Cost-Share; Intended audiences: Utility) Enacted in 2007.

Source: [http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive\\_Code=OR24R&state=OR&CurrentPageID=1&RE=1&EE=1](http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive_Code=OR24R&state=OR&CurrentPageID=1&RE=1&EE=1)

**Renewable Energy Grant** (Bonneville Environmental Foundation) - Using revenues generated from the sales of Green Tags, Bonneville Environmental Foundation accepts proposals for funding for renewable energy projects located in the Pacific Northwest. Projects that generate electricity are preferred. Acceptable projects include solar photovoltaics, solar thermal electric, wind, hydro, biomass and animal waste-to-

energy. If a BEF grant is requested for a generating project, the BEF share will not exceed 33% of total capital costs and 0% of operating costs. (Subsidies and Grants; Grant; Intended audience: Nonprofit, local government, tribal government) Enacted in 2000.

Source: <http://www.b-e-f.org/grants/index.shtm>

**Oregon Biomass Working Group** (U.S. Department of Energy's State Energy Program) - This project conducted several meetings of the Biomass Working Group to increase communications, share information sharing, and identify and initiate a biomass project. It committed two forest products firms to investing in thermal and electric biomass plants. (Education and Consultation; Initiative) Enacted in 2005.

Source: [http://www.eere.energy.gov/state\\_energy\\_program/project\\_detail.cfm/sp\\_id=912](http://www.eere.energy.gov/state_energy_program/project_detail.cfm/sp_id=912)

**Biomass Logging Bill** (SB 1072) - This bill promotes the use of biomass from logging projects on federal land as both a restoration tool and electricity generation mechanism. It also directs the Oregon Department of Forestry to participate in federal forest project planning and land management. SB 1072 spells out that the "Policy of the State" of Oregon is to support efforts to build and place in service biomass fueled electrical power generation plants that utilize biomass collected from forests or derived from other sources, such as agriculture or municipal waste. SB 1072 requires the Oregon Board of Forestry to direct the State Forester to enter into stewardship contract agreements with federal agencies to carry out forest management activities on federal lands. (Regulation; Initiative; Intended audiences: Federal government, Oregon Department of Forestry, Oregon State Forester) Enacted in 2005.

Source: <http://www.leg.state.or.us/05reg/measpdf/sb1000.dir/sb1072.en.pdf>

**Oregon Renewable Action Energy Plan** (Oregon Department of Forestry) - Outlines plan of action for renewables. Specifically for biomass: -- Twenty-five megawatts of new biomass-fueled electric generation will be built or under construction, in addition to the aforementioned 5 megawatts of biogas facilities. --Allow biomass facilities to qualify for net metering and allow the Oregon Public Utility Commission to adopt rules to increase the 25-kilowatt limit on a net metering facility for customers of Portland General Electric and Pacific Power. --Encourage the development and utilization of small energy efficient biomass heating and electrical systems for heating and providing power to institutions, state offices, schools, etc., especially in rural Oregon. --Promote greater public awareness of the primary and secondary benefits of biomass energy production.) (Service Provision; Initiative) Enacted in 2005.

Source: <http://www.oregon.gov/ENERGY/RENEW/docs/FinalREAP.pdf>

**Oregon Strategy for Greenhouse Gas Reductions** (State of Oregon) - 25 MW of new biomass-fueled electric generation built or under construction (of which 5 MW will be from new biogas generation facilities from wastewater treatment, dairies and landfills). Reduce wildfire risk by creating a market for woody biomass from forests. (Service Provision; Initiative; Intended audiences: Utility) Enacted in 2004.

Source: <http://www.oregon.gov/ENERGY/GBLWRM/docs/GWReport-FInal.pdf>



**Energy Trust – Open Solicitation Program** (Energy Trust of Oregon) - The Energy Trust of Oregon is a nonprofit organization that was created to invest public purpose funding for energy efficiency and renewable energy in Oregon. The Energy Trust created the Open Solicitations program in May 2002 to support renewable energy projects that are not eligible for other Energy Trust renewable energy incentive programs. About \$2 million annually is available to fund projects in the areas of small wind, solar photovoltaics, biomass, biogas, small hydro, and geothermal. Individual projects do not have a funding cap, however the program is expected to fund around four to six projects a year. The program also has resources to share the cost of feasibility studies, and may also be able to assist applicants in applying for other project funding, for instance federal grants or loan guarantees. (Service Provision; Initiative; Intended audiences: Commercial, industrial, residential, nonprofit, schools, local government, state government, agricultural) Enacted in 2002.

Source: <http://www.energytrust.org/RR/os/index.html>

**Small-Scale Energy Loan Program** (ORS § 470.050 et seq.) - The Oregon Department of Energy makes low-interest loans for projects that produce energy from renewable resources, that conserve energy resources or that use recycled materials to create products. The Small Scale Energy Loan Program (SELP) is a self-supporting loan program funded by the sale of Oregon general obligation bonds. Borrowers can use loan funds to pay most direct energy project costs and related project costs such as engineering and design, permit fees, loan fees and project management costs. (Financing and Contracting; Loan; Intended audience: Most Oregonians, Oregon businesses, non-profit organizations, state agencies, schools, cities, counties, special districts, state public corporations, federal agencies) Enacted in 1980.

Source: <http://www.oregon.gov/ENERGY/RENEW/Biomass/incentive.shtml#SELP>

**Oregon Net Metering** (OR Revised Statutes 757.300) - The limit on individual residential systems is 25 kW. Systems that generate electricity using solar power, wind power, hydropower, fuel cells or biomass resources are eligible. Net-metered systems must be intended primarily to offset part or all of a customer's requirements for electricity. Net excess generation (NEG) is either purchased at the utility's avoided-cost rate or credited to the customer's next monthly bill as a kilowatt-hour credit. At the end of an annual period, any unused NEG credit is granted to the electric utility. This credit, in turn, is then either granted to customers enrolled in the utility's low-income assistance programs, credited to the generating customer or dedicated to an "other use." (Renewable Energy Standards; Net Metering; Intended audiences: Commercial, Industrial, Residential, Nonprofit, Schools, Local Government, State Government, Federal Government, Agricultural, Institutional) Enacted in 1999.

Source: [http://www.energytrust.org/RR/PV/net\\_metering.html](http://www.energytrust.org/RR/PV/net_metering.html)

**Renewable Energy Systems Exemption** (ORS § 307.175) - Oregon's property tax exemption is available to commercial, industrial, and residential sectors and states that the added value to any property from the installation of a qualifying renewable energy system will not be included in the assessment of the property's value for property tax purposes. Qualifying renewables include passive solar space heat, solar water heat, solar space heat, solar thermal electric, solar thermal process heat, photovoltaics, landfill gas, wind, biomass, hydroelectric, geothermal electric, fuel cells, geothermal heat pumps, and methane gas systems, for the purpose of heating, cooling or generating electricity. (Tax incentive; Tax exemption; Intended audiences: Commercial, industrial, residential) Enacted in 1976.

Source: <http://egov.oregon.gov/ENERGY/RENEW/Solar/Support.shtml>

**Oregon Renewable Fuels Standards** (HB 2210) - Creates income tax credit for production or collection of biomass used to produce biofuel; creates income tax credit for consumer use of biofuels for transportation or home heating (up to \$200); and modifies energy facility citing requirement exemptions. It also creates a quality assurance program and establishes state production tax credits for woody biomass and other feedstocks. Specifically, a \$10 per green ton state income tax credit for the removal and use of energy from material directly from the woods. (Tax incentive; Tax credit; Intended audiences: Biomass producers and consumers) Enacted in 2007.

Source: <http://landru.leg.state.or.us/07reg/measures/hb2200.dir/hb2210.b.html>

**Tax Credit for Renewable Energy Equipment Manufacturers** (HB 3201) - Companion legislation to HB 2210 – increases the annual cap on the business energy tax credit from 35% to 50%, expands BETC to include facilities that manufacture or distribute alternative fuels, and modifies the period over which credit may be claimed. The tax credit equals 50% of the construction costs of a facility which will manufacture renewable energy systems, and includes the costs of the building, excavation, machinery and equipment which is used primarily to manufacture renewable energy systems. The credit applies to companies that manufacture systems that harness energy from wood waste or other wastes from farm and forest lands, non-petroleum plant or animal based biomass, the sun, wind, water, or geothermal resources. Tax incentive; Tax credit; Intended audiences: Commercial, industrial) Enacted in 2007.

Source: <http://landru.leg.state.or.us/07reg/measures/hb2200.dir/hb2211.b.html>

**Business Energy Tax Credit** (HB 3201) - The Oregon Department of Energy offers a Business Energy Tax Credit Program where a 50 percent tax credit is taken over five years: 10 percent the first and second years, and five percent for each year thereafter. Any unused credit can be carried forward up to eight years. Those with eligible project costs of \$20,000 or less may take the tax credit in one year. Projects that use solar, wind, hydro, geothermal, biomass, or fuel cells (renewable fuels only) to produce energy, displace energy, or reclaim energy from waste may qualify for a tax credit. Renewable resource projects must replace at least 10 percent of the electricity, gas or oil used. The energy can be used on site or sold. (Tax incentive; Tax credit; Intended audiences: Commercial, industrial, construction, multi-family residential, equipment manufacturers) Enacted in 2007.

Source: <http://egov.oregon.gov/ENERGY/CONS/BUS/BETC.shtml>

## **Pennsylvania**

**Pennsylvania Energy Development Authority – Grants** (71 P.S. § 720.1, et seq.) - The Pennsylvania Energy Development Authority (PEDA) issues periodic funding solicitations to provide support for innovative, advanced energy projects, and for businesses interested in locating or expanding their alternative-energy manufacturing or production operations in Pennsylvania. PEDA's most recent grant solicitation, issued in April 2008, offered \$11 million in total funding to support in-state projects, manufacturing or research of renewable energies. (Subsidies and Grants; Grant; Intended audience: Commercial, industrial, nonprofit, schools, local government, agricultural) Enacted in 1982.

Source: <http://www.depweb.state.pa.us/enintech/cwp/view.asp?a=1415&q=504241>

**Pennsylvania Energy Harvest Grant Program** (Pennsylvania Department of Environmental Protection) - The initiative finances the implementation of clean and renewable-energy technologies that have measurable benefits in terms of pollution reduction, environmental quality and reduced energy use. Pennsylvania Energy Harvest grants are intended to address the dual concerns of energy and environmental quality. As such, proposals must simultaneously reduce or supplement the use of conventional energy sources and lead to improvements in water or air quality. (Subsidies and Grants; Grant; Intended audience: Nonprofit, Schools, Local Government, Institutional) Enacted in 2003.

Source: <http://www.depweb.state.pa.us/energy/cwp/view.asp?a=1374&q=483024>

**Pennsylvania Biomass Working Group** (State of Pennsylvania) - The PA Biomass Working Group is a collection of businesses, universities, government agencies, foresters, economic development partners and environmental advocacy groups working together to help residents of PA and the Northeast learn how renewable fuels can reduce costs and build community self-reliance in an environmentally sound way. Our vision is to establish Pennsylvania as a national leader in the development of sustainable biomass feedstocks and conversion technologies to produce energy, biofuels, and bioproducts. This will contribute to the creation and growth of a new bioindustry, which is vital to the economic, social, and environmental success of Pennsylvania. (Education and Consultation; Initiative; Intended audiences: County, Municipality, Authority, School District, Nonprofit, Conservation District, Businesses registered with the Department of State) Enacted in 2002.

Source: <http://www.pabiomass.org>

**Pennsylvania Net Metering** (73 P.S. § 1648.1 et seq.) – In Pennsylvania, investor-owned utilities must offer net metering to residential customers that generate electricity with systems up to 50 kilowatts (kW) in capacity; nonresidential customers with systems up to three megawatts (MW) in capacity; and customers with systems greater than 3 MW but no more than 5 MW who make their systems available to the grid during emergencies, or where a microgrid is in place in order to maintain critical infrastructure. Credited to customer's next bill at retail rate; PUC to address treatment of NEG remaining at end of 12-month period. (Renewable Energy Standards; Net Metering; Intended audiences: Commercial, Industrial, Residential, Nonprofit, Schools, Local Government, State Government, Federal Government, Agricultural, Institutional) Enacted in 2006.

Source: [http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive\\_Code=PA03R&state=PA&CurrentPageID=1&RE=1&EE=1](http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive_Code=PA03R&state=PA&CurrentPageID=1&RE=1&EE=1)

**Alternative Energy Portfolio Standard** (73 P.S. § 1648.1 et seq.) - Pennsylvania's Alternative Energy Portfolio Standard (AEPS) (SB 1030), enacted November 30, 2004, requires each electric distribution company and electric generation supplier to retail electric customers in Pennsylvania to supply 18% of its electricity using alternative-energy resources by 2020. (Regulation; Standard; Intended audiences: Utility) Enacted in 2004.

Source: [http://www.puc.state.pa.us/electric/electric\\_alt\\_energy.aspx](http://www.puc.state.pa.us/electric/electric_alt_energy.aspx)

**Woody Biomass Harvesting Guidelines** (PA Department of Conservation and Natural Resources) - Contained guidelines for harvesting woody biomass for producing alternative energy, including: Responsible biomass harvesting may be best implemented opportunistically to take advantage of natural disturbances like wind damage, ice damage, pest invasions, and invasive plants. Carefully planned and implemented biomass harvesting can emulate beneficial silvicultural practices like removal of competing vegetation, thinning, and reforestation of abandoned mined lands. Forest biomass use in Pennsylvania may be most appropriate on a small scale as feedstock for single-facility thermal combustion rather than for large-scale ethanol production operations that require huge volumes of feedstock. Private forestlands will fare best under biomass harvesting scenarios if landowners carefully follow existing best management practices and get professional resource assistance. (Regulation; Standard) Enacted in 2008.

Source: <http://www.dcnr.state.pa.us/news/newsreleases/2008/0708-biomassreport.htm>

## Rhode Island

**Biomass Heating Fuel Market Development for Southeastern New England** (U.S. Department of Energy's State Energy Program) - The Massachusetts Energy Consumers' Alliance and People's Power & Light will use its heating oil buyers' group, green electricity program, relations with oil dealers and others in the industry, and reputation in the local community to form a buyers' group for biomass heating oil. Forming this buyers' group will also educate consumers on the benefits of biomass heating fuels. Total Funding: \$74,150. (Education and Consultation; Education) Enacted in 2004.

Source: [http://apps1.eere.energy.gov/state\\_energy\\_program/project\\_detail.cfm/sp\\_id=750](http://apps1.eere.energy.gov/state_energy_program/project_detail.cfm/sp_id=750)

**Rhode Island Net Metering** (R.I. Gen. Laws § 39-1-27.7) - In August 1998, the Rhode Island Public Utilities Commission (PUC) issued an order requiring Narragansett Electric (now known as National Grid), an investor-owned utility that serves 99% of the state's mainland customers, to offer net metering to all customers generating electricity using renewable-energy systems with a maximum capacity of 25 kilowatts (kW). If a net-metered customer generates excess electricity during a billing period, then this net excess generation (NEG) is credited to the customer's billing period at a rate that is slightly less than the utility's retail rate. (Renewable Energy Standards; Net Metering; Intended audiences: Commercial, industrial, residential, nonprofit, schools, local government, agricultural, institutional) Enacted in 1998.

Source: <http://www.ripuc.state.ri.us>

**Green Building Standards for State Facilities** (RI Executive Order 05-14) - Executive Order 05-14 requires any new, substantially expanded, or renovated building owned by the state, and state agencies, departments, offices, boards, commissions or institutions of higher learning to meet Leadership in Energy and Environmental Design (LEED) design, construction, operation and maintenance standards. Specifically, buildings must be designed to qualify for LEED Silver certification. The design, construction, operation and maintenance of these buildings must also evaluate feasible energy efficiency measures on the basis of total life-cycle costs. (Regulation; Standards; Intended audience: State government) Enacted in 2005.

Source: <http://www.riseo.state.ri.us>

**Renewable Energy Standard** (R.I. Gen. Laws § 39-26-1 et seq.) - Rhode Island's Renewable Energy Standard requires the state's retail electricity providers -- including nonregulated power producers and distribution companies -- to supply 16% of their retail electricity sales from renewable resources by the end of 2019. Includes biomass facilities using eligible biomass fuels and maintaining compliance with current air permits; eligible biomass fuels may be co-fired with fossil fuels, provided that only the renewable-energy portion of production from multi-fuel facilities will be considered eligible. (Regulation; Standard; Intended audience: Utility, retail supplier) Enacted in 2004.

Source: <http://www.ripuc.org>

**Rhode Island Renewable Energy Fund** (R.I. Gen. Laws § 39-2-1.2) - Rhode Island's Public Utilities Restructuring Act of 1996 created the nation's first public benefits fund (PBF) for renewable energy and demand-side management (DSM). Rhode Island's PBF is supported by a surcharge on electric customers' bills. The adjusted surcharge for renewables -- is set at \$0.0003 (0.3 mills) per kWh -- and the adjusted surcharge for DSM programs -- is set at \$0.002 (2.0 mills) per kWh. The annual budget for the renewables fund during this 10-year period is approximately \$2.4 million. Effective January 1, 2007, Rhode Island's gas-distribution utilities must include, with approval from the PUC, a surcharge of up to \$0.15 per decatherm delivered. The funds collected will support DSM programs that will be administered by the utilities, subject to PUC review. (Agency budgets; Surcharge; Intended audiences: Commercial, industrial, residential, general public/consumer, utility, institutional) Enacted in 1996.

Source: <http://www.energy.ri.gov/index.php>

**Property Tax Exemption for Renewable Energy Systems** (R.I.G.L § 44-3-21) - Rhode Island law allows cities and towns to exempt renewable-energy systems from property taxation. Note that a separate statute (R.I. Gen. Laws § 44-57-4) specifies that for purposes of local municipal property tax assessment, certain solar-energy systems may not be assessed at more than the value of a conventional heating system, a conventional hot-water system or energy production capacity that otherwise could be necessary to install in a building. (Tax incentive; Tax exemption; Intended audience: Residential) Enacted in 1980.

Source: <http://www.energy.ri.gov/index.php>

## **South Carolina**

**Biomass Energy Production Incentive** (HB 3649) - In 2007 South Carolina enacted the Energy Freedom and Rural Development Act, which provides production incentives for certain biomass-energy facilities. Eligible systems earn \$.01 per kilowatt-hour (kWh) for electricity generated and \$.30 per therm (100,000 Btu) for energy produced from biomass resources. The incentive payment for the production of electricity or thermal energy may not be claimed for both electricity and energy produced from the same biomass resource. (Subsidies and Grants; Cost-Share; Intended audiences: Commercial, industrial, agricultural) Enacted in 2007.

Source: [http://www.scstatehouse.net/sess117\\_2007-2008/bills/3649.htm](http://www.scstatehouse.net/sess117_2007-2008/bills/3649.htm)

**Renewable Energy Grant Program** (S.C. Code § 46-3-260) - The South Carolina Renewable Energy Grant Program provides grants to private and public entities located in South Carolina to assist those involved in renewable energy-related research and projects to become more competitive in obtaining federal and other grants. Matching grants up to \$200,000 are available for demonstration projects that validate the effectiveness of new and future biomass technologies and products, provided that the grant does not exceed 50% of the total cost of the demonstration project. (Subsidies and Grants; Grant; Intended audience: Commercial, industrial, nonprofit, schools, local government, state government, tribal government, agricultural, institutional) Enacted in 2007.

Source: <http://www.energy.sc.gov/index.aspx?m=29&t=90&h=405>

**Renewable Resource Use and Development Program** (U.S. Department of Energy's State Energy Program) - Helped develop biomass energy projects through national and regional programs. Supported Green Power through conference development and support for the Green Power Summit. Identified other opportunities for renewable resource development. Worked to develop biomass partnerships in transportation, production, and consumption. (Service Provision; Initiative; Intended audiences: State government, local government, NGOs, researchers) Enacted in 2005.

Source: [http://www.eere.energy.gov/state\\_energy\\_program/grants\\_by\\_state.cfm/year=2005/state=SC](http://www.eere.energy.gov/state_energy_program/grants_by_state.cfm/year=2005/state=SC)

**South Carolina Biomass Market Development Program** (U.S. Department of Energy's State Energy Program) - The South Carolina Biomass Market Development Partnership (SCBMDP) will help develop or enhance biomass-based technologies and expand markets for biomass-based technologies and markets that contribute to the economic viability of biorefineries. SCBMDP will target conferences for biomass producers to teach them to grow more viable biomass crops, and support business outreach and training. It will also develop and implement state and local incentives and collaborate with biologically based product manufacturers to increase consumer acceptance of biologically based products. (Service provision; Initiative; Intended audiences: State government, local government, NGOs, researchers) Enacted in 2004.

Source: [http://www.eere.energy.gov/state\\_energy\\_program/project\\_detail.cfm/sp\\_id=751](http://www.eere.energy.gov/state_energy_program/project_detail.cfm/sp_id=751)

**Renewable Energy Revolving Loan Program** (HB 3748 [Sec. 68]) - The Renewable Energy Revolving Loan Program provides low-interest loans to an individual or organization that plans to build a qualified renewable energy production facility. For the purposes of this loan, a renewable energy production facility is a facility that produces energy or transportation fuels from biomass, solar or wind resources. This loan may provide up to 50% of the total cost of a project, but may not exceed \$250,000 for each project. (Financing and Contracting; Loan; Intended audiences: Commercial, Industrial, Residential, Nonprofit, Schools, Local Government, State Government, Agricultural) Enacted in 2007.

Source: <http://www.energy.sc.gov/index.aspx?m=29&t=90&h=404>

**Biomass Energy Tax Credit** (S.C. Code § 12-6-3620) - The 2007 amendments provide that, for taxable years beginning after 2007, taxpayers are allowed a credit against the income tax and/or license fees for 25% of the costs incurred by the taxpayer for the purchase and installation of equipment used to create heat, power, steam, electricity or another form of energy for commercial use from a fuel consisting of at least 90%

biomass resources. For taxable years beginning after 2007, the tax credit for all expenditures is limited to \$650,000 per taxpayer year, and may not exceed a taxpayer's liability for that year. Unused credits may be carried forward for 15 years. For a fiscal year, all claims may not exceed \$650,000 and must apply proportionately to all eligible claimants. (Tax incentive; Tax credit; Intended audiences: Industrial) Enacted in 2007.

Source: <http://www.scstatehouse.net/CODE/T12C006.HTM>

## South Dakota

**Energy Efficient Government Biomass Study** (U.S. Department of Energy's State Energy Program) - The Energy Efficient Government Buildings Program awarded grants to state institutions for up to 100% of the cost of commissioning, retro-commissioning, a technical energy analysis, or the cost of implementing energy-saving projects that demonstrated a reasonable payback. As part of this project, the Energy Efficient Government Biomass Study provided a grant for a biomass study to determine the feasibility of biomass energy projects at state institutions. It helped state institutions identify cost-effective biomass energy alternatives that could be effectively implemented at their facilities. (Subsidies and Grants; Grant; Intended audience: Government) Enacted in 2006.

Source: [http://www.eere.energy.gov/state\\_energy\\_program/grants\\_by\\_state.cfm/year=2006/state=SD](http://www.eere.energy.gov/state_energy_program/grants_by_state.cfm/year=2006/state=SD)

**Biofuels Economic Development Plan** (Senate Concurrent Resolution 8) - The South Dakota Legislature has resolved to develop a biofuels economy in the state by investing in the development of perennial biomass crops, including switchgrass and other native grasses by supporting long-term research and development of crops and cropping systems; and providing opportunities to purchase biofuels by promoting the development of vehicles that operate on biofuels, expanding the government purchase of biofuels, and offering incentives for fueling stations offering blends of biofuels such as E85 and B20. (Service Provision; Initiative; Intended audiences: Agricultural, commercial, industrial, personal) Enacted in 2007.

Source: [http://www.eere.energy.gov/afdc/progs/all\\_state\\_summary.php/afdc/0](http://www.eere.energy.gov/afdc/progs/all_state_summary.php/afdc/0)

**Biomass Feasibility Study** (Western Governors' Association Working Group) - A feasibility study was completed on the use of biomass for schools, state and local governments and other public institutions in the Black Hills Region of South Dakota. This study includes activities, findings and recommendations for seven schools and four campus facilities to determine the viability of using wood as the primary source for heating. (Service Provision; Research & Development; Intended audiences: Schools) Enacted in 2006.

Source: <http://www.westgov.org/wga/initiatives/biomass/>

**High Performance Building Requirements for State Buildings** (SB 188) - In March 2008, South Dakota enacted legislation mandating the use of high performance building standards in new state construction and renovations. The new standard requires that covered state building



projects achieve US Green Building Council LEED Silver certification. (Regulation; Standard; Intended audiences: State government) Enacted in 2008.

Source: [http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive\\_Code=SD03R&state=SD&CurrentPageID=1&RE=1&EE=1](http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive_Code=SD03R&state=SD&CurrentPageID=1&RE=1&EE=1)

**Renewable and Recycled Energy Objective** (HB 1123) – In February 2008, South Dakota enacted legislation establishing an objective that by 2015, 10% of all retail electricity sales be obtained from renewable and recycled energy. Qualifying electricity includes that produced from wind, solar, hydroelectric, biomass or geothermal technologies. (Regulation; Standard; Intended audiences: Municipal utility, investor-owned utility, rural electric cooperative, retail supplier) Enacted in 2008.

Source: [http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive\\_Code=SD02R&state=SD&CurrentPageID=1&RE=1&EE=1](http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive_Code=SD02R&state=SD&CurrentPageID=1&RE=1&EE=1)

**Renewable Energy Systems Exemption** (SD Codified Laws 10-6-35.8 et seq.) - This statute exempts from local property taxes renewable energy systems on residential and commercial property. For residential systems, the exemption applies to the entire assessed value of residential systems and can be transferred when the property is sold provided the new owner is the first occupant of the structure. The property tax exemption is adjusted to include any federal renewable energy income tax credit which may be available at the time the owner applies for the exemption. This exemption is not allowed for systems which produce energy for resale. (Tax incentive; Tax credit; Intended audiences: Commercial, industrial, residential, agricultural) Enacted in 1975.

Source: <http://puc.sd.gov/energyefficiency/default.aspx>

## Tennessee

**Tennessee Bio-Based Fuels – Economics, Consumption, and Outreach** (Southeastern Regional Biomass Energy Program) - The primary objectives of this project are to take existing bio-fuel technology to as many consumers as possible and help new technology find a proving ground throughout the state. The three main tools for carrying that message are public forums and workshops, legislation and mass media. Amount: SERBP \$48,000; cost share \$11,749. (Education and Consultation; Education) Enacted in 2005.

Source: <http://www.serbep.org>

**The Renewable Resource Development Program** (U.S. Department of Energy's State Energy Program) - Developed and administered the Million Solar Roofs initiative in Tennessee. It served as the state's biomass contact, making research and information available. It also maintained biomass resource publications and a Web site. (Education and Consultation; Education) Enacted in 2004.

Source: [http://apps1.eere.energy.gov/state\\_energy\\_program/grants\\_by\\_state.cfm/year=2004/state=TN](http://apps1.eere.energy.gov/state_energy_program/grants_by_state.cfm/year=2004/state=TN)

**Energy Efficiency Technologies and Waste Reduction in Tennessee's Forest Products Industry** (U.S. Department of Energy's State Energy Program) - The Tennessee Energy Division proposes expanding its participation in the successful DOE Industries of the Future program to include the wood products industries. First, the hardwood forest products industry in Tennessee will be profiled for its use of major energy using technologies and requirements. Second, new technologies will be identified and evaluated for their usefulness and ease of integration into ongoing operations for energy savings, waste reductions, and financial savings without major disruption to operations. Third, workshops and training will be held with Tennessee's forest products industry to explain findings, benefits to the industry, new technologies that appear most useful, and how they may be integrated into operations using numerous DOE and economic development programs and incentives. Funding: \$60,120. (Service Provision; Initiative; Intended audience: Tennessee Forest Products Industry) Enacted in 2002.

Source: [http://apps1.eere.energy.gov/state\\_energy\\_program/project\\_detail.cfm/sp\\_id=317](http://apps1.eere.energy.gov/state_energy_program/project_detail.cfm/sp_id=317)

**Small Business Energy Loan Program** (Tenn. Code § 4-3-710) - The Tennessee Energy Division offers low-interest loans of up to \$300,000, with terms of up to 7 years, for energy efficiency projects and other projects shown to save energy or decrease energy demand. Businesses with fewer than 300 employees or less than \$3.5 million in annual gross sales or receipts are eligible. The loan is offered with a 0% interest rate for businesses in the Three-Star communities, and at a 3% interest rate for all others. Loans cannot be used for new construction or business start-up. All renewable energy technologies are eligible under the program's guidelines. In addition to low-interest loans, the Energy Division offers free audits and technical assistance. (Financing and Contracting; Loan; Intended audiences: Commercial, industrial) Enacted in 1987.

Source: [http://www.state.tn.us/ecd/energy\\_sbhel.htm](http://www.state.tn.us/ecd/energy_sbhel.htm)

## Texas

**The Innovative Renewable Energy Demonstration Program** (U.S. Department of Energy's State Energy Program) - Focused on projects that create awareness and provide education and promotion of renewable energy. It helped build a renewable energy infrastructure, establish employment opportunities, and demonstrate the benefits of distributed generation. (Education and Consultation; Education) Enacted in 2006.

Source: [http://apps1.eere.energy.gov/state\\_energy\\_program/grants\\_by\\_state.cfm/state=TX](http://apps1.eere.energy.gov/state_energy_program/grants_by_state.cfm/state=TX)

**City Public Service First E85 Fleet, Biomass-Derived Ethanol in Texas** (U.S. Department of Energy's State Energy Program) - City Public Service's (CPS) fleet has become the first in Texas to use corn- and forestry-derived ethanol as an alternative fuel. CPS began fueling 130 flexible fuel vehicles (FFVs), which amounts to 37% of its light-duty vehicles, with the environmentally friendly fuel at the beginning of June. Through the use of E85, CPS is exceeding its alternative fuel and vehicle requirements under the Energy Policy Act. (Regulation; Initiative; Intended audiences: City Transportation Fleet) Enacted in 2005.

Source: [http://apps1.eere.energy.gov/state\\_energy\\_program/project\\_brief\\_detail.cfm/pb\\_id=891](http://apps1.eere.energy.gov/state_energy_program/project_brief_detail.cfm/pb_id=891)

**Harvesting Mesquite Biomass for Energy on Texas Rangelands** (U.S. Department of Energy's State Energy Program) - Specific objectives of this research are to (1) refine existing technology for harvesting, baling and loading mesquite biomass, (2) quantify costs associated with harvesting and baling mesquite by determining harvest costs in different density stands and by determining length of time needed before harvest of mesquite regrowth is economical, (3) determine the potential of mesquite wood for conversion to ethanol using Pearson Technology, and (4) enhance cost-share applications through outreach and information transfer to consumers, farmers and industry. Mesquite biomass could be used for a variety of energy products, including ethanol, as feedstock for small wood-fired power plants or possibly green diesel. Initial projections indicate that the mesquite biomass source is abundant in the north Texas region and could easily supply several 5-megawatt wood-fired generators. Total funding: \$74,842. (Service Provision; Initiative; Intended audiences: Rangeland owners) Enacted in 2003.

Source: [http://apps1.eere.energy.gov/state\\_energy\\_program/project\\_detail.cfm/sp\\_id=613](http://apps1.eere.energy.gov/state_energy_program/project_detail.cfm/sp_id=613)

**Texas Net Metering** (16 TAC § 25.242(h)(4)) - Public Utility Commission of Texas Substantive Rule § 25.242(h) requires any integrated investor-owned utility (IOU) that has not unbundled in accordance with § 39.051 of the federal Public Utility Regulatory Policy Act (PURPA) to provide specific net-metering options for customers that operate qualifying facilities (QFs) of 100 kilowatts (kW) or less that use non-renewable-energy resources, and to qualifying facilities of 50 kW or less that use renewable-energy resources. For eligible facilities, there is no statewide limit on the number of customers who may net meter, and there is no statewide limit on the total aggregate net-metered capacity under the rules. (Renewable Energy Standards; Net Metering; Intended audiences: Commercial, industrial, residential) Enacted in 2007.

Source: <http://www.puc.state.tx.us/rules/subrules/electric/25.242/25.242ei.cfm>

**Alternative Energy in New State Construction** (Texas Government Code § 2166.401 et seq.) - Texas requires state government departments to compare the cost of providing energy alternatives for new and reconstructed state government buildings and for certain construction or repair to energy systems and equipment. The governing body must determine economic feasibility for each function by comparing the estimated cost of providing energy for the function using conventional design practices and energy systems with the estimated cost of providing energy for the function using alternative energy devices during the economic life of the building. (Regulation; Standard; Intended audiences: State government) Enacted in 1995.

Source: [http://www.seco.cpa.state.tx.us/sa\\_codes.html](http://www.seco.cpa.state.tx.us/sa_codes.html)

**Fuel Mix and Emissions Disclosure** (TX PUC Rules §25.475) - Texas retail electric providers (REP) are required to disclose certain information to customers on an "Electricity Facts Label". (Regulation; Standard; Intended audience: Utility) Enacted in 2004.

Source: <http://www.powertochoose.org/>

**Interconnection Standards** (16 TAC § 25.211 et seq.) - The Texas Public Utility Regulatory Act (PURA) of 1999 included a provision that "a customer is entitled to have access 'to on-site distributed generation'" [§39.101(b)(3)]. This provision led the Public Utility Commission of

Texas (PUCT) to adopt interconnection standards (Substantive Rules §25.211 and §25.212) in 1999. The rules apply to electrical generating facilities (consisting of one or more on-site distributed-generation units) located at a customer's point of delivery, with a maximum capacity of 10 megawatts (MW) and connected at a voltage less than 60 kilovolts (kV). The total capacity of a facility's individual on-site distributed generation units may exceed 10 MW. However, no more than 10 MW of capacity will be interconnected at any point in time at the point of common coupling. (Regulation; Standard; Intended audience: Commercial, industrial, residential) Enacted in 1999.

Source: <http://www.puc.state.tx.us/rules/subrules/electric/index.cfm>

**Renewable Generation Requirement** (Tex. Utilities Code § 39.904) - The Public Utility Commission of Texas (PUCT) adopted rules for the state's Renewable Energy Mandate, establishing a renewable portfolio standard (RPS), a renewable-energy credit (REC) trading program, and renewable-energy purchase requirements for competitive retailers in Texas. The 1999 standard called for 2,000 megawatts (MW) of new renewables to be installed in Texas by 2009, in addition to the 880 MW of existing renewables generation at the time. In August 2005, S.B. 20 increased the renewable-energy mandate to 5,880 MW by 2015 (about 5% of the state's electricity demand). The 2005 legislation also set a target of reaching 10,000 MW of renewable energy capacity by 2025. (Regulation; Standards; Intended audience: (Investor-Owned Utility, Retail supplier [Municipal Utilities and co-ops may opt-in]) Enacted in 1999.

Source: <http://www.puc.state.tx.us/rules/subrules/electric/25.173/25.173ei.cfm>

**Renewable Diesel Tax Credit** (Energy Policy Act of 2005 (H.R. 6)) - Amends the biodiesel tax credits to include renewable diesel fuel that is derived from biomass by a thermal depolymerization process. The credit is \$1 per gallon of renewable diesel. To qualify, the fuel must meet ASTM D975 or D396 standards. (Tax incentive; Tax Credit) Enacted in 2005.

Source: [http://www.seco.cpa.state.tx.us/re\\_biodiesel-incentives.htm](http://www.seco.cpa.state.tx.us/re_biodiesel-incentives.htm)

**Renewable Energy Systems Property Tax Exemption** (Texas Statutes § 11.27) - The Texas property tax code allows an exemption of the amount of the appraised property value that arises from the installation or construction of a solar or wind-powered energy device that is primarily for the production and distribution of thermal, mechanical, or electrical energy for on-site use, or devices used to store that energy. "Solar" is broadly defined to include a range of biomass technologies. (Tax incentive, Tax exemption; Intended audience: Commercial, industrial, residential) Enacted in 1981.

Source: [http://www.seco.cpa.state.tx.us/re\\_incentives.htm](http://www.seco.cpa.state.tx.us/re_incentives.htm)

## Utah

**Utah Net Metering** (Utah Code § 54-15-101 et seq. [amended by SB 84 of 2008]) - Utah requires all investor-owned utilities and most electric cooperatives to offer net metering to customers that generate electricity using solar energy, wind energy, hydropower, hydrogen, biomass,

landfill gas or geothermal energy. Net metering is available for residential systems up to 25 kilowatts (kW) in capacity and non-residential systems up to two megawatts (MW) in capacity. Net metering is limited to 0.1% of each utility's peak demand during 2007. If a customer generates more electricity than the customer uses during a billing period, then the utility must credit the customer for the net excess generation (NEG) at a rate equal to the utility's avoided cost or higher. Customer NEG is carried over to the next customer's next monthly bill during a 12-month period. (Renewable Energy Standards; Net Metering; Intended audiences: Commercial, Industrial, Residential, Nonprofit, Schools, Local Government, State Government, Federal Government, Agricultural, Institutional) Enacted in 2002.

Source: <http://geology.utah.gov/sep/incentives/rincentives.htm#netmeter>

**Woody Biomass Utilization Study** (Western Governors' Association Working Groups) - Grant funding was used to complete a woody biomass utilization study assessing the potential opportunities and challenges presented by introducing new, or converting existing boilers in the state of Utah to wood-fueled boilers. A biomass outreach program has now been initiated across the state. (Service Provision; Research and Development) Enacted in 2006.

Source: <http://www.westgov.org/wga/initiatives/biomass/>

**Renewable Portfolio Goal** (SB 202) - Specifically, the law requires that utilities only need to pursue renewable energy to the extent that it is "cost-effective" to do so. Investor-owned utilities, municipal utilities and cooperative utilities must use eligible renewables to account for 20% of their 2025 adjusted retail electric sales. Adjusted retail sales include the total kilowatt-hours (kWh) of retail electric sales reduced by the kWh attributable to nuclear power plants, demand-side management measures, and fossil fuel power plants that sequester their carbon emissions. (Regulation; Standard; Intended audiences: Municipal Utility, Investor-Owned Utility, Rural Electric Cooperative) Enacted in 2008.

Source: [http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive\\_Code=UT13R&state=UT&CurrentPageID=1&RE=1&EE=1](http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive_Code=UT13R&state=UT&CurrentPageID=1&RE=1&EE=1)

**Renewable Energy Systems Tax Credit (Corporate)** (Utah Code 59-7-614) - The individual income tax credit for commercial systems, which is structured as a refundable credit, is 10% of the reasonable installed costs up to \$50,000 for wind, geothermal electric, and biomass systems with a total capacity of less than 660 kW and for all other eligible renewable energy systems. A business entity that leases a commercial system is eligible for the credit and may use the credit for no more than seven years from the initiation of the lease. Residential: 25%; Commercial wind, geothermal electric, and biomass systems 660 kW or greater: 0.35¢/kWh (\$0.0035/kWh) for 4 years; Other commercial systems: 10%. (Tax incentive; Tax credit; Intended audiences: Commercial, residential, multi-family residential) Enacted in 2001.

Source: <http://geology.utah.gov/sep/incentives/rincentives.htm#retaxcred>

**Renewable Energy Systems Tax Credit (Personal)** (Utah Code 59-10-1014) - Utah's individual income tax credit for renewable energy systems includes provisions for both residential and commercial applications. The Utah State Energy Program administers the tax credit and has responsibility for revising the tax credit rules and certifying systems as eligible for the credit. Residential: \$2,000; Commercial wind,

geothermal electric, and biomass systems 660 kW or greater: no limit; Other commercial systems: \$50,000; Residential: excess credit may be carried over for the next four years. (Tax incentive; Tax credit; Intended audiences: Commercial, residential, multi-family residential) Enacted in 2001.

Source: <http://geology.utah.gov/sep/incentives/rincentives.htm#retaxcred>

**Renewable Energy Sales Tax Exemption** (Utah Code 59-12-104) - Utah Code exempts the purchase or lease of equipment used to generate electricity from renewable resources from the state sales tax. Renewable resources include wind generation, solar, biomass, landfill gas, anaerobic digestion, hydroelectricity, and geothermal energy. Eligible facilities must use renewable energy to produce electricity and have a production capacity of 20 kW or greater. A facility that has its generation capacity increased by one or more MW as a result of the machinery or equipment may also be eligible for the exemption. (Tax incentive; Tax credit; Intended audience: Commercial, industrial, utility) Enacted in 2004.

Source: <http://geology.utah.gov/sep/incentives/rincentives.htm#resalesuse>

## Vermont

**Biomass Electricity Production Incentive** (Vermont Public Service Board Order, Docket No. 6933 & 30 V.S.A. § 8003) - Central Vermont Public Service Corporation (CVPS), Vermont's largest electric utility, offers a production incentive to farmers who own systems utilizing anaerobic digestion of agricultural products, byproducts or wastes to generate electricity. CVPS purchases electricity and renewable energy credits at 95% of the Locational Marginal Price of generation published by ISO New England (roughly avoided cost), plus an additional \$0.04 per kWh. CVPS sells the renewable energy credits generated under this arrangement as part of CVPS Cow Power, the utility's green power program. This program offers customers the opportunity to purchase renewable energy for \$0.04 per kWh above the retail cost of electricity. (Subsidies and Grants; Cost-Share; Intended audience: Agricultural) Enacted in 2004.

Source: <http://www.cvps.com/cowpower>

**Biomass District Energy Program** (U.S. Department of Energy's State Energy Program) - The Biomass District Energy Program provided assistance to two Vermont municipalities and potential clients for wood-fueled district energy system. It contracted with the Biomass District Energy Clearinghouse to provide information to communities on district energy. (Education and Consultation; Education; Intended audiences: Vermont Municipalities) Enacted in 2005.

Source: [http://www.eere.energy.gov/state\\_energy\\_program/grants\\_by\\_state.cfm/year=2005/state=VT](http://www.eere.energy.gov/state_energy_program/grants_by_state.cfm/year=2005/state=VT)

**Clean Energy Development Fund Grant Program** (10 V.S.A. § 6523) - The Clean Energy Development Fund (CEDF) Grant Program seeks to promote the development and deployment of cost-effective and environmentally sustainable electric power resources -- primarily renewable

energy resources and combined heat and power (CHP) systems -- for the long-term benefit of Vermont electric customers. (Subsidies and Grants; Grant; Intended audiences: Vermont Electric Customers) Enacted in 2005.

Source: [http://publicservice.vermont.gov/energy/ee\\_cleanenergyfund.html](http://publicservice.vermont.gov/energy/ee_cleanenergyfund.html)

**Agricultural Economic Development Plan for Biofuels** (Vermont Statutes Title 6, Chapter 209, Section 4710) - The Department of Agriculture will develop an economic initiative to provide business and technical assistance for research and planning to aid farmers in developing business enterprises that harvest biomass, convert biomass to energy, or produce biofuels such as biodiesel and ethanol. (Service provision; Initiative; Intended audiences: Agricultural) Enacted in 2005.

Source: [http://www.eere.energy.gov/afdc/progs/all\\_state\\_summary.php/afdc/0](http://www.eere.energy.gov/afdc/progs/all_state_summary.php/afdc/0)

**Clean Energy Development Fund Loan Program** (10 V.S.A. § 6523) - The Clean Energy Development Fund (CEDF) Loan Program seeks to promote the development of clean electric-energy technologies by providing funding for purchasing land and buildings (when specific to qualifying projects), purchasing and installing machinery and equipment, and working capital. Low-interest loans with a fixed rate of 4% are available to individuals, companies, nonprofits and municipalities. Eligible clean electric-energy technologies generally include solar, wind, biomass, fuel cells and combined heat and power (CHP). The minimum loan amount is \$50,000; the maximum amount is \$250,000. Loans may not be used for more than 90% of the cost of a project. (Financing and Contracting; Loan; Intended audiences: Commercial, Residential, nonprofit, local government) Enacted in 2005.

Source: [http://publicservice.vermont.gov/energy/ee\\_cleanenergyfund.html](http://publicservice.vermont.gov/energy/ee_cleanenergyfund.html)

**Vermont Net Metering** (30 V.S.A. § 219a [amended by S.B. 209]) – Net metering is generally available to systems up to 250 kilowatts (kW) in capacity that generate electricity using eligible renewable-energy resources, and to micro-combined heat and power (CHP) systems up to 20 kW. “Renewable energy” is defined as “energy produced using a technology that relies on a resource that is being consumed at a harvest rate at or below its natural regeneration rate. (Renewable Energy Standards; Net Metering; Intended audiences: Commercial, Residential, Nonprofit, Schools, Local Government, State Government, Federal Government, Agricultural, Institutional) Enacted in 1998.

Source: [http://publicservice.vermont.gov/energy-efficiency/ee\\_netmetering.html](http://publicservice.vermont.gov/energy-efficiency/ee_netmetering.html)

**Local Option for Property Tax Exemption** (32 V.S.A. § 3845) - Vermont allows municipalities the option of offering exemption from real and personal property taxes for certain renewable energy systems. Eligible systems include, but are not limited to, "windmills, facilities for the collection of solar energy or the conversion of organic matter to methane, net-metered systems ... and all component parts thereof including land upon which the facility is located, not to exceed one-half acre." Adoption of this exemption varies by municipality, but the exemption generally applies to the total value of the qualifying renewable energy system and can be applied to residential, commercial, and industrial real and personal property. (Tax incentive; Tax credit; Intended audiences: Commercial, industrial, residential; agricultural) Enacted in 1975.

Source: <http://www.leg.state.vt.us/statutes/fullsection.cfm?Title=32&Chapter=125&Section=03845>



**Sales Tax Exemption** (32 V.S.A. § 9741(46)) - Vermont's sales tax exemption for renewable-energy systems, originally enacted as part of the Miscellaneous Tax Reduction Act of 1999 (H. 0548), initially applied only to net-metered systems. The exemption now generally applies to systems up to 250 kilowatts (kW) in capacity that generate electricity using eligible "renewable energy" resources (as defined under 30 V.S.A. § 8002), to micro-combined heat and power (CHP) systems up to 20 kW, and to solar water-heating systems. (Tax incentive; Tax credit; Intended audiences: Commercial, residential, general public/consumer, agricultural) Enacted in 1999.

Source: <http://www.leg.state.vt.us/statutes/fullsection.cfm?Title=32&Chapter=233&Section=09741>

## Virginia

**State Buildings Energy Reduction Plan** (Executive Order 48) - The "Energy Efficiency in State Government" set out to reduce non-renewable energy purchases and increase overall energy savings. In addition, the order instructs the Commonwealth to encourage the private sector to adopt energy-efficient building standards by giving preference when leasing facilities for state use to facilities meeting LEED or EPA Energy Star Ratings. Agencies and institutions must also purchase or lease Energy Star rated equipment and appliances for all classifications for which an Energy Star designation is available. (Regulation; Initiative; Intended audiences: State Government, institutional) Enacted in 2007.

Source: <http://dmme.virginia.gov/contactus.shtml>

**Voluntary Renewable Energy Portfolio Goal** (SB 1416) - Under the goal, investor-owned utilities are encouraged to procure a percentage of the power sold in Virginia from eligible renewable energy sources. In addition to allowing for RPS program cost recovery to participating utilities, the Virginia State Corporation Commission (SCC) will provide a performance incentive in the form of an increased rate of return (profit) for each "RPS Goal" attained. Eligible energy resources include solar, wind, geothermal, hydropower, wave, tidal, and biomass energy. Hydropower excludes pumped storage, and the amount of wood derived from trees that would be otherwise used by Virginia lumber and pulp manufacturers is capped at 1.5 million tons annually. Electricity must be generated or purchased in Virginia or in the interconnection region of the regional transmission entity. (Regulation; Initiative; Intended audiences: Utility) Enacted in 2007.

Source: <http://www.mme.state.va.us/>

**Virginia Net Metering** (Va. Code § 56-594) - Virginia's net-metering law applies to residential generating systems up to 10 kilowatts (kW) in capacity and non-residential systems up to 500 kW in capacity. The maximum capacity for non-residential systems was raised from 25 kW to 500 kW by SB 651 of 2004. In 2006, HB 1541 extended eligibility to all systems that generate electricity using renewable energy, defined as "energy derived from sunlight, wind, falling water, sustainable biomass, energy from waste, wave motion, tides, and geothermal power." Net metering is available on a first-come, first-served basis until the rated generating capacity owned and operated by customer-generators reaches 1% of an electric distribution company's adjusted Virginia peak-load forecast for the previous year. Net metering is available to customers of investor-owned utilities and electric cooperatives, but not to customers of municipal utilities. (Renewable Energy Standards; Net Metering; Intended audiences: Commercial, Residential, Nonprofit, Schools, Local Government, State Government, Institutional) Enacted in 1999.

Source: <http://www.mme.state.va.us>

**Interconnection Standards** (Va. Code § 56-578) - The Virginia State Corporation Commission (SCC) first developed simplified interconnection rules for systems eligible for net metering in 2000. The rules were revised in 2005 after the capacity limit for non-residential systems was raised from 25 kilowatts (kW) to 500 kW. The rules were revised again in 2006 by permitting lease financing for net-metered systems and extending net metering to all systems that generate electricity using renewable energy, defined as "energy derived from sunlight, wind, falling water, sustainable biomass, energy from waste, wave motion, tides, and geothermal power." (Regulation; Standards; Intended audiences: Commercial, Industrial, Residential, Nonprofit, Schools, Local Government, State Government, Federal Government) Enacted in 1999.

Source: <http://www.scc.state.va.us>

## Washington

**Sustainable Natural Alternative Power Program** (Chelan County Public Utility District) - Created in October 2004 and modeled after the successful Chelan County Public Utility District program in Washington, Okanogan County PUD's SNAP with net metering program encourages members to install renewable energy generators and connect them to their utility's electrical distribution system by offering an incentive payment based on the system's production on a \$/kWh basis. The amount paid by the utility to its renewable energy producers depends on the total amount contributed by OKPUD purchasers through their green pricing program (maximum payment is \$1.00/kWh). The production payment is in addition to any net metering credit the producer may receive from the utility. (Subsidies and Grants; Cost-Share; Intended audiences: Commercial, Industrial, Residential, Schools, Local Government, State Government, Agricultural, All Okanogan County PUD customers) Enacted in 2004.

Source: <http://www.okanoganpud.org/consSNAP.htm>

**Renewable Energy Grant** (Bonneville Environmental Foundation) - Using revenues generated from the sales of Green Tags, Bonneville Environmental Foundation (BEF), a not-for-profit organization, accepts proposals for funding for renewable energy projects located in the Pacific Northwest. Projects that generate electricity are preferred. Acceptable projects include solar photovoltaics, solar thermal electric, wind, hydro, biomass and animal waste-to-energy. If a BEF grant is requested for a generating project, the BEF share will not exceed 33% of total capital costs and 0% of operating costs. (Subsidies and Grants; Grant; Intended audiences: Nonprofit, local government, tribal government) Enacted in 2000.

Source: <http://www.b-e-f.org/grants/index.shtm>

**Alternative Fuel Grant and Loan Program** (Revised Code of Washington 43.325) - The Program awards low-interest loans and grants through a competitive application process. Eligible projects include: research and development of new and renewable energy and biofuel sources, including biomass, solar, and wind power; renewable energy and alternative fuel infrastructure, facilities, and technologies; and research and development to develop markets for alternative fuel byproducts. Construction of new alternative fueling facilities as well as

upgrades and expansion of existing fueling infrastructure offered to the public are eligible for funding of up to \$50,000 per fueling infrastructure project. (Financing and Contracting; Loan; Intended audience: Researchers) Enacted in 2008.

Source: [http://www.eere.energy.gov/afdc/progs/all\\_state\\_summary.php/afdc/0](http://www.eere.energy.gov/afdc/progs/all_state_summary.php/afdc/0)

**Net Metering** (Rev. Code Wash. § 80.60) - Washington's net-metering law applies to systems up to 100 kilowatts (kW) in capacity that generate electricity using solar, wind, hydro, biogas from animal waste, or combined heat and power technologies (including fuel cells). All customer classes are eligible, and all utilities -- including municipal utilities and electric cooperatives -- must offer net metering. Net metering is available on a first-come, first-served basis until the cumulative generating capacity of net-metered systems equals 0.25% of a utility's peak demand during 1996. This limit will increase to 0.5% on January 1, 2014. At least one-half of the utility's 1996 peak demand available for net-metered systems is reserved for systems generating electricity using renewables. (Renewable Energy Standards; Net Metering; Intended audiences: Commercial, industrial, residential) Enacted in 1998.

Source: <http://northwestsolarcenter.org/Faq/faq.html>

**Renewable Portfolio Standard** (WAC 480-109) - In 2006, Washington State passed a Renewable Energy Standard (RES) by ballot initiative I-937. The RES requires electric utilities that serve more than 25,000 customers in the state to generate 15 percent of their electric load from new renewables by the year 2020. The RES starts at three percent of a utility's load for 2012 to 2015, rising to nine percent for 2016 to 2019, and 20 percent from 2020 forward. Renewably fueled DG with a capacity of not more than 5 MW is eligible under the renewable portion of the RES. DG may also be counted as double the facility's electrical output if the utility owns the facility, has contracted for the DG and associated RECs, or has contracted to purchase only the related RECs. Renewable resources include electricity produced from: water; wind; solar energy; geothermal energy; landfill gas; wave, ocean, or tidal power; gas from sewage treatment facilities; biodiesel fuel (must meet specified standards); and biomass energy based on animal waste or solid organic fuels from wood, forest, or field residues, or dedicated energy crops. (Regulation; Standard; Intended audiences: Utility) Enacted in 2006.

Source: <http://www.cted.wa.gov/site/1001/default.aspx>

**Tax on Manufacturers and Processors of Timber Product Activities** (RCW 82.04.260(1)e & (1)f) - Reduced B&O rate provided for manufacture of wood biomass, alcohol or biodiesel fuels, or biodiesel feedstocks. Expires July 1, 2009. (Tax incentive; Tax credit; Intended audience: Manufacturers) Enacted in 2008.

Source: <http://apps.leg.wa.gov/RCW/default.aspx?Cite=82.04.260>

**Exemptions – Property used to Manufacture Alcohol, Biodiesel of Wood Biomass Fuel** (RCW 82.29A.135, 84.36.635, 84.36.640) - Land, buildings and equipment used for anaerobic digestion, manufacturing alcohol, biodiesel and wood biomass fuels, or biodiesel feedstock are

exempt from property and leasehold taxes for six years following the date the facility becomes operational. (Tax incentive; Tax credit; Intended audiences: Commercial, industrial, residential) Enacted in 2008.

Source: <http://apps.leg.wa.gov/rcw/default.aspx?cite=82.29A.135>

**Exemptions – Use of Machinery, Equipment, Vehicles, and Services Related to Wood** (RCW 82.08.960, 82.12.960) - Sales of equipment, and related services or components, used for retail sale or use of wood biomass fuel blends containing at least 20% wood biomass fuel are exempt from retail sales tax. Sales of fuel delivery vehicles, and related services or components, are exempt if at least 75% of the fuel is wood biomass fuel blends containing at least 20% wood biomass fuel. (Tax incentive; Tax credit; Intended audiences: Retailers and Distributers) Enacted in 2003.

Source: <http://apps.leg.wa.gov/RCW/default.aspx?cite=82.12.960>

**Business and Occupation Tax** (RCW 82.04.4334, 82.04.4335) - Retailers of biodiesel, E85 and wood biomass fuel eligible for B&O deduction. Biodiesel and E85 deduction expires July 1, 2015. Wood biomass fuel deduction expires July 1, 2009. (Tax incentive; Tax credit; Intended audiences: Retailers and Distributers) Enacted in 2003.

Source: <http://apps.leg.wa.gov/RCW/default.aspx?cite=82.04.4334>

**Biofuels Retail Tax Exemption** (Revised Code of Washington 82.08.955 and 82.12.955) - Fuel delivery vehicles and machinery, equipment, and related services that are used for the retail sale or distribution of a biodiesel blend or E85 motor fuel are exempt from state retail fuel sales and use taxes until July 1, 2015. (Tax incentive; Tax credit; Intended audiences: Retailers and Distributers) Enacted in 2003.

Source: [http://www.eere.energy.gov/afdc/progs/ind\\_state\\_laws.php/WA/ETH](http://www.eere.energy.gov/afdc/progs/ind_state_laws.php/WA/ETH)

**Biofuels Tax Deduction** (Revised Code of Washington 82.04.4334) - A tax deduction is available for the sale or distribution of biodiesel or E85 motor fuel. This deduction is available until July 1, 2015. (Tax incentive; Tax credit; Intended audience: Retailers and Distributers) Enacted in 2003.

Source: [http://www.eere.energy.gov/afdc/progs/ind\\_state\\_laws.php/WA/ETH](http://www.eere.energy.gov/afdc/progs/ind_state_laws.php/WA/ETH)

**Biofuels Production Tax Exemption** (Revised Code of Washington 82.04.260, 82.29A.135, and 84.36.635) - Qualifying buildings, equipment, and land used in the manufacturing of alcohol fuel, biodiesel, or biodiesel feedstocks are exempt from state and local property and leasehold taxes for a period of six years. Additionally, until July 1, 2009, a reduced Business and Occupation tax rate of 0.138% applies to individuals engaged in alcohol fuel, biodiesel fuel, or biodiesel feedstock manufacturing. (Tax incentive; Tax credit; Intended audience: Commercial, industrial, residential) Enacted in 1998.

Source: [http://www.eere.energy.gov/afdc/progs/ind\\_state\\_laws.php/WA/ETH](http://www.eere.energy.gov/afdc/progs/ind_state_laws.php/WA/ETH)

**Sales and Use Tax Exemption** (RCW § 82.08.02567) - In Washington State, tax does not apply to the sales of equipment used to generate electricity from wind, sun, landfill gas, biomass, solar water heating, or fuel cells. The tax exemption applies to labor and services related to the installation of equipment, as well as to sales of equipment and machinery. (Tax incentive; Tax credit; Intended audience: Commercial, residential; general public/consumer) Enacted in 2001.

Source: <http://www.epa.gov/CHP/funding/funding/norwasalesandusetaxexemption.html>

## West Virginia

**Biomass Working Group** (U.S. Department of Energy's State Energy Program) - The IOF-WV Forestry Program supported activities identified by the IOF-WV wood product sector members as energy and environmental technological priorities. These include continuation of an annual wood industry residue survey, an exhibit demonstrating the energy savings of engineered wood products over traditional construction techniques, and establishment of a state biomass working group. (Education and Consultation; Consultation) Enacted in 2002.

Source: [http://apps1.eere.energy.gov/state\\_energy\\_program/grants\\_by\\_state\\_archive.cfm/year=2002/state=WV](http://apps1.eere.energy.gov/state_energy_program/grants_by_state_archive.cfm/year=2002/state=WV)

**Conceptual Review of West Virginia Biorefinery Options and Preliminary Economic Feasibility** (Southeastern Regional Biomass Energy Program) - The goals and objectives of this project are to (1) survey current state-of-the art for production of industrial and specialty chemicals from wood and wood-derived biomass; (2) develop possible high potential outlets for wood-derived industrial and specialty chemicals based on market growth and established process economics; (3) develop biorefinery concepts based on promising biomass utilization technologies and product markets, derive preliminary economics, highlighting potential economic advantages of location within West Virginia's chemical cluster; and (4) develop roadmap for development and commercialization of promising biorefinery concepts, identifying key technology, logistics and market challenges. Amount: SERBP \$18,100; cost share \$5,000. (Service Provision; Initiative) Enacted in 2005.

Source: <http://www.serbep.org>

**West Virginia Net Metering** (West Virginia PSC Order, Case No. 06-0708-E-GI) - The approved consensus for net metering applies to residential and commercial systems up to 25 kilowatts (kW) in capacity that generate electricity using photovoltaics (PV), wind, biomass, landfill gas, hydropower or fuel cells. Net excess generation (NEG) will be carried over to a customer-generator's next bill, for up to 12 months, as a kilowatt-hour (kWh) credit. Net-metering tariffs must be identical in rate structure, retail-rate components, and monthly charges, to the contract or tariff for which the customer would qualify if that customer were not a customer-generator. (Renewable Energy Standards; Net Metering; Intended audiences: Commercial, residential) Enacted in 2006.

Source: <http://www.psc.state.wv.us>

**Center for Biobased Materials** (U.S. Department of Energy's State Energy Program)- The Center for Biobased Materials identified and promoted economic development opportunities associated with West Virginia biomass, including wood residue (chips, bark, sawdust, and slash), animal waste, and agriculture crops such as soy beans and switch grass. Direct combustion, industrial chemicals, liquid fuels, gasification, and value-added materials were studied. (Education and Consultation; Research) Enacted in 2006.

Source: [http://apps1.eere.energy.gov/state\\_energy\\_program/grants\\_by\\_state.cfm/state=WV](http://apps1.eere.energy.gov/state_energy_program/grants_by_state.cfm/state=WV)

## Wisconsin

**Focus on Energy – Renewable Energy Cash-Back Rewards** (Wisconsin Focus on Energy) - Focus on Energy offers Cash-Back Rewards for installing or expanding renewable-energy systems on businesses and homes. Payments are based on the estimated amount of electricity or thermal energy produced annually by an eligible system. Eligible non-residential projects include wind, photovoltaics (PV), solar hot water, and biomass combustion. Wind: 20 kW maximum; PV: 0.5 kW - 20 kW; Solar hot water and biomass combustion: 5,000 therms/year maximum. (Subsidies and Grants; Cost-Share; Intended audiences: Commercial, Industrial, Residential, Nonprofit, Schools, Local Government, Tribal Government, Federal Government) Enacted in 2007.

Source: <http://www.focusonenergy.com/Incentives/Renewable>

**K-12 Biomass Education** (U.S. Department of Energy's State Energy Program) - This project will address the need for biomass education and promotion to future consumers and support the acceptance of biomass as a renewable energy resource. The proposed activities are: 1. Biomass Curriculum Development. Employ an established Wisconsin energy curriculum model to construct hands-on, concept-based biomass activities. Offer teachers all the resources they need to provide inquiry-based lessons in science, social studies, economics, and other subject areas. 2. Middle School Biomass Bookmark Design Competition. Through the funding offered through this opportunity, this project will sponsor a bookmark design contest with the theme "Grass, Gas, Biomass: How Does Biomass Work in Wisconsin?" 3. High School Biomass Public Service Announcement (PSA) Competition. This opportunity for high schools students will encourage student learning through the production of promotional biomass public service announcements that will air on public access television stations. (Education and Consultation; Education; Intended audiences: Wisconsin Schools) Enacted in 2004.

Source: [http://www.eere.energy.gov/state\\_energy\\_program/project\\_detail.cfm/sp\\_id=753](http://www.eere.energy.gov/state_energy_program/project_detail.cfm/sp_id=753)

**Energy Independence Fund Grant and Loan Program** (Wisconsin Energy Independence Fund) - Grants: 50% cost-share required; Loans: 4% interest rate for up to 15 years, maximum of 25% of project cost. The Wisconsin Energy Independence Fund is a 10-year, \$150 million initiative designed to support the development and commercialization of clean energy technologies in Wisconsin through grants and loans to businesses and researchers. (Subsidies and Grants; Grant; Intended audiences: Commercial, industrial, institutional) Enacted in 2006.

Source: <http://commerce.wi.gov/BD/BD-WEIF.html>

**Focus on Energy – Renewable Energy Grant Programs** (Wisconsin Focus on Energy) - Wisconsin Focus on Energy offers several grant programs to support the development of renewable energy. Grant recipients and projects must be located in a participating utility's service territory. The following types of grants are currently available: Business & Marketing Grants, Feasibility Studies, Implementation Grants. (Subsidies and Grants; Grant; Intended audiences: Industrial, Residential, Nonprofit, Local Government, Tribal Government, Federal Government, Institutional) Enacted in 2007.

Source: <http://www.focusonenergy.com/Incentives/Renewable/>

**Direct Financial Incentives for Not-for-Profits** (We Energies)- We Energies, a Wisconsin-based investor-owned utility, offers certain customers grants ranging from \$10,000 to \$100,000 to support the installation of renewable energy projects. An award will cover up to 50% of a project's total installed cost, less any federal or state government incentive or credit, and less any funding from Wisconsin Focus on Energy. (Subsidies and Grants; Grant; Intended audience: Nonprofit, Schools, Local Government, State Government, Tribal Government) Enacted in 2008.

Source: [http://www.we-energies.com/business\\_new/altenergy/dirfinance\\_incent.htm](http://www.we-energies.com/business_new/altenergy/dirfinance_incent.htm)

**GLBSRP Grants** (Council of Great Lakes Governors) - A grant is awarded annually to each GLBSRP State to retain a project leader knowledgeable about biomass energy on the staff of each State energy office. State offices perform resource assessment, demonstration projects and provide technical assistance. (Subsidies and Grants; Grant; Intended audience: Illinois, Indiana, Iowa, Michigan, Minnesota, Ohio, and Wisconsin Governors)

Source: <http://www.cglg.org/biomass/index.asp>

**Wisconsin Green Power Purchasing** (Wis. Stat. § 16.75(12)) - Under terms of legislation (SB 459) enacted in March 2006, Wisconsin's Departments of Administration, Corrections, Health and Family Services, Natural Resources, Public Instruction, Veterans Affairs, the State Fair Park Board, and the Board of Regents of the University of Wisconsin System have a goal of purchasing or generating 10% of their power from renewable energy by December 31, 2007, and 20% by December 31, 2011. (Regulation; Initiative; Intended audiences: State government) Enacted in 2006.

Source: [http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive\\_Code=WI12R&state=WI&CurrentPageID=1&RE=1&EE=1](http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive_Code=WI12R&state=WI&CurrentPageID=1&RE=1&EE=1)

**Focus on Energy Program** (Wis. Stat. § 16.957) - Wisconsin's public benefits fund (PBF), created by Act 9 of 1999, supports energy efficiency and renewable energy, and energy assistance for low-income residents. Beginning 7/1/07, each utility is required to spend 1.2% of its annual operating revenue on efficiency and renewables. (Regulation; Initiative; Intended audiences: Commercial, Industrial, Residential, General Public/Consumer, Local Government, Utility, Tribal Government, Federal Government, Institutional) Enacted in 1999.

Source: <http://www.focusonenergy.com>



**Biomass Production Plan** (Clean Energy Wisconsin) - "Growing more biomass for the future" by 2015: produce 350,000 tons/year; by 2020: 1,000,000 tons/year; by 2025: 3,000,000 tons/year. (Regulation; Initiative) Enacted in 2008.

Source: <http://www.wisgov.state.wi.us/docview.asp?docid=13459>

**Biomass Market Development** (Clean Energy Wisconsin) - Partner with loggers in northwest and farmers in southwest Wisconsin to develop farm and forest crops that can serve as a substitute for coal electricity generation and oil used for transportation fuels. Additionally, the WDNR will create healthy forest guidelines for harvesting woody biomass to generate fuels of the future. (Regulation; Initiative; Intended audiences: Loggers, farmers) Enacted in 2008.

Source: <http://www.wisgov.state.wi.us/docview.asp?docid=13459>

**Biomass Commodity Exchange** (Clean Energy Wisconsin) - The Wisconsin Office of Energy Independence will oversee a feasibility study for the creation of a biomass commodity exchange to help match renewable energy demands with biomass supply. It will investigate the possibility of creating a transparent market system for buying and selling biomass products and would also develop a model for oversight. (Regulation; Initiative) Enacted in 2008.

Source: <http://www.wisgov.state.wi.us/docview.asp?docid=13459>

**Great Lakes Biomass State-Regional Partnership** (Council of Great Lakes Governors) - There are three main components to the GLBSRP; (1) State grants; (2) region-wide demonstration and technology transfer; and, (3) in-house management and support. (Regulation; Initiative; Intended audiences: Illinois, Indiana, Iowa, Michigan, Minnesota, Ohio, and Wisconsin Governors) Enacted in 1983.

Source: <http://www.cglg.org/biomass/index.asp>

**Wisconsin Net Metering** (PSCW Order, Docket No. 05-EP-6) - All regulated utilities to file tariffs allowing net metering to customers that generate electricity with systems up to 20 kilowatts (kW) in capacity. The order applies to investor-owned utilities and municipal utilities, but not to electric cooperatives. All distributed-generation (DG) systems, including renewables and combined heat and power (CHP), are eligible. Customer net excess generation (NEG) is generally credited at the utility's retail rate for renewables, and at the utility's avoided-cost rate for non-renewables. NEG credit is carried over to the customer's next bill. (Renewable Energy Standards; Net Metering; Intended audiences: Commercial, industrial, residential) Enacted in 1992.

Source: <http://psc.wi.gov/apps/tariffs/content/elelist.aspx>

**Renewable Portfolio Standard** (Wis. Stat. § 196.378) - Legislation (SB 459) enacted in March 2006 increased renewable-energy requirements and established an overall statewide renewable-energy goal of 10% by December 31, 2015. (Regulation; Standard; Intended audiences: Municipal Utility, Investor-Owned Utility, Rural Electric Cooperative, Retail Supplier) Enacted in 2006.

Source: <http://psc.wi.gov/utilityinfo/electric/newsInfo/renewableResource.htm>

## Wyoming

**Wyoming Net Metering** (Wyo. Stat. § 37-16-101 et seq.) - The law applies to investor-owned utilities and electric cooperatives. Eligible technologies include solar, wind, biomass and hydropower systems up to 25 (kilowatts) kW. Net excess generation (NEG) is credited to the following month. When an annual period ends, a utility will purchase unused credits at the utility's avoided-cost rate. (Renewable Energy Standards; Net Metering; Intended audiences: Commercial, industrial, residential) Enacted in 2001.

Source: [http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive\\_Code=WY01R&state=WY&CurrentPageID=1&RE=1&EE=1](http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive_Code=WY01R&state=WY&CurrentPageID=1&RE=1&EE=1)

**Renewable Energy Sales Tax Exemption** (Wyo. Stat. § 39-15-105(a)(viii)(N)) - In 2003, under HB 188, the Wyoming legislature added sales of equipment used to generate electricity from renewable resources to the list of types of sales, purchases and leases which are exempt from the state excise tax. The exemption is limited to the acquisition of equipment used in a project to make it operational up to the point of interconnection with an existing transmission grid. (Tax incentive; Tax credit; Intended audience: Commercial, industrial, utility, projects tied to an existing transmission grid) Enacted in 2003.

Source: [http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive\\_Code=WY04F&state=WY&CurrentPageID=1&RE=1&EE=1](http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive_Code=WY04F&state=WY&CurrentPageID=1&RE=1&EE=1)

### ***Tax Incentives***

#### **Alabama**

**Wood Burning Heating System Deduction** (Code of Ala. § 40-18-15 (16) - This statute allows individual taxpayers a deduction for the installation of a wood-burning heating system. The deduction is equal to the total cost of installation for the conversion from gas or electricity to wood when the system is used as the primary energy source for heating a home. The deduction must be taken for the taxable year during which the conversion was completed. Note that this incentive is for the conversion of an existing system and not for the first-time installation of a wood-burning system (Alabama, state income tax deduction, residential).

Source: <http://www.legislature.state.al.us/codeofAlabama/1975/40-18-15.htm>

#### **Alaska**

**Sustainable Natural Alternative Power Program** (Golden Valley Electric Association) - Golden Valley Electric's SNAP program encourages members to install renewable energy generators and connect them to their utilities' electrical distribution system by offering an incentive payment based on the system's production on a \$/kWh basis. The producers of renewable power do not keep any of the power they produce. The power they produce is measured separately from their existing home or business energy use by a separate meter. GVEA also developed specific standards for the interconnection of SNAP generators to their distribution system. (Tax Incentive; Production tax credit; Target audience: Commercial, industrial, residential, nonprofit, schools, agricultural, institutional) Enacted in 2003.

Source: <http://www.gvea.com/alternative-energy/snap>

#### **Arizona**

**Property Tax Assessment for Renewable Energy Property** (A.R.S. § 42-14155; H.B. 2614) - Renewable energy equipment owned by utilities and other entities operating in Arizona is assessed at 20% of its depreciated cost for the purpose of determining property tax. "Renewable energy equipment" is defined as "electric generation facilities, electric transmission, electric distribution, gas distribution or combination gas and electric transmission and distribution and transmission and distribution cooperative property that is located in this state, that is used or useful for the generation, storage, transmission or distribution of electric power, energy or fuel derived from solar, wind or other nonpetroleum renewable sources not intended for self-consumption". (Tax incentive; Tax credit; Target audience: Utility, other entities that generate, transmit or distribute eligible electricity) Enacted in 2008.

Source: [http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive\\_Code=AZ30F&state=AZ&CurrentPageID=1&RE=1&EE=1](http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive_Code=AZ30F&state=AZ&CurrentPageID=1&RE=1&EE=1)

**Healthy Forest Enterprise Incentives Program** (A.R.S. § 41-1516) - The primary goal of the Healthy Forest Enterprise Incentives Program is to promote forest health in Arizona. The program achieves this by providing incentives for certified businesses that are primarily engaged in harvesting, initial processing or transporting of qualifying forest products. The program offers the following incentives: Use Fuel Tax Reduction (The use fuel tax is reduced from 26 cents to 13 cents a gallon for use class motor vehicle); Transaction Privilege Tax Exemption; Use Tax exemption; Property Tax Reduction; New Job Income Tax Credit (Arizona income tax credit earned over a three-year period for each net new job created, totaling up to \$3,000 per employee) (Tax Incentive; Tax credit; Target audience: Certified businesses with at least 3 employees) Enacted in 2005.

Source: <http://www.azcommerce.com/BusAsst/Incentives/Healthy+Forest+Enterprise+Incentives+Program.htm>

## California

**Supplemental Energy Payments** (California Energy Commission) - California has supplemental energy payments (SEPs) available to eligible renewable energy generators for the above market costs of procurement by California's retail sellers to fulfill their renewable portfolio standard (RPS) obligation. As of August 2007, total funding available is \$734 million. The following types of fuels/technologies are considered to be eligible - solar thermal electric, photovoltaics, landfill gas, wind, biomass, hydroelectric, geothermal electric, geothermal heat pumps, municipal solid waste, anaerobic digestion, small hydroelectric, tidal energy, wave energy, ocean thermal, biodiesel, and fuel cells using renewable fuels. (Tax incentive; Rebate; Target audience: All renewable energy facilities) Enacted in 2007.

Source: <http://www.energy.ca.gov/renewables/documents/index.html#overall>

**Personal Income Tax Law and the Corporation Tax Law** (AB 6) - This bill would allow a taxpayer to take a deduction for depreciation, with respect to specified qualified capital expenditures that reduce greenhouse gas emissions and specified qualified capital investments for renewable energy, over a 3-year period, as provided. "Qualified capital investments" means equipment used to produce, generate, or store renewable energy from biomass, solar, wind and hydrogen sources. (Tax incentive; Tax credit; Target audience: Taxpayers) Enacted in 2006.

Source: <http://www.legislature.ca.gov>

**Sales and Use Tax Law** (AB 769) – The Sales and Use Tax Law imposes a tax on the gross receipts from the sale in this state of, or the storage, use, or other consumption in this state of, tangible personal property, and provides various exemptions from that tax. This bill would additionally exempt from that tax fuel that is used to transport biomass, as defined. (Tax incentive; Tax exemption; Target audience: County agencies, City agencies) Enacted in 2007.

Source: [http://www.leginfo.ca.gov/pub/07-08/bill/asm/ab\\_0751-0800/ab\\_769\\_bill\\_20070222\\_introduced.html](http://www.leginfo.ca.gov/pub/07-08/bill/asm/ab_0751-0800/ab_769_bill_20070222_introduced.html)

## Colorado

**Local Option – Property Tax Exemption for Renewable Energy Systems** (CRS § 30-11-107.3) - Colorado enacted legislation in April 2007 (SB 145) to authorize counties and municipalities to offer property or sales tax rebates or credits to residential and commercial property owners who install renewable energy systems on their property. Eligible renewable energy property is defined as "any fixture, product, system, device or interacting group of devices that produce electricity from renewable resources, including, but not limited to, photovoltaic systems, solar thermal systems, small wind systems, biomass systems, or geothermal systems". (Tax incentive; Tax exemption; Target audiences: Residential, commercial) Enacted in 2007.

Source: [http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive\\_Code=CO49F&state=CO&CurrentPageID=1&RE=1&EE=1](http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive_Code=CO49F&state=CO&CurrentPageID=1&RE=1&EE=1)

**Local Option – Sales Tax Exemption for Renewable Energy Systems** (CRS § 31-20-101.3) - Colorado enacted legislation in April 2007 (SB 145) to authorize counties and municipalities to offer property or sales tax rebates or credits to residential and commercial property owners who install renewable energy systems on their property. Eligible renewable energy property is defined as "any fixture, product, system, device or interacting group of devices that produce electricity from renewable resources, including, but not limited to, photovoltaic systems, solar thermal systems, small wind systems, biomass systems, and geothermal systems. (Tax incentive; Tax exemption; Target audiences: Residential, Commercial) Enacted in 2007.

Source: [http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive\\_Code=CO50F&state=CO&CurrentPageID=1&RE=1&EE=1](http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive_Code=CO50F&state=CO&CurrentPageID=1&RE=1&EE=1)

## Connecticut

**Connecticut Clean Energy Fund** (Conn. Gen. Stat. § 16-245n) - A surcharge on Connecticut ratepayers' utility bills provides the funding for the CCEF. Connecticut Innovations has utilized a variety of funding mechanisms to support the mission of the CCEF, including grants and rebates, convertible debt, equity investments and subsidies for various ventures. In addition, each of Connecticut's municipal electric utilities is required by statute (Conn. Gen. Stat. § 7-233y) to establish a fund to provide renewable energy, energy efficiency, conservation and load-management programs. (Tax incentive; Initiative; Target audiences: all) Enacted in 1998.

Source: <http://www.ctinnovations.com/funding/ccef/about.php>

**Property Tax Exemption for Renewable Energy** (HM 7432) - Connecticut provides a property tax exemption for "Class I" renewable energy systems (includes "a biomass gasification plant that utilizes land clearing debris, tree stumps or other biomass that regenerates or the use of which will not result in a depletion of resources, provided such biomass is cultivated and harvested in a sustainable manner" that generate electricity for private residential use. The exemption is available for systems installed on or after October 1, 2007, that serve single-family homes or multi-family dwellings limited to four units. (Tax incentive; Tax credit; Target audience: Commercial, industrial, residential, multi-family residential, agricultural) Enacted in 2007.

Source: [http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive\\_Code=CT07F&state=CT&CurrentPageID=1&RE=1&EE=1](http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive_Code=CT07F&state=CT&CurrentPageID=1&RE=1&EE=1)

## Florida

**Renewable Energy Production Tax Credit** (HB 7134) - This annual corporate tax credit is equal to \$0.01/kWh of electricity produced and sold by the taxpayer to an unrelated party during a given tax year. (Tax incentive; Tax credit; Intended audiences: Commercial) Enacted in 2006.

Source: <http://www.dep.state.fl.us/energy/energyact/incentives.htm>

**Renewable Energy Property Tax Exemption** (Fla. Stat. § 196.175 & HB 7135) - Improved real property upon which a renewable energy source device is installed and operated is entitled to an exemption in the amount of the original cost of the device, including the installation cost. The exemption does not include the cost of replacing, removing or improving existing property in the course of the installation. (Tax incentive; Tax credit; Intended audience: Commercial, industrial, residential) Enacted in 2008.

Source: [http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive\\_Code=FL66F&state=FL&CurrentPageID=1&RE=1&EE=1](http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive_Code=FL66F&state=FL&CurrentPageID=1&RE=1&EE=1)

## Hawaii

**High Technology Business Investment Tax Credit** (HRS § 235-110.9) - Hawaii is the only state in the nation to offer a 100% tax credit on an equity investment in a qualified high tech business (QHTB). The purpose of this credit is to encourage investment in Hawaii's high tech companies. A "qualified high technology business" is defined as "a business that conducts more than fifty per cent of its activities in qualified research." "Qualified research" includes "non-fossil fuel energy-related technology". (Tax incentive; Tax credit; Intended audience: Industrial) Enacted in 2003.

Source: <http://www.state.hi.us/tax/announce/2003ann01.htm>

## Idaho

**Residential Alternative Energy Tax Deduction** (IC § 63-3022C) - This statute allows taxpayers an income tax deduction of 40% of the cost of a solar, wind, geothermal, and certain biomass energy devices used for heating or electricity generation. Taxpayers can apply this 40% deduction in the year in which the system is installed and can also deduct 20% of the cost each year for three years thereafter. The maximum deduction in any one year is \$5,000. The total maximum deduction is \$20,000. (Tax incentive; Tax credit; Intended audiences: Residential) Enacted in 2007.

Source: [http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive\\_Code=ID01F&state=ID&CurrentPageID=1&RE=1&EE=1](http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive_Code=ID01F&state=ID&CurrentPageID=1&RE=1&EE=1)

**Residential Energy Equipment Sales Tax Refund** (Idaho Code, § 63-3622QQ) - Idaho offers a sales-and-use tax rebate for qualifying equipment and machinery used to generate electricity from fuel cells, low-impact hydro, wind, geothermal resources, biomass, cogeneration, solar and landfill gas. Purchasers qualify for a rebate only if the equipment is used to develop a facility or a project capable of generating at least 25 kW of electricity. To receive the rebate, the taxpayer must pay any sales and use tax on the purchase. (Tax incentive; Tax credit; Intended audiences: Commercial, Industrial, Residential) Enacted in 2005.

Source: [http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive\\_Code=ID08F&state=ID&CurrentPageID=1&RE=1&EE=1](http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive_Code=ID08F&state=ID&CurrentPageID=1&RE=1&EE=1)

**Biofuel Fueling Infrastructure Tax Credit** (Idaho Statutes 63-3029M) - Qualified biofuel fueling infrastructure is eligible for a credit of up to 6% of the qualified investment against the corporate income tax. The allowable credit cannot exceed 50% of the income tax liability of the taxpayer. (Tax incentive; Tax credit; Intended audience: Commercial, industrial) Enacted in 2007.

Source: [http://www.eere.energy.gov/afdc/progs/all\\_state\\_summary.php/afdc/0](http://www.eere.energy.gov/afdc/progs/all_state_summary.php/afdc/0)

## Iowa

**Renewable Energy Production Tax Credit (Corporate)** (IA Code § 476C) - Under Iowa Code § 476C, a production tax credit of 1.5¢ per kilowatt-hour is available for energy generated and sold by eligible wind energy generators and other renewable energy facilities, including biomass and solar. This credit may be applied toward the state's personal income tax, business tax, financial institutions tax, or sales and use tax. (Tax Incentive; Tax Credit; Intended audiences: Commercial, industrial, schools, rural electric cooperative; agricultural) Enacted in 2005.

Source: [http://www.state.ia.us/government/com/util/energy/renewable\\_tax\\_credits.html](http://www.state.ia.us/government/com/util/energy/renewable_tax_credits.html)

**Renewable Energy Production Tax Credit (Personal)** (IA Code § 476C) - Under Iowa Code § 476C, a production tax credit of 1.5¢ per kilowatt-hour is available for energy generated and sold by eligible wind energy generators and other renewable energy facilities, including biomass and solar. To qualify for the credit, a renewable energy facility must be at least 51% owned by specifically defined qualifying owners, and must be approved as eligible by the IUB. (Tax incentive; Tax Credit; Intended audiences: Commercial, industrial, schools, rural electric cooperative; agricultural) Enacted in 2008.

**Energy Replacement Generation Tax Exemption** (Iowa Code § 437A.6) - Iowa imposes a replacement generation tax of 0.06 cents (\$0.0006) per kWh on various forms of electricity generated within the state. This tax is imposed in lieu of a property tax on generation facilities. However, under the Energy Replacement Generation Tax Exemption, all energy generated by methane gas conversion property (including digester gas facilities) and wind energy conversion property is exempt from the replacement generation tax. (Tax incentive; Tax exemption; Intended audience: Commercial, industrial, residential) Enacted in 2001.

Source: [http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive\\_Code=IA10F&state=IA&CurrentPageID=1&RE=1&EE=1](http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive_Code=IA10F&state=IA&CurrentPageID=1&RE=1&EE=1)



## Kansas

**Renewable Energy Property Tax Exemption** (Kansas Statutes 79-201) - This statute exempts renewable energy equipment from property taxes. Renewable energy includes wind, solar thermal electric, photovoltaic, biomass, hydropower, geothermal, and landfill gas resources or technologies that are actually and regularly used predominantly to produce and generate electricity. In addition, beginning in the 2002 tax year all personal property used to collect, refine, and treat landfill gas or transport landfill gas from a landfill to a transmission pipeline (i.e., not necessarily used for electricity generation) is also exempt from property taxes. (Tax incentive; Tax exemption; Intended audiences: Commercial, industrial, residential) Enacted in 1999.

Source: [http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive\\_Code=KS02F&state=KS&CurrentPageID=1&RE=1&EE=1](http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive_Code=KS02F&state=KS&CurrentPageID=1&RE=1&EE=1)

**Biomass-to-Energy Plant Tax Credit** (Kansas Statutes 74-8949b) - An income tax credit for expenditures in new construction or expansion of an existing plant after December 3, 2005 and before January 1, 2011. The credit is 10 percent of the qualified investment on the first \$250 million invested, and 5 percent of the qualified investment over \$250 million. In addition to the income tax credit, a taxpayer is entitled to a deduction from Kansas adjusted gross income of the amortizable costs of a new facility equal to 55 percent of the amortizable costs of the facility for the first taxable year, and 5 percent for the next nine taxable years. Biomass-to-Energy plant property is exempt from all property taxes for the 10 taxable years immediately after construction or installation. To finance the construction of a Biomass-to-Energy plant, the Kansas Development Finance Authority can issue revenue bonds in amounts sufficient to pay the costs of construction or expansion. (Tax incentive; Tax exemption; Intended audience: Commercial) Enacted in 2006.

Source: <http://www.ksrevenue.org/taxcredits-biomass.htm>

## Kentucky

**Tax Credit for Renewable Energy Facilities** (KRS § 154.27-010 et seq.) - A renewable energy facility is defined as one that generates at least 50 kW of electricity from solar power or at least 1 MW from wind power, biomass resources, landfill gas, hydropower or similar renewable resources. The electricity must be sold to an unrelated party. The minimum investment in any renewable energy facility must be \$1 million in capital expenditure which is defined to include various non-capital costs such as labor. The tax credit allows approved facilities to receive a credit up to 100% of Kentucky income tax and the limited liability tax for projects that construct, retrofit or upgrade facilities that generate power from renewable resources. In addition, companies may also receive a sales tax incentive of up to 100% of the Kentucky sales and use tax paid (on or after the activation date) on materials, machinery and equipment used to construct, retrofit or upgrade an eligible project. (Tax incentive; Tax credit; Intended audiences: Commercial) Enacted in 2007.

Source: [http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive\\_Code=KY25F&state=KY&CurrentPageID=1&RE=1&EE=1](http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive_Code=KY25F&state=KY&CurrentPageID=1&RE=1&EE=1)

**Sales Tax Exemption for Large-Scale Renewable Energy Projects** (KRS § 154.27-010 et seq.) - A renewable energy facility is defined as one that generates at least 50 kW of electricity from solar power or at least 1 MW from wind power, biomass resources, landfill gas, hydropower or similar renewable resources. The electricity must be sold to an unrelated party. The minimum investment in any renewable energy facility must be \$1 million in capital expenditure which is defined to include various non-capital costs such as labor. The tax credit allows approved facilities to receive a credit up to 100% of Kentucky income tax and the limited liability tax for projects that construct, retrofit or upgrade facilities that generate power from renewable resources. In addition, companies may also receive a sales tax incentive of up to 100% of the Kentucky sales and use tax paid (on or after the activation date) on materials, machinery and equipment used to construct, retrofit or upgrade an eligible project. (Tax incentive; Tax exemption; Intended audience: Commercial) Enacted in 2007.

Source: [http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive\\_Code=KY26F&state=KY&CurrentPageID=1&RE=1&EE=1](http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive_Code=KY26F&state=KY&CurrentPageID=1&RE=1&EE=1)

## Maryland

**Clean Energy Production Tax Credit (Corporate)** (Md. TAX-GENERAL Code § 10-720) - Maryland offers a production tax credit for electricity generated by wind, geothermal energy, solar energy, hydropower, small irrigation power, municipal solid waste and biomass resources. Eligible biomass resources include anaerobic digestion, landfill gas, wastewater-treatment gas, and cellulosic material derived from forest-related resources (excluding old-growth timber and mill residues consisting of sawdust or wood shavings), from waste pallets and crates, or from agricultural sources. Administration may claim a credit equal to 0.85 cents per kilowatt-hour (\$0.0085/kWh) against the state income tax, for a five-year period, for electricity generated by eligible resources. The credit for electricity generated by co-firing is 0.5 cents per kilowatt-hour (\$0.005/kWh). The electricity generated must be sold to an unrelated person during the taxable year. (Tax incentive; Tax credit; Intended audience: Commercial, industrial, residential, utility, agricultural) Enacted in 2000.

Source: [http://energy.maryland.gov/incentives/allprograms/cep\\_taxcredit.asp](http://energy.maryland.gov/incentives/allprograms/cep_taxcredit.asp)

**Clean Energy Production Tax Credit (Personal)** - Maryland offers a production tax credit for electricity generated by wind, geothermal energy, solar energy, hydropower, small irrigation power, municipal solid waste and biomass resources. Eligible biomass resources include anaerobic digestion, landfill gas, wastewater-treatment gas, and cellulosic material derived from forest-related resources (excluding old-growth timber and mill residues consisting of sawdust or wood shavings), from waste pallets and crates, or from agricultural sources. Administration may claim a credit equal to 0.85 cents per kilowatt-hour (\$0.0085/kWh) against the state income tax, for a five-year period, for electricity generated by eligible resources. The credit for electricity generated by co-firing is 0.5 cents per kilowatt-hour (\$0.005/kWh). The electricity generated must be sold to an unrelated person during the taxable year. (Tax incentive; Tax credit; Intended audience: Commercial, residential, multi-family residential, agricultural) Enacted in 2000.

Source: [http://energy.maryland.gov/incentives/allprograms/cep\\_taxcredit.asp](http://energy.maryland.gov/incentives/allprograms/cep_taxcredit.asp)

**Wood Heating Fuel Exemption** (Md. TAX-GENERAL Code § 11-207) - This statute exempts from the state sales tax all wood or "refuse-derived" fuel used for heating purposes. This exemption applies to residential use only. (Tax incentive; Tax exemption; Intended audience: Residential)

Source: [http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive\\_Code=MD01F&state=MD&CurrentPageID=1&RE=1&EE=1](http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive_Code=MD01F&state=MD&CurrentPageID=1&RE=1&EE=1)

## Massachusetts

**Alternative Energy and Energy Conservation Patent Exemption (Corporate)** (MGL ch. 62, § 2(a)(2)(G)) - Massachusetts offers a corporate excise tax deduction for (1) any income -- including royalty income -- received from the sale or lease of a U.S. patent deemed beneficial for energy conservation or alternative energy development by the Massachusetts Department of Energy Resources, and (2) any income received from the sale or lease of personal or real property or materials manufactured in Massachusetts and subject to the approved patent. (Tax incentive; Tax credit; Intended audience: Commercial) Enacted in 1979.

Source: <http://www.state.ma.us/doer/programs/renew/renew.htm#taxcred>

**Alternative Energy and Energy Conservation Patent Exemption (Personal)** (MGL ch. 62, § 2(a)(2)(G)) - Massachusetts offers a personal income tax deduction for any income received from the sale of a patent or royalty income from a patent deemed beneficial for energy conservation or alternative energy development. This deduction is unique among incentives in that it targets patents and not simply real property. (Tax incentive; Tax credit; Intended audience: General public/consumer) Enacted in 1979.

Source: <http://www.state.ma.us/doer/programs/renew/renew.htm#taxcred>

## Michigan

**Renewable Payroll Credit** (MCL § 208.1429) - Businesses certified by the NextEnergy Authority that locate in the NextEnergy Zone of Detroit to develop "alternative energy technologies," as defined by the Michigan Next Energy Authority Act, may claim a credit for their qualified payroll amount. If the credit exceeds the tax liability of the business for the tax year, the portion of the credit exceeding the tax liability will be refunded. (Tax incentive; Tax credit; Intended audiences: Commercial, industrial) Enacted in 2002.

Source: [http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive\\_Code=MI07F&state=MI&CurrentPageID=1&RE=1&EE=1](http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive_Code=MI07F&state=MI&CurrentPageID=1&RE=1&EE=1)

**Alternative Energy Personal Property Tax Exemption** (MCL § 207.821 et seq.) - The Michigan Next Energy Authority Act of 2002 created a property tax exemption designed to promote the development, commercialization, and manufacturing of a broad range of alternative energy technologies. Property exempt from personal property tax includes: (1) alternative energy systems less than 2 megawatts, or integrated combinations of alternative energy systems of no more than 10 megawatts (2) alternative energy vehicles (3) the personal property of an

alternative energy technology business (4) the personal property of a business not engaged in alternative-energy technology that is used solely for the purpose of researching, developing or manufacturing alternative. (Tax incentive; Tax exemption; Intended audiences: Commercial, industrial) Enacted in 2002.

Source: <http://www.michigan.org/medc/tc/Alternative.Energy/Financial.Incentives>

## Minnesota

**Business Tax Credit** (State of Minnesota) - Business tax credit of 1.9¢/kWh for projects installed by December 31, 2007 for 10 years. (Tax incentive; Tax credit; Intended audiences: Businesses)

Source: <http://www.state.mn.us/portal/mn/jsp/content.do?id=-536881350&subchannel=-536881511&sc2=null&sc3=null&contentid=536885915&contenttype=EDITORIAL&programid=536885394&agency=Commerce#Biomass>

## Missouri

**Wood Energy Production Credit** (R.S. Mo. § 135.3 et seq.) - Allows individuals or businesses processing Missouri forestry industry residues into fuels an income tax credit of \$5.00 per ton of processed material. Any amount of credit exceeding the tax due by a company in the year of production may be carried over to a subsequent taxable year, not to exceed four years. (Tax incentive; Tax credit; Intended audiences: Commercial, industrial) Enacted in 1997.

Source: <http://www.dnr.mo.gov/energy/deprograms.htm>

## Montana

**Alternative Energy Investment Tax Credit (Corporate)** (MCA § 15-32-401 et seq.) - Commercial and net metering alternative energy investments of \$5,000 or more are eligible for a tax credit of up to 35% against individual or corporate tax on income generated by the investment. The credit is applied only against taxes due as a consequence of taxable or net income produced by one of the following: --A manufacturing plant that is located in Montana and that produces alternative energy generating equipment. --A new business facility or the expanded portion of an existing business facility for which the alternative energy generating equipment supplies, on a direct contract sales basis, the basic energy needed; or --The alternative energy generating equipment in which the investment was made, for the credit being claimed. (Tax incentive; Tax credit; Intended audience: Commercial, industrial) Enacted in 2001.

Source: <http://www.deq.state.mt.us/energy/Renewable/TaxIncentRenew.asp#15-32-401>

**Alternative Energy Investment Tax Credit** (MCA § 15-32-401 et seq.) - Commercial and net metering alternative energy investments of \$5,000 or more are eligible for a tax credit of up to 35% against individual or corporate tax on income generated by the investment. The credit is applied only against taxes due as a consequence of taxable or net income produced by one of the following: --A manufacturing plant that is located in Montana and that produces alternative energy generating equipment. --A new business facility or the expanded portion of an existing business facility for which the alternative energy generating equipment supplies, on a direct contract sales basis, the basic energy needed; or --The alternative energy generating equipment in which the investment was made, for the credit being claimed. (Tax incentive; Tax Credit; Intended audiences: Residential) Enacted in 2001.

Source: <http://www.deq.state.mt.us/energy/Renewable/TaxIncentRenew.asp#15-32-401>

**Property Tax Abatement for Production and Manufacturing Facilities** (HB 3) - In May 2007, Montana enacted legislation that allows a property tax abatement for new renewable energy production facilities, new renewable energy manufacturing facilities, and renewable energy research and development equipment. Eligible facilities and equipment are assessed at 50% of their taxable value. Qualifying renewable energy manufacturing facilities are those (1) that produce materials, components or systems to convert solar, wind, geothermal, biomass, biogas or waste heat resources into useful energy, and (2) whose annual production of renewable energy equipment makes up at least half of the facility's total production. Qualifying renewable energy production facilities include biomass gasification, biomass, biogas and geothermal facilities. (Tax incentive; Tax credit; Intended audiences: Industrial) Enacted in 2007.

Source: [http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive\\_Code=MT41F&state=MT&CurrentPageID=1&RE=1&EE=1](http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive_Code=MT41F&state=MT&CurrentPageID=1&RE=1&EE=1)

**Alternative Energy Investment Tax Credit (Personal)** (MCA § 15-32-401 et seq.) - Commercial and net metering alternative energy investments of \$5,000 or more are eligible for a tax credit of up to 35% against individual or corporate tax on income generated by the investment. The credit is applied only against taxes due as a consequence of taxable or net income produced by one of the following: -A manufacturing plant that is located in Montana and that produces alternative energy generating equipment. -A new business facility or the expanded portion of an existing business facility for which the alternative energy generating equipment supplies, on a direct contract sales basis, the basic energy needed; or -The alternative energy generating equipment in which the investment was made, for the credit being claimed. This credit is available to taxpayers purchasing an existing facility as well as to those building a new facility. (Tax incentive; Tax credit; Intended audience: Commercial, industrial) Enacted in 2001.

Source: <http://www.deq.state.mt.us/energy/Renewable/TaxIncentRenew.asp#15-32-401>

**Residential Alternative Energy System Tax Credit** (MCA § 15-32-201) - Residential taxpayers who install an energy system using a recognized non-fossil form of energy on their home after 12/31/01 are eligible for a tax credit equal to the amount of the cost of the system and installation of the system, not to exceed \$500. The tax credit may be carried over for the next four taxable years. This includes a system that produces electric power from biomass or solid wood wastes. (Tax incentive; Tax credit; Intended audiences: Residential) Enacted in 2001.

Source: <http://www.deq.state.mt.us/energy/Renewable/TaxIncentRenew.asp#15-32-201>

**Generation Facility Corporate Tax Exemption** (MCA § 15-6-225) - New electricity generating facilities built in Montana with a nameplate capacity of less than 1 MW and using an alternative renewable energy source are exempt from property taxes for 5 years after start of operation "Alternative renewable energy source" means a form of energy or matter, such as solar energy, wind energy, geothermal energy, conversion of biomass, fuel cells that do not require hydrocarbon fuel, small hydroelectric generators producing less than 1 megawatt, or methane from solid waste. (Tax incentive; Tax credit; Intended audiences: Commercial, industrial) Enacted in 2001.

Source: <http://www.deq.state.mt.us/energy/Renewable/TaxIncentRenew.asp#15-6-225>

**Corporate Property Tax Reduction for New/Expanded Generating Facilities** (MCA § 15-24-1402) - Montana generating plants producing 1 megawatt or more by means of an alternative renewable energy source are eligible for the new or expanded industry property tax reduction on the local mill levy during the first nine years of operation. The tax reduction applies only to taxes levied for the local high schools and elementary schools and for the local government offering the reduction. (Tax incentive; Tax credit; Intended audience: Commercial, industrial) Enacted in 1981.

Source: <http://www.deq.state.mt.us/energy/Renewable/TaxIncentRenew.asp#15-24-1401>

**Renewable Energy Systems Exemption** (MCA § 15-6-224) - Montana's property tax exemption for recognized nonfossil forms of energy generation or low emission wood or biomass combustion devices may be claimed for 10 years after installation of the property. The exemption is allowed for single-family residential dwellings up to \$20,000 in value and for multifamily residential dwellings or a nonresidential structure up to \$100,000 in value. (Tax incentive; Tax Credit; Intended audience: Commercial, industrial, residential, multi-family residential, agricultural) Enacted in 2005.

Source: [http://deq.mt.gov/Energy/renewable/taxincentrenew.asp#15-6-201\(4\)](http://deq.mt.gov/Energy/renewable/taxincentrenew.asp#15-6-201(4))

## Nevada

**Property Tax Abatement for Green Buildings** (NRS § 701A.110) - Buildings which earn a Silver rating can receive a 25% property tax abatement, Gold can receive a 30% abatement, and 35% can be awarded to Platinum certificates. (Tax incentive; Tax credit; Intended audience: Commercial, industrial) Enacted in 2007.

Source: <http://energy.state.nv.us/LEED/AB621.htm>

**Renewable Energy Producers Property Tax Abatement** (NRS § 701A.220) - New or expanded businesses in Nevada may apply to the Commission on Economic Development to qualify for a 10-year, 50% property tax abatement for real and personal property used to generate electricity from renewable energy resources or for a facility for the production of an energy storage device. The generation facility must have a

capacity of at least 10 kW and use biomass, solar, or wind resources as its primary source of energy. (Tax incentive; Tax credit; Intended audiences: Commercial, Utility, Renewable Energy Power Producers) Enacted in 1997.

Source: [http://www.expand2nevada.com/incentive\\_program.html](http://www.expand2nevada.com/incentive_program.html)

## New Hampshire

**Property Tax Exemption for Renewable Energy** (New Hampshire Statutes § 72:61 et seq.) - New Hampshire allows cities and towns to offer an exemption on residential property taxes in the amount of the assessed value of a renewable-energy system used on the property. Eligible technologies include solar-energy systems (photovoltaic systems, solar space-heating systems, solar water-heating systems, passive solar-energy systems); wind-energy systems, and wood-fired central heating systems. (Tax incentive; Tax credit; Intended audience: Residential) Enacted in 1976.

Source: <http://nh.gov/oep/programs/energy/RenewableEnergyIncentives.htm>

## New Mexico

**Renewable Energy Production Tax Credit – Corporate** (N.M. Stat. § 7-2A-19) - Enacted in 2002, the New Mexico Renewable Energy Production Tax Credit provides a tax credit against the corporate income tax of one cent per kilowatt-hour for companies that generate electricity from wind or biomass. (\$0.01/kWh for wind and biomass) Wind and biomass: First 400,000 MWh annually for 10 years (i.e. \$4,000,000/year) (Tax incentive; Tax credit; Intended audiences: Commercial, industrial) Enacted in 2002.

Source: <http://www.cleanenergynm.org>

**Renewable Energy Production Tax Credit** (N.M. Stat. § 7-2-18.18) - The New Mexico Renewable Energy Production Tax Credit provides a tax credit against the personal income tax of one cent per kilowatt-hour for companies that generate electricity from wind or biomass. (\$0.01/kWh for wind and biomass). Wind and biomass: First 400,000 MWh annually for 10 years (i.e. \$4,000,000/year) Total generation from both the corporate and personal tax credit programs combined must not exceed two million megawatt-hours of production annually. (Tax incentive; Tax credit; Intended audiences: Commercial, industrial, residential; agricultural) Enacted in 2007.

Source: <http://www.cleanenergynm.org>

**Biomass Equipment and Materials Deduction** (NM Stat. § 7-9-98) – In 2005 New Mexico adopted a policy to allow businesses to deduct the value of biomass equipment and biomass materials used for the processing of biopower, biofuels or biobased products in determining the amount of Compensating Tax due. The rate is 5% of the value of the property or service. Compensating Tax is designed to protect New Mexico businesses from unfair competition from out-of-state business not subject to a sales or gross receipts tax. This biomass Compensating Tax



deduction is analogous to a sales tax exemption for renewable energy equipment available in some other states. (Tax incentive; Tax credit; Intended audience: Commercial, industrial) Enacted in 2005.

Source: [http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive\\_Code=NM06F&state=NM&CurrentPageID=1&RE=1&EE=1](http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive_Code=NM06F&state=NM&CurrentPageID=1&RE=1&EE=1)

**Alternative Energy Manufacturer's Tax Credit** (S. B. 463 / N.M. Stat. § 7-9J-1 et seq.) - Allows manufacturers of alternative energy products and components to receive a tax rebate. The credit is limited to 5 percent of the taxpayer's qualified expenditures, such as manufacturing equipment, that were purchased after July 1, 2006. Any remaining portion of the tax credit can be carried forward for up to 5 years. (Tax incentive; Tax credit; Intended audience: Commercial, industrial) Enacted in 2006.

Source: [http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive\\_Code=NM19F&state=NM&CurrentPageID=1&RE=1&EE=1](http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive_Code=NM19F&state=NM&CurrentPageID=1&RE=1&EE=1)

## New York

**Solar, Wind and Biomass Systems Exemption** (NY CLS Real Property Tax, Article 4 § 487) - The law intends to encourage the installation of solar, wind and farm-waste energy equipment systems and to ensure property owners that their real property taxes will not increase as a result of the installation of these systems. The amount of the exemption is equal to the increase in assessed value attributable to the solar, wind or farm-waste energy system. (Tax incentive; Tax credit; Intended audience: Commercial, industrial, residential; agricultural) Enacted in 2002.

Source: <http://www.orps.state.ny.us/assessor/manuals/vol4/part1/section4.01/sec487.htm>

## North Carolina

**Renewable Energy Tax Credit (Corporate)** (N.C. Gen. Stat. § 105-129.15 et seq.) - In 1999 North Carolina's various renewable-energy tax credits were revised and unified into a statute that addresses nearly all renewables. The revised statute provides for a tax credit of 35% of the cost of renewable energy property constructed, purchased or leased by a taxpayer and placed into service in North Carolina during the taxable year. Renewable-energy equipment expenditures eligible for the tax credit include the cost of the equipment and associated design; construction costs; and installation costs less any discounts, rebates, advertising, installation-assistance credits, name-referral allowances or other similar reductions. (Tax incentive; Tax credit; Intended audience: Commercial, industrial) Enacted in 1999.

Source: <http://www.ncsc.ncsu.edu>

**Renewable Energy Tax Credit (Personal)** (N.C. Gen. Stat. § 105-129.15 et seq.) - Renewable-energy equipment expenditures eligible for the tax credit include the cost of the equipment and associated design; construction costs; and installation costs less any discounts, rebates, advertising, installation-assistance credits, name-referral allowances or other similar reductions. Under North Carolina's tax code, the allowable

credit may not exceed 50% of a taxpayer's liability for the year, reduced by the sum of all other credits. (Tax incentive; Tax credit; Intended audience: Commercial, residential, multi-family residential) Enacted in 1977.

Source: <http://www.ncsc.ncsu.edu>

## North Dakota

**Renewable Energy Tax Credit (Corporate)** (ND Century Code 57-38-01.8) - North Dakota allows any corporation to claim an income tax credit of 3% per year for five years for the cost of equipment and installation of a system that uses geothermal, solar, biomass ("Biomass energy device" is defined as "a system using agricultural crops, wastes, or residues; wood or wood wastes or residues; animal wastes; landfill gas; or other biological sources to produce fuel or electricity") or wind energy and that is installed after December 31, 2000. If the eligible device is part of a system that uses other energy sources, only the portion of the system that uses geothermal, solar, biomass or wind energy is eligible. If the amount of the credit exceeds a taxpayer's tax liability, the excess credit may be carried over to each of the five succeeding taxable years. (Tax credit; Tax incentive; Intended audience: Commercial, industrial) Enacted in 2001.

Source: <http://www.nd.gov/tax/genpubs/energy.pdf>

**Renewable Energy Tax Credit (Personal)** (ND Century Code 57-38-01.8) - North Dakota allows any individual to claim an income tax credit of 3% per year for five years for the cost of equipment and installation of a system that uses geothermal, solar, biomass ("Biomass energy device" is defined as "a system using agricultural crops, wastes, or residues; wood or wood wastes or residues; animal wastes; landfill gas; or other biological sources to produce fuel or electricity") or wind energy and that is installed after December 31, 2000. If the eligible device is part of a system that uses other energy sources, only the portion of the system that uses geothermal, solar, biomass or wind energy is eligible. If the amount of the credit exceeds a taxpayer's tax liability, the excess credit may be carried over to each of the five succeeding taxable years. (Tax incentive; Tax credit; Intended audience: Residential) Enacted in 2001.

Source: <http://www.nd.gov/tax/genpubs/energy.pdf>

**25 X 25 Initiative** (SB 2081) - Investment Tax Credits with the potential to generate investments in 10 renewable energy projects per year. If five projects with \$10 million in investments qualify annually, \$100 million in projects could be initiated during the biennium. (Tax incentive; Tax credit) Enacted in 2007.

Source: <http://www.governor.nd.gov/media/news-releases/2007/02/070215a.html>

## Ohio

**Energy Conversion Facilities Corporate Tax Exemption** (ORC 5709.20 et seq.) - Ohio exempts certain property from real and personal property taxation, state sale and use taxes, and the state's corporate franchise tax where applicable. The exemption applies to property used in energy conversion, thermal-efficiency improvements and the conversion of solid waste to energy. Eligible technologies include solar-thermal systems, photovoltaic systems, wind, biomass, landfill gas and waste-recovery systems. Upon receipt of certification from the tax commissioner, such property is exempt from Ohio's sales and use tax. (Tax incentive; Tax exemption; Intended audience: Commercial, industrial) Enacted in 1978.

Source: [http://www.odod.state.oh.us/cdd/oeec/c\\_i\\_cfe.htm](http://www.odod.state.oh.us/cdd/oeec/c_i_cfe.htm)

**Energy Conversion Facilities Property Tax Exemption** (ORC 5709.20 et seq.) - Ohio exempts certain property from real and personal property taxation, state sale and use taxes, and the state's corporate franchise tax where applicable. The exemption applies to property used in energy conversion, thermal-efficiency improvements and the conversion of solid waste to energy. Eligible technologies include solar-thermal systems, photovoltaic systems, wind, biomass, landfill gas and waste-recovery systems. Upon receipt of certification from the tax commissioner, such property is exempt from Ohio's sales and use tax. (Tax incentive; Tax exemption; Intended audience: Commercial, industrial) Enacted in 1978.

Source: [http://www.odod.state.oh.us/cdd/oeec/c\\_i\\_cfe.htm](http://www.odod.state.oh.us/cdd/oeec/c_i_cfe.htm)

**Energy Conversion Facilities Sales Tax Exemption** (ORC 5709.20 et seq.) - Ohio exempts certain property from real and personal property taxation, state sale and use taxes, and the state's corporate franchise tax where applicable. The exemption applies to property used in energy conversion, thermal-efficiency improvements and the conversion of solid waste to energy. Eligible technologies include solar-thermal systems, photovoltaic systems, wind, biomass, landfill gas and waste-recovery systems. Upon receipt of certification from the tax commissioner, such property is exempt from Ohio's sales and use tax. (Tax incentive; Tax exemption; Intended audience: Commercial, industrial) Enacted in 1978.

Source: [http://www.odod.state.oh.us/cdd/oeec/c\\_i\\_cfe.htm](http://www.odod.state.oh.us/cdd/oeec/c_i_cfe.htm)

## Oregon

**Renewable Energy Systems Exemption** (ORS § 307.175) - Oregon's property tax exemption is available to commercial, industrial, and residential sectors and states that the added value to any property from the installation of a qualifying renewable energy system will not be included in the assessment of the property's value for property tax purposes. Qualifying renewables include passive solar space heat, solar water heat, solar space heat, solar thermal electric, solar thermal process heat, photovoltaics, landfill gas, wind, biomass, hydroelectric, geothermal electric, fuel cells, geothermal heat pumps, and methane gas systems, for the purpose of heating, cooling or generating electricity. (Tax incentive; Tax exemption; Intended audiences: Commercial, industrial, residential) Enacted in 1976.

Source: <http://egov.oregon.gov/ENERGY/RENEW/Solar/Support.shtml>

**Oregon Renewable Fuels Standards** (HB 2210) - Creates income tax credit for production or collection of biomass used to produce biofuel; creates income tax credit for consumer use of biofuels for transportation or home heating (up to \$200); and modifies energy facility siting requirement exemptions. It also creates a quality assurance program and establishes state production tax credits for woody biomass and other feedstocks. Specifically, a \$10 per green ton state income tax credit for the removal and use of energy from material directly from the woods. (Tax incentive; Tax credit; Intended audiences: Biomass producers and consumers) Enacted in 2007.

Source: <http://landru.leg.state.or.us/07reg/measures/hb2200.dir/hb2210.b.html>

**Tax Credit for Renewable Energy Equipment Manufacturers** (HB 3201) - Companion legislation to HB 2210 – increases the annual cap on the business energy tax credit from 35% to 50%, expands BETC to include facilities that manufacture or distribute alternative fuels, and modifies the period over which credit may be claimed. The tax credit equals 50% of the construction costs of a facility which will manufacture renewable energy systems, and includes the costs of the building, excavation, machinery and equipment which is used primarily to manufacture renewable energy systems. The credit applies to companies that manufacture systems that harness energy from wood waste or other wastes from farm and forest lands, non-petroleum plant or animal based biomass, the sun, wind, water, or geothermal resources. Tax incentive; Tax credit; Intended audiences: Commercial, industrial) Enacted in 2007.

Source: <http://landru.leg.state.or.us/07reg/measures/hb2200.dir/hb2211.b.html>

**Business Energy Tax Credit** (HB 3201) - The Oregon Department of Energy offers a Business Energy Tax Credit Program where a 50 percent tax credit is taken over five years: 10 percent the first and second years, and five percent for each year thereafter. Any unused credit can be carried forward up to eight years. Those with eligible project costs of \$20,000 or less may take the tax credit in one year. Projects that use solar, wind, hydro, geothermal, biomass, or fuel cells (renewable fuels only) to produce energy, displace energy, or reclaim energy from waste may qualify for a tax credit. Renewable resource projects must replace at least 10 percent of the electricity, gas or oil used. The energy can be used on site or sold. (Tax incentive; Tax credit; Intended audiences: Commercial, industrial, construction, multi-family residential, equipment manufacturers) Enacted in 2007.

Source: <http://egov.oregon.gov/ENERGY/CONS/BUS/BETC.shtml>

**Energy Trust – Open Solicitation Program** (Energy Trust of Oregon) - The Energy Trust of Oregon is a nonprofit organization that was created to invest public purpose funding for energy efficiency and renewable energy in Oregon. The Energy Trust created the Open Solicitations program in May 2002 to support renewable energy projects that are not eligible for other Energy Trust renewable energy incentive programs. About \$2 million annually is available to fund projects in the areas of small wind, solar photovoltaics, biomass, biogas, small hydro, and geothermal. Individual projects do not have a funding cap, however the program is expected to fund around four to six projects a year. The program also has resources to share the cost of feasibility studies, and may also be able to assist applicants in applying for other project funding, for instance federal grants or loan guarantees. (Subsidies and Grants; Initiative; Intended audiences: Commercial, industrial, residential, nonprofit, schools, local government, state government, agricultural) Enacted in 2002.

Source: <http://www.energytrust.org/RR/os/index.html>

## Rhode Island

**Property Tax Exemption for Renewable Energy Systems** (R.I.G.L § 44-3-21) - Rhode Island law allows cities and towns to exempt renewable-energy systems from property taxation. Note that a separate statute (R.I. Gen. Laws § 44-57-4) specifies that for purposes of local municipal property tax assessment, certain solar-energy systems may not be assessed at more than the value of a conventional heating system, a conventional hot-water system or energy production capacity that otherwise could be necessary to install in a building. (Tax incentive; Tax exemption; Intended audience: Residential) Enacted in 1980.

Source: <http://www.energy.ri.gov/index.php>

## South Carolina

**Biomass Energy Tax Credit** (S.C. Code § 12-6-3620) - The 2007 amendments provide that, for taxable years beginning after 2007, taxpayers are allowed a credit against the income tax and/or license fees for 25% of the costs incurred by the taxpayer for the purchase and installation of equipment used to create heat, power, steam, electricity or another form of energy for commercial use from a fuel consisting of at least 90% biomass resources. For taxable years beginning after 2007, the tax credit for all expenditures is limited to \$650,000 per taxpayer year, and may not exceed a taxpayer's liability for that year. Unused credits may be carried forward for 15 years. For a fiscal year, all claims may not exceed \$650,000 and must apply proportionately to all eligible claimants. (Tax incentive; Tax credit; Intended audiences: Industrial) Enacted in 2007.

Source: <http://www.scstatehouse.net/CODE/T12C006.HTM>

## South Dakota

**Energy Efficient Government Biomass Study** (U.S. Department of Energy's State Energy Program) - The Energy Efficient Government Buildings Program awarded grants to state institutions for up to 100% of the cost of commissioning, retro-commissioning, a technical energy analysis, or the cost of implementing energy-saving projects that demonstrated a reasonable payback. As part of this project, the Energy Efficient Government Biomass Study provided a grant for a biomass study to determine the feasibility of biomass energy projects at state institutions. It helped state institutions identify cost-effective biomass energy alternatives that could be effectively implemented at their facilities. (Subsidies and Grants; Grant; Intended audience: Government) Enacted in 2006.

Source: [http://www.eere.energy.gov/state\\_energy\\_program/grants\\_by\\_state.cfm/year=2006/state=SD](http://www.eere.energy.gov/state_energy_program/grants_by_state.cfm/year=2006/state=SD)

**Biofuels Economic Development Plan** (Senate Concurrent Resolution 8) - The South Dakota Legislature has resolved to develop a biofuels economy in the state by investing in the development of perennial biomass crops, including switchgrass and other native grasses by supporting long-term research and development of crops and cropping systems; and providing opportunities to purchase biofuels by promoting the development of vehicles that operate on biofuels, expanding the government purchase of biofuels, and offering incentives for fueling stations

offering blends of biofuels such as E85 and B20. (Service Provision; Initiative; Intended audiences: Agricultural, commercial, industrial, personal) Enacted in 2007.

Source: [http://www.eere.energy.gov/afdc/progs/all\\_state\\_summary.php/afdc/0](http://www.eere.energy.gov/afdc/progs/all_state_summary.php/afdc/0)

**Renewable Energy Systems Exemption** (SD Codified Laws 10-6-35.8 et seq.) - This statute exempts from local property taxes renewable energy systems on residential and commercial property. For residential systems, the exemption applies to the entire assessed value of residential systems and can be transferred when the property is sold provided the new owner is the first occupant of the structure. The property tax exemption is adjusted to include any federal renewable energy income tax credit which may be available at the time the owner applies for the exemption. This exemption is not allowed for systems which produce energy for resale. (Tax incentive; Tax credit; Intended audiences: Commercial, industrial, residential, agricultural) Enacted in 1975.

Source: <http://puc.sd.gov/energyefficiency/default.aspx>

## Tennessee

**Renewable Diesel Tax Credit** (Energy Policy Act of 2005 (H.R. 6)) - Amends the biodiesel tax credits to include renewable diesel fuel that is derived from biomass by a thermal depolymerization process. The credit is \$1 per gallon of renewable diesel. To qualify, the fuel must meet ASTM D975 or D396 standards. (Tax incentive; Tax Credit) Enacted in 2005.

Source: [http://www.seco.cpa.state.tx.us/re\\_biodiesel-incentives.htm](http://www.seco.cpa.state.tx.us/re_biodiesel-incentives.htm)

**Renewable Energy Systems Property Tax Exemption** (Texas Statutes § 11.27) - The Texas property tax code allows an exemption of the amount of the appraised property value that arises from the installation or construction of a solar or wind-powered energy device that is primarily for the production and distribution of thermal, mechanical, or electrical energy for on-site use, or devices used to store that energy. "Solar" is broadly defined to include a range of biomass technologies. (Tax incentive, Tax exemption; Intended audience: Commercial, industrial, residential) Enacted in 1981.

Source: [http://www.seco.cpa.state.tx.us/re\\_incentives.htm](http://www.seco.cpa.state.tx.us/re_incentives.htm)

## Utah

**Renewable Energy Systems Tax Credit (Corporate)** (Utah Code 59-7-614) - The individual income tax credit for commercial systems, which is structured as a refundable credit, is 10% of the reasonable installed costs up to \$50,000 for wind, geothermal electric, and biomass systems

with a total capacity of less than 660 kW and for all other eligible renewable energy systems. A business entity that leases a commercial system is eligible for the credit and may use the credit for no more than seven years from the initiation of the lease. Residential: 25%; Commercial wind, geothermal electric, and biomass systems 660 kW or greater: 0.35¢/kWh (\$0.0035/kWh) for 4 years; Other commercial systems: 10%. (Tax incentive; Tax credit; Intended audiences: Commercial, residential, multi-family residential) Enacted in 2001.

Source: <http://geology.utah.gov/sep/incentives/rincentives.htm#retaxcred>

**Renewable Energy Systems Tax Credit (Personal)** (Utah Code 59-10-1014) - Utah's individual income tax credit for renewable energy systems includes provisions for both residential and commercial applications. The Utah State Energy Program administers the tax credit and has responsibility for revising the tax credit rules and certifying systems as eligible for the credit. Residential: \$2,000; Commercial wind, geothermal electric, and biomass systems 660 kW or greater: no limit; Other commercial systems: \$50,000; Residential: excess credit may be carried over for the next four years. (Tax incentive; Tax credit; Intended audiences: Commercial, residential, multi-family residential) Enacted in 2001.

Source: <http://geology.utah.gov/sep/incentives/rincentives.htm#retaxcred>

**Renewable Energy Sales Tax Exemption** (Utah Code 59-12-104) - Utah Code exempts the purchase or lease of equipment used to generate electricity from renewable resources from the state sales tax. Renewable resources include wind generation, solar, biomass, landfill gas, anaerobic digestion, hydroelectricity, and geothermal energy. Eligible facilities must use renewable energy to produce electricity and have a production capacity of 20 kW or greater. A facility that has its generation capacity increased by one or more MW as a result of the machinery or equipment may also be eligible for the exemption. (Tax incentive; Tax credit; Intended audience: Commercial, industrial, utility) Enacted in 2004.

Source: <http://geology.utah.gov/sep/incentives/rincentives.htm#resalesuse>

## Vermont

**Local Option for Property Tax Exemption** (32 V.S.A. § 3845) - Vermont allows municipalities the option of offering exemption from real and personal property taxes for certain renewable energy systems. Eligible systems include, but are not limited to, "windmills, facilities for the collection of solar energy or the conversion of organic matter to methane, net-metered systems ... and all component parts thereof including land upon which the facility is located, not to exceed one-half acre." Adoption of this exemption varies by municipality, but the exemption generally applies to the total value of the qualifying renewable energy system and can be applied to residential, commercial, and industrial real and personal property. (Tax incentive; Tax credit; Intended audiences: Commercial, industrial, residential; agricultural) Enacted in 1975.

Source: <http://www.leg.state.vt.us/statutes/fullsection.cfm?Title=32&Chapter=125&Section=03845>



**Sales Tax Exemption** (32 V.S.A. § 9741(46)) - Vermont's sales tax exemption for renewable-energy systems, originally enacted as part of the Miscellaneous Tax Reduction Act of 1999 (H. 0548), initially applied only to net-metered systems. The exemption now generally applies to systems up to 250 kilowatts (kW) in capacity that generate electricity using eligible "renewable energy" resources (as defined under 30 V.S.A. § 8002), to micro-combined heat and power (CHP) systems up to 20 kW, and to solar water-heating systems. (Tax incentive; Tax credit; Intended audiences: Commercial, residential, general public/consumer, agricultural) Enacted in 1999.

Source: <http://www.leg.state.vt.us/statutes/fullsection.cfm?Title=32&Chapter=233&Section=09741>

## Washington

**Tax on Manufacturers and Processors of Timber Product Activities** (RCW 82.04.260(1)e & (1)f) - Reduced B&O rate provided for manufacture of wood biomass, alcohol or biodiesel fuels, or biodiesel feedstocks. Expires July 1, 2009. (Tax incentive; Tax credit; Intended audience: Manufacturers) Enacted in 2008.

Source: <http://apps.leg.wa.gov/RCW/default.aspx?Cite=82.04.260>

**Exemptions – Property used to Manufacture Alcohol, Biodiesel of Wood Biomass Fuel** (RCW 82.29A.135, 84.36.635, 84.36.640) - Land, buildings and equipment used for anaerobic digestion, manufacturing alcohol, biodiesel and wood biomass fuels, or biodiesel feedstock are exempt from property and leasehold taxes for six years following the date the facility becomes operational. (Tax incentive; Tax credit; Intended audiences: Commercial, industrial, residential) Enacted in 2008.

Source: <http://apps.leg.wa.gov/rcw/default.aspx?cite=82.29A.135>

**Exemptions – Use of Machinery, Equipment, Vehicles, and Services Related to Wood** (RCW 82.08.960, 82.12.960) - Sales of equipment, and related services or components, used for retail sale or use of wood biomass fuel blends containing at least 20% wood biomass fuel are exempt from retail sales tax. Sales of fuel delivery vehicles, and related services or components, are exempt if at least 75% of the fuel is wood biomass fuel blends containing at least 20% wood biomass fuel. (Tax incentive; Tax credit; Intended audiences: Retailers and Distributors) Enacted in 2003.

Source: <http://apps.leg.wa.gov/RCW/default.aspx?cite=82.12.960>

**Business and Occupation Tax** (RCW 82.04.4334, 82.04.4335) - Retailers of biodiesel, E85 and wood biomass fuel eligible for B&O deduction. Biodiesel and E85 deduction expires July 1, 2015. Wood biomass fuel deduction expires July 1, 2009. (Tax incentive; Tax credit; Intended audiences: Retailers and Distributors) Enacted in 2003.

Source: <http://apps.leg.wa.gov/RCW/default.aspx?cite=82.04.4334>

**Biofuels Retail Tax Exemption** (Revised Code of Washington 82.08.955 and 82.12.955) - Fuel delivery vehicles and machinery, equipment, and related services that are used for the retail sale or distribution of a biodiesel blend or E85 motor fuel are exempt from state retail fuel sales and use taxes until July 1, 2015. (Tax incentive; Tax credit; Intended audiences: Retailers and Distributers) Enacted in 2003.

Source: [http://www.eere.energy.gov/afdc/progs/ind\\_state\\_laws.php/WA/ETH](http://www.eere.energy.gov/afdc/progs/ind_state_laws.php/WA/ETH)

**Biofuels Tax Deduction** (Revised Code of Washington 82.04.4334) - A tax deduction is available for the sale or distribution of biodiesel or E85 motor fuel. This deduction is available until July 1, 2015.(Tax incentive; Tax credit; Intended audience: Retailers and Distributers) Enacted in 2003.

Source: [http://www.eere.energy.gov/afdc/progs/ind\\_state\\_laws.php/WA/ETH](http://www.eere.energy.gov/afdc/progs/ind_state_laws.php/WA/ETH)

**Biofuels Production Tax Exemption** (Revised Code of Washington 82.04.260, 82.29A.135, and 84.36.635) - Qualifying buildings, equipment, and land used in the manufacturing of alcohol fuel, biodiesel, or biodiesel feedstocks are exempt from state and local property and leasehold taxes for a period of six years. Additionally, until July 1, 2009, a reduced Business and Occupation tax rate of 0.138% applies to individuals engaged in alcohol fuel, biodiesel fuel, or biodiesel feedstock manufacturing. (Tax incentive; Tax credit; Intended audience: Commercial, industrial, residential) Enacted in 1998.

Source: [http://www.eere.energy.gov/afdc/progs/ind\\_state\\_laws.php/WA/ETH](http://www.eere.energy.gov/afdc/progs/ind_state_laws.php/WA/ETH)

**Sales and Use Tax Exemption** (RCW § 82.08.02567) - In Washington State, tax does not apply to the sales of equipment used to generate electricity from wind, sun, landfill gas, biomass, solar water heating, or fuel cells. The tax exemption applies to labor and services related to the installation of equipment, as well as to sales of equipment and machinery. (Tax incentive; Tax credit; Intended audience: Commercial, residential; general public/consumer) Enacted in 2001.

Source: <http://www.epa.gov/CHP/funding/funding/norwasalesandusetaxexemption.html>

## Wyoming

**Renewable Energy Sales Tax Exemption** (Wyo. Stat. § 39-15-105(a)(viii)(N)) - In 2003, under HB 188, the Wyoming legislature added sales of equipment used to generate electricity from renewable resources to the list of types of sales, purchases and leases which are exempt from the state excise tax. The exemption is limited to the acquisition of equipment used in a project to make it operational up to the point of interconnection with an existing transmission grid. (Tax incentive; Tax credit; Intended audience: Commercial, industrial, utility, projects tied to an existing transmission grid) Enacted in 2003.

Source: [http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive\\_Code=WY04F&state=WY&CurrentPageID=1&RE=1&EE=1](http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive_Code=WY04F&state=WY&CurrentPageID=1&RE=1&EE=1)

## ***Subsidies and Grants***

### **Alabama**

**Biomass Energy Program** (Alabama Department of Economic and Community Affairs) - The Biomass Energy Program assists businesses in installing biomass energy systems. Program participants receive up to \$75,000 in interest subsidy payments to help defray the interest expense on loans to install approved biomass projects. Technical assistance is also available through the program. (Subsidies and Grants; Interest subsidy payments; Target audience: commercial, industrial, schools, local government, school government, agriculture). Enacted in 1986.

Source: <http://www.adeca.state.al.us/C16/Biomass%20Energy%20Program/default.aspx>

### **Alaska**

**Renewable Energy Grant Program** (Alaska Energy Authority; HB 152) - The grant program is intended to provide assistance to utilities, independent power producers, local governments, and tribal governments for feasibility studies, reconnaissance studies, energy resource monitoring, and work related to the design and construction of eligible facilities. In order to be eligible for a grant, projects must be located within Alaska. The enabling legislation states an intention to provide \$50 million in funding annually to the program for five years, but \$100 million was appropriated for the FY 2009 program. The initial allocation plan recommends that 20% of the funding go to reconnaissance, feasibility and resource studies, and the remaining 80% be awarded to final design, permitting and construction projects. (Subsidies and Grants; Grant; Target Audience: Commercial, Local Government, Utility, Tribal, Government) Enacted in 2008.

Source: [http://www.akenergyauthority.org/RE\\_Fund.html](http://www.akenergyauthority.org/RE_Fund.html)

### **California**

**Energy: Renewable Energy Resources** (SB 410) - Incentives for reducing fuel costs that are confirmed to the satisfaction of the commission, at solid fuel biomass energy facilities in order to provide demonstrable environmental and public benefits including improved air quality. "Renewable energy credit" includes all renewable and environmental attributes associated with the production of electricity from the eligible renewable energy resource, except for an emissions reduction credit issue pursuant to Section 40709 of the Health and Safety Code and any credits or payments associated with the reduction of solid waste and treatment benefits created by the utilization of biomass or biogas fuels. (Subsidies and Grants; Cost-share; Target audience: industrial) Enacted in 2007.

Source: [http://www.leginfo.ca.gov/pub/07-08/bill/sen/sb\\_0401-0450/sb\\_410\\_bill\\_20070531\\_amended\\_sen\\_v95.html](http://www.leginfo.ca.gov/pub/07-08/bill/sen/sb_0401-0450/sb_410_bill_20070531_amended_sen_v95.html)

**California Feed-In Tariff** (CA Public Utilities Code § 399.20) - The California feed-in tariff allows eligible customer-generators to enter into 10-, 15-, or 20-year standard contracts with their utilities to sell the electricity produced by small renewable energy systems -- up to 1.5 megawatt (MW) -- at time-differentiated market-based prices. The price paid will be based on the CPUC's market price referent (MPR) table, shown in CPUC Resolution E-4137. Time-of-use adjustments will be applied by each utility and will reflect the increased value of the electricity to the utility during peak periods and its lesser value during off-peak periods. A special, higher-level rate is provided for solar electricity generated between 8 a.m. and 6 p.m. (Subsidies and Grants; Cost-share; Target audience: Commercial, industrial, residential) Enacted in 2008.

Source: <http://www.cpuc.ca.gov/PUC/energy/electric/RenewableEnergy/feedintariffs.htm>

**Public Benefits Funds for Renewables and Efficiency** (AB 995 and SB 1194) - The Existing Renewable Facilities Program provides production incentives, based on kilowatt-hours generated, to support existing renewable energy facilities. All existing Renewable Facilities Program funds are available for eligible existing solid-fuel biomass facilities and solar thermal electric facilities. The Consumer Education Program provides funds to promote renewable energy and help build the market for emerging renewable technologies. Public goods surcharge -- allows utility companies to charge a fee to rate payers in order to support renewable energy production; allows the utility to be competitive with non-renewable energy sources. (Subsidies and Grants; Cost-share; Target audience: Commercial, industrial, residential; general public/consumer; utility; institutional) Enacted in 2000.

Sources: <http://www.cpuc.ca.gov/static/energy/electric/energy+efficiency/index.htm>  
<http://www.energy.ca.gov/renewables>

**Biomass Standard Contract** (Southern California Edison Company) - Southern California Edison Company offers a production incentive to customers who generate electricity with eligible biomass-energy systems, including landfill gas, municipal solid waste, wood and wood waste, fuel cells, digester gas, and sewer gas. The production incentive payment is tied to the Market Price Referent, which increases annually. Participants will receive the rate that is available when their project comes on-line for the duration of their contract period. The Market Price Referent for 2008 varies from \$92.71 per megawatt-hour (MWh) to \$95.72 per MWh, depending on the length of the contract. (Subsidies and grants; Cost-share; Target audiences: Commercial, industrial, agriculture) Enacted in 2007.

Source: <http://www.sce.com/EnergyProcurement/bsc.htm>

**Renewable Energy Credits** (California Public Utilities Commission rulemaking 06-03-004) - Allows Distributed Generation owners to keep or sell the renewable energy credits (RECs) associated with their facilities. At this time in California, the sale of RECs is only allowed in voluntary markets. The CPUC is now reviewing whether unbundled RECs should be allowed for RPS compliance. If the CPUC allows unbundled RECs to be used towards the RPS then DG owners would be able to sell their RECs to utilities. (Subsidies and Grants; Cost-Share; Target audience: Distributed Generation owners) Enacted in 2007.

Source: <http://www.epa.gov/CHP/funding/funding/calcadrenewableenergycreditsr.html>

## Colorado

**Funding for Alternative Fuel Feedstock Production** (HB 1203) - The Colorado General Assembly encourages the Governor's Office of Energy Management and Conservation to set a high priority on funding projects that assess the potential for carbon sequestration and agricultural bioenergy production in the state. Agricultural bioenergy production means the agricultural production of grain or biomass that is used to generate electricity or heat for agricultural, municipal, or industrial use, or that is converted into diesel, ethanol, hydrogen gas, or other fuels for energy production or transportation. (Subsidies and Grants; Cost-share; Target audience: Agriculture) Enacted in 2007.

Source: [http://www.eere.energy.gov/afdc/progs/all\\_state\\_summary.php/afdc/0](http://www.eere.energy.gov/afdc/progs/all_state_summary.php/afdc/0)

## Connecticut

**Operational Demonstration Program** (Conn. Gen. Stat. § 16-245n) - The program supports proposals for demonstration projects that have a high likelihood of developing into a commercial product within a reasonable period of time -- generally, five years for fuel cells and three years for most other clean-energy technologies (including biomass). Projects must have a capacity of at least one kilowatt (kW), or the functional equivalent for hydrogen generation. The maximum amount of funding for each individual award is \$750,000. (Subsidies and Grants; Grant; Target audiences: Commercial) Enacted in 2006.

Source: <http://www.ctcleanenergy.com/default.aspx?tabid=98>

**New Energy Technology Program** (Connecticut Office of Policy and Management) - Connecticut's New Energy Technology program aims to develop innovative energy-efficient technologies (including biomass) and renewable-energy technologies in order to save energy, improve air quality and generate employment opportunities in Connecticut. Individual awards up to \$10,000. (Subsidies and Grants; Grant; Target audiences: Any Connecticut resident or any company located in Connecticut that has 30 or fewer employees) Enacted in 2007.

Source: <http://www.opm.state.ct.us/pdpd2/grants/net.htm>

**On-Site Renewable DG Program** (Connecticut Clean Energy Fund) - Connecticut's On-Site Renewable Distributed Generation (DG) Program provides grants to support the installation of systems that generate electricity at commercial, industrial and institutional buildings. The total funding allocated for all selected projects under the On-Site Renewable DG Program is \$66.24 million through 2010. All projects must have a minimum system capacity of 10 kilowatts (kW). (Subsidies and Grants; Grant; Target audiences: Commercial, Industrial, Schools, Local government. State government, Institutional) Enacted in 2005.

Source: <http://www.ctcleanenergy.com/default.aspx?tabid=95>

## Delaware

**Research and Development Grants** (29 Del. C. § 8051 et seq.) - The Delaware Department of Natural Resources and Environmental Control will accept proposals for program grants for qualifying projects that improve the engineering, adaptation or development of products or processes that directly relate to renewable energy technology. The Research and Development Program offers grants up to 35% of the cost of qualifying projects and shall not exceed \$250,000 per project. (Subsidies and Grants; Grant; Intended audience: Commercial, Institutional) Enacted in 1999.

Source: [http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive\\_Code=DE04F&state=DE&CurrentPageID=1&RE=1&EE=1](http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive_Code=DE04F&state=DE&CurrentPageID=1&RE=1&EE=1)

**Green Energy Fund** (26 Del. C. § 1014) - Provides cash grants from the Green Energy Fund for renewable energy technology installation. Funds may also support energy efficiency education programs. Funds for the public benefit programs are collected from Delmarva Power and Light customers (the state's only investor-owned utility). (Subsidies and Grants; Grant; Intended audience: Commercial, industrial, residential, general public/consumer, utility, institutional) Enacted in 1999.

Source: [http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive\\_Code=DE01R&state=DE&CurrentPageID=1&RE=1&EE=1](http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive_Code=DE01R&state=DE&CurrentPageID=1&RE=1&EE=1)

## Florida

**Florida Farm to Fuel Grants Program** (Fla. Stat. § 570.957)- In 2007, the Florida Legislature established the Farm to Fuel Grants Program to provide matching grants for demonstration, commercialization, research and development projects relating to bioenergy. As part of this program, the Legislature appropriated \$25 million in matching grants. The Program intends to stimulate investment in energy projects that produce bioenergy from Florida-grown crops or biomass. (Subsidies and Grants; Grant; Intended audience: Commercial, nonprofit, schools, local government, utility) Enacted in 2007.

Source: <http://www.floridafarmtofuel.com/grant.htm>

**Renewable Energy Technologies Grant Program** (Fla. Stat. § 377.804) - The Renewable Energy Technologies Grants Program was established in June 2006 (SB 888) to provide renewable energy matching grants for demonstration, commercialization, research, and development projects relating to renewable energy technologies.(Subsidies and Grants; Grant; Intended audience: Commercial, nonprofit, schools, local government, utility) Enacted in 2006.

Source: <http://www.dep.state.fl.us/energy/energyact/grants.htm>

## Hawaii

**Renewables and Efficiency in State Facilities and Operations** (HRS §196) - Section 2 of this Act details requirements for renewable energy and energy efficiency in Hawaii's public schools. An amount of \$5,000,000 was appropriated to develop a photovoltaic, net metered pilot project in the schools for the 2006-2007 fiscal year. In order to reduce project costs, installation of photovoltaic systems must be timed to occur in conjunction with major roof repairs or replacements in the school buildings, and all systems must use net metering. Projects must recapture the system costs within three quarters of the useful life of the system. HRS §196-9 aims to promote energy efficiency and environmental standards for state facilities, motor vehicles, and transportation fuels. (Subsidies and Grants; Standard; Intended audiences: Schools, state government) Enacted in 2006.

Source: <http://www.hawaii.gov/dbedt/info/energy/efficiency/state/>

## Idaho

**Renewable Energy Grant** (Bonneville Environmental Foundation) - Using revenues generated from the sales of Green Tags, Bonneville Environmental Foundation, a not-for-profit organization, accepts proposals for funding for renewable energy projects located in the Pacific Northwest. Any private person, organization, local or tribal government located in the Pacific Northwest may participate. Projects that generate electricity are preferred. Acceptable projects include solar photovoltaics, solar thermal electric, wind, hydro, biomass and animal waste-to-energy. If a BEF grant is requested for a generating project, the BEF share will not exceed 33% of total capital costs and 0% of operating costs. (Subsidies and Grants; Grant; Intended audiences: Nonprofit, local government; tribal government) Enacted in 2005.

Source: <http://www.b-e-f.org/grants/index.shtm>

**Biofuels Infrastructure Grant** (HB 150) - The purpose of this legislation is to provide grants for up to 50% of the cost of the project for Idaho retail fuel dealers who choose to invest in qualified fueling infrastructure projects dedicated to providing biofuels to their customers. Funds can be used for installing new fueling infrastructure dedicated to offering biofuels for retail sale, or for upgrading existing fueling infrastructure that is documented as being incompatible with biofuels, including cleaning existing storage tanks. (Subsidies and Grants; Grant; Intended audience: Commercial, industrial) Enacted in 2007.

Source: [http://www.energy.idaho.gov/about/Biofuels\\_BIG\\_program.pdf](http://www.energy.idaho.gov/about/Biofuels_BIG_program.pdf)

## Illinois

**Biogas and Biomass to Energy Grant Program** (20 ILCS 687/6-3) - The focus of the Biogas and Biomass to Energy Grant Program, through the RERP, is to demonstrate the use of biogas and biomass for on-site energy generation at facilities in Illinois. The biogas and biomass grant



program will provide a 50% cost-share for energy feasibility studies or for the installation of equipment for these purposes. (Subsidies and Grants; Cost-Share; Intended audiences: all) Enacted in 1997.

Source: [http://www.commerce.state.il.us/dceo/Bureaus/Energy\\_Recycling/Energy/Clean+Energy/01-Biogas+and+Biomass.htm](http://www.commerce.state.il.us/dceo/Bureaus/Energy_Recycling/Energy/Clean+Energy/01-Biogas+and+Biomass.htm)

**Illinois Clean Energy Community Foundation Grants** (§ 220 ILCS 5/16-111.1) - The ICECF provides grants, on a competitive basis, to programs and projects that improve energy efficiency, develop renewable-energy resources, and preserve and enhance natural areas and wildlife habitats in Illinois. Grants support wind, solar (both solar thermal and solar electric applications), biomass, fuel cells and other forms of distributed generation. Award amounts will be considered on a case-by-case basis, taking into account cost-effectiveness of the project, project innovation, simple project payback, other sources of funding and owner contribution. (Subsidies and Grants; Grant; Intended audiences: Nonprofit, schools, local government) Enacted in 1999.

Source: <http://www.illinoiscleanenergy.org/grants.asp>

## Iowa

**Grants for Energy Efficiency and Renewable Energy Research** (Iowa Code § 266.39C) - Research grants are awarded in two broad categories: renewable energy and energy efficiency. Past grants have supported research in biofuels, wind-resource assessment, photovoltaic (PV) research, biomass gasification, energy-efficient livestock-confinement ventilation, process-manufacturing efficiency, and commercial building HVAC control. (Subsidies and Grants; Grant; Intended audience: Commercial, industrial, transportation, agricultural) Enacted in 1990.

Source: <http://www.energy.iastate.edu/Funding/GrantProgram.htm>

## Massachusetts

**Clean Energy Pre-Development Financing Initiative** (Massachusetts Technology Collaborative) - The Clean Energy Pre-Development Financing Initiative offers grants and loans to support the development of grid-connected renewable energy systems in New England. Eligible technologies or resources include wind energy; naturally flowing water and hydroelectric power; landfill gas; anaerobic digestion; and low-emission, advanced power-conversion technologies using “eligible biomass fuel,” as provided for in 225 CMR 14.05(1)(a)6. Biomass and wind-energy projects must have a minimum capacity of three megawatts (MW), and hydroelectric, landfill gas and digester gas projects must have a minimum capacity of 250 kilowatts (kW). Projects must be designed to lead to the development of new renewable grid-connected generating capacity for the wholesale electricity market. Therefore, more than 50% of the renewable energy produced must be provided to the wholesale market. (Subsidies and Grants; Grant; Intended audiences: Local government, state government, federal government) Enacted in 2005.

Source: [http://www.masstech.org/grants\\_and\\_awards/CE/predev\\_overview.htm](http://www.masstech.org/grants_and_awards/CE/predev_overview.htm)

**Large Onsite Renewables Initiative** (Massachusetts Renewable Energy Trust Fund) - Program funds support grid-tied renewable-energy projects (excluding PV) greater than 10 kilowatts (kW) in capacity that are located at commercial, industrial, institutional and public facilities that will consume more than 25% of the renewable energy generated by the project on-site. The applicant and project site must be a customer of a Massachusetts investor-owned electric distribution utility or a municipal utility that pays into the Renewable Energy Trust. Grant awards may be used to facilitate the installation of renewable-energy projects on existing buildings (retrofits) or in conjunction with new construction/major renovation projects, including green buildings. (Subsidies and Grants; Grants; Intended audiences: Commercial, industrial, schools, local government, state government, federal government, multi-family residential, institutional) Enacted in 2006.

Source: [http://www.masstech.org/renewableenergy/large\\_renewables.htm](http://www.masstech.org/renewableenergy/large_renewables.htm)

**Clean Energy Pre-Development Financing Initiative** (Renewable Energy Trust Fund) - Provides financial assistance to support renewable-energy companies in the early stage of development. Applicants are companies that generally have a unique technology but have not yet demonstrated commercial viability to an extent sufficient to attract venture capital. Awards of up to \$500,000 are available as a grant. (Subsidies and Grants; Grant; Intended audiences: Commercial, industrial, nonprofit, local government, state government, federal government) Enacted in 2005.

Source: [http://www.masstech.org/grants\\_and\\_awards/CE/predev\\_overview.htm](http://www.masstech.org/grants_and_awards/CE/predev_overview.htm)

**Renewable Energy Trust Fund** (M.G.L. ch. 40J, § 4E [amended by S.B. 2768]) - The renewable energy fund, known as the Massachusetts Renewable Energy Trust (MRET), is supported by a non-bypassable surcharge of surcharge of \$0.0005 per kilowatt-hour (0.5 mill/kWh), imposed on customers of all investor-owned electric utilities and competitive municipal utilities in Massachusetts. The RET may provide grants, contracts, loans, equity investments, energy production credits, bill credits and rebates to customers. (Subsidies and Grants; Initiative; Intended audiences: Commercial, industrial, residential, general public/consumer nonprofit, schools, utility, agricultural, institutional) Enacted in 1997.

Source: <http://www.mtpc.org/RenewableEnergy/index.htm>

## Michigan

**Biomass Energy Program Grants** (U.S. Department of Energy's State Energy Program) - The Michigan Biomass Energy Program (MBEP) provides funding for state bioenergy and biofuels projects on a regular basis. Funding categories typically include biofuels and bioenergy education, biofuels infrastructure, and biomass technology development and demonstrations. Grant award amounts vary. It also educated potential suppliers of proven technology and feedstocks about the market opportunities and barriers for developing energy resources in Michigan. (Subsidies and Grants; Grant; Intended audiences: Nonprofit, schools, local government, state government) Enacted in 2008.

Source: <http://www.michigan.gov/biomass>

**Low-Income and Energy Efficiency Fund** (MCL § 460.10d) - The purpose of the LIEEF is to provide energy assistance for low-income customers, to provide conservation and efficiency measures to reduce energy use and energy bills of low-income customers, and to promote energy efficiency among all customer classes. The PSC decided that 75% of monies awarded will support grants for energy-efficiency projects and energy assistance for low-income residents, and the remaining 25% will support grants for energy-efficiency projects to benefit all customer classes. Renewable-energy projects -- including wind turbines, photovoltaic (PV) systems, anaerobic digesters and other biomass projects -- have received funding from the LIEEF. (Subsidies and Grants; Grant; Intended audience: Commercial, industrial, residential, nonprofit, schools, local government, state government, agricultural, institutional) Enacted in 2000.

Source: [http://www.michigan.gov/mpsc/0,1607,7-159-16370\\_27289---,00.html](http://www.michigan.gov/mpsc/0,1607,7-159-16370_27289---,00.html)

## Minnesota

**Minnesota Power Grant Program** (Minnesota Power Grant Program) - Minnesota Power Grant Program offers grants of up to \$50,000 to its commercial, industrial, and agricultural customers who use innovative technologies, improve manufacturing processes, undertake renewable electric energy projects or who need project design assistance. Eligible projects include renewable energy products, new electro-technologies that lower energy costs per unit of production in a manufacturing process, innovative technologies that are new and underutilized in the regional marketplace, and the inclusion of energy-efficient options in the design phase of a project.

0 to 100 kW \$10,000;

101 to 300 kW \$25,000;

Over 300 kW \$50,000.

(Subsidies and Grants; Grant; Intended audiences: Commercial, industrial, agricultural)

Source: <http://www.mnpower.com/powergrant/grants.htm>

**Xcel Energy – Renewable Development Fund Grants** (Minn. Stat. § 116C.779) - Renewable-energy technologies eligible for funding typically include wind, biomass, solar, hydroelectric generators and fuel cells. Funding is generally split between new development projects that result in the production of renewable energy, and research and development. Amount varies by RFP details;

--Individual projects in the Energy Production category: \$2 million (2007 solicitation);

--Individual projects in the R&D category: \$1 million (2007 solicitation)

(Subsidies and Grants; Grant; Intended audiences: Commercial, Industrial, Residential, Nonprofit, Schools, Local Government, Utility, State Government, Tribal Government, Fed. Government, Agricultural, Institutional) Enacted in 1999.

Source: [http://www.xcelenergy.com/XLWEB/CDA/0,3080,1-1-1\\_27620\\_37621-801-2\\_171\\_256-0,00.html](http://www.xcelenergy.com/XLWEB/CDA/0,3080,1-1-1_27620_37621-801-2_171_256-0,00.html)

## Montana

**Mandatory Utility Green Power Option** (MCA § 69-8-210) - In Montana, regulated electric utilities are required to offer customers the option of purchasing electricity generated by certified, environmentally-preferred resources that include, but are not limited to, wind, solar, geothermal and biomass. NorthWestern Energy implemented a green-power program ("E+ Green") in June 2003. (Subsidies and Grants; Cost-Share; Intended audiences: NorthWestern Energy Purchasers) Enacted in 2003.

Source: [http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive\\_Code=MT04R&state=MT&CurrentPageID=1&RE=1&EE=1](http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive_Code=MT04R&state=MT&CurrentPageID=1&RE=1&EE=1)

**Renewable Energy Grant** (Bonneville Environmental Foundation) - Using revenues generated from the sales of Green Tags, Bonneville Environmental Foundation (BEF), a not-for-profit organization, accepts proposals for funding for renewable energy projects located in the Pacific Northwest. Projects that generate electricity are preferred. Acceptable projects include solar photovoltaics, solar thermal electric, wind, hydro, biomass and animal waste-to-energy. If a BEF grant is requested for a generating project, the BEF share will not exceed 33% of total capital costs and 0% of operating costs. (Subsidies and Grants; Grant; Intended audience: Nonprofit, local government, tribal government) Enacted in 2000.

Source: <http://www.b-e-f.org/grants/index.shtm>

## New Hampshire

**Renewable Energy Generation Incentive Program** (HB 1628) - The public utilities commission shall make and administer a one-time incentive payment of \$3 per watt of nominal generation capacity up to a maximum payment of \$6,000, or 50 percent of system costs, whichever is less, per facility to any residential owner of a small renewable generation facility, that would qualify as a Class I or Class II source of electricity, has a total peak generation capacity of less than 5 kilowatts, begins operation on or after July 1, 2008, and is located on or at the owner's residence. (Subsidies and Grants; Cost-Share; Intended audience: Owners of small renewable generation facilities) Enacted in 2008.

Source: <http://www.nh.gov/oep/programs/energy/RenewableEnergyIncentives.htm>

**New Hampshire Bio-Oil Feasibility Study** (U.S. Department of Energy's State Energy Program) - Forestry operations and forest-based industries comprise the third largest sector of New Hampshire's economy, employing over 11, 500 people and generating \$3.9 billion in goods and services. Research has shown that a market for low-grade wood is essential to the economics of sustainable forest management. The production of bio-oil by wood pyrolysis may revitalize the low-grade wood market. Bio-oil offers a low NO<sub>x</sub> and SO<sub>x</sub>, carbon-neutral, energy source that can contribute to energy security through, fuel diversity, distributed generation and indigenous origin. (Subsidies and Grants; Feasibility Study) Enacted in 2002.

Source: [http://www.eere.energy.gov/state\\_energy\\_program/project\\_detail.cfm/sp\\_id=246](http://www.eere.energy.gov/state_energy_program/project_detail.cfm/sp_id=246)

## New York

**High-Efficiency Biomass Heating Technologies** (NYSERDA) - Nine projects valued at more than \$2.5 million will compare energy and emissions performance for wood-burning equipment, including residential and commercial wood boilers, pellet stoves, wood stoves, and emerging grass-pellet technologies. NYSERDA's program will perform a comprehensive scientific evaluation of several different advanced and conventional biomass technologies to characterize emissions and energy efficiency in specialized combustion laboratories. The technologies to be evaluated include both residential- and commercial-scale boilers with various fuel types under different operating conditions. (Subsidies and Grants; Grant) Enacted in 2008.

Source: [http://www.nyserda.org/Press\\_Releases/2008/PressRelease20083009.asp](http://www.nyserda.org/Press_Releases/2008/PressRelease20083009.asp)

## North Carolina

**Local Option Green Building Initiative** (N.C. Gen. Stat. § 153A-340; SB 1597) - To encourage sustainable building practices, North Carolina law allows all counties and cities to provide reductions or partial rebates for building permit fees. To qualify for a fee reduction, buildings must meet guidelines established by the Leadership in Energy and Environmental Design (LEED) program, the Green Globes program, or another nationally recognized certification program. (Subsidies and Grants; Cost-Share; Intended audiences: Commercial, residential) Enacted in 2007.

Source: [http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive\\_Code=NC48F&state=NC&CurrentPageID=1&RE=1&EE=1](http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive_Code=NC48F&state=NC&CurrentPageID=1&RE=1&EE=1)

**Biomass Market Development for North Carolina** (Southeastern Regional Biomass Energy Program) - The State Energy Office (SEO) will facilitate permanent establishment of the North Carolina Biomass Council (NCBC) through a subcontract with the North Carolina Solar Center (NCSC). The Council will provide consultation to the North Carolina Energy Policy Council, the SEO, and the North Carolina General Assembly on implementation of bioenergy studies and demonstration projects through the establishment of a biomass deployment roadmap for North Carolina. A biomass waste exchange website will be created, launched, and marketed, dedicated to listing and trading biomass wastes and other biomass products. This resource will be used by businesses—particularly in the agri-business sector—to access value added opportunities. Amount: SERBP \$48,000; cost share \$10,000. (Subsidies and Grants; Cost-Share) Enacted in 2005.

Source: <http://www.serbep.org/>

**North Carolina Green Business Fund** (HB 1473) - The North Carolina Green Business Fund provides funding to North Carolina organizations to encourage the development and commercialization of "promising" renewable energy and green building technologies. Grants of up to \$100,000 are available for the development of commercial innovations and applications in the biofuels industry, sustainable building practices and private sector investment in renewable energy technologies. (Subsidies and Grants; Grant; Intended audience: Commercial, Nonprofit, Local Government, State Government, Agricultural, Institutional) Enacted in 2007.

Source: <http://www.ncscienceandtechnology.com>

**NC GreenPower Production Incentive** (NCUC Order, Docket No. E-100, Sub 90) - NC GreenPower, a statewide green-power program designed to encourage the use of renewable energy in North Carolina, offers production payments for grid-tied electricity generated by solar, wind, small hydro (10 megawatts or less) and biomass resources. NC GreenPower is an independent, nonprofit organization created by state-government officials, electric utilities, nonprofit organizations, consumers, renewable-energy advocates and other stakeholders. (Subsidies and Grants; Incentives; Intended audience: Commercial, Industrial, Residential, Nonprofit, Schools, Local Government, State Government, Agricultural, Institutional) Enacted in 2003.

Source: <http://www.ncgreenpower.org>

## North Dakota

**Feasibility Study of a Biomass Supply for the Spiritwood Industrial Park** (R-001-003) - Program Funding: \$109,000; Total Project Costs: \$474,000; The objective is to perform a detailed technical evaluation of the prospects for integrating a biomass supply into Spiritwood Station. Great River Energy proposes to co-fire up to 10 percent biomass in Spiritwood Station, Jamestown, ND. (Subsidies and Grants; Grant) Enacted in 2008.

Source: <http://www.nd.gov/ndic/renew-project.htm>

## Ohio

**Advanced Energy Program Grants – Distributed Energy and Renewable Energy** (ORC § 4928.61 et seq. [Ohio Advanced Energy Fund]) - The Ohio Department of Development's (ODOD) Office of Energy Efficiency (OEE) is offering grants on a first-come, first-served basis for the installation of new distributed energy resources (DER) projects and non-residential renewable-energy projects. Distributed energy resources (DER) projects, defined in the current solicitation as modular technologies that generate and deliver electricity to customers at or near the point of use. Eligible applications include industrial heat recovery and combined heat and power (CHP), microturbines, and clean-burning reciprocating engines. The maximum grant award is \$100,000 or 25% of the project's cost, whichever is less. (Subsidies and Grants; Grant; Intended audience: Commercial, Industrial, Nonprofit, Schools, Local Government, State Government, Agricultural, Institutional)

Source: <http://www.odod.state.oh.us/cdd/oeefgrant.htm>

**Advanced Energy Fund** (ORC 4928.61 et seq.) - The Fund supports the Advanced Energy Program, which at different times has provided grants for renewable energy and energy efficiency projects to different economic sectors. Grant funds are awarded through periodic Notices of Funding Availability (NOFAs) which may each focus on specific technologies or economic sectors. The Fund is administered by the Ohio Department of Development's Office of Energy Efficiency (OEE) and replenished through a uniform fee on the electric bills of customers of the state's four investor-owned utilities. The fee amount is determined by dividing an aggregate revenue target for a given year -- as determined by the Ohio Department of Development (ODOD) -- by the number of customers of electric distribution utilities in Ohio during the previous year.

(Subsidies and Grants; Grant; Intended audience: Commercial, Industrial, Residential, General Public/Consumer, Utility, Institutional) Enacted in 1999.

Source: <http://www.odod.state.oh.us/cdd/oe/elfgrant.htm>

## Oregon

**Mandatory Utility Green Power Option** (SB 838) - Requires all electric utilities to offer customers an optional green-power program. A "significant portion" of the electricity sold by a utility as green power must be generated using qualifying renewables, including wind energy, solar-thermal energy, solar-electric energy, ocean energy, geothermal energy, hydropower and/or certain forms of biomass energy. Each utility must inform customers of the sources of the electricity included in its green-power program. (Subsidies and Grants; Cost-Share; Intended audiences: Utility) Enacted in 2007.

Source: [http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive\\_Code=OR24R&state=OR&CurrentPageID=1&RE=1&EE=1](http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive_Code=OR24R&state=OR&CurrentPageID=1&RE=1&EE=1)

**Renewable Energy Grant** (Bonneville Environmental Foundation) - Using revenues generated from the sales of Green Tags, Bonneville Environmental Foundation accepts proposals for funding for renewable energy projects located in the Pacific Northwest. Projects that generate electricity are preferred. Acceptable projects include solar photovoltaics, solar thermal electric, wind, hydro, biomass and animal waste-to-energy. If a BEF grant is requested for a generating project, the BEF share will not exceed 33% of total capital costs and 0% of operating costs. (Subsidies and Grants; Grant; Intended audience: Nonprofit, local government, tribal government) Enacted in 2000.

Source: <http://www.b-e-f.org/grants/index.shtm>

## Pennsylvania

**Pennsylvania Energy Development Authority – Grants** (71 P.S. § 720.1, et seq.) - The Pennsylvania Energy Development Authority (PEDA) issues periodic funding solicitations to provide support for innovative, advanced energy projects, and for businesses interested in locating or expanding their alternative-energy manufacturing or production operations in Pennsylvania. PEDA's most recent grant solicitation, issued in April 2008, offered \$11 million in total funding to support in-state projects, manufacturing or research of renewable energies. (Subsidies and Grants; Grant; Intended audience: Commercial, industrial, nonprofit, schools, local government, agricultural) Enacted in 1982.

Source: <http://www.depweb.state.pa.us/enintech/cwp/view.asp?a=1415&q=504241>

**Pennsylvania Energy Harvest Grant Program** (Pennsylvania Department of Environmental Protection) - The initiative finances the implementation of clean and renewable-energy technologies that have measurable benefits in terms of pollution reduction, environmental quality and reduced energy use. Pennsylvania Energy Harvest grants are intended to address the dual concerns of energy and environmental



quality. As such, proposals must simultaneously reduce or supplement the use of conventional energy sources and lead to improvements in water or air quality. (Subsidies and Grants; Grant; Intended audience: Nonprofit, Schools, Local Government, Institutional) Enacted in 2003.

Source: <http://www.depweb.state.pa.us/energy/cwp/view.asp?a=1374&q=483024>

## South Carolina

**Biomass Energy Production Incentive** (HB 3649) - In 2007 South Carolina enacted the Energy Freedom and Rural Development Act, which provides production incentives for certain biomass-energy facilities. Eligible systems earn \$.01 per kilowatt-hour (kWh) for electricity generated and \$.30 per therm (100,000 Btu) for energy produced from biomass resources. The incentive payment for the production of electricity or thermal energy may not be claimed for both electricity and energy produced from the same biomass resource. (Subsidies and Grants; Cost-Share; Intended audiences: Commercial, industrial, agricultural) Enacted in 2007.

Source: [http://www.scstatehouse.net/sess117\\_2007-2008/bills/3649.htm](http://www.scstatehouse.net/sess117_2007-2008/bills/3649.htm)

**Renewable Energy Grant Program** (S.C. Code § 46-3-260) - The South Carolina Renewable Energy Grant Program provides grants to private and public entities located in South Carolina to assist those involved in renewable energy-related research and projects to become more competitive in obtaining federal and other grants. Matching grants up to \$200,000 are available for demonstration projects that validate the effectiveness of new and future biomass technologies and products, provided that the grant does not exceed 50% of the total cost of the demonstration project. (Subsidies and Grants; Grant; Intended audience: Commercial, industrial, nonprofit, schools, local government, state government, tribal government, agricultural, institutional) Enacted in 2007.

Source: <http://www.energy.sc.gov/index.aspx?m=29&t=90&h=405>

## South Dakota

**Energy Efficient Government Biomass Study** (U.S. Department of Energy's State Energy Program) - The Energy Efficient Government Buildings Program awarded grants to state institutions for up to 100% of the cost of commissioning, retro-commissioning, a technical energy analysis, or the cost of implementing energy-saving projects that demonstrated a reasonable payback. As part of this project, the Energy Efficient Government Biomass Study provided a grant for a biomass study to determine the feasibility of biomass energy projects at state institutions. It helped state institutions identify cost-effective biomass energy alternatives that could be effectively implemented at their facilities. (Subsidies and Grants; Grant; Intended audience: Government) Enacted in 2006.

Source: [http://www.eere.energy.gov/state\\_energy\\_program/grants\\_by\\_state.cfm/year=2006/state=SD](http://www.eere.energy.gov/state_energy_program/grants_by_state.cfm/year=2006/state=SD)

## Vermont

**Biomass Electricity Production Incentive** (Vermont Public Service Board Order, Docket No. 6933 & 30 V.S.A. § 8003) - Central Vermont Public Service Corporation (CVPS), Vermont's largest electric utility, offers a production incentive to farmers who own systems utilizing anaerobic digestion of agricultural products, byproducts or wastes to generate electricity. CVPS purchases electricity and renewable energy credits at 95% of the Locational Marginal Price of generation published by ISO New England (roughly avoided cost), plus an additional \$0.04 per kWh. CVPS sells the renewable energy credits generated under this arrangement as part of CVPS Cow Power, the utility's green power program. This program offers customers the opportunity to purchase renewable energy for \$0.04 per kWh above the retail cost of electricity. (Subsidies and Grants; Cost-Share; Intended audience: Agricultural) Enacted in 2004.

Source: <http://www.cvps.com/cowpower>

**Clean Energy Development Fund Grant Program** (10 V.S.A. § 6523) - The Clean Energy Development Fund (CEDF) Grant Program seeks to promote the development and deployment of cost-effective and environmentally sustainable electric power resources — primarily renewable energy resources and combined heat and power (CHP) systems -- for the long-term benefit of Vermont electric customers. (Subsidies and Grants; Grant; Intended audiences: Vermont Electric Customers) Enacted in 2005.

Source: [http://publicservice.vermont.gov/energy/ee\\_cleanenergyfund.html](http://publicservice.vermont.gov/energy/ee_cleanenergyfund.html)

## Washington

**Sustainable Natural Alternative Power Program** (Chelan County Public Utility District) - Created in October 2004 and modeled after the successful Chelan County Public Utility District program in Washington, Okanogan County PUD's SNAP with net metering program encourages members to install renewable energy generators and connect them to their utility's electrical distribution system by offering an incentive payment based on the system's production on a \$/kWh basis. The amount paid by the utility to its renewable energy producers depends on the total amount contributed by OKPUD purchasers through their green pricing program (maximum payment is \$1.00/kWh). The production payment is in addition to any net metering credit the producer may receive from the utility. (Subsidies and Grants; Cost-Share; Intended audiences: Commercial, Industrial, Residential, Schools, Local Government, State Government, Agricultural, All Okanogan County PUD customers) Enacted in 2004.

Source: <http://www.okanoganpud.org/consSNAP.htm>

**Renewable Energy Grant** (Bonneville Environmental Foundation) - Using revenues generated from the sales of Green Tags, Bonneville Environmental Foundation (BEF), a not-for-profit organization, accepts proposals for funding for renewable energy projects located in the Pacific Northwest. Projects that generate electricity are preferred. Acceptable projects include solar photovoltaics, solar thermal electric, wind, hydro, biomass and animal waste-to-energy. If a BEF grant is requested for a generating project, the BEF share will not exceed 33% of total

capital costs and 0% of operating costs. (Subsidies and Grants; Grant; Intended audiences: Nonprofit, local government, tribal government) Enacted in 2000.

Source: <http://www.b-e-f.org/grants/index.shtm>

## Wisconsin

**Focus on Energy – Renewable Energy Cash-Back Rewards** (Wisconsin Focus on Energy) - Focus on Energy offers Cash-Back Rewards for installing or expanding renewable-energy systems on businesses and homes. Payments are based on the estimated amount of electricity or thermal energy produced annually by an eligible system. Eligible non-residential projects include wind, photovoltaics (PV), solar hot water, and biomass combustion. Wind: 20 kW maximum; PV: 0.5 kW - 20 kW; Solar hot water and biomass combustion: 5,000 therms/year maximum. (Subsidies and Grants; Cost-Share; Intended audiences: Commercial, Industrial, Residential, Nonprofit, Schools, Local Government, Tribal Government, Federal Government) Enacted in 2007.

Source: <http://www.focusonenergy.com/Incentives/Renewable>

**Energy Independence Fund Grant and Loan Program** (Wisconsin Energy Independence Fund) - Grants: 50% cost-share required; Loans: 4% interest rate for up to 15 years, maximum of 25% of project cost. The Wisconsin Energy Independence Fund is a 10-year, \$150 million initiative designed to support the development and commercialization of clean energy technologies in Wisconsin through grants and loans to businesses and researchers. (Subsidies and Grants; Grant; Intended audiences: Commercial, industrial, institutional) Enacted in 2006.

Source: <http://commerce.wi.gov/BD/BD-WEIF.html>

**Focus on Energy – Renewable Energy Grant Programs** (Wisconsin Focus on Energy) - Wisconsin Focus on Energy offers several grant programs to support the development of renewable energy. Grant recipients and projects must be located in a participating utility's service territory. The following types of grants are currently available: Business & Marketing Grants, Feasibility Studies, Implementation Grants. (Subsidies and Grants; Grant; Intended audiences: Industrial, Residential, Nonprofit, Local Government, Tribal Government, Federal Government, Institutional) Enacted in 2007.

Source: <http://www.focusonenergy.com/Incentives/Renewable/>

**Direct Financial Incentives for Not-for-Profits** (We Energies)- We Energies, a Wisconsin-based investor-owned utility, offers certain customers grants ranging from \$10,000 to \$100,000 to support the installation of renewable energy projects. An award will cover up to 50% of a project's total installed cost, less any federal or state government incentive or credit, and less any funding from Wisconsin Focus on Energy. (Subsidies and Grants; Grant; Intended audience: Nonprofit, Schools, Local Government, State Government, Tribal Government) Enacted in 2008.

Source: [http://www.we-energies.com/business\\_new/altenergy/dirfinance\\_incent.htm](http://www.we-energies.com/business_new/altenergy/dirfinance_incent.htm)

**GLBSRP Grants** (Council of Great Lakes Governors) - A grant is awarded annually to each GLBSRP State to retain a project leader knowledgeable about biomass energy on the staff of each State energy office. State offices perform resource assessment, demonstration projects and provide technical assistance. (Subsidies and Grants; Grant; Intended audience: Illinois, Indiana, Iowa, Michigan, Minnesota, Ohio, and Wisconsin Governors)

Source: <http://www.cglg.org/biomass/index.asp>

## **Rules and Regulations**

### **Arizona**

**Renewable Portfolio Standard** (ACC Decision No. 69127 (AAC R14-2-1801 et seq.)) – The state’s Renewable Energy Standard has been expanded to 15% by 2025, with 30% of the renewable energy to be derived from distributed energy technologies (~2,000 megawatts). Utilities subject to the RES must obtain renewable energy credits (equal to one kilowatt-hour) from eligible renewable resources to meet 15% of their retail electric load by 2025 and thereafter. Of this percentage, 30% (i.e. 4.5% of total retail sales) must come from distributed renewable resources by 2012 and thereafter. One-half of the distributed renewable energy requirement must come from residential applications and the remaining one-half from nonresidential, non-utility applications. (Regulation; Standard; Target audience: Residential, Utility) Enacted in 2006.

Source: <http://www.cc.state.az/divisions/utilities/electric/environmental.asp>

**Arizona Net Metering** (Arizona Public Services Company) - Credited to customer's next bill at utility's retail rate; granted to utility at end of calendar year. Net metering is available to customers with systems up to 100 kilowatts (kW) in capacity that generate electricity using solar energy, wind energy or biomass energy. The program is capped at 15 megawatts (MW) of total aggregate capacity and is conditional on continued funding for the state's Environmental Portfolio Surcharge (EPS). For customers taking service under a time-of-use rate, off-peak generation will be credited against off-peak consumption, and on-peak generation will be credited against on-peak consumption. (Renewable Energy Standards; Net Metering; Target audiences: Commercial, industrial, residential, non-profit, schools, local government, state government, federal government, agricultural, institutional) Enacted in 2004.

Source: <http://www.aps.com/main/account/orders/EPT/default.html>

**Renewable Energy Credit Purchase Program** (UniSource Energy Services) - On-grid small hydro, biomass-biogas systems, pool heating (non-residential only), space cooling, and geothermal (electric, cooling and heating systems) are all eligible to receive PBIs. Biomass Cooling, Biomass Thermal, and Biomass Electric programs are available, and incentive amount is performance-based. (Arizona; Renewable Energy Standards; Utility Rebate Program; Target audiences: commercial, residential) Enacted in 2004.

Source: <http://www.tep.com/Green>

**Green Building Standards for State Facilities** (AR Code § 22-3-1801 et seq.) - The act includes Arkansas-specific provisions for LEED and Green Globes certification. Under these provisions, those pursuing LEED certification receive additional credit for the use of composite wood and agri-fiber products, post-consumer recycled content, renewable bio-based materials, carbon-sequestering bio-based materials, and bio-based materials from other certified sources. Those using the Green Globes rating system receive additional credit for carbon-sequestering, bio-based materials and bio-based materials from certified sources. (Regulation; Standard; Target audience: State government, commercial, industrial,

residential, general public/consumer, nonprofit, schools, local government, state government, federal government, agricultural, institutional) Enacted in 2005.

Source: <http://www.1800arkansas.com/energy>

**Interconnection Standards** (Arkansas Code § 23-18-603 et seq.) - Facilities producing electricity using solar, wind, hydro, geothermal and biomass resources are eligible to interconnect and net meter. Currently, net metering is available to residential systems up to 25 kilowatts (kW) in capacity and nonresidential systems up to 300 kW. (Regulation; Standard; Target audience: Commercial, industrial, residential, general public/consumer, nonprofit, schools, local government, state government, federal government, agricultural, institutional) Enacted in 2007.

Source: [http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive\\_Code=AR06R&state=AR&CurrentPageID=1&RE=1&EE=1](http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive_Code=AR06R&state=AR&CurrentPageID=1&RE=1&EE=1)

## Arkansas

**Arkansas Net Metering** (Arkansas Code § 23-18-603 et seq.) - Residential renewable-energy systems up to 25 kilowatts (kW) in capacity and nonresidential systems up to 300 kW in capacity are eligible for net metering. Eligible technologies include solar, wind, hydroelectric, geothermal and biomass systems, as well as fuel cells and microturbines using renewable fuels. There is no limit on the aggregate capacity of all net-metered systems. The 2007 amendments allow net-metered customers to carry over any NEG to their following monthly bill at the utility's retail rate. Any NEG remaining at the end of an annual billing cycle is granted to the utility. (Renewable Energy Standards; Net Metering; Target audience: Utility) Enacted in 2007.

Source: [http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive\\_Code=AR03R&state=AR&CurrentPageID=1&RE=1&EE=1](http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive_Code=AR03R&state=AR&CurrentPageID=1&RE=1&EE=1)

## California

**Renewable Energy Portfolio** (CA Public Utilities Code § 399.11 et seq.) - Legislative mandate to increase the percentage of renewable retail sales by at least 1% per year to reach at least 20% by end of 2010; goal of 33% by end of 2020. Tradable RECs may be allowed after the CPUC and Energy Commission conclude that the Western Renewable Energy Generation Information System (WREGIS) is operational and when other criteria are met. (Regulation; Renewable Energy Standards; Target audience: Investor-Owned Utility, Electric Service Providers, Small and Multi-Jurisdictional Utilities and Community Choice) Enacted in 2003.

Source: <http://www.energy.ca.gov/portfolio/index.html>

## Colorado

**Colorado Renewable Portfolio Standard** (Colorado Public Utilities Commission) - Colorado's renewable portfolio standard requires that all investor-owned utilities follow a RPS schedule of five percent renewable energy for the years 2008-2010, 10 percent for 2011-2014, 15 percent for 2015-2019, and 20 percent for the year 2020 and for each following year. All electric cooperatives with more than 40,000 customers must achieve one percent renewable energy by 2008, three percent by 2011, six percent by 2015, and 10 percent by 2020 and for subsequent years. Tradable renewable energy credits (RECs) may be used to satisfy the standard. Utilities that do not generate the required amount of electricity from renewable energy sources may purchase RECs from utilities that exceed the requirement. Eligible technologies: Photovoltaics, Landfill Gas, Wind, Biomass, Hydroelectric, Geothermal Electric, Fuel Cells, "Recycled Energy" (Regulation; Renewable Portfolio Standard; Target Audiences: Utility, Municipal Utility, Investor-Owned Utility; Rural Electric Cooperative) Enacted in 2006.

Source: [http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive\\_Code=CO24R&state=CO&CurrentPageID=1&RE=1&EE=0](http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive_Code=CO24R&state=CO&CurrentPageID=1&RE=1&EE=0)

**Colorado Net Metering** (4 CCR 723-3, Rule 3664) - Credited to customer's next bill; IOS: utility pays customer at end of calendar year for excess kWh credits at the average hourly incremental cost for that year. Electricity generated at a customer's site can be applied toward meeting a utility's renewable-generation requirement under Colorado's renewable portfolio standard (RPS). The RPS mandates that 4% of the renewables requirement be met with solar energy; half of this percentage must come from solar electricity generated at customers' facilities. (Renewable Energy Standards; Net Metering; Target Audiences: Commercial, industrial, agricultural) Enacted in 2008.

Source: [http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive\\_Code=CO26R&state=CO&CurrentPageID=1&RE=1&EE=1](http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive_Code=CO26R&state=CO&CurrentPageID=1&RE=1&EE=1)

## Connecticut

**Project 150 Initiative** (Connecticut Clean Energy Fund & Conn. Gen. Stat. § 16-244c) - Requires the state's two electric distribution companies -- CL&P and UI -- to enter into long-term electricity purchase agreements to obtain at least 150 megawatts (MW) of "Class I" renewable energy.(includes biomass) Pricing under these contracts includes a premium of up to 5.5¢ per kilowatt-hour (kWh). (Regulation; Initiative; Target audience: Commercial, Renewable energy project developers) Enacted in 2003.

Source: <http://www.ctcleanenergy.com/default.aspx?tabid=97>

**Green Power Purchase Plan** (Executive Order 2) - The executive order directs state-government agencies and universities to purchase an increasing amount of electricity generated by renewable resources (including sustainable biomass). Under terms of the order, the state government has a goal to increase "Class I" renewable-energy purchases to 20% of electricity used in 2010, 50% in 2020 and 100% in 2050. The order also authorizes the use of savings generated by state energy efficiency and conservation projects to fund green power purchases. (Regulation; Initiative: Target audience: State government) Enacted in 2004.

Source: [http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive\\_Code=CT07R&state=CT&CurrentPageID=1&RE=1&EE=1](http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive_Code=CT07R&state=CT&CurrentPageID=1&RE=1&EE=1)



**Green Building Standards for State Facilities** (Conn. Gen. Stat. § 16a-38k (HB 7432)) - Adopted building construction regulations for state facilities. The construction standards must be consistent with or exceed the U.S. Green Building Council's LEED Silver rating for new commercial construction and major renovation projects, or an equivalent standard, including a two-globe rating under the Green Globes USA design program. Also established mandatory efficiency requirements for certain equipment purchased by the state. (Regulation; Standard; Target audiences: Local government, State government) Enacted in 2007.

Source: [http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive\\_Code=CT13R&state=CT&CurrentPageID=1&RE=1&EE=1](http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive_Code=CT13R&state=CT&CurrentPageID=1&RE=1&EE=1)

**Renewable Portfolio Standard** (Conn. Gen. Stat. § 16-245a et seq.) - Required each electric supplier and each electric distribution company wholesale supplier to demonstrate that no less than 5% of its total output or services is generated by qualifying renewable-energy resources by January 1, 2006. The requirement increases to 23% by January 1, 2020. The RPS also requires that 4% be derived from combined heat and power (CHP) systems and energy efficiency by 2010. (Regulation; Standard; Target audience: Utility, Retail supplier) Enacted in 1998.

Source: <http://www.dpuc.state.ct.us/Electric.nsf/All?OpenView&Start=1&Count=30&Expand=4.6#4.6>

**Connecticut Net Metering** (Conn. Gen. Stat. § 16-243h (HB 7432)) - Connecticut's two investor-owned utilities -- Connecticut Light and Power Company (CL&P) and United Illuminating Company (UI) -- are required to provide net metering to customers that generate electricity using "Class I" renewable-energy resources, which include solar, wind, landfill gas, fuel cells, sustainable biomass, ocean-thermal power, wave or tidal power, low-emission advanced renewable-energy conversion technologies, and hydropower facilities up to two megawatts (MW) in capacity. (Renewable Energy Standards; Net Metering; Target audiences: all) Enacted in 2007.

Source: [http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive\\_Code=CT01R&state=CT&CurrentPageID=1&RE=1&EE=1](http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive_Code=CT01R&state=CT&CurrentPageID=1&RE=1&EE=1)

## Delaware

**Renewable Portfolio Standard** (26 Del. C. § 351 et seq. & SB 328) - Senate Bill 74 established a renewable portfolio standard (RPS) requiring retail electricity suppliers to purchase 10% of the electricity sold in the state from renewable sources (includes sustainable biomass) by 2019. Senate Bill 19 of 2007 increased the RPS target to 20%. (Regulation; Standard; Intended audiences: Utility, Retail supplier) Enacted in 2008.

Source: [http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive\\_Code=DE02R&state=DE&CurrentPageID=1&RE=1&EE=1](http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive_Code=DE02R&state=DE&CurrentPageID=1&RE=1&EE=1)

**Delaware Net Metering** (26 Del. C. § 1014(d) & SB 8) - In Delaware, net metering is available to any customer that generates electricity using renewable fuels. The maximum capacity of a net-metered system is 25 kilowatts (kW) for residential customers of DP&L, DEC and municipal electric utilities; two megawatts (MW) per meter for non-residential customers of DP&L; and 500 kW per meter for non-residential customers of DEC and municipal utilities. (Renewable Energy Standards; Net Metering; Intended audience: all) Enacted in 2008.

Source: [http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive\\_Code=DE02R&state=DE&CurrentPageID=1&RE=1&EE=1](http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive_Code=DE02R&state=DE&CurrentPageID=1&RE=1&EE=1)

## Florida

**Florida Net Metering** (HB 7135) - In March 2008, the Florida Public Service Commission (PSC) adopted rules for net metering and interconnection for renewable-energy systems up to two megawatts (MW) in capacity. The PSC rules apply only to the state's investor-owned utilities; the rules do not apply to electric cooperatives or municipal utilities. (Renewable Energy Standards; Net Metering; Intended audiences: all) Enacted in 2008.

Source: [http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive\\_Code=FL19R&state=FL&CurrentPageID=1&RE=1&EE=1](http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive_Code=FL19R&state=FL&CurrentPageID=1&RE=1&EE=1)

## Hawaii

**Priority Permit Processing for Green Buildings** (HRS §46-19.6) - Requires each county agency that issues building, construction, or development-related permits to establish a procedure for priority processing of permit applications for construction projects incorporating energy and environmental design building standards. The priority processing will be provided at no additional cost. Meeting the "energy and environmental design building standards" can be achieved by earning either a LEED silver rating, a two green globes rating, or other comparable state-approved, nationally recognized, and consensus-based guideline, standard, or system. (Regulation; Standard; Intended audiences: County agencies) Enacted in 2006.

Source: [http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive\\_Code=HI25F&state=HI&CurrentPageID=1&RE=1&EE=1](http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive_Code=HI25F&state=HI&CurrentPageID=1&RE=1&EE=1)

**Interconnection Standards** (HRS § 269-101 et seq.) - Hawaii has established both simplified interconnection rules for small renewables and separate rules for all other distributed generation. Simplified interconnection procedures for net metering are available for solar, wind, biomass and hydroelectric systems up to 50 kilowatts (kW) in capacity. (Regulation; Standard; Intended audiences: Commercial, industrial, residential, nonprofit, schools, state government, federal government (Enacted in 2004)

Source: <http://www.state.hi.us/dbedt/ert/interconnection/interconnection.html>

**Renewable Portfolio Standard** (HRS § 269-91 et seq.) - Hawaii's renewable portfolio goal was replaced with an enforceable renewable portfolio standard (RPS) upon the enactment of SB 2474 Under the new standard, 20% of electricity must be generated from renewable resources by the end of 2020. (Regulation; Standard; Intended audience: Utility) Enacted in 2003.

Source: <http://www.hawaii.gov/dbedt/info/energy>

**Hawaii Net Metering** (HRS § 269-101 et seq.) - Hawaii's original net-metering law was enacted in 2001 and expanded in 2004 by HB 2048, which increased the eligible capacity limit of net-metered systems from 10 kilowatts (kW) to 50 kW. Net metering is available on a first-come, first-served basis to residential and "small commercial" customers (including government entities) that generate electricity using solar, wind,

biomass or hydroelectric systems. (Renewable Energy Standards; Net Metering; Intended audiences: Commercial, Residential, Local government, State government, Federal government) Enacted in 2001.

Source: <http://www.hawaii.gov/dbedt/info/energy>

## Idaho

**Idaho Net Metering** (Avista Utilities, Idaho Power, Rocky Mountain Power) - Idaho does not have statewide net-metering rules. However, each of the state's three investor-owned utilities has developed a net-metering tariff that has been approved by the Idaho Public Utilities Commission (PUC). The framework of the utilities' net-metering programs is similar in that each utility: (1) offers net metering to customers that generate electricity using solar, wind, hydropower, biomass or fuel cells; (2) limits residential systems to 25 kilowatts; (3) limits aggregate net-metered capacity to 0.1% of the utility's retail peak generation in 2000; and (4) restricts any single customer from generating more than 20% of the aggregate capacity of all net-metered systems. (Renewable Energy Standards; Net Metering; Intended audiences: Commercial, residential, agricultural) Enacted in 1997.

Source: <http://www.avistautilities.com/services/renewable/incentives/idaho/Pages/default.aspx>

## Illinois

**Green Power Purchasing** (State of Illinois) - In January 2007, the State of Illinois established a goal for state agencies to purchase 3% of their power from renewable sources by the end of 2007, 4% by the end of 2008, and 5% by the end of 2009. (Regulation; Standard; Intended audiences: State government) Enacted in 2007.

Source: <http://www.illinois.gov/PressReleases/ShowPressRelease.cfm?SubjectID=18&RecNum=5902>

**Renewable Portfolio Standard** (§ 20 ILCS 3855/1-75) - The purpose of the Illinois Power Agency is to develop electricity procurement plans for state utilities supplying over 100,000 Illinois customers to ensure “adequate, reliable, affordable, efficient, and environmentally sustainable electric service at the lowest total cost.” The Agency is charged with competitively procuring energy supply according to the plans (as appropriate), and with meeting a renewable portfolio standard of 25% by 2025. (Regulation; Standard; Intended audiences: Utility) Enacted in 2007.

Source: [http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive\\_Code=IL04R&state=IL&CurrentPageID=1&RE=1&EE=1](http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive_Code=IL04R&state=IL&CurrentPageID=1&RE=1&EE=1)

**Illinois Net Metering** (§ 220 ILCS 5/16-107.5) - Systems up to 40 kilowatts (kW) in capacity that are intended primarily to offset the customer's own electrical requirements are eligible. While Illinois's investor-owned utilities and alternative retail electricity suppliers must offer

net metering, the state's municipal utilities and electric cooperatives are generally not required to do so. (Renewable Energy Standards; Net Metering; Intended audiences: all) Enacted in 2007.

Source: [http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive\\_Code=IL13R&state=IL&CurrentPageID=1&RE=1&EE=1](http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive_Code=IL13R&state=IL&CurrentPageID=1&RE=1&EE=1)

## Indiana

**Energy Efficient State Building Initiative** (Executive Order 08-14) - New state buildings must meet LEED Silver certification standard, a two-globe rating under the Green Globe rating system, Energy Star certification, or another nationally recognized rating system. (Regulation, Initiative, Intended audiences: State government) Enacted in 2008.

Source: [http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive\\_Code=IN08R&state=IN&CurrentPageID=1&RE=1&EE=1](http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive_Code=IN08R&state=IN&CurrentPageID=1&RE=1&EE=1)

## Iowa

**Mandatory Utility Green Power Option** (Iowa Code § 476.47) - All electric utilities operating in Iowa, including those not rate-regulated by the Iowa Utilities Board (IUB), are required to offer green power options to their customers. These programs allow customers to make voluntary contributions to support the development of renewable energy sources in Iowa. (Regulation, Initiative, Intended audiences: Utility) Enacted in 2004.

Source: [http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive\\_Code=IA03R&state=IA&CurrentPageID=1&RE=1&EE=1](http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive_Code=IA03R&state=IA&CurrentPageID=1&RE=1&EE=1)

**Alternative Energy Law** (Iowa Code § 476.41 et seq.) - Iowa requires its two investor-owned utilities -- MidAmerican Energy and Alliant Energy Interstate Power and Light (IPL) -- to own or to contract for a combined total of 105 megawatts (MW) of renewable generating capacity and associated energy production, which can include small hydropower facilities. (Regulation; Standard; Intended audiences: Utility) Enacted in 2007.

Source: [http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive\\_Code=IA01R&state=IA&CurrentPageID=1&RE=1&EE=1](http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive_Code=IA01R&state=IA&CurrentPageID=1&RE=1&EE=1)

**Iowa Net Metering** (Iowa Code § 476.41 et seq.) - Iowa's net-metering subrule, adopted by the IUB in July 1984, applies to customers that generate electricity using alternate energy production facilities (AEPs). Net metering is available to all customer classes of Iowa's two investor-owned utilities -- MidAmerican Energy and Interstate Power and Light (IPL). Although Iowa's net-metering subrule requires utilities to purchase customers' net excess generation (NEG) at the utility's avoided-cost rate, subsequent rule waivers allow MidAmerican Energy and IPL customers to carry NEG (as a kilowatt-hour credit) forward for use in future months. (Renewable Energy Standards; Net Metering; Intended audiences: Commercial, industrial, residential) Enacted in 1984.

Source: [http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive\\_Code=IA02R&state=IA&CurrentPageID=1&RE=1&EE=1](http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive_Code=IA02R&state=IA&CurrentPageID=1&RE=1&EE=1)

## Kentucky

**Kentucky Net Metering** (KRS § 278.465 et seq.) - In April 2008, Kentucky enacted legislation (SB 83) that expanded its net-metering law by requiring utilities to offer net metering to customers that generate electricity with photovoltaic (PV), wind, biomass, biogas or hydroelectric systems up to 30 kilowatts (kW) in capacity. If the electricity fed back to the utility by the customer exceeds the electricity supplied by the utility during a billing period, the customer is credited for excess generation at the utility's retail rate. This credit will appear on the customer's next bill and will carry forward indefinitely. Credits are not transferable. (Renewable Energy Standards; Net Metering; Intended audience: Commercial, residential, nonprofit, schools, local government, state government, agricultural, institutional) Enacted in 2008.

Source: [http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive\\_Code=KY07R&state=KY&CurrentPageID=1&RE=1&EE=1](http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive_Code=KY07R&state=KY&CurrentPageID=1&RE=1&EE=1)

## Louisiana

**Renewable Fuels Standard** (Louisiana Revised Statutes 3:4674) - Within six months after ethanol produced in the state exceeds an annual production volume of 50 million gallons and the average wholesale price of a gallon Louisiana-manufactured ethanol, is equal to or below the average wholesale price of a gallon of regular unleaded gasoline for a period of 60 days, 2% of the total gasoline sold by volume in the state must be denatured ethanol produced from domestically grown feedstock or other biomass materials. Within six months after the cumulative monthly production of biodiesel produced in the state equals or exceeds 10 million gallons annually, 2% of the total diesel sold by volume in the state must be biodiesel produced from domestically grown feedstock. These requirements may also be met through the production of an "alternate renewable fuel" defined as a liquid fuel that is domestically produced from renewable biomass, can be used in place of ethanol or biodiesel, and meets the definition of renewable fuel in the Energy Policy Act of 2005. (Regulation; Standard; Intended audiences: Utility) Enacted in 2006.

Source: <http://www.legis.state.la.us/lss/lss.asp?doc=206106>

**Louisiana Net Metering** (La. R.S. 51:3061 et seq.) - Louisiana's rules, based largely on those in place in Arkansas, require investor-owned utilities, municipal utilities and electric cooperatives to offer net metering to customers that generate electricity using solar, wind, hydropower, geothermal or biomass resources. Residential systems up to 25 kilowatts (kW) in capacity, and commercial and agricultural systems up to 300 kW in capacity are eligible for net metering. (Renewable Energy Standards; Net Metering; Intended audiences: Commercial, residential, agricultural) Enacted in 2003.

Source: [http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive\\_Code=LA02R&state=LA&CurrentPageID=1&RE=1&EE=1](http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive_Code=LA02R&state=LA&CurrentPageID=1&RE=1&EE=1)

## Maryland

**Renewable Energy Portfolio Standard** (Md. Public Utility Companies Code § 7-701 et seq.) - Maryland's Renewable Energy Portfolio Standard requires electricity suppliers (all utilities and competitive retail suppliers) to use renewable energy sources to generate a minimum portion of their retail sales. Beginning in 2006, electricity suppliers are to provide 1% of retail electricity sales in the state from Tier 1 renewables and 2.5% from Tier 2 renewables. The renewables requirement increases gradually, ultimately reaching a level of 20% from Tier 1 resources in 2022 and beyond, and 2.5% from Tier 2 resources from 2006 through 2018. Legislation enacted in April 2007 (SB 595) added a provision requiring electricity suppliers to derive 2% of electricity sales from solar energy in addition to the 7.5% renewables derived from other Tier 1 resources as outlined in the initial RPS law. (Regulation; Renewable Energy Standards; Intended audiences: Utility, Retail electricity suppliers) Enacted in 2004.

Source: <http://www.psc.state.md.us/psc/electric/rps/home.htm>

**Maryland Net Metering** (Md. Public Utility Companies Code § 7-306) - Maryland's net-metering law has been expanded four times since it was originally enacted in 1997. In their current form, the rules apply to all utilities -- investor-owned utilities (IOUs), electric cooperatives and municipal utilities. Net metering is available statewide until the aggregate capacity of all net-metered systems reaches 1,500 MW. Net excess generation (NEG) is carried over at the utility's retail rate to the customer's next bill for 12 months. Any NEG remaining in a customer's account after a 12-month period is granted to the utility with no compensation for the customer. (Renewable Energy Standards; Net Metering; Intended audiences: Commercial, residential, schools, local government, state government, federal government) Enacted in 1997.

Source: <http://www.energy.maryland.gov/facts/renewable/netmetering.asp>

## Massachusetts

**Green Power Purchasing Commitment** (Executive Order 484) - This order establishes numerous energy targets and mandates for state government buildings under control of the executive office. The order directed state government agencies to procure 15% of annual electricity consumption from renewable sources by 2012 and 30% by 2020. This mandate may be achieved through procurement of renewable energy supply, purchase of renewable energy certificates (RECs), and/or through the production of on-site renewable power. Only renewable sources that qualify for the Massachusetts renewable portfolio standard (RPS) are eligible. (Regulation; Initiative; Intended audience: State government) Enacted in 2007.

Source: [http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive\\_Code=MA15R&state=MA&CurrentPageID=1&RE=1&EE=1](http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive_Code=MA15R&state=MA&CurrentPageID=1&RE=1&EE=1)

**Energy Reduction Plan for State Buildings** (Executive Order 484) - All new construction and significant renovation projects over 20,000 square feet must meet the Massachusetts LEED Plus green building standard established by the Commonwealth of Massachusetts Sustainable Design Roundtable. For projects smaller than 20,000 square feet, all projects shall at least meet the minimum energy performance standards

established by the Roundtable. (Regulation; Standard; Intended audiences: Schools, local government, state government, institutional) Enacted in 2007.

Source: [http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive\\_Code=MA13R&state=MA&CurrentPageID=1&RE=1&EE=1](http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive_Code=MA13R&state=MA&CurrentPageID=1&RE=1&EE=1)

**Renewable Portfolio Standard** (M.G.L. ch. 25A, § 11F [amended by S.B. 2768]) - In April 2002, the Massachusetts Department of Energy Resources (DOER) adopted RPS regulations that required all retail electricity providers in the state to utilize new renewable-energy sources for at least 1% of their power supply in 2003, increasing to 4% by 2009. Through December 31, 2008, eligible renewables include solar photovoltaics (PV); solar thermal-electric energy; wind energy; ocean thermal, wave or tidal energy; fuel cells utilizing renewable fuels; landfill gas; low-emission advanced biomass power conversion technologies using fuels such as wood, by-products or waste from agricultural crops, food or animals, energy crops, biogas, or liquid biofuels; and geothermal energy. Previously operational biomass facility retrofitted with advanced conversion technologies could also qualify. (Regulation; Standard; Intended audiences: Utility) Enacted in 1997.

Source: <http://www.state.ma.us/doer/rps/index.htm>

**Massachusetts Net Metering** (M.G.L. ch. 164, § 1G [amended by S.B. 2768]) - The state's investor-owned utilities must offer net metering. Municipal utilities are not obligated to offer net metering, but they may do so voluntarily. Massachusetts also allows “neighborhood net metering” for neighborhood-based Class I, II or III facilities that are owned by (or serve the energy needs of) a group of 10 or more residential customers in a single neighborhood and served by a single utility. If a neighborhood facility has NEG at the end of a billing period, the credits are awarded to designated neighborhood customers that have an ownership interest in the facility. The amount of NEG attributed to each such customer is determined by the allocation provided by the neighborhood net metering facility. Credits may be carried forward to the next month indefinitely. (Renewable Energy Standards; Net Metering; Intended audiences: Commercial, industrial, residential, nonprofit, schools, local government, state government, federal government, agricultural, institutional) Enacted in 1997.

Source: <http://www.mtpc.org/cleanenergy/howto/interconnection/netppa.htm>

## Michigan

**Renewable Portfolio Standard** (Public Act 295) - In October 2008, Michigan enacted a mandate requiring the investor-owned utilities, alternative retail suppliers, electric cooperatives and municipal electric utilities to generate 10% of their retail electricity sales from renewable energy resources by the year 2015; eligible renewables include biomass, solar and solar thermal, wind, geothermal, municipal solid waste (MSW), landfill gas, existing hydroelectric (no new hydro requiring dam construction), tidal, wave, and water current resources. (Regulation; Standard; Intended audiences: Utility) Enacted in 2008.

Source: <http://www.legislature.mi.gov/documents/2007-2008/publicact/pdf/2008-PA-0295.pdf>



**Michigan Net Metering** (Michigan Public Service Commission) - Under the current rules, systems that generate electricity using solar, wind, geothermal, biomass (including waste-to-energy and landfill gas) or hydropower are eligible. Any customer net excess generation (NEG) is carried over to the customer's next bill, at the utility's retail price of generation, for a 12-month period. Any NEG remaining at the end of a 12-month billing cycle is awarded to the utility, and the value of these credits will be used to offset program costs. Customer-generators retain ownership of all renewable-energy credits (RECs) associated with the generation of electricity. (Renewable Energy Standards; Net Metering; Intended audiences: Commercial, Industrial, Residential, Nonprofit, Schools, Local Government, State Government, Tribal Government, Fed. Government, Agricultural, Institutional) Enacted in 2008.

Source: <http://www.michigan.gov/netmetering>

## Minnesota

**Biomass Harvest Guidelines** (Minnesota Forest Resources Council) - Provides guidance to loggers on appropriate biomass harvesting methods, location of harvest and allowable intensity (removal) Developed in conjunction with MN Harvest Guidelines pursuant to the State Forest Practices Act. (Regulation; Initiative; Intended audiences: Logging companies, purchasers of biomass) Enacted in 2005.

Source: <http://www.frc.state.mn.us/FMgdline/BHGC.html>

**Environmental and Economic Incentives for Growing Hybrid Poplars to Meet Minnesota's Demands for Biomass Products and Energy** (U.S. Department of Energy's State Energy Program) - Technical assistance programs focused on helping industry achieve cost reductions through pollution prevention. This project advanced industrial improvements in energy efficiency, environmental performance, and productivity that result in lower raw material and energy use, improved labor and capital productivity, and reduced generation of wastes and pollutants. This project is part of a longer range program objective to help industry save money and become more competitive by identifying and implementing energy efficient and pollution preventing technologies as an integrated strategy. It conducted plant assessments that focused on opportunities to implement technologies in the facilities. (Regulation; Initiative) Enacted in 2005.

Source: [http://www.eere.energy.gov/state\\_energy\\_program/project\\_detail.cfm/sp\\_id=879](http://www.eere.energy.gov/state_energy_program/project_detail.cfm/sp_id=879)

**Renewable Portfolio Standard** (State of Minnesota) – The Next Generation Energy Act of 2007 Established a mandate that utility companies in the state generate at least 25% of their power from renewable sources by 2025 (30% by 2025 for Xcel Energy) (Regulation; Mandate; Intended audiences: Utility companies) Enacted in 2007.

Source: <https://www.revisor.leg.state.mn.us/bin/bldbill.php?bill=H0436.0.html&session=1s85>

**Minnesota Net Metering** (Minn. Stat. § 216B.164) - Customer receives a check for NEG at the end of each month, calculated at the "average retail utility energy rate" (basically the utility's retail rate) Applies to all investor-owned utilities, municipal utilities and electric cooperatives.

All "qualifying facilities" up to 40 kilowatts (kW) in capacity are eligible.\* There is no limit on statewide capacity. Each utility must compensate customers for customer net excess generation (NEG) at the "average retail utility energy rate," defined as "the total annual class revenue from sales of electricity minus the annual revenue resulting from fixed charges, divided by the annual class kilowatt-hour sales." This rate is basically the same as a utility's retail rate. The purchase of NEG at a utility's retail rate distinguishes Minnesota's net-metering law from net-metering laws and programs in most other states. (Renewable Energy Standards; Net Metering; Intended audiences: Commercial, industrial, residential) Enacted in 1981.

Source: [http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive\\_Code=MN01R&state=MN&CurrentPageID=1&RE=1&EE=1](http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive_Code=MN01R&state=MN&CurrentPageID=1&RE=1&EE=1)

**Xcel Energy Wind and Biomass Generation Mandate** (Minn. Stat. § 216B.2423 et seq.) - A separate law (Minn. Stat. § 216B.2424) required Excel Energy to build or contract for 110 MW of electricity generated from biomass resources. As of January 2007, this portion of the mandate is being fulfilled by district energy in St. Paul, a poultry-waste project in Benson, and a third biomass project in Virginia/Hibbing. In May 2008, the mandate was amended to confine the the definition of eligible farm-grown, closed- loop biomass to herbaceous crops, trees, agricultural waste, and aquatic plant matter that is used to generate electricity and to specifically exclude mixed municipal solid waste from eligibility. (Regulation; Mandate; Intended audience: Utility companies) Enacted in 1997.

Source: [http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive\\_Code=MN03R&state=MN&CurrentPageID=1&RE=1&EE=1](http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive_Code=MN03R&state=MN&CurrentPageID=1&RE=1&EE=1)

## Mississippi

**Biomass Program** (U.S. Department of Energy's State Energy Program) - The Biomass Program provided technical assistance to commercial, private, and non-private agencies to develop and market biomass and added-value products. It served as a marketing group for identified sources in Mississippi and promoted clean renewable energy sources as alternatives to air quality and environmental security in the future. It promoted and encouraged a biodiesel program to be used by the state office buildings for backup generation. (Regulation; Initiative; Intended audiences: Commercial, private, non-private agencies) Enacted in 2006.

Source: [http://apps1.eere.energy.gov/state\\_energy\\_program/grants\\_by\\_state.cfm/year=2006/state=MS](http://apps1.eere.energy.gov/state_energy_program/grants_by_state.cfm/year=2006/state=MS)

## Missouri

**Midwest Green-E Certification** (U.S. Department of Energy's State Energy Program) - The Midwest Green-E Certification activity participated in the Midwest stakeholder group to develop a "Green-e" standard for the Midwest. It advocated for including biomass in the standard, in addition to wind and solar. This standard could facilitate green tag purchases and sales in Missouri. (Regulation; Initiative; Intended audiences: Midwest Stakeholder Groups) Enacted in 2005.

Source: [http://www.eere.energy.gov/state\\_energy\\_program/grants\\_by\\_state.cfm/year=2005/state=MO](http://www.eere.energy.gov/state_energy_program/grants_by_state.cfm/year=2005/state=MO)

**Renewable Electricity Standard** (R.S. Mo. § 393.1020 et seq.) - Missouri created a renewable energy and energy-efficiency objective for the state's investor-owned utilities in June 2007. Each utility must make a "good-faith effort" to generate or procure electricity generated by eligible renewable-energy resources, so that by 2012, 4% of total retail electric sales is generated by eligible renewables. The goal increases to 8% by 2015, and to 11% by 2020. (Regulation; Standards; Intended audiences: Investor-Owned Utility) Enacted in 2008.

Source: [http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive\\_Code=MO08R&state=MO&CurrentPageID=1&RE=1&EE=1](http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive_Code=MO08R&state=MO&CurrentPageID=1&RE=1&EE=1)

**Missouri Net Metering** (SB 54) - Net metering is available until the total rated generating capacity of net-metered systems equals 5% of a utility's single-hour peak load during the previous year. However, in a given calendar year, the aggregate capacity of all approved applications for interconnection is limited to 1% of a utility's single-hour peak load for the previous calendar year. If a customer's existing metering equipment is not capable of measuring the net amount of electricity produced or consumed, or if it is necessary for the utility to install "additional distribution equipment to accommodate the customer-generator's facility," then the customer must pay for these costs. (Renewable Energy Standards; Net Metering; Intended audiences: Commercial, Industrial, Residential, General Public/Consumer, Nonprofit, Schools, Local Government, State Government, Fed. Government, Agricultural, Institutional) Enacted in 2007.

Source: [http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive\\_Code=MO07R&state=MO&CurrentPageID=1&RE=1&EE=1](http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive_Code=MO07R&state=MO&CurrentPageID=1&RE=1&EE=1)

## Nebraska

**Nebraska Net Metering** (Nebraska Public Power District) - The utility is offering net metering to generating facilities of 25 kW or less that are certified as qualifying facilities (QFs) under the federal Public Utilities Regulatory Policies Act (PURPA). The definition of QF generally includes most renewable-energy technologies, as well as combined-heat-and-power (CHP) systems. Under the tariff, net metering is available to retail electric customers of NPPD through a single bi-directional meter. Systems must be designed to supply all or a portion of the customer's electrical load. Net excess generation (NEG) produced during a billing period is carried forward as a monetary credit on the customer-generator's next bill. (Renewable Energy Standards; Net Metering; Intended audiences: Commercial, Industrial, Residential, Nonprofit, Schools, Local Government, State Government, Federal Government, Agricultural, Institutional) Enacted in 2007.

Source: [http://www.nppd.com/My\\_Business/Commercial\\_Services/Additional\\_Files/distributed\\_generation.asp](http://www.nppd.com/My_Business/Commercial_Services/Additional_Files/distributed_generation.asp)

## Nevada

**Energy and Environmental Design Requirements** (NRS 701.215 et seq.) - Nevada's energy policy mandates that the state energy office prepare a state energy reduction plan which requires state agencies, departments, and other entities in the Executive Branch to reduce grid-based energy purchases for state-owned buildings by 20% by 2015. (Regulation; Standard; Intended audience: State government) Enacted in 2005.

Source: <http://dem.state.nv.us/EnergyPlan/plangovsltr.shtml>

**Fuel Mix and Emissions Disclosure** (NRS §704.763) - Beginning October 1, 2001, each electric utility must disclose fuel mix and emissions information to its customers, according to regulations established by the Nevada Public Service Commission. The disclosure must be in a standard format, provided in bill inserts twice a year, as well as on utility web sites. The disclosure must include the average mix of fuel sources used to create electricity, average emissions, customer service information, and information on low-income energy programs. (Regulation; Standard; Intended audience: Utility) Enacted in 2001.

Source: [http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive\\_Code=NV02R&state=NV&CurrentPageID=1&RE=1&EE=1](http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive_Code=NV02R&state=NV&CurrentPageID=1&RE=1&EE=1)

**Energy Portfolio Standard** (NRS 704.7801 et seq.) – Requires 6% in 2005, rising to 20% by 2015; 5% of the energy portfolio must be solar. Beyond solar, qualifying renewable energy resources include biomass, geothermal energy, wind, certain hydropower, and waste tires. (Regulation; Standard; Intended audience: Investor-Owned Utility) Enacted in 1997.

Source: <http://pucweb1.state.nv.us/PUCN/RenewableEnergy.aspx>

**Nevada Net Metering** (NAC 704.8901 et seq.) - Systems up to one megawatt (MW) in capacity that generate electricity using solar, wind, geothermal, biomass and certain types of hydropower are generally eligible, although systems greater than 100 kilowatts (kW) in capacity may be subject to certain costs at the utility's discretion. F16Systems must be designed to offset part or all of a customer-generator's electricity requirements. A system is not eligible for net metering if its generating capacity exceeds the greater of (1) the limit on demand that the class of customer of the customer-generator may place on the utility's system, or (2) 150% of the customer's peak demand. Each investor-owned utility operating in Nevada must offer net metering until the aggregate capacity of all net-metered systems in its service territory equals 1% of the utility's peak capacity. For all net-metered systems, customer net excess generation (NEG) is carried over to the following month as a kilowatt-hour credit, apparently without expiration. (Renewable Energy Standards; Net Metering; Intended audiences: Commercial, industrial, residential) Enacted in 1997.

Source: <http://pucweb1.state.nv.us/PUCN/RenewableEnergy.aspx>

## New Hampshire

**Renewable Portfolio Standard** (New Hampshire Statutes, Chapter 362-F) – New Hampshire Requirement: 23.8% by 2025. Technology Minimum: 0.3% solar electric 6.5% existing biomass 1.0% existing small hydropower. (Regulation; Standard; Intended audience: All electricity suppliers) Enacted in 2007.

Source: [http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive\\_Code=NH09R&state=NH&CurrentPageID=1&RE=1&EE=1](http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive_Code=NH09R&state=NH&CurrentPageID=1&RE=1&EE=1)

**New Hampshire Net Metering** (New Hampshire Statutes § 362-A:9) - New Hampshire requires all electric utilities selling power in the state to offer net metering to homeowners and small businesses that generate electricity using renewable-energy systems up to 100 kilowatts (kW) in

capacity. The aggregate capacity of all net-metered systems in a utility's service territory is limited to 1.0% of the utility's annual peak energy demand. Any customer net excess generation (NEG) during a billing cycle is credited to the customer "over subsequent billing periods." (Renewable Energy Standards; Net Metering; Intended audiences: Commercial, Industrial, Residential) Enacted in 1998.

Source: <http://nh.gov/oep/programs/energy/RenewableEnergyIncentives.htm>

## New Jersey

**Energy Efficiency in New School Construction** (NJ Executive Order #24) - Requires all new school designs to incorporate LEED Version 2.0 guidelines to achieve maximum energy efficiency and environmental sustainability in school facilities. The Executive Order also requires that the New Jersey Economic Development Authority establish a subsidiary corporation, The New Jersey Schools Construction Corporation (SCC), to be responsible for the school facilities project and the state's compliance with the new order. (Regulation; Standard; Intended audience: Schools) Enacted in 2002.

Source: [http://www.njsda.gov/Innovations/High\\_Performance\\_Schools/index.htm](http://www.njsda.gov/Innovations/High_Performance_Schools/index.htm)

**High Performance Building Standards in New State Construction** (SB 843) - The standard requires that new buildings larger than 15,000 square feet constructed for the sole use of state entities achieve US Green Building Council LEED Silver certification, a two-globe rating on the Green Building Initiative Green Globe rating system, or a comparable numeric rating from another accredited sustainable building certification program. (Regulation; Standard; Intended audience: State government) Enacted in 2008.

Source: <http://www.state.nj.us/treasury/dpmc/index.html>

**Environmental Information Disclosure** (N.J. Stat. § 48:3-87) - New Jersey mandates the disclosure of fuel mixes and emissions information by each electricity supplier or basic generation service provider serving retail customers (residential, commercial and industrial). The New Jersey Board of Public Utilities (BPU) adopted environmental disclosure standards in July 1999. Disclosure information must be published in a standardized label format and distributed as part of advertising materials, customer billing materials and customer contracts. Information must be updated in semi-annual mailings. This disclosure requirement applies to every electricity supplier and every electricity product, regardless of whether or not the supplier is making an environmental claim about the electricity product. (Regulation; Standard; Intended audience: Utility) Enacted in 1999.

Source: <http://www.bpu.state.nj.us>

**Interconnection Standards** (N.J. Stat. § 48:3-87) - Under the current law the BPU is authorized to allow utilities to cease offering net metering if the aggregate capacity of net metered systems reaches 2.5% the state peak electricity demand. (Regulation; Standard; Intended utility: Commercial, residential) Enacted in 1999.

Source: <http://www.njcleanenergy.com>

**Renewable Portfolio Standard** (N.J. Stat. § 48:3-49 et seq.) - New Jersey's renewable portfolio standard (RPS) -- one of the most aggressive in the United States -- requires each supplier/provider serving retail customers in the state to include in the electricity it sells 22.5% qualifying renewables by 2021. "Class I" renewable energy is defined as electricity derived from solar energy, wind energy, wave or tidal action, geothermal energy, landfill gas, anaerobic digestion, fuel cells using renewable fuels, and certain other forms of sustainable biomass. (Regulation; Standard; Intended audiences: Utility) Enacted in 1999.

Source: <http://njcleanenergy.com/renewable-energy/program-updates/solar-transition/solar-transition>

**New Jersey Net Metering** (N.J. Stat. § 48:3-87) - New Jersey's net-metering rules and interconnection standards apply to all residential, commercial, and industrial customers of the state's investor-owned utilities (and certain competitive municipal utilities and electric cooperatives). Eligible systems include those that generate electricity using solar, wind, geothermal, wave, tidal, landfill gas or sustainable biomass resources. The maximum individual system capacity is two megawatts (MW). Many supporters of distributed generation believe that New Jersey has the best standards for net metering in the United States. Customer-generators have several compensation options for net excess generation:

1. Customer-generator receives month-to-month credit for NEG at the full retail rate and is compensated for remaining NEG at the avoided-cost of wholesale power at the end of an annualized period.
2. Customer-generator is compensated for all NEG on a real-time basis according to the PJM power pool real-time locational marginal pricing rate, adjusted for losses by the respective zone in the PJM.
3. Customer generator may enter into a bilateral agreement with their electric supplier or service provider for the sale and purchase of NEG. Real-time crediting is permitted. (Renewable Energy Standards; Net Metering; Intended audiences: Commercial, industrial, residential) Enacted in 1999.

Source: <http://www.njcleanenergy.com>

## **New Mexico**

**New Mexico Net Metering** (17.9.571.7 NMAC et seq.) - In January 2007, the New Mexico Public Regulation Commission (PRC) extended the availability of net metering to systems up to 80 megawatts (MW) in capacity. Net metering is available to all qualifying facilities (QFs), as defined by PURPA. (In general, "qualifying facilities" under PURPA include renewable-energy systems and combined-heat-and-power systems.) Customers are credited or paid for monthly net excess generation (NEG) at the utility's avoided-cost rate. (Renewable Energy Standards; Net Metering; Intended audiences: Commercial, industrial, residential) Enacted in 2007.

Source: [http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive\\_Code=NM01R&state=NM&CurrentPageID=1&RE=1&EE=1](http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive_Code=NM01R&state=NM&CurrentPageID=1&RE=1&EE=1)

## New York

**Renewable Power Procurement Policy** (Executive Order No. 111) - The renewable-power procurement component of this order commits the state government to purchase a portion of its electric power from renewable energy resources -- at least 10% from resources such as wind, solar thermal, photovoltaics (solar electric), sustainably managed biomass, tidal, geothermal, methane waste and fuel cells by 2005, increasing to 20% by 2010. State entities can fulfill their renewable power procurement obligations through on-site generation or by purchasing renewable energy on the open market. (Regulation; Initiative; Intended audience: State government) Enacted in 2001.

Source: <http://www.nyserda.org/programs/exorder111.asp>

**New York Net Metering** (NY CLS Public Service, Article 4 § 66-j and § 66-1) - 10 kW for solar; 25 kW for residential wind; 125 kW for farm-based wind; 400 kW for farm-based biogas. Generally credited to customer's next bill at utility's retail rate. (NEG associated with wind turbines greater than 10 kW is credited monthly at avoided-cost rate). Accounts reconciled annually at avoided-cost rate. (Renewable Energy Standards; Net Metering; Intended audiences: Residential, agricultural) Enacted in 1997.

Source: <http://www.dps.state.ny.us/distgen.htm>

**Biomass Resource Program** (NYSERDA) - The Biomass Resources Program emphasizes the use of low-cost waste biomass such as agricultural and forestry waste streams to products including fuels and chemicals. Projects that convert biomass to fuels, chemicals, and energy products use methods that include anaerobic digestion, acid or enzyme hydrolysis, gasification, pyrolysis, and combustion. The largest source of biomass is wood and wood wastes, a renewable and sustainable resource. (Regulation; Initiative)

Source: <http://www.powernaturally.org/programs/BiomassResources/default.asp?i=2>

**Green Building Requirements for Municipal Buildings** (Local Law No. 86) - City funded new construction or substantial reconstruction projects with an estimated cost of more than \$2 million must meet LEED Silver Certification standards; except Schools (G) and Hospitals (H-2) need only meet LEED Certification standards; Other requirements vary by technology and capital cost. (Regulation; Standard; Intended audience: Local government) Enacted in 2005.

Source: [http://www.nyc.gov/html/dob/html/guides/green\\_buildings.shtml](http://www.nyc.gov/html/dob/html/guides/green_buildings.shtml)

**Environmental Disclosure Program** (NY PSC Opinion 98-19, Case 94-E-0952) - In December 1998, the New York Public Service Commission (PSC) issued an order creating the Environmental Disclosure Program, requiring electric suppliers to provide information to customers regarding the environmental impacts of electricity products. All suppliers must disclose fuel mix compared to a statewide average, as well as the quantities of emissions of sulfur dioxide, nitrogen oxides and carbon dioxide. (Regulation; Standard; Intended audience: Utility) Enacted in 1998.

Source: <http://www.dps.state.ny.us/EnvDisclosureLabel.html>



**Renewable Electricity Goal** (LIPA 2004-2013 Energy Plan) - The initiative is outlined in LIPA's 2004-2013 Energy Plan, approved in June 2004, and states an intention to comply with the state requirement that 24% of electricity generation come from renewable resources by 2013. For LIPA, this will entail an 8-10% increase in renewable energy procurement, met through periodic requests for proposals (RFPs) for renewable generation. (Regulation; Standard; Intended audience: Utility) Enacted in 2004.

Source: <http://www.lipower.org/cei/>

**Renewable Portfolio Standard** (NY PSC Order, Case 03-E-0188) - New York's RPS has a target of 25% by 2013. Of this, approximately 19.3% of the target will be derived from existing (2004) renewable energy facilities and one percent (1%) of the target is expected to be met through voluntary green power sales. (Regulation; Standard; Intended audience: Investor-Owned Utility) Enacted in 2004.

Source: <http://www.dps.state.ny.us/03e0188.htm>

## North Carolina

**Interconnection Standards** (NCUC Order, Docket No. E-100, Sub 101) - The N.C. Utilities Commission (NCUC) adopted comprehensive interconnection standards for distributed generation in June 2008. The NCUC standards, which are similar to the Federal Energy Regulatory Commission's (FERC) interconnection standards for small generators, govern interconnection to the distribution systems of the state's three investor-owned utilities: Progress Energy, Duke Energy and Dominion North Carolina Power. The standards apply to all state-jurisdictional interconnections (including interconnection of three-phase generators) regardless of the capacity of the generator, the voltage level of the interconnection, or whether the customer intends to offset electricity consumption or sell electricity. (Regulation; Standards; Intended audiences: Commercial, Industrial, Residential, Nonprofit, Schools, Local Government, State Government, Fed. Government, Agricultural, Institutional) Enacted in 2008.

Source: <http://www.ncuc.commerce.state.nc.us>

**Renewable Energy and Energy Efficiency Portfolio Standard** (N.C. Gen. Stat. § 62-2 et seq) - North Carolina's Renewable Energy and Energy Efficiency Portfolio Standard (REPS) requires all investor-owned utilities in the state to supply 12.5% of 2020 retail electricity sales (in North Carolina) from eligible energy resources by 2021. Municipal utilities and electric cooperatives must meet a target of 10% renewables by 2018 and are subject to slightly different rules. (Regulation; Standard; Intended audience: Municipal Utility, investor-owned utility, rural electric cooperative) Enacted in 2007.

Source: <http://www.ncuc.commerce.state.nc.us>

**North Carolina Net Metering** (NCUC Order, Docket No. E-100, Sub 83) - In October 2005, the North Carolina Utilities Commission (NCUC) adopted an order requiring the state's three investor-owned utilities -- Progress Energy, Duke Energy and Dominion North Carolina Power -- to

make net metering available to customers that own and operate systems that generate electricity using photovoltaics (solar-electric energy), wind or biomass resources. The maximum capacity of net-metered residential systems is 20 kilowatts (kW); the maximum capacity of net-metered nonresidential systems is 100 kW. Net metering is available on a first-come, first-served basis in conjunction with the utility's interconnection standards, up to an aggregate limit of 0.2% of the utility's North Carolina jurisdictional retail peak load for the previous year. (Renewable Energy Standards; Net Metering; Intended audiences: Commercial, Industrial, Residential, Nonprofit, Schools, Local Government, State Government, Tribal Government, Fed. Government, Agricultural, Institutional) Enacted in 2005.

Source: <http://www.ncuc.commerce.state.nc.us>

## North Dakota

**25 X 25 Initiative** (HB 1515) - \$2.5 million appropriation for a biomass demonstration project and biomass incentives. (Regulation; Initiative) Enacted in 2007.

Source: <http://www.governor.nd.gov/media/news-releases/2007/02/070215a.html>

**25 X 25 Initiative** (HB 1020) - \$1 million for biomass and hemp research and education efforts at the NDSU experiment station and extension service. A \$7 million agriculture greenhouse at NDSU to help develop new sources of raw materials for biofuels, including cellulose and switchgrass; as well as agronomic research on oilseeds and corn to achieve higher biofuels production per acre. (Regulation; Initiative) Enacted in 2007.

Source: <http://www.governor.nd.gov/media/news-releases/2007/02/070215a.html>

**25 X 25 Initiative** (SB 2288) - \$3 million general fund appropriation, with authority to leverage an additional \$17 million for a renewable energy grant fund within the Industrial Commission for projects promoting North Dakota-produced energy, including: biodiesel, biomass, coal, ethanol, geothermal, hydroelectric, hydrogen, natural gas, oil, solar, and wind. (Regulation; Initiative) Enacted in 2007.

Source: <http://www.governor.nd.gov/media/news-releases/2007/02/070215a.html>

**Renewable and Recycled Energy Objective** (ND Century Code 49-02-24 et seq.) - Eligible resources include electricity produced solar, wind, biomass, hydropower, geothermal, hydrogen derived from another eligible resource, and recycled energy systems producing electricity from currently unused waste heat resulting from combustion or other processes. In March 2007, the North Dakota enacted legislation (H.B. 1506) establishing an objective that 10% of all retail electricity sold in the state be obtained from renewable energy and recycled energy by 2015. (Regulation; Standard; Intended audience: Utility) Enacted in 2006.

Source: <http://www.nd.gov/dcs/Energy>

**North Dakota Net Metering** (ND Administrative Code 69-09-07-09) - North Dakota's net-metering rules apply both to renewable-energy generators and cogenerators (combined-heat-and-power systems) up to 100 kilowatts (kW) in capacity. Net metering is available to all customer classes. There is no statewide limit on the total capacity of all net-metered systems. If a customer has net excess generation (NEG) at the end of a monthly billing period, the utility must purchase the NEG at the utility's avoided-cost rate. (Renewable Energy Standards; Net Metering; Intended audiences: Commercial, industrial, residential) Enacted in 1991.

Source: <http://www.nd.gov/dcs/Energy>

## Ohio

**The Advanced Energy Technologies – Renewables and Cogeneration Program** (U.S. Department of Energy's State Energy Program) - Seeded the market with commercially available distributed generation (DG) technologies and applications to develop the proper mindset of the market toward DG to set the stage for future development of fuel cell technology. It participated in the demonstration of commercially available fuel cell projects. It operated the Ohio alternative fuel transportation grant fund and reported progress quarterly. It investigated benefits, obstacles, and issues related to recovering methane from livestock operations and other biomass resources to produce energy and reduce organic waste. It operated the Ohio Alternative Fuel Transportation Grant Fund and reported progress quarterly. (Regulation; Initiative) Enacted in 2006.

Source: [http://apps1.eere.energy.gov/state\\_energy\\_program/grants\\_by\\_state.cfm/state=OH](http://apps1.eere.energy.gov/state_energy_program/grants_by_state.cfm/state=OH)

**Energy Efficiency in New School Construction** (Ohio School Facilities Commission Resolution 07-0124) - The Ohio School Facilities Commission (OSFC) administers funds appropriated by the Ohio General Assembly for the construction of new schools and renovations of existing schools. In September 2007 the OSFC approved a resolution requiring that all new school construction projects not already in the design phase achieve LEED Silver certification, with a goal of achieving LEED Gold certification. The overall program is expected to fund projects in at least 140 school districts in subsequent rounds, all of which will be required to abide by the sustainable building standard described above. (Regulation; Standard; Intended audience: Schools) Enacted in 2007.

Source: <http://www.osfc.state.oh.us/>

**Environmental Disclosure** (ORC §4928.10) - In 2000, the Ohio Public Utilities Commission adopted rules requiring electricity suppliers to disclose environmental information to retail customers in accordance with the state's 1999 restructuring law. Retail providers must disclose fuel mix and emissions data for each electricity product offered. Fuel mix and emissions of carbon dioxide, sulfur dioxide and nitrogen oxides must be presented relative to the regional average. The amount of high-level and low-level radioactive waste generated also must be disclosed. (Regulation; Standard; Intended audience: Utility) Enacted in 1999.

Source: [http://www.puc.state.oh.us/PUCO/Consumer/information.cfm?doc\\_id=1191](http://www.puc.state.oh.us/PUCO/Consumer/information.cfm?doc_id=1191)

**Interconnection Standards** (ORC 4928.11) - Ohio exempts certain property from real and personal property taxation, state sale and use taxes, and the state's corporate franchise tax where applicable. The exemption applies to property used in energy conversion, thermal-efficiency improvements and the conversion of solid waste to energy. Eligible technologies include solar-thermal systems, photovoltaic systems, wind, biomass, landfill gas and waste-recovery systems. Upon receipt of certification from the tax commissioner, such property is exempt from Ohio's sales and use tax. (Regulation; Standard; Intended audience: Commercial, Industrial, Residential, Nonprofit, Schools, Local Government, State Government, Federal Government) Enacted in 1999.

Source: <http://www.puco.ohio.gov/PUCO/Consumer/Information.cfm?id=4080&terms=interconnection&searchtype=1&fragment=False>

**Alternative Energy Resource Standard (25% Renewable or Advanced Energy by 2025)** (SB 221) - Under the standard, utilities must provide 25% of their retail electricity supply from alternative energy resources by 2025, with specific annual benchmarks for renewable and solar energy resources (see details below). Additionally, utilities are required to implement energy efficiency and peak demand reduction programs that achieve a cumulative energy savings of 22% by the end of 2025, and reduce peak demand by 1.0% in 2009 and 0.75% annually thereafter through 2018. Additionally, new or existing mercantile customer-sited advanced energy resources and renewable energy resources that the customer commits into a utility's demand-response, energy efficiency or peak demand programs are also eligible. (Regulation; Standard; Intended audiences: Electric Distribution Utilities and Electric Service Companies) Enacted in 2008.

Source: <http://www.odod.state.oh.us/cdd/oe/>

**Ohio Net Metering** (ORC 4928.67) - Ohio's net-metering law requires electric distribution utilities and competitive retail electric service providers to offer net metering to customers who generate electricity using wind energy, solar energy, biomass, landfill gas, hydropower, fuel cells or microturbines. Each utility is only required to offer net metering until the total generating capacity of all participating customers equals 1% of the utility's aggregate customer peak demand in Ohio. In March 2007, PUCO revised its rules to allow net-metered customers to request refunds of net excess generation (NEG) credits accumulated over a 12-month period. (Renewable Energy Standards; Net Metering; Intended audiences: Commercial, industrial, residential) Enacted in 1999.

Source: <http://www.puco.ohio.gov/PUCO/Consumer/Information.cfm?id=8510>

## Oklahoma

**High Performance Building Standards in State Buildings** (HB 3394) - In June 2008, the governor of Oklahoma signed legislation requiring the state to develop a high-performance building certification program for state construction and renovation projects. The standard, which will be developed by the Oklahoma Department of Central Services (DCS), must meet the certification guidelines of either the U.S. Green Building Council's (USGBC) LEED system or the Green Building Initiative's Green Globes rating system. The requirement will apply to new construction or substantial renovation projects that begin the design phase after July 1, 2008 in buildings larger than 10,000 square feet. Substantial renovations are defined as projects that cost in excess of 50% of the value of the facility. In order to be considered a state project for

the purposes of the standard, state funds or state-insured funds must constitute at least 50% of the project cost. State agencies are directed to meet the highest level of certification attainable under a payback period of 5 years or less. (Regulation; Standard; Intended audience: State government) Enacted in 2008.

Source: [http://www.ok.gov/DCS/Construction\\_& Properties/index.html](http://www.ok.gov/DCS/Construction_& Properties/index.html)

**Oklahoma Net Metering** (O.A.C. § 165:40-9) - The OCC's rules require investor-owned utilities and electric cooperatives under the commission's jurisdiction to file net-metering tariffs for customer-owned renewable-energy systems and combined-heat-and-power (CHP) facilities up to 100 kilowatts (kW) in capacity. Net metering is available to all customer classes. There is no limit on the amount of aggregate net-metered capacity. Utilities are not allowed to impose extra charges for customers signed up for net metering, nor are they allowed to require new liability insurance as a condition for interconnection. Utilities are also not required to purchase net excess generation (NEG) from customers. However, a customer may request that the utility purchase NEG. In the utility agrees, then NEG will be purchased at the utility's avoided-cost rate. (Renewable Energy Standards; Net Metering; Intended audience: Commercial, Industrial, residential, general public/consumer) Enacted in 1988.

Source: <http://www.occ.state.ok.us>

## Oregon

**Biomass Logging Bill** (SB 1072) - This bill promotes the use of biomass from logging projects on federal land as both a restoration tool and electricity generation mechanism. It also directs the Oregon Department of Forestry to participate in federal forest project planning and land management. SB 1072 spells out that the "Policy of the State" of Oregon is to support efforts to build and place in service biomass fueled electrical power generation plants that utilize biomass collected from forests or derived from other sources, such as agriculture or municipal waste. SB 1072 requires the Oregon Board of Forestry to direct the State Forester to enter into stewardship contract agreements with federal agencies to carry out forest management activities on federal lands. (Regulation; Initiative; Intended audiences: Federal government, Oregon Department of Forestry, Oregon State Forester) Enacted in 2005.

Source: <http://www.leg.state.or.us/05reg/measpdf/sb1000.dir/sb1072.en.pdf>

**Oregon Net Metering** (OR Revised Statutes 757.300) - The limit on individual residential systems is 25 kW. Systems that generate electricity using solar power, wind power, hydropower, fuel cells or biomass resources are eligible. Net-metered systems must be intended primarily to offset part or all of a customer's requirements for electricity. Net excess generation (NEG) is either purchased at the utility's avoided-cost rate or credited to the customer's next monthly bill as a kilowatt-hour credit. At the end of an annual period, any unused NEG credit is granted to the electric utility. This credit, in turn, is then either granted to customers enrolled in the utility's low-income assistance programs, credited to the generating customer or dedicated to an "other use." (Renewable Energy Standards; Net Metering; Intended audiences: Commercial, Industrial, Residential, Nonprofit, Schools, Local Government, State Government, Federal Government, Agricultural, Institutional) Enacted in 1999.

Source: [http://www.energytrust.org/RR/PV/net\\_metering.html](http://www.energytrust.org/RR/PV/net_metering.html)

## Pennsylvania

**Alternative Energy Portfolio Standard** (73 P.S. § 1648.1 et seq.) - Pennsylvania's Alternative Energy Portfolio Standard (AEPS) (SB 1030), enacted November 30, 2004, requires each electric distribution company and electric generation supplier to retail electric customers in Pennsylvania to supply 18% of its electricity using alternative-energy resources by 2020. (Regulation; Standard; Intended audiences: Utility) Enacted in 2004.

Source: [http://www.puc.state.pa.us/electric/electric\\_alt\\_energy.aspx](http://www.puc.state.pa.us/electric/electric_alt_energy.aspx)

**Pennsylvania Net Metering** (73 P.S. § 1648.1 et seq.) – In Pennsylvania, investor-owned utilities must offer net metering to residential customers that generate electricity with systems up to 50 kilowatts (kW) in capacity; nonresidential customers with systems up to three megawatts (MW) in capacity; and customers with systems greater than 3 MW but no more than 5 MW who make their systems available to the grid during emergencies, or where a microgrid is in place in order to maintain critical infrastructure. Credited to customer's next bill at retail rate; PUC to address treatment of NEG remaining at end of 12-month period. (Renewable Energy Standards; Net Metering; Intended audiences: Commercial, Industrial, Residential, Nonprofit, Schools, Local Government, State Government, Federal Government, Agricultural, Institutional) Enacted in 2006.

Source: [http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive\\_Code=PA03R&state=PA&CurrentPageID=1&RE=1&EE=1](http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive_Code=PA03R&state=PA&CurrentPageID=1&RE=1&EE=1)

**Woody Biomass Harvesting Guidelines** (PA Department of Conservation and Natural Resources) - Contained guidelines for harvesting woody biomass for producing alternative energy, including: Responsible biomass harvesting may be best implemented opportunistically to take advantage of natural disturbances like wind damage, ice damage, pest invasions, and invasive plants. Carefully planned and implemented biomass harvesting can emulate beneficial silvicultural practices like removal of competing vegetation, thinning, and reforestation of abandoned mined lands. Forest biomass use in Pennsylvania may be most appropriate on a small scale as feedstock for single-facility thermal combustion rather than for large-scale ethanol production operations that require huge volumes of feedstock. Private forestlands will fare best under biomass harvesting scenarios if landowners carefully follow existing best management practices and get professional resource assistance. (Regulation; Standard) Enacted in 2008.

Source: <http://www.dcnr.state.pa.us/news/newsreleases/2008/0708-biomassreport.htm>

## Rhode Island

**Green Building Standards for State Facilities** (RI Executive Order 05-14) - Executive Order 05-14 requires any new, substantially expanded, or renovated building owned by the state, and state agencies, departments, offices, boards, commissions or institutions of higher learning to meet Leadership in Energy and Environmental Design (LEED) design, construction, operation and maintenance standards. Specifically, buildings must be designed to qualify for LEED Silver certification. The design, construction, operation and maintenance of these buildings

must also evaluate feasible energy efficiency measures on the basis of total life-cycle costs. (Regulation; Standards; Intended audience: State government) Enacted in 2005.

Source: <http://www.riseo.state.ri.us>

**Renewable Energy Standard** (R.I. Gen. Laws § 39-26-1 et seq.) - Rhode Island's Renewable Energy Standard requires the state's retail electricity providers -- including nonregulated power producers and distribution companies -- to supply 16% of their retail electricity sales from renewable resources by the end of 2019. Includes biomass facilities using eligible biomass fuels and maintaining compliance with current air permits; eligible biomass fuels may be co-fired with fossil fuels, provided that only the renewable-energy portion of production from multi-fuel facilities will be considered eligible. (Regulation; Standard; Intended audience: Utility, retail supplier) Enacted in 2004.

Source: <http://www.ripuc.org>

**Rhode Island Net Metering** (R.I. Gen. Laws § 39-1-27.7) - In August 1998, the Rhode Island Public Utilities Commission (PUC) issued an order requiring Narragansett Electric (now known as National Grid), an investor-owned utility that serves 99% of the state's mainland customers, to offer net metering to all customers generating electricity using renewable-energy systems with a maximum capacity of 25 kilowatts (kW). If a net-metered customer generates excess electricity during a billing period, then this net excess generation (NEG) is credited to the customer's billing period at a rate that is slightly less than the utility's retail rate. (Renewable Energy Standards; Net Metering; Intended audiences: Commercial, industrial, residential, nonprofit, schools, local government, agricultural, institutional) Enacted in 1998.

Source: <http://www.ripuc.state.ri.us>

## South Dakota

**High Performance Building Requirements for State Buildings** (SB 188) - In March 2008, South Dakota enacted legislation mandating the use of high performance building standards in new state construction and renovations. The new standard requires that covered state building projects achieve US Green Building Council LEED Silver certification. (Regulation; Standard; Intended audiences: State government) Enacted in 2008.

Source: [http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive\\_Code=SD03R&state=SD&CurrentPageID=1&RE=1&EE=1](http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive_Code=SD03R&state=SD&CurrentPageID=1&RE=1&EE=1)

**Renewable and Recycled Energy Objective** (HB 1123) – In February 2008, South Dakota enacted legislation establishing an objective that by 2015, 10% of all retail electricity sales be obtained from renewable and recycled energy. Qualifying electricity includes that produced from wind, solar, hydroelectric, biomass or geothermal technologies. (Regulation; Standard; Intended audiences: Municipal utility, investor-owned utility, rural electric cooperative, retail supplier) Enacted in 2008.

Source: [http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive\\_Code=SD02R&state=SD&CurrentPageID=1&RE=1&EE=1](http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive_Code=SD02R&state=SD&CurrentPageID=1&RE=1&EE=1)



## Texas

**City Public Service First E85 Fleet, Biomass-Derived Ethanol in Texas** (U.S. Department of Energy's State Energy Program) - City Public Service's (CPS) fleet has become the first in Texas to use corn- and forestry-derived ethanol as an alternative fuel. CPS began fueling 130 flexible fuel vehicles (FFVs), which amounts to 37% of its light-duty vehicles, with the environmentally friendly fuel at the beginning of June. Through the use of E85, CPS is exceeding its alternative fuel and vehicle requirements under the Energy Policy Act (EPA Act). (Regulation; Initiative; Intended audiences: City Transportation Fleet) Enacted in 2005.

Source: [http://apps1.eere.energy.gov/state\\_energy\\_program/project\\_brief\\_detail.cfm/pb\\_id=891](http://apps1.eere.energy.gov/state_energy_program/project_brief_detail.cfm/pb_id=891)

**Alternative Energy in New State Construction** (Texas Government Code § 2166.401 et seq.) - Texas requires state government departments to compare the cost of providing energy alternatives for new and reconstructed state government buildings and for certain construction or repair to energy systems and equipment. The governing body must determine economic feasibility for each function by comparing the estimated cost of providing energy for the function using conventional design practices and energy systems with the estimated cost of providing energy for the function using alternative energy devices during the economic life of the building. (Regulation; Standard; Intended audiences: State government) Enacted in 1995.

Source: [http://www.seco.cpa.state.tx.us/sa\\_codes.html](http://www.seco.cpa.state.tx.us/sa_codes.html)

**Fuel Mix and Emissions Disclosure** (TX PUC Rules §25.475) - Texas retail electric providers (REP) are required to disclose certain information to customers on an "Electricity Facts Label". (Regulation; Standard; Intended audience: Utility) Enacted in 2004.

Source: <http://www.powertochoose.org/>

**Interconnection Standards** (16 TAC § 25.211 et seq.) - The Texas Public Utility Regulatory Act (PURA) of 1999 included a provision that "a customer is entitled to have access 'to on-site distributed generation'" [§39.101(b)(3)]. This provision led the Public Utility Commission of Texas (PUCT) to adopt interconnection standards (Substantive Rules §25.211 and §25.212) in 1999. The rules apply to electrical generating facilities (consisting of one or more on-site distributed-generation units) located at a customer's point of delivery, with a maximum capacity of 10 megawatts (MW) and connected at a voltage less than 60 kilovolts (kV). The total capacity of a facility's individual on-site distributed generation units may exceed 10 MW. However, no more than 10 MW of capacity will be interconnected at any point in time at the point of common coupling. (Regulation; Standard; Intended audience: Commercial, industrial, residential) Enacted in 1999.

Source: <http://www.puc.state.tx.us/rules/subrules/electric/index.cfm>

**Renewable Generation Requirement** (Tex. Utilities Code § 39.904) - The Public Utility Commission of Texas (PUCT) adopted rules for the state's Renewable Energy Mandate, establishing a renewable portfolio standard (RPS), a renewable-energy credit (REC) trading program, and

renewable-energy purchase requirements for competitive retailers in Texas. The 1999 standard called for 2,000 megawatts (MW) of new renewables to be installed in Texas by 2009, in addition to the 880 MW of existing renewables generation at the time. In August 2005, S.B. 20 increased the renewable-energy mandate to 5,880 MW by 2015 (about 5% of the state's electricity demand). The 2005 legislation also set a target of reaching 10,000 MW of renewable energy capacity by 2025. (Regulation; Standards; Intended audience: (Investor-Owned Utility, Retail supplier [Municipal Utilities and co-ops may opt-in]) Enacted in 1999.

Source: <http://www.puc.state.tx.us/rules/subrules/electric/25.173/25.173ei.cfm>

**Texas Net Metering** (16 TAC § 25.242(h)(4)) - Public Utility Commission of Texas Substantive Rule § 25.242(h) requires any integrated investor-owned utility (IOU) that has not unbundled in accordance with § 39.051 of the federal Public Utility Regulatory Policy Act (PURPA) to provide specific net-metering options for customers that operate qualifying facilities (QFs) of 100 kilowatts (kW) or less that use non-renewable-energy resources, and to qualifying facilities of 50 kW or less that use renewable-energy resources. For eligible facilities, there is no statewide limit on the number of customers who may net meter, and there is no statewide limit on the total aggregate net-metered capacity under the rules. (Renewable Energy Standards; Net Metering; Intended audiences: Commercial, industrial, residential) Enacted in 2007.

Source: <http://www.puc.state.tx.us/rules/subrules/electric/25.242/25.242ei.cfm>

## Utah

**Renewable Portfolio Goal** (SB 202) - Specifically, the law requires that utilities only need to pursue renewable energy to the extent that it is "cost-effective" to do so. Investor-owned utilities, municipal utilities and cooperative utilities must use eligible renewables to account for 20% of their 2025 adjusted retail electric sales. Adjusted retail sales include the total kilowatt-hours (kWh) of retail electric sales reduced by the kWh attributable to nuclear power plants, demand-side management measures, and fossil fuel power plants that sequester their carbon emissions. (Regulation; Standard; Intended audiences: Municipal Utility, Investor-Owned Utility, Rural Electric Cooperative) Enacted in 2008.

Source: [http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive\\_Code=UT13R&state=UT&CurrentPageID=1&RE=1&EE=1](http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive_Code=UT13R&state=UT&CurrentPageID=1&RE=1&EE=1)

**Utah Net Metering** (Utah Code § 54-15-101 et seq. [amended by SB 84 of 2008]) - Utah requires all investor-owned utilities and most electric cooperatives to offer net metering to customers that generate electricity using solar energy, wind energy, hydropower, hydrogen, biomass, landfill gas or geothermal energy. Net metering is available for residential systems up to 25 kilowatts (kW) in capacity and non-residential systems up to two megawatts (MW) in capacity. Net metering is limited to 0.1% of each utility's peak demand during 2007. If a customer generates more electricity than the customer uses during a billing period, then the utility must credit the customer for the net excess generation (NEG) at a rate equal to the utility's avoided cost or higher. Customer NEG is carried over to the next customer's next monthly bill during a 12-month period. (Renewable Energy Standards; Net Metering; Intended audiences: Commercial, Industrial, Residential, Nonprofit, Schools, Local Government, State Government, Federal Government, Agricultural, Institutional) Enacted in 2002.

Source: <http://geology.utah.gov/sep/incentives/rincentives.htm#netmeter>

## Virginia

**State Buildings Energy Reduction Plan** (Executive Order 48) - The “Energy Efficiency in State Government” set out to reduce non-renewable energy purchases and increase overall energy savings. In addition, the order instructs the Commonwealth to encourage the private sector to adopt energy-efficient building standards by giving preference when leasing facilities for state use to facilities meeting LEED or EPA Energy Star Ratings. Agencies and institutions must also purchase or lease Energy Star rated equipment and appliances for all classifications for which an Energy Star designation is available. (Regulation; Initiative; Intended audiences: State Government, institutional) Enacted in 2007.

Source: <http://dmme.virginia.gov/contactus.shtml>

**Voluntary Renewable Energy Portfolio Goal** (SB 1416) - Under the goal, investor-owned utilities are encouraged to procure a percentage of the power sold in Virginia from eligible renewable energy sources. In addition to allowing for RPS program cost recovery to participating utilities, the Virginia State Corporation Commission (SCC) will provide a performance incentive in the form of an increased rate of return (profit) for each “RPS Goal” attained. Eligible energy resources include solar, wind, geothermal, hydropower, wave, tidal, and biomass energy. Hydropower excludes pumped storage, and the amount of wood derived from trees that would be otherwise used by Virginia lumber and pulp manufacturers is capped at 1.5 million tons annually. Electricity must be generated or purchased in Virginia or in the interconnection region of the regional transmission entity. (Regulation; Initiative; Intended audiences: Utility) Enacted in 2007.

Source: <http://www.mme.state.va.us/>

**Interconnection Standards** (Va. Code § 56-578) - The Virginia State Corporation Commission (SCC) first developed simplified interconnection rules for systems eligible for net metering in 2000. The rules were revised in 2005 after the capacity limit for non-residential systems was raised from 25 kilowatts (kW) to 500 kW. The rules were revised again in 2006 by permitting lease financing for net-metered systems and extending net metering to all systems that generate electricity using renewable energy, defined as "energy derived from sunlight, wind, falling water, sustainable biomass, energy from waste, wave motion, tides, and geothermal power." (Regulation; Standards; Intended audiences: Commercial, Industrial, Residential, Nonprofit, Schools, Local Government, State Government, Federal Government) Enacted in 1999.

Source: <http://www.scc.state.va.us>

**Virginia Net Metering** (Va. Code § 56-594) - Virginia's net-metering law applies to residential generating systems up to 10 kilowatts (kW) in capacity and non-residential systems up to 500 kW in capacity. The maximum capacity for non-residential systems was raised from 25 kW to 500 kW by SB 651 of 2004. In 2006, HB 1541 extended eligibility to all systems that generate electricity using renewable energy, defined as "energy derived from sunlight, wind, falling water, sustainable biomass, energy from waste, wave motion, tides, and geothermal power." Net metering is available on a first-come, first-served basis until the rated generating capacity owned and operated by customer-generators reaches 1% of an electric distribution company's adjusted Virginia peak-load forecast for the previous year. Net metering is available to customers of

investor-owned utilities and electric cooperatives, but not to customers of municipal utilities. (Renewable Energy Standards; Net Metering; Intended audiences: Commercial, Residential, Nonprofit, Schools, Local Government, State Government, Institutional) Enacted in 1999.

Source: <http://www.mme.state.va.us>

## Vermont

**Vermont Net Metering** (30 V.S.A. § 219a [amended by S.B. 209]) – Net metering is generally available to systems up to 250 kilowatts (kW) in capacity that generate electricity using eligible renewable-energy resources, and to micro-combined heat and power (CHP) systems up to 20 kW. “Renewable energy” is defined as “energy produced using a technology that relies on a resource that is being consumed at a harvest rate at or below its natural regeneration rate. (Renewable Energy Standards; Net Metering; Intended audiences: Commercial, Residential, Nonprofit, Schools, Local Government, State Government, Federal Government, Agricultural, Institutional) Enacted in 1998.

Source: [http://publicservice.vermont.gov/energy-efficiency/ee\\_netmetering.html](http://publicservice.vermont.gov/energy-efficiency/ee_netmetering.html)

## Washington

**Renewable Portfolio Standard** (WAC 480-109) - In 2006, Washington State passed a Renewable Energy Standard (RES) by ballot initiative I-937. The RES requires electric utilities that serve more than 25,000 customers in the state to generate 15 percent of their electric load from new renewables by the year 2020. The RES starts at three percent of a utility's load for 2012 to 2015, rising to nine percent for 2016 to 2019, and 20 percent from 2020 forward. Renewably fueled DG with a capacity of not more than 5 MW is eligible under the renewable portion of the RES. DG may also be counted as double the facility's electrical output if the utility owns the facility, has contracted for the DG and associated RECs, or has contracted to purchase only the related RECs. Renewable resources include electricity produced from: water; wind; solar energy; geothermal energy; landfill gas; wave, ocean, or tidal power; gas from sewage treatment facilities; biodiesel fuel (must meet specified standards); and biomass energy based on animal waste or solid organic fuels from wood, forest, or field residues, or dedicated energy crops. (Regulation; Standard; Intended audiences: Utility) Enacted in 2006.

Source: <http://www.cted.wa.gov/site/1001/default.aspx>

**Washington Net Metering** (Rev. Code Wash. § 80.60) - Washington's net-metering law applies to systems up to 100 kilowatts (kW) in capacity that generate electricity using solar, wind, hydro, biogas from animal waste, or combined heat and power technologies (including fuel cells). All customer classes are eligible, and all utilities -- including municipal utilities and electric cooperatives -- must offer net metering. Net metering is available on a first-come, first-served basis until the cumulative generating capacity of net-metered systems equals 0.25% of a utility's peak demand during 1996. This limit will increase to 0.5% on January 1, 2014. At least one-half of the utility's 1996 peak demand available for net-metered systems is reserved for systems generating electricity using renewables. (Renewable Energy Standards; Net Metering; Intended audiences: Commercial, industrial, residential) Enacted in 1998.

Source: <http://northwestsolarcenter.org/Faq/faq.html>

## West Virginia

**West Virginia Net Metering** (West Virginia PSC Order, Case No. 06-0708-E-GI) - The approved consensus for net metering applies to residential and commercial systems up to 25 kilowatts (kW) in capacity that generate electricity using photovoltaics (PV), wind, biomass, landfill gas, hydropower or fuel cells. Net excess generation (NEG) will be carried over to a customer-generator's next bill, for up to 12 months, as a kilowatt-hour (kWh) credit. Net-metering tariffs must be identical in rate structure, retail-rate components, and monthly charges, to the contract or tariff for which the customer would qualify if that customer were not a customer-generator. (Renewable Energy Standards; Net Metering; Intended audiences: Commercial, residential) Enacted in 2006.

Source: <http://www.psc.state.wv.us>

## Wisconsin

**Wisconsin Green Power Purchasing** (Wis. Stat. § 16.75(12)) - Under terms of legislation (SB 459) enacted in March 2006, Wisconsin's Departments of Administration, Corrections, Health and Family Services, Natural Resources, Public Instruction, Veterans Affairs, the State Fair Park Board, and the Board of Regents of the University of Wisconsin System have a goal of purchasing or generating 10% of their power from renewable energy by December 31, 2007, and 20% by December 31, 2011. (Regulation; Initiative; Intended audiences: State government) Enacted in 2006.

Source: [http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive\\_Code=WI12R&state=WI&CurrentPageID=1&RE=1&EE=1](http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive_Code=WI12R&state=WI&CurrentPageID=1&RE=1&EE=1)

**Focus on Energy Program** (Wis. Stat. § 16.957) - Wisconsin's public benefits fund (PBF), created by Act 9 of 1999, supports energy efficiency and renewable energy, and energy assistance for low-income residents. Beginning 7/1/07, each utility is required to spend 1.2% of its annual operating revenue on efficiency and renewables. (Regulation; Initiative; Intended audiences: Commercial, Industrial, Residential, General Public/Consumer, Local Government, Utility, Tribal Government, Federal Government, Institutional) Enacted in 1999.

Source: <http://www.focusonenergy.com>

**Biomass Production Plan** (Clean Energy Wisconsin) - "Growing more biomass for the future" by 2015: produce 350,000 tons/year; by 2020: 1,000,000 tons/year; by 2025: 3,000,000 tons/year. (Regulation; Initiative) Enacted in 2008.

Source: <http://www.wisgov.state.wi.us/docview.asp?docid=13459>

**Biomass Market Development** (Clean Energy Wisconsin) - Partner with loggers in northwest and farmers in southwest Wisconsin to develop farm and forest crops that can serve as a substitute for coal electricity generation and oil used for transportation fuels. Additionally, the WDNR

will create healthy forest guidelines for harvesting woody biomass to generate fuels of the future. (Regulation; Initiative; Intended audiences: Loggers, farmers) Enacted in 2008.

Source: <http://www.wisgov.state.wi.us/docview.asp?docid=13459>

**Biomass Commodity Exchange** (Clean Energy Wisconsin) - The Wisconsin Office of Energy Independence will oversee a feasibility study for the creation of a biomass commodity exchange to help match renewable energy demands with biomass supply. It will investigate the possibility of creating a transparent market system for buying and selling biomass products and would also develop a model for oversight. (Regulation; Initiative) Enacted in 2008.

Source: <http://www.wisgov.state.wi.us/docview.asp?docid=13459>

**Great Lakes Biomass State-Regional Partnership** (Council of Great Lakes Governors) - There are three main components to the GLBSRP; (1) State grants; (2) region-wide demonstration and technology transfer; and, (3) in-house management and support. (Regulation; Initiative; Intended audiences: Illinois, Indiana, Iowa, Michigan, Minnesota, Ohio, and Wisconsin Governors) Enacted in 1983.

Source: <http://www.cglg.org/biomass/index.asp>

**Renewable Portfolio Standard** (Wis. Stat. § 196.378) - Legislation (SB 459) enacted in March 2006 increased renewable-energy requirements and established an overall statewide renewable-energy goal of 10% by December 31, 2015. (Regulation; Standard; Intended audiences: Municipal Utility, Investor-Owned Utility, Rural Electric Cooperative, Retail Supplier) Enacted in 2006.

Source: <http://psc.wi.gov/utilityinfo/electric/newsInfo/renewableResource.htm>

**Wisconsin Net Metering** (PSCW Order, Docket No. 05-EP-6) - All regulated utilities to file tariffs allowing net metering to customers that generate electricity with systems up to 20 kilowatts (kW) in capacity. The order applies to investor-owned utilities and municipal utilities, but not to electric cooperatives. All distributed-generation (DG) systems, including renewables and combined heat and power (CHP), are eligible. Customer net excess generation (NEG) is generally credited at the utility's retail rate for renewables, and at the utility's avoided-cost rate for non-renewables. NEG credit is carried over to the customer's next bill. (Renewable Energy Standards; Net Metering; Intended audiences: Commercial, industrial, residential) Enacted in 1992.

Source: <http://psc.wi.gov/apps/tariffs/content/elelist.aspx>

## Wyoming

**Wyoming Net Metering** (Wyo. Stat. § 37-16-101 et seq.) - The law applies to investor-owned utilities and electric cooperatives. Eligible technologies include solar, wind, biomass and hydropower systems up to 25 (kilowatts) kW. Net excess generation (NEG) is credited to the following month. When an annual period ends, a utility will purchase unused credits at the utility's avoided-cost rate. (Renewable Energy Standards; Net Metering; Intended audiences: Commercial, industrial, residential) Enacted in 2001.

Source: [http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive\\_Code=WY01R&state=WY&CurrentPageID=1&RE=1&EE=1](http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive_Code=WY01R&state=WY&CurrentPageID=1&RE=1&EE=1)



## **Education and Consultation**

### **Alabama**

**Electric Power and Renewable Energy** (U.S. Department of Energy's State Energy Program) - The Renewable Energy Demonstrations Activity promoted the adoption of renewable energy through demonstration projects that showcased commercially available renewable energy technologies for biofuels, biomass energy, biogas, and solar energy applications. (Education and Consultation; Public Education and Outreach; Target audience: All). Enacted in 2006.

Source: [http://www.eere.energy.gov/state\\_energy\\_program/grants\\_by\\_state.cfm/state=AL](http://www.eere.energy.gov/state_energy_program/grants_by_state.cfm/state=AL)

**Renewable Fuels Program** (U.S. Department of Energy's State Energy Program) - The Renewable Fuels Program promoted the use of renewable fuels by industry and institutions and provided information on available biomass fuels and on incentives for converting to biomass fuels. (Education and Consultation; Public Education and Outreach; Target audience: Industrial) Enacted in 2005.

Source: [http://www.eere.energy.gov/state\\_energy\\_program/grants\\_by\\_state.cfm/year=2005/state=AL](http://www.eere.energy.gov/state_energy_program/grants_by_state.cfm/year=2005/state=AL)

**Biomass Program** (U.S. Department of Energy's State Energy Program) - Science, Technology & Energy (STE) promoted industrial use of renewable fuels and provided information on available biomass fuels and on incentives for converting from fossil fuels to alternative fuels. It developed brochures and other promotional materials and coordinated with federal agricultural organizations to promote energy efficiency in agriculture. (Education and Consultation; Public Education and Outreach; Target audience: Agriculture) Enacted in 2003

Source: [http://www.eere.energy.gov/state\\_energy\\_program/grants\\_by\\_state.cfm/year=2003/state=AL](http://www.eere.energy.gov/state_energy_program/grants_by_state.cfm/year=2003/state=AL)

### **Arkansas**

**Energy and Value-Added Products from Biomass** (Southeastern Regional Biomass Energy Program) - The purpose of this project is to briefly describe energy and value-added products from biomass workshop, which will be developed specifically for the people of the State of Arkansas as it relates to biomass utilization in the state and region. The workshop will unite biomass experts with Arkansas legislators and key decision makers on this important issue. The two-fold objective of this workshop will be to educate legislators, entrepreneurs, the business and manufacturing community, community leaders and interested citizens on the potential for biomass, and especially Arkansas biomass, in the production of energy and value-added products. Secondly, the information from the workshop will serve as a basis for legislators and decision makers to begin discussing and developing biomass policies in preparation for the 2007 legislative session. Amount: SERBP \$48,000; cost share \$13,362. (Service provision; Education; Target audience: Legislators, entrepreneurs, business, manufacturing) Enacted in 2005.

Source: <http://www.serbep.org>

## California

**Renewable Fuels Program** (U.S. Department of Energy's State Energy Program) - Promote the use of renewable fuels by industry and institutions and provided information on available biomass fuels and on incentives for converting to biomass fuels. This includes agriculture, bioenergy and bio-based products, waste management and recycling, and water systems. (Service Provision; Initiative) Enacted in 2005.

Sources: [http://www.eere.energy.gov/state\\_energy\\_program/grants\\_by\\_state.cfm/year=2005/state=CA](http://www.eere.energy.gov/state_energy_program/grants_by_state.cfm/year=2005/state=CA)  
<http://www.calrenewablefuels.com/index.html>

## Colorado

**The Woody Biomass Program** (Governor's Energy Office) - Replaced traditional fuels with biomass. It supported biomass efforts to use woody wastes from forest thinnings and urban weather destruction events; other agricultural wastes such as plant remains after harvests; animal wastes (manure and body parts) from slaughter facilities and farming operations; and grown-for-energy-conversion plantings. It brought together all member groups within targeted industries to form coalitions or working groups to further biomass use plans. It employed demonstrations using off-the-shelf material and devices to showcase energy possibilities. It prepared, published, and disseminated comprehensive reports on the efforts. (Education and Consultation; Initiative; Target audiences: Colorado Communities) Enacted in 2007.

Source: <http://www.colorado.gov/energy/renewables/Woody-Biomass.asp>

**Colorado Biomass Market Transformation** (U.S. Department of Energy's State Energy Program) - The Colorado Governor's Office of Energy Management and Conservation (OEMC) funded studies, demonstrated technologies, shared results, and developed internal expertise. Through Rebuild Colorado, OEMC helped state and local governments implement \$100 million worth of facility upgrade projects with performance contracts. The bio-based fuel of choice in Colorado is wood chips from forest thinning projects for use in heating buildings. State and local governments, particularly in forested areas, are motivated to thin forests to reduce the danger of forest fires so the ability to use the forest thinnings for energy is viewed as a win-win prospect. This activity implemented eight projects that will save \$1.6 million and use 20,000 tons of wood chips per year. (Education and Consultation; Loan) Enacted in 2005.

Source: [http://www.eere.energy.gov/state\\_energy\\_program/project\\_detail.cfm/sp\\_id=819](http://www.eere.energy.gov/state_energy_program/project_detail.cfm/sp_id=819)

**Market-Based Green Tag Program for Electricity from Forest Biomass and Coal** (U.S. Department of Energy's State Energy Program) - The idea is to sell green tags from the biomass portion of the electricity generated through co-firing to residents, businesses and government agencies to help offset the additional cost of biomass when compared to coal. Green tags can be sold to anyone and are not limited by geography or utility service territory. To market and sell green tags from the power, project partners will perform the following: identify and meet regulatory and green power certification requirements; work with certification programs to negotiate certification of forest biomass; develop a green tag pricing policy for the power provider; conceive and implement a business model for selling green tags to consumers; develop a

marketing plan and materials for the program; implement the green tags program; and document the program results. (Service provision; Initiative) Enacted in 2003.

Source: [http://www.eere.energy.gov/state\\_energy\\_program/project\\_detail.cfm/sp\\_id=552](http://www.eere.energy.gov/state_energy_program/project_detail.cfm/sp_id=552)

## Connecticut

**Renewable Energy Project** (U.S. Department of Energy's State Energy Plan) - The Renewable Energy Project explored opportunities to obtain Renewable Energy Credits for the state from its fuel cell installation at the Connecticut Juvenile Training School and other renewable energy sites, instituted a renewable energy project at a Department of Corrections facility, attended and participated in Solar Connecticut and Biomass Working Group meetings, and worked with other state agencies on renewable programs and projects that are part of Connecticut's Climate Change Action Plan. (Service Provision; Initiative; Target audience: Commercial, industrial, energy project developers) Enacted in 2006.

Source: [http://apps1.eere.energy.gov/state\\_energy\\_program/grants\\_by\\_state.cfm/state=CT](http://apps1.eere.energy.gov/state_energy_program/grants_by_state.cfm/state=CT)

**Connecticut Biomass Working Group** (U.S. Department of Energy's State Energy Program) - The Connecticut energy office participated in a biomass working group as part of the Northeast Regional Biomass Program. It worked with the Department of Environmental Protection to exchange information and improve communication as it related to biomass activities and opportunities. (Service provision; Initiative; Target audiences: all) Enacted in 2003.

Source: [http://apps1.eere.energy.gov/state\\_energy\\_program/grants\\_by\\_state.cfm/year=2003/state=CT](http://apps1.eere.energy.gov/state_energy_program/grants_by_state.cfm/year=2003/state=CT)

## Florida

**Development of an Integrated Biomass Resource Plan and Network for Florida** (Southeastern Regional Biomass Energy Program) - The goal of this project is to offset petroleum imports by building a Florida bio-based economy. The objectives center around policy formulation and support. Two major tasks are planned. The first task involves creating a portfolio of biomass resource maps and identifying installed and potential biomass energy production capacity (to include biofuel refineries). The second task seeks to create a Florida Biomass Network that will assist the Florida Energy Office (FEO) with strategic planning for its biomass program and advise the FEO on specific biomass projects. Amount: SERBP \$48,000; cost share \$12,000. (Education and Consultation; Education) Enacted in 2005.

Source: <http://www.serbep.org>

**Bioenergy Development Program** (U.S. Department of Energy's State Energy Program) - The Bioenergy Development Program fostered the development of biomass technology and increased the use of biomass energy. It provided for the education and promotion to the public of biomass energy as a reliable, market-ready alternative energy source that is available to all segments of society. Activities included hosting a

statewide biomass network to facilitate information sharing, and conducted continuing research and demonstration of biomass and biogas technologies and practices. Projects linked biomass gasification technologies with production of alternative energy fuels such as hydrogen and ethanol. (Education and Consultation; Education) Enacted in 2006.

Source: [http://apps1.eere.energy.gov/state\\_energy\\_program/grants\\_by\\_state.cfm/state=FL](http://apps1.eere.energy.gov/state_energy_program/grants_by_state.cfm/state=FL)

**Biomass Project** (U.S. Department of Energy's State Energy Program) - The Biomass Project fostered development of biomass technology and increased the use of biomass energy. It provided for the education and promotion to the public of biomass energy as a reliable, market-ready alternative energy source that is available to all segments of society. It created resource maps of biomass and biofuels potential in Florida, developed a statewide biomass network to facilitate information sharing, and conducted continuing research and demonstration of biomass and biofuels technologies and practices.(Service Provision; Initiative) Enacted in 2006.

Source: [http://apps1.eere.energy.gov/state\\_energy\\_program/grants\\_by\\_state.cfm/state=FL](http://apps1.eere.energy.gov/state_energy_program/grants_by_state.cfm/state=FL)

## Hawaii

**Technology Innovation Activity** (U.S. Department of Energy's State Energy Program) - The Technology Innovation activity identified and promoted opportunities that advance technology innovation and use of renewable resources for utility and stationary power and transportation. It complemented and supported the state's biomass, geothermal, and hydrogen programs and other advanced renewable energy technology programs. (Education and Consultation; Initiative) Enacted in 2005.

Source: [http://apps1.eere.energy.gov/state\\_energy\\_program/grants\\_by\\_state.cfm/year=2005/state=HI](http://apps1.eere.energy.gov/state_energy_program/grants_by_state.cfm/year=2005/state=HI)

## Idaho

**Fuels for Schools** (USDA) - Our mission is to facilitate and promote the beneficial use of woody biomass "waste" created by forest management treatments. Improved use of forest biomass has many benefits: it can improve air quality by reducing slash pile burning, lower land management costs, improve forest health and resilience, economically assist in protecting communities and watersheds from wildfire, provide low cost, locally sourced heating fuel, reduce fossil fuel consumption, and create rural jobs. (Education and Consultation; Initiative; Intended audiences: Schools) Enacted in 2004.

Source: <http://www.fuelsforschools.info>

## Iowa

**Fostering Bio-Products Markets: Markey Conditioning for an Iowa Rebuild America Community** (U.S. Department of Energy's State Energy Program) - This project significantly increased the use and procurement of biomass-based technologies and products in an Iowa Rebuild America community. Bioproduct markets include biofuels, lubricants and fluids, construction materials, biobased furniture, and mulch and soil conditioners. The project developed and issued the RFP to select the target community, coordinated the efforts, assisted with data collection and analysis, and reported project activities and outcomes to the U.S. Department of Energy. (Service Provision, Initiative) Enacted in 2005.

Source: [http://apps1.eere.energy.gov/state\\_energy\\_program/project\\_detail.cfm/sp\\_id=839](http://apps1.eere.energy.gov/state_energy_program/project_detail.cfm/sp_id=839)

## Kansas

**Kansas Biomass Energy Resources Assessment** (U.S. Department of Energy's State Energy Program) - The Kansas Biomass Energy Resources Assessment assessed, at the county level, the magnitude of production/generation and geographic distribution. It presented alternative uses of selected components of the Kansas biomass resource base. It also evaluated the economic and technical feasibility of using these resources for alternative energy, evaluated the potential for producing and using other biomass energy crops and resources, determined and calculated supply curves for each feedstock assessed, with projections of supply and costs over the next 10 years, and assessed the economic and technical feasibility of each component. (Education and Consultation; Assessment) Enacted in 2003.

Source: [http://apps1.eere.energy.gov/state\\_energy\\_program/grants\\_by\\_state.cfm/year=2003/state=KS](http://apps1.eere.energy.gov/state_energy_program/grants_by_state.cfm/year=2003/state=KS)

## Louisiana

**Revision, Update and Distribution of the Booklet Biomass Energy Resources in Louisiana** (Southeastern Regional Biomass Energy Program) - The goal of this project is to develop a publication on biomass use and potential for energy in Louisiana. The publication will be distributed to legislators, policy-makers, planners and other individuals with an interest in developing efficient energy systems for the economies of Louisiana and other states with similar biomass resources. Amount: SERBP \$48,000; cost share \$11,029 (Education and consultation; Education) Enacted in 2005.

Source: <http://www.serbep.org/>

**Renewable Biomass Resources Program** (U.S. Department of Energy's State Energy Program) - The Renewable Biomass Resources Program developed a comprehensive, interactive Web-based database that identifies, quantifies, and geographically locates all potential renewable energy resources in the state and evaluated the economic development potential and the environmental impact of alternative farming and silvicultural practices. (Service provision, Initiative) Enacted in 2008.

Source: [http://apps1.eere.energy.gov/state\\_energy\\_program/grants\\_by\\_state.cfm/year=2006/state=LA](http://apps1.eere.energy.gov/state_energy_program/grants_by_state.cfm/year=2006/state=LA)

## Massachusetts

**The Biomass Energy Policy and Market Development Program** (U.S. Department of Energy's State Energy Program) - The Biomass Energy Policy and Market Development Program promoted biomass with a comprehensive biomass energy policy initiative to improve the policy and market conditions and foster biomass economic development. The project informed the Renewable Portfolio Standard eligibility criteria for biomass projects and forestry management, assessed the regional woody biomass resource, and evaluated the potential for rural economic development. It increased the use of biofuels and biodiesel for building heating through outreach, formal collaboration with other state agencies to formalize comprehensive biomass energy policy and implementation plan, engaging with public and private sectors to inform policy discussions and understand and address issues, promote project activities within state agencies and private market to adopt bioenergy fuels, legal review and input, outreach policy and project development to industry, municipalities, concerned citizens, and renewable energy developers. (Service provision; Initiative; Intended audiences: Industry, municipalities, citizens, renewable energy developers) Enacted in 2006.

Source: [http://apps1.eere.energy.gov/state\\_energy\\_program/grants\\_by\\_state.cfm/year=2006/state=MA](http://apps1.eere.energy.gov/state_energy_program/grants_by_state.cfm/year=2006/state=MA)

## Michigan

**Biomass Curriculum** (U.S. Department of Energy's State Energy Program) - This proposal seeks funding for the development of education curriculum materials on biomass-based technologies for use in middle schools and high schools. This project will address the multidisciplinary field of bioenergy and bio-product development. The biomass energy curriculum project will be conducted by Michigan Association of Conservation Districts (MACD). MACD will create a network of partners who are interested in promoting biomass energy to develop curriculum for middle school and high school students. The curriculum will cover the following:

- History of biomass energy
- Converting biomass into usable sources
- Carbon cycle and photosynthesis
- Biobased options and primary barriers of biomass technologies
- Harvesting, storage, and handling considerations for cellulosic biomass.

(Education and Consultation; Education; Intended audiences: Middle schools, High schools) Enacted in 2003.

Source: [http://www.eere.energy.gov/state\\_energy\\_program/project\\_detail.cfm/sp\\_id=600](http://www.eere.energy.gov/state_energy_program/project_detail.cfm/sp_id=600)

## Missouri

**Biomass Power Program** (U.S. Department of Energy's State Energy Program) - The Biomass Power Program worked with various parties, including poultry growers, confined animal feeding operations, and utilities, to explore, demonstrate and assist with project development in connection with the use of biomass materials as energy sources. It explored the use of methane from animal wastes as an energy source and of various biomass resources for electrical generation and for use as heat sources. It also evaluated tax credit applications and certified tax credits

under the state's Wood Energy Tax Credits, which provides an incentive for the conversion of waste wood biomass to energy sources. (Education and Consultation; Consultation) Enacted in 2006.

Source: [http://www.eere.energy.gov/state\\_energy\\_program/grants\\_by\\_state.cfm/year=2006/state=MO](http://www.eere.energy.gov/state_energy_program/grants_by_state.cfm/year=2006/state=MO)

**The Bioenergy and Biobased Products Program** (U.S. Department of Energy's State Energy Program) - The Bioenergy and Biobased Products Program evaluated tax credit applications and certified tax credits under the state's Wood Energy Tax Credits, which provided an incentive for the conversion of waste wood biomass to energy sources. It managed the Biomass Marketing Study being conducted by the University of Missouri and funded through the Biomass State Regional Partnership program, worked with the Department of Corrections to investigate the use of wood for heating and cooling at Missouri correctional facilities, and investigated the feasibility of using wood to heat and cool rural schools. (Education and Consultation; Consultation) Enacted in 2006.

Source: [http://www.eere.energy.gov/state\\_energy\\_program/grants\\_by\\_state.cfm/year=2006/state=MO](http://www.eere.energy.gov/state_energy_program/grants_by_state.cfm/year=2006/state=MO)

**Department Biomass Team** (U.S. Department of Energy's State Energy Program) - The Department Biomass Team coordinated and provided support for the department's bioenergy and biobased products work. It supported department policies and operational procedures developed to guide the activities of the department and ensure optimal response to bioenergy and biobased product development opportunities and fostered a holistic approach that led to improved efficiencies (internal, industrial and utility), the increased use of biomass resources, and improvements in environmental quality. (Education and Consultation; Consultation) Enacted in 2005.

Source: [http://www.eere.energy.gov/state\\_energy\\_program/grants\\_by\\_state.cfm/year=2005/state=MO](http://www.eere.energy.gov/state_energy_program/grants_by_state.cfm/year=2005/state=MO)

**Biopower Decisions Tools Project** (U.S. Department of Energy's State Energy Program) - The Biopower Decision Tools Project conducted informational and marketing activities to get the word out about the Biopower Decision Tools biomass energy analysis kit. It supported rural electric cooperatives and others who wished to use the Biopower Decision Tools kit to analyze the potential for bioenergy investments. (Education and Consultation; Education) Enacted in 2005.

Source: [http://www.eere.energy.gov/state\\_energy\\_program/grants\\_by\\_state.cfm/year=2005/state=MO](http://www.eere.energy.gov/state_energy_program/grants_by_state.cfm/year=2005/state=MO)

**Renewable Energy Assessment and Outreach** (U.S. Department of Energy's State Energy Program) - The Renewable Energy Assessment and Outreach activity coordinated and supported bioenergy and bio-based products work by hosting cross-programmatic discussions with staff involved in permitting, enforcement, financial, and technical assistance and policy. Department policies and operational procedures were developed, and a holistic approach was fostered that leads to improved efficiencies (internal, industrial, and utility), the increased use of biomass resources, and improvements in environmental quality. It also provided tax incentives to eligible companies for the use of wood waste. (Education and Consultation; Education) Enacted in 2003.

Source: [http://www.eere.energy.gov/state\\_energy\\_program/grants\\_by\\_state.cfm/year=2003/state=MO](http://www.eere.energy.gov/state_energy_program/grants_by_state.cfm/year=2003/state=MO)



## Nevada

**Wood Use Center** (FireSafe Council of Nevada) - One of several community prioritized projects to help mitigate the hazard of wildfire within a Community Wildfire Protection Plan. Instead of burning residual material from fuels reduction and property cleanup, urban and rural property owners bring that biomass to a sort center at an existing transfer station where they currently bring their other recyclables and their garbage. There, it is sorted for different uses, and sold to help pay for further fuels reduction work in the community. (Service Provision; Initiative; Intended audiences: Urban and Rural Property Owners) Enacted in 2005.

Source: <http://www.sbcouncil.org/Nevada-County-Wood-Use-Center>

## New Hampshire

**Renewable Energy Program** (U.S. Department of Energy's State Energy Program) - The Renewable Energy Program established a baseline contribution—measured in million Btu energy use for solar (photovoltaic and thermal), biomass/biofuels (biodiesel, wood chips, and other), wind (electric), and hydro (electric); provided technical assistance either directly or through special projects to state agencies, local groups, industries, citizens, and businesses seeking to be involved in renewable energy; and implemented the Natural Flora Utilization Project, which included monitoring of state-leased biomass resources and enhancement of sustainable forestry practices in local communities. (Service Provision, Initiative) Enacted in 2006.

Source: [http://www.eere.energy.gov/state\\_energy\\_program/grants\\_by\\_state.cfm/year=2006/state=NH](http://www.eere.energy.gov/state_energy_program/grants_by_state.cfm/year=2006/state=NH)

## New Mexico

**Biomass Program** (U.S. Department of Energy's State Energy Program) - Identified, assessed, and implemented forest and dairy biomass projects. Activities included electricity generation and thermal applications, monitoring and evaluation, and distribution of a study on projects to the communities and schools around the state. The program also conducted public workshops on forest-dairy biomass, a detailed engineering study to evaluate a school in New Mexico, and a biomass project. (Education and Consultation; Initiative) Enacted in 2005.

Source: [http://www.eere.energy.gov/state\\_energy\\_program/grants\\_by\\_state.cfm/year=2005/state=NM](http://www.eere.energy.gov/state_energy_program/grants_by_state.cfm/year=2005/state=NM)

**The Biomass Utilization Activity** (U.S. Department of Energy's State Energy Program) - Evaluated the wood biomass resource available in the Las Vegas and Ruidoso areas to determine whether it can be used to produce electricity or other by-products and evaluated market penetration for biomass use. The Biomass Project built a central heating system for the Jemez Mountain Public School, which uses biomass fuels such as wood chips from surrounding forests. (Service Provision; Initiative) Enacted in 2003.

Source: [http://www.eere.energy.gov/state\\_energy\\_program/grants\\_by\\_state.cfm/year=2003/state=NM](http://www.eere.energy.gov/state_energy_program/grants_by_state.cfm/year=2003/state=NM)

## New York

**System Benefits Charge** (New York PSC Opinion No. 96-12 [Cases 94-E-0952 et al.]) - \$1.86 billion through 2011; New York's system benefits charge (SBC), established in 1996 by the New York Public Service Commission (PSC), supports energy efficiency, education and outreach, research and development, and low-income energy assistance. To support the SBC program, the state's six investor-owned electric utilities collect funds from customers through a surcharge on customers' bills. Each year from 2006-2011, each utility must collect and remit to the New York State Energy Research and Development Authority (NYSERDA) a sum equal to 1.42% of the utility's 2004 revenue. (Education and Consultation; Initiative; Intended audience: Commercial, Industrial, Residential, General Public/Consumer, Utility, Institutional) Enacted in 1996.

Source: <http://www.getenergysmart.org>

## North Carolina

**Assessing Renewable Resources** (U.S. Department of Energy's State Energy Program) - The Assessing Renewable Resources activity assessed potential energy generation from biomass, solar, and hydropower sources. An estimate of current and projected energy production from these sources was completed. Near-term commercial processes for converting renewable energy into useful fuels and power will be outlined. (Education & Consultation; Consultation) Enacted in 2004.

Source: [http://apps1.eere.energy.gov/state\\_energy\\_program/grants\\_by\\_state.cfm/year=2004/state=NC](http://apps1.eere.energy.gov/state_energy_program/grants_by_state.cfm/year=2004/state=NC)

**Clean Technology Demonstration** (U.S. Department of Energy's State Energy Program) - The Clean Technology Demonstration project developed demonstration projects of commercially available technologies and techniques that focused on clean energy technologies such as fuel cells, biomass, wind, solar, and geothermal. It was included under Clean Technology Demonstration area. (Education and Consultation; Consultation) Enacted in 2004.

Source: [http://apps1.eere.energy.gov/state\\_energy\\_program/grants\\_by\\_state.cfm/year=2004/state=NC](http://apps1.eere.energy.gov/state_energy_program/grants_by_state.cfm/year=2004/state=NC)

**Development for Biobased Technologies and Products through DOE's Energy Efficiency and Renewable Energy Programs** (U.S. Department of Energy's State Energy Program) - The North Carolina Energy Office, in conjunction with the North Carolina Solar Center at North Carolina State University, the New Uses Council, and the Environmental and Energy Study Institute are working together to promote greater awareness and adoption of biobased fuels and products through an array of DOE EERE's outreach programs. The primary goal of this project is to increase EERE's outreach partners' understanding and awareness of biomass resources, uses, and technologies, thereby encouraging broader adoption of biobased products. (Service Provision; Initiative) Enacted in 2004.

Source: [http://apps1.eere.energy.gov/state\\_energy\\_program/project\\_detail.cfm/sp\\_id=748](http://apps1.eere.energy.gov/state_energy_program/project_detail.cfm/sp_id=748)

**Renewables in Schools Projects** (U.S. Department of Energy's State Energy Project) – The Renewables in Schools Projects improved the energy efficiency of schools by providing renewable energy demonstration projects that can be replicated at other school sites in North Carolina. These systems included solar hot water systems, daylighting systems, solar electric systems, wind energy systems, and biomass to energy conversion systems. (Education and Consultation; Education; Intended audience: Schools) Enacted in 2006.

Source: [http://apps1.eere.energy.gov/state\\_energy\\_program/grants\\_by\\_state.cfm/state=NC](http://apps1.eere.energy.gov/state_energy_program/grants_by_state.cfm/state=NC)

## North Dakota

**Biomass Energy Task Force** (North Dakota Alliance for Renewable Energy) - NDARE promotes development and use of home grown biodiesel as it also helps reduce our dependence on foreign oil and adds value to North Dakota resources. As with ethanol, NDARE works to improve public awareness and help provide verifiable information to help increase public acceptance and demand for advancing development of new technologies that adds to the diversity of feedstocks and processes for biodiesel and biofuel production. (Education and Consultation; Education) Enacted in 2007.

Source: <http://www.ndare.org/#bio>

**Biomass Incentive and Research Program** (North Dakota Industrial Commission) - The mission of the Biomass Incentive and Research Program is to promote the growth of North Dakota's biomass industry efforts through research and development. The Program's responsibilities include establishing an incentive program to assist the agricultural community to demonstrate the production, harvest, storage and delivery of biomass feedstock on a commercial scale to a private sector end user, provide funds for incentives, including producer payments to provide income support during the critical biomass stand establishment period of two years without harvest, in the case of native grasses, or other perennial biomass crops, work in cooperation with the Game and Fish Department to establish a private land open to sportsmen program biomass demonstration project, and establish a project on a scale sufficient to enable at least one group of cooperating agricultural producers, and preferably two groups in different regions of the state, to produce, harvest, store and deliver biomass feedstock to an end user at commercial scale. The 2007 Legislature established a Biomass Incentive and Research Fund and authorized that the Industrial Commission may transfer up to \$2,000,000 for this program from other Industrial Commission agricultural programs. See printed documents for further information. (Service provision; Program) Enacted in 2007.

Source: <http://www.nd.gov/ndic/biomass-infopage.htm>

## Ohio

**Renewable Energy Supply Chain** (U.S. Department of Energy's State Energy Program) - Supported outreach activities that linked Ohio companies with major renewable energy players both within and outside of the state and aligned and linked Ohio's research community with

Ohio's industry strengths in renewable energy technologies (e.g. solar PV, wind and biomass), and developed a Renewable Energy Supply Chain database. (Education and Consultation; Outreach) Enacted in 2005.

Source: [http://apps1.eere.energy.gov/state\\_energy\\_program/grants\\_by\\_state.cfm/year=2005/state=OH](http://apps1.eere.energy.gov/state_energy_program/grants_by_state.cfm/year=2005/state=OH)

**Biomass Task Force** (U.S. Department of Energy's State Energy Program) - Investigated benefits, obstacles, and issues related to recovering methane from livestock operations and other biomass resources to produce energy and reduce organic waste. (Education and Consultation; Research) Enacted in 2003.

Source: [http://apps1.eere.energy.gov/state\\_energy\\_program/grants\\_by\\_state.cfm/year=2003/state=OH](http://apps1.eere.energy.gov/state_energy_program/grants_by_state.cfm/year=2003/state=OH)

**Biomass Project** (U.S. Department of Energy's State Energy Program) - Increased the development and use of biomass energy resources in Ohio and created new markets and employment for farmers and foresters. Biomass use spurred the development of new processing, distribution, and service industries in rural communities. It investigated benefits, obstacles, and issues related to recovering methane from livestock operations and other biomass resources. The Biomass Task Force allowed industry to receive technical, permitting, and regulatory assistance and financing options. It promoted technologies to reduce energy costs, produce energy for business operations, reduce organic wastes, reduce waste streams, and provide environmental benefits. (Education and Consultation; Initiative) Enacted in 2004.

Source: [http://apps1.eere.energy.gov/state\\_energy\\_program/grants\\_by\\_state.cfm/year=2004/state=OH](http://apps1.eere.energy.gov/state_energy_program/grants_by_state.cfm/year=2004/state=OH)

**Biomass Program** (U.S. Department of Energy's State Energy Program) - Increased the development and use of biomass energy resources to promote energy sustainability and a cleaner environment. It formed an interagency Biomass Task Force (BTF) to investigate benefits, obstacles, and issues related to recovering methane from livestock operations and other biomass resources for the purpose of producing energy and reducing organic waste. The BTF hosted a workshop in 2006 to promote resources available through Title IX of the Farm Bill. (Service provision; Initiative) Enacted in 2005.

Source: [http://apps1.eere.energy.gov/state\\_energy\\_program/grants\\_by\\_state.cfm/year=2005/state=OH](http://apps1.eere.energy.gov/state_energy_program/grants_by_state.cfm/year=2005/state=OH)

## Oklahoma

**Planning for an Oklahoma Forest Industry Technology Institute** (U.S. Department of Energy's State Energy Program) - As the first step in a planned three step process designed to establish an Oklahoma Forest Industry Technology Institute, this project will include benchmarking the Oklahoma forest industry against national standards; identifying industry needs specific to Oklahoma companies; identifying key processes, products or methods that address pollution reduction and resource consumption; and developing project evaluation criteria. Total funding: \$200,000. (Service provision; initiative) Enacted in 2001.

Source: [http://apps1.eere.energy.gov/state\\_energy\\_program/project\\_detail.cfm/sp\\_id=117](http://apps1.eere.energy.gov/state_energy_program/project_detail.cfm/sp_id=117)

## Oregon

**Oregon Biomass Working Group** (U.S. Department of Energy's State Energy Program) - This project conducted several meetings of the Biomass Working Group to increase communications, share information sharing, and identify and initiate a biomass project. It committed two forest products firms to investing in thermal and electric biomass plants. (Education and Consultation; Initiative) Enacted in 2005.

Source: [http://www.eere.energy.gov/state\\_energy\\_program/project\\_detail.cfm/sp\\_id=912](http://www.eere.energy.gov/state_energy_program/project_detail.cfm/sp_id=912)

**Oregon Renewable Action Energy Plan** (Oregon Department of Forestry) - Outlines plan of action for renewables. Specifically for biomass: -- Twenty-five megawatts of new biomass-fueled electric generation will be built or under construction, in addition to the aforementioned 5 megawatts of biogas facilities. --Allow biomass facilities to qualify for net metering and allow the Oregon Public Utility Commission to adopt rules to increase the 25-kilowatt limit on a net metering facility for customers of Portland General Electric and Pacific Power. --Encourage the development and utilization of small energy efficient biomass heating and electrical systems for heating and providing power to institutions, state offices, schools, etc., especially in rural Oregon. --Promote greater public awareness of the primary and secondary benefits of biomass energy production.) (Service Provision; Initiative) Enacted in 2005.

Source: <http://www.oregon.gov/ENERGY/RENEW/docs/FinalREAP.pdf>

**Oregon Strategy for Greenhouse Gas Reductions** (State of Oregon) - 25 MW of new biomass-fueled electric generation built or under construction (of which 5 MW will be from new biogas generation facilities from wastewater treatment, dairies and landfills). Reduce wildfire risk by creating a market for woody biomass from forests. (Service Provision; Initiative; Intended audiences: Utility) Enacted in 2004.

Source: <http://www.oregon.gov/ENERGY/GBLWRM/docs/GWReport-FInal.pdf>

## Pennsylvania

**Pennsylvania Biomass Working Group** (State of Pennsylvania) - The PA Biomass Working Group is a collection of businesses, universities, government agencies, foresters, economic development partners and environmental advocacy groups working together to help residents of PA and the Northeast learn how renewable fuels can reduce costs and build community self-reliance in an environmentally sound way. Our vision is to establish Pennsylvania as a national leader in the development of sustainable biomass feedstocks and conversion technologies to produce energy, biofuels, and bioproducts. This will contribute to the creation and growth of a new bioindustry, which is vital to the economic, social, and environmental success of Pennsylvania. (Education and Consultation; Initiative; Intended audiences: County, Municipality, Authority, School District, Nonprofit, Conservation District, Businesses registered with the Department of State) Enacted in 2002.

Source: <http://www.pabiomass.org>

## Rhode Island

**Biomass Heating Fuel Market Development for Southeastern New England** (U.S. Department of Energy's State Energy Program) - The Massachusetts Energy Consumers' Alliance and People's Power & Light will use its heating oil buyers' group, green electricity program, relations with oil dealers and others in the industry, and reputation in the local community to form a buyers' group for biomass heating oil. Forming this buyers' group will also educate consumers on the benefits of biomass heating fuels. Total Funding: \$74,150. (Education and Consultation; Education) Enacted in 2004.

Source: [http://apps1.eere.energy.gov/state\\_energy\\_program/project\\_detail.cfm/sp\\_id=750](http://apps1.eere.energy.gov/state_energy_program/project_detail.cfm/sp_id=750)

## South Carolina

**Renewable Resource Use and Development Program** (U.S. Department of Energy's State Energy Program) - Helped develop biomass energy projects through national and regional programs. Supported Green Power through conference development and support for the Green Power Summit. Identified other opportunities for renewable resource development. Worked to develop biomass partnerships in transportation, production, and consumption. (Service Provision; Initiative; Intended audiences: State government, local government, NGOs, researchers) Enacted in 2005.

Source: [http://www.eere.energy.gov/state\\_energy\\_program/grants\\_by\\_state.cfm/year=2005/state=SC](http://www.eere.energy.gov/state_energy_program/grants_by_state.cfm/year=2005/state=SC)

**South Carolina Biomass Market Development Program** (U.S. Department of Energy's State Energy Program) - The South Carolina Biomass Market Development Partnership (SCBMDP) will help develop or enhance biomass-based technologies and expand markets for biomass-based technologies and markets that contribute to the economic viability of biorefineries. SCBMDP will target conferences for biomass producers to teach them to grow more viable biomass crops, and support business outreach and training. It will also develop and implement state and local incentives and collaborate with biologically based product manufacturers to increase consumer acceptance of biologically based products. (Service provision; Initiative; Intended audiences: State government, local government, NGOs, researchers) Enacted in 2004.

Source: [http://www.eere.energy.gov/state\\_energy\\_program/project\\_detail.cfm/sp\\_id=751](http://www.eere.energy.gov/state_energy_program/project_detail.cfm/sp_id=751)

## South Dakota

**Biofuels Economic Development Plan** (Senate Concurrent Resolution 8) - The South Dakota Legislature has resolved to develop a biofuels economy in the state by investing in the development of perennial biomass crops, including switchgrass and other native grasses by supporting long-term research and development of crops and cropping systems; and providing opportunities to purchase biofuels by promoting the development of vehicles that operate on biofuels, expanding the government purchase of biofuels, and offering incentives for fueling stations

offering blends of biofuels such as E85 and B20. (Service Provision; Initiative; Intended audiences: Agricultural, commercial, industrial, personal) Enacted in 2007.

Source: [http://www.eere.energy.gov/afdc/progs/all\\_state\\_summary.php/afdc/0](http://www.eere.energy.gov/afdc/progs/all_state_summary.php/afdc/0)

**Biomass Feasibility Study** (Western Governors' Association Working Group) - A feasibility study was completed on the use of biomass for schools, state and local governments and other public institutions in the Black Hills Region of South Dakota. This study includes activities, findings and recommendations for seven schools and four campus facilities to determine the viability of using wood as the primary source for heating. (Service Provision; Research & Development; Intended audiences: Schools) Enacted in 2006.

Source: <http://www.westgov.org/wga/initiatives/biomass/>

## Tennessee

**Tennessee Bio-Based Fuels – Economics, Consumption, and Outreach** (Southeastern Regional Biomass Energy Program) - The primary objectives of this project are to take existing bio-fuel technology to as many consumers as possible and help new technology find a proving ground throughout the state. The three main tools for carrying that message are public forums and workshops, legislation and mass media. Amount: SERBP \$48,000; cost share \$11,749. (Education and Consultation; Education) Enacted in 2005.

Source: <http://www.serbep.org>

**The Renewable Resource Development Program** (U.S. Department of Energy's State Energy Program) - Developed and administered the Million Solar Roofs initiative in Tennessee. It served as the state's biomass contact, making research and information available. It also maintained biomass resource publications and a Web site. (Education and Consultation; Education) Enacted in 2004.

Source: [http://apps1.eere.energy.gov/state\\_energy\\_program/grants\\_by\\_state.cfm/year=2004/state=TN](http://apps1.eere.energy.gov/state_energy_program/grants_by_state.cfm/year=2004/state=TN)

**Energy Efficiency Technologies and Waste Reduction in Tennessee's Forest Products Industry** (U.S. Department of Energy's State Energy Program) - The Tennessee Energy Division proposes expanding its participation in the successful DOE Industries of the Future program to include the wood products industries. First, the hardwood forest products industry in Tennessee will be profiled for its use of major energy using technologies and requirements. Second, new technologies will be identified and evaluated for their usefulness and ease of integration into ongoing operations for energy savings, waste reductions, and financial savings without major disruption to operations. Third, workshops and training will be held with Tennessee's forest products industry to explain findings, benefits to the industry, new technologies that appear most useful, and how they may be integrated into operations using numerous DOE and economic development programs and incentives. Funding: \$60,120. (Service Provision; Initiative; Intended audience: Tennessee Forest Products Industry) Enacted in 2002.

Source: [http://apps1.eere.energy.gov/state\\_energy\\_program/project\\_detail.cfm/sp\\_id=317](http://apps1.eere.energy.gov/state_energy_program/project_detail.cfm/sp_id=317)



## Texas

**The Innovative Renewable Energy Demonstration Program** (U.S. Department of Energy's State Energy Program) - Focused on projects that create awareness and provide education and promotion of renewable energy. It helped build a renewable energy infrastructure, establish employment opportunities, and demonstrate the benefits of distributed generation. (Education and Consultation; Education) Enacted in 2006.

Source: [http://apps1.eere.energy.gov/state\\_energy\\_program/grants\\_by\\_state.cfm/state=TX](http://apps1.eere.energy.gov/state_energy_program/grants_by_state.cfm/state=TX)

**Harvesting Mesquite Biomass for Energy on Texas Rangelands** (U.S. Department of Energy's State Energy Program) - Specific objectives of this research are to (1) refine existing technology for harvesting, baling and loading mesquite biomass, (2) quantify costs associated with harvesting and baling mesquite by determining harvest costs in different density stands and by determining length of time needed before harvest of mesquite regrowth is economical, (3) determine the potential of mesquite wood for conversion to ethanol using Pearson Technology, and (4) enhance cost-share applications through outreach and information transfer to consumers, farmers and industry. Mesquite biomass could be used for a variety of energy products, including ethanol, as feedstock for small wood-fired power plants or possibly green diesel. Initial projections indicate that the mesquite biomass source is abundant in the north Texas region and could easily supply several 5-megawatt wood-fired generators. Total funding: \$74,842. (Service Provision; Initiative; Intended audiences: Rangeland owners) Enacted in 2003.

Source: [http://apps1.eere.energy.gov/state\\_energy\\_program/project\\_detail.cfm/sp\\_id=613](http://apps1.eere.energy.gov/state_energy_program/project_detail.cfm/sp_id=613)

## Utah

**Woody Biomass Utilization Study** (Western Governors' Association Working Groups) - Grant funding was used to complete a woody biomass utilization study assessing the potential opportunities and challenges presented by introducing new, or converting existing boilers in the state of Utah to wood-fueled boilers. A biomass outreach program has now been initiated across the state. (Service Provision; Research and Development) Enacted in 2006.

Source: <http://www.westgov.org/wga/initiatives/biomass/>

## Vermont

**Agricultural Economic Development Plan for Biofuels** (Vermont Statutes Title 6, Chapter 209, Section 4710) - The Department of Agriculture will develop an economic initiative to provide business and technical assistance for research and planning to aid farmers in developing business enterprises that harvest biomass, convert biomass to energy, or produce biofuels such as biodiesel and ethanol. (Service provision; Initiative; Intended audiences: Agricultural) Enacted in 2005.

Source: [http://www.eere.energy.gov/afdc/progs/all\\_state\\_summary.php/afdc/0](http://www.eere.energy.gov/afdc/progs/all_state_summary.php/afdc/0)

**Biomass District Energy Program** (U.S. Department of Energy's State Energy Program) - The Biomass District Energy Program provided assistance to two Vermont municipalities and potential clients for wood-fueled district energy system. It contracted with the Biomass District Energy Clearinghouse to provide information to communities on district energy. (Education and Consultation; Education; Intended audiences: Vermont Municipalities) Enacted in 2005.

Source: [http://www.eere.energy.gov/state\\_energy\\_program/grants\\_by\\_state.cfm/year=2005/state=VT](http://www.eere.energy.gov/state_energy_program/grants_by_state.cfm/year=2005/state=VT)

## West Virginia

**Biomass Working Group** (U.S. Department of Energy's State Energy Program) - The IOF-WV Forestry Program supported activities identified by the IOF-WV wood product sector members as energy and environmental technological priorities. These include continuation of an annual wood industry residue survey, an exhibit demonstrating the energy savings of engineered wood products over traditional construction techniques, and establishment of a state biomass working group. (Education and Consultation; Consultation) Enacted in 2002.

Source: [http://apps1.eere.energy.gov/state\\_energy\\_program/grants\\_by\\_state\\_archive.cfm/year=2002/state=WV](http://apps1.eere.energy.gov/state_energy_program/grants_by_state_archive.cfm/year=2002/state=WV)

**Conceptual Review of West Virginia Biorefinery Options and Preliminary Economic Feasibility** (Southeastern Regional Biomass Energy Program) - The goals and objectives of this project are to (1) survey current state-of-the art for production of industrial and specialty chemicals from wood and wood-derived biomass; (2) develop possible high potential outlets for wood-derived industrial and specialty chemicals based on market growth and established process economics; (3) develop biorefinery concepts based on promising biomass utilization technologies and product markets, derive preliminary economics, highlighting potential economic advantages of location within West Virginia's chemical cluster; and (4) develop roadmap for development and commercialization of promising biorefinery concepts, identifying key technology, logistics and market challenges. Amount: SERBP \$18,100; cost share \$5,000. (Service Provision; Initiative) Enacted in 2005.

Source: <http://www.serbep.org>

**Center for Biobased Materials** (U.S. Department of Energy's State Energy Program)- The Center for Biobased Materials identified and promoted economic development opportunities associated with West Virginia biomass, including wood residue (chips, bark, sawdust, and slash), animal waste, and agriculture crops such as soy beans and switch grass. Direct combustion, industrial chemicals, liquid fuels, gasification, and value-added materials were studied. (Education and Consultation; Research) Enacted in 2006.

Source: [http://apps1.eere.energy.gov/state\\_energy\\_program/grants\\_by\\_state.cfm/state=WV](http://apps1.eere.energy.gov/state_energy_program/grants_by_state.cfm/state=WV)

## Wisconsin

**K-12 Biomass Education** (U.S. Department of Energy's State Energy Program) - This project will address the need for biomass education and promotion to future consumers and support the acceptance of biomass as a renewable energy resource. The proposed activities are: 1. Biomass Curriculum Development. Employ an established Wisconsin energy curriculum model to construct hands-on, concept-based biomass activities. Offer teachers all the resources they need to provide inquiry-based lessons in science, social studies, economics, and other subject areas. 2. Middle School Biomass Bookmark Design Competition. Through the funding offered through this opportunity, this project will sponsor a bookmark design contest with the theme "Grass, Gas, Biomass: How Does Biomass Work in Wisconsin?" 3. High School Biomass Public Service Announcement (PSA) Competition. This opportunity for high schools students will encourage student learning through the production of promotional biomass public service announcements that will air on public access television stations. (Education and Consultation; Education; Intended audiences: Wisconsin Schools) Enacted in 2004.

Source: [http://www.eere.energy.gov/state\\_energy\\_program/project\\_detail.cfm/sp\\_id=753](http://www.eere.energy.gov/state_energy_program/project_detail.cfm/sp_id=753)

## ***Financing and Contracting***

### **Alaska**

**Project Power Loan Program** (Alaska Energy Authority (AS 42.45.010)) - Provides loans to local utilities, local governments, regional and village corporations, village councils, and independent power producers. It is designed for the development or upgrade of small-scale power production facilities, conservation facilities, and bulk fuel storage facilities. This includes energy production, transmission and distribution, and waste energy conservation facilities that depend on fossil fuel, wind power, tidal, geothermal, biomass, hydroelectric, solar, or other energy sources. The loan term is related to the life of the project. Interest rates are the lesser of the average weekly yield of municipal bonds for the 12 months preceding the date of loan. (Financing and Contracting; Loan; Target Audience: Local government, Municipal Utility, Independent power producers) Enacted in 1999.

Source: <http://akenergyauthority.org/programsloan.html>

### **Arizona**

**Renewable Incentives Program** (Arizona Public Services Company) - Through the Renewable Incentive Program, Arizona Public Service (APS) offers customers who install various renewable energy sources the opportunity to sell the credits associated with the energy generated to APS. Other renewables (i.e., biomass) installed by non-residential customers can apply to receive a PBI. APS will evaluate the project to determine if it is able to qualify renewable energy incentives. Incentive amount is performance-based and are available for Electricity Generators, Thermal Systems & Heat. (Financing and Contracting; Utility Rebate Program; Target audience: commercial, residential) Enacted in 2007.

Source: [http://www.aps.com/main/green/choice/choice\\_23.html?source=hme](http://www.aps.com/main/green/choice/choice_23.html?source=hme)

### **California**

**Biofuels Production Mandate and Alternative Fuel Use Study** (Executive Order S-06-06) - The State of California plans to use biomass resources from agriculture, forestry, and urban wastes to provide transportation fuels and electricity to satisfy California's fuel and energy needs. To increase the use of biomass in fuel production, the state will produce its own biofuels at a minimum of 20% by 2010, 40% by 2020, and 75% by 2050. The Bioenergy Action Plan includes: research and development of commercially viable biofuels production and advanced biomass conversion technologies; evaluation of the potential for biofuels to provide a clean, renewable source for hydrogen fuel; and increases the purchase of flexible-fuel vehicles to 50% of total new vehicles purchased by state agencies by 2010. (Financing and Contracting; Initiative; Target audience: industrial) Enacted in 2006.

Source: [http://www.energy.ca.gov/bioenergy\\_action\\_plan](http://www.energy.ca.gov/bioenergy_action_plan) (Bioenergy Action Plan)

**Loans for Energy Efficiency Projects** (California Energy Commission) - The California Energy Commission has \$26 million in loan funds available for energy efficiency projects at a low fixed interest rate of 3.95 percent. The maximum amount per project is \$3 million and the timeframe for repayment is 15 years. (Financing and Contracting; Loan; Target audiences: Cities, counties, special districts, public schools, public hospitals, and other public-care facilities) Enacted in 2007.

Source: [http://www.energy.ca.gov/contracts/efficiency\\_pon.html](http://www.energy.ca.gov/contracts/efficiency_pon.html)

## Colorado

**Clean Energy Development Authority** (House Bill 1150 and Colorado Revised Statutes 40-9.7) - The Colorado Clean Energy Development Authority is created and may issue bonds to finance projects that involve the production, transportation, and storage of clean energy. Clean energy includes fuels that are manufactured by, and energy derived from, the following: biodiesel; biomass research such as biogas, agricultural or animal waste and landfill gas; ethanol; and fuel cells that do not use fossil fuels. (Financing and contracting; Bonds; Target audience: Industrial) Enacted in 2007.

Source: [http://www.eere.energy.gov/afdc/progs/all\\_state\\_summary.php/afdc/0](http://www.eere.energy.gov/afdc/progs/all_state_summary.php/afdc/0)

**Community Biomass for Thermal Usage Program** (Governor's Energy Office) - \$100,000 has been allocated for this program from the Colorado Clean Energy Fund. The purpose of this partnership program is to provide financial support for biomass-heating projects that utilize community-based biomass sources. Funding for feasibility studies or economic analyses may be considered in rare cases. Financial support from multiple stakeholders must be committed before a project can receive additional funding through the program. Priority given to projects that use community produced wood chips or Colorado manufactured pellets. High-priority is given to projects that "include supply from fuel-reduction, restoration activities, local collection sites, and/or projects that demonstrate long term availability of biomass supply." Residential and large industrial projects are not eligible for funding. (Financing and Contracting; Loan; Target audience: Colorado Communities) Enacted in 2007.

Source: <http://www.colorado.gov/energy/renewables/CommunityBiomass.asp>

## Connecticut

**Energy Conservation Loan** (C.G.S. 32-315, et seq.) - Energy Conservation Loans for single families are available through the Connecticut Housing Investment Fund (CHIF) to owners of one- to four-family homes who meet established income limits for family size and location. These loans may be used for a variety of energy conservation improvements (including biomass). Interest rates vary in accordance with the borrower's family size and income, and the loan may be repaid over 10 years. (Financing and Contracting; Loan; Target audience: Residential, multi-family residential) Enacted in 2006.

Source: [http://www.chif.org/owner\\_borrowers/index.shtml#energy](http://www.chif.org/owner_borrowers/index.shtml#energy)

## Hawaii

**Farm and Aquaculture Sustainable Projects Loan** (HB 2261) - Hawaii enacted legislation which created a loan program for agriculture and aquaculture renewable energy projects. Farmers and Aquaculturists may receive loans for projects involving photovoltaic (PV) energy, hydroelectric power, wind power generation, methane generation, bio-diesel and ethanol production. Loans may provide up to 85% of the project cost (up to a maximum of \$1,500,000) for a term of up to forty years. (Financing and Contracting; Loan; Intended audiences: Agriculture, Aquaculture) Enacted in 2008.

Source: [http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive\\_Code=HI27F&state=HI&CurrentPageID=1&RE=1&EE=1](http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive_Code=HI27F&state=HI&CurrentPageID=1&RE=1&EE=1)

## Idaho

**Renewable Energy Project Bond Program** (Idaho Statutes 67-8901 et seq.) - Allows independent (non-utility) developers of renewable energy projects in the state to request financing from the Idaho Energy Resources Authority. The authority was created to finance the construction of electric generation and transmission projects by electric utilities. SB 1192 extended the financing opportunities to independent renewable energy producers that are not "qualifying facilities" under the federal Public Utility Regulatory Policies Act of 1978. (Financing and Contracting; Bonds; Intended audiences: Commercial, Independent power producer) Enacted in 2005.

Source: [http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive\\_Code=ID06F&state=ID&CurrentPageID=1&RE=1&EE=1](http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive_Code=ID06F&state=ID&CurrentPageID=1&RE=1&EE=1)

**Low-Interest Energy Loan Program** (Idaho Office of Energy Resources) - The Idaho Office of Energy Resources administers low-interest loan programs for energy efficiency projects, and for active solar, wind, geothermal, hydropower and biomass energy projects. The interest rate is 4% with a 5-year repayment term. Loans are available for retrofit only, with the exception of some renewable resources. Amount: Residential: \$1,000 to \$15,000; Commercial: \$1,000 to \$100,000; Agricultural: Up to \$100,000; Renewable Loans: Up to \$100,000; Schools, Hospitals, Healthcare Facilities: Up to \$100,000. (Financing and Contracting; Loan; Intended audience: Commercial, Residential, Schools, Local Government, State Government, Agricultural, Institutional, Hospitals) Enacted in 2003.

Source: [http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive\\_Code=ID02F&state=ID&CurrentPageID=1&RE=1&EE=1](http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive_Code=ID02F&state=ID&CurrentPageID=1&RE=1&EE=1)

## Illinois

**Renewable Energy Resources Trust Fund** (Public Act 095-0481 § 5-910 et seq.) - The Renewable Energy Resources Trust Fund (RERTF) supports renewables through grants, loans and other incentives administered by the Illinois Department of Commerce and Economic Opportunity (DCEO). The RERTF is supported by a surcharge on customers' electric bills and gas bills known as the Renewable Energy Resource and Coal Technology Development Assistance Charge. Participation is required for investor-owned utilities, but voluntary for

municipal utilities and electric cooperatives. (Financing and Contracting; Loan; Intended audiences: Commercial, industrial, residential, general public/consumer, utility, institutional) Enacted in 1997.

Source: [http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive\\_Code=IL01R&state=IL&CurrentPageID=1&RE=1&EE=1](http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive_Code=IL01R&state=IL&CurrentPageID=1&RE=1&EE=1)

## Indiana

**The Alternative Power and Energy Program** (U.S. Department of Energy's State Energy Program) - The Alternative Power and Energy Program provided financial assistance to the Indiana public and the commercial, industrial, and agricultural sectors for installing alternative energy systems for thermal, power generation, and other non-transportation applications of alternative or renewable energy. Eligible projects included applications of solar, wind, hydro, biogas, waste-to-energy, energy recycling, fuel cells, and biomass energy systems. The program promoted and developed wind resources through the Indiana Wind Working Group, promotion of the USDA Section 9006 program, participation in the Great Lakes Biomass State and Regional Partnership, and the Midwest CHP Initiative. (Financing and Contracting; Loan; Intended audience: Commercial, industrial, agricultural, general public) Enacted in 2006.

Source: [http://apps1.eere.energy.gov/state\\_energy\\_program/grants\\_by\\_state.cfm/year=2006/state=IN](http://apps1.eere.energy.gov/state_energy_program/grants_by_state.cfm/year=2006/state=IN)

## Iowa

**Alternative Energy Revolving Loan Program** (Iowa Code § 476.46) - The AERLP provides loan funds to individuals and organizations that seek to build renewable energy production facilities in Iowa. Eligible renewable energy technologies include solar, biomass, wind and small hydro. Successful applicants will receive a single, low-interest loan that consists of a combination of AERLP funds and matching lender-provided funds. The AERLP provides 50% of the total loan at 0% interest, with a maximum of \$1 million. The remainder of the loan is provided by a lender at market rate. (Financing and Contracting; Loan; Intended audience: Commercial, industrial, residential) Enacted in 1996.

Source: <http://www.energy.iastate.edu/AERLP/index.htm>

**Iowa Energy Bank** (Iowa Code 473.19 et seq) - Iowa's Energy Bank Program provides a variety of energy assistance services for state public agencies, schools, and some non-profit organizations. Eligible organizations include public and private K-12 schools, community colleges, area education agencies, hospitals, local government, private colleges and state agencies. One of the program's primary goals is to make budget-neutral energy improvements for participating agencies and organizations. This is possible by facilitating loans and alternative financing options that can be repaid by the energy savings resulting from energy improvement projects. (Financing and Contracting; Loan; Intended audiences: Nonprofit, schools, local government, state government, institutional) Enacted in 2008.

Source: [http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive\\_Code=IA05F&state=IA&CurrentPageID=1&RE=1&EE=1](http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive_Code=IA05F&state=IA&CurrentPageID=1&RE=1&EE=1)



## Massachusetts

**Business Expansion Initiative** (Business Expansion Initiative Solicitation [No. 2007-BEI-01]) - The Massachusetts Technology Collaborative (MTC), as administrator of the state's Renewable Energy Trust Fund, offers loans to support renewable energy companies entering or expanding within the manufacturing stage of commercial development. Companies that currently, or plan to, manufacture renewable energy technology products in Massachusetts are generally eligible. Products may be new or existing, or a combination of the two. (Financing and Contracting; Loan; Intended audiences: Commercial, industrial) Enacted in 2007.

Source: <http://www.masstech.org/renewableenergy/BEI/index.html>

**Sustainable Energy Economic Development Initiative** (Massachusetts Technology Collaborative) – Provides financial assistance to support renewable energy companies in the early stage of development. Applicants are companies that generally have a unique technology but have not yet demonstrated commercial viability to an extent sufficient to attract venture capital. Awards of up to \$500,000 are available as a convertible loan on a competitive basis. (Financing and Contracting; Loan; Intended audience: Commercial, industrial) Enacted in 2004.

Source: <http://www.masstech.org/SEED>

## Minnesota

**Energy Investment Loan Program** (Minn. Stat. § 216C.09) - Minnesota's Energy Investment Loan Program will buy down up to 50% of the loan principal to 0% interest for any specific renewable energy, energy efficiency or energy conservation "capital improvement" measure with a simple payback of 10 years or less in an existing building (50% of total project cost, up to \$500,000). Each specific project must pass a 10-year simple payback threshold based on total costs and energy savings, energy payments and/or incentives from other sources. (Financing and Contracting; Loan; Intended audience: Schools, local government, hospitals) Enacted in 2001.

Source: <http://www.epa.gov/CHP/funding/funding/minmenergyinvestmentloanprogr.html>

## Mississippi

**Energy Investment Loan Program** (Miss. Code § 57-39-39) - Mississippi offers low-interest loans for renewable energy and energy efficiency projects (including biomass). All projects must demonstrate that they will reduce a facility's energy costs. The interest rate is 3% below the prime rate, with a maximum loan term of seven years. Loans range from \$15,000 to \$300,000. This program is supported by a revolving loan fund of \$7 million, established through federal oil overcharge funds. (Financing and Contracting; Loan; Intended audiences: Commercial, industrial) Enacted in 1989.

Source: <http://www.mississippi.org/content.aspx?url=/page/2744&#loanprgm>

## Missouri

**Energy Loan Program** (R.S. Mo. § 640.651-640.686) - This loan program, administered by the Energy Center of the Missouri Department of Natural Resources, is available for energy efficiency and renewable energy projects for public and governmental buildings and structures. Loan amounts are based on projected energy savings, resulting in monetary savings that is used to repay the loan. Financing is available at a fixed interest rate below the market rate, and repayment schedules are determined on an individual project basis.

-Public Schools (K-12) - 50%

-City and County Governments - 25%

-Public Higher Education Institutions - 25%

(Financing and Contracting; Loan; Intended audiences: Schools, local government, institutional, public hospitals, water treatment facilities)  
Enacted in 1989.

Source: <http://www.dnr.mo.gov/energy/financial/loan.htm>

**Bio-processing Input Procurement Strategies** (Southeastern Regional Biomass Energy Program) - This project is designed to investigate the procurement and marketing strategies that industries based on crop residue and energy crops will utilize. These products include biomass residues from corn and cereals, dedicated energy crops such as current grass and clover varieties, and energy crops such as switch grass, hybrid willow and other fast growing trees. A biomass procurement and marketing focus will provide a unique perspective that may be applied to all bio-processors of new agricultural biomass products and technologies. Amount: SERBP \$44,000; cost share \$12,500. (Financing and Contracting; Loan) Enacted in 2005.

Source: <http://www.serbep.org>

## Nebraska

**Dollar and Energy Savings Loan** (Nebraska Energy Office) - This program makes available low interest loans for residential and commercial energy efficiency improvements. This incentive applies mainly to energy efficiency improvements. However, renewable energy projects are eligible under one of two criteria. A project may be eligible if it is included in a list of "pre-qualified improvements." This list includes a variety of energy efficiency measures as well as the purchase of alternative fuel vehicles. Pre-qualified improvements have minimum efficiency standards which are listed on their respective forms. Projects not listed as pre-qualified improvements may be eligible with the submission of an energy audit that verifies that the project will have a reasonable payback period (varies by improvement type). (Financing and Contracting; Loan; Intended audiences: Commercial, Residential, Nonprofit, Local Government, Multi-Family Residential, Agricultural) Enacted in 2006.

Source: <http://www.neo.ne.gov/loan>

## Nevada

**Renewable Energy and Energy Efficiency Business Loan** (New Hampshire Business Resource Center) - The New Hampshire Business Resource Center and Ocean National have partnered to sponsor the Renewable Energy and Energy Efficiency Business Loan Program. This program offers small businesses a reduced interest rate loan for the purchase of structural and equipment improvements that improve energy efficiency. A variety of energy efficient measures are eligible for this loan, as are renewable energy systems. Participants will use energy cost savings to repay the loan; these loans are targeting projects that will cost at least \$10,000. (Financing and Contracting; Loan; Intended audience: Small businesses) Enacted in 2006.

Source: <http://www.nheconomy.com/pdf/BusinessLoanBrochure.pdf>

## New Jersey

**Clean Energy Rebate Program** (New Jersey Board of Public Utilities) - New Jersey's 1999 electric restructuring legislation provides for investments in energy efficiency and renewable energy through a "Societal Benefits Charge" (SBC) collected from all customers of electric public utilities. In March 2001, the New Jersey Board of Public Utilities (BPU) approved funding for renewable-energy programs, including a customer-sited renewables rebate program for homes, businesses, institutions and non-profits. Eligible technologies include fuel cells, photovoltaic (PV) systems, small wind-energy systems and/or sustainable biomass-energy technologies. Eligible systems should be sized to produce no more than 100% of the historical or expected (if new construction) amount of electricity consumed at a system's site. Financial incentives for systems larger than one megawatt (MW) are available through the state's Renewable Energy Project Grants and Financing Program. (Financing and Contracting; Loan; Intended audiences: Commercial, Residential, Nonprofit, Schools, Local Government, State Government, Federal Government, Institutional) Enacted in 1999.

Source: <http://www.njcleanenergy.com/renewable-energy/programs/core-rebate-program/incentives/core-rebate-program>

## North Carolina

**Energy Improvement Loan Program** (N.C. Gen. Stat. § 143-345.18) - North Carolina's Energy Improvement Loan Program (EILP) is available to businesses, local governments, public schools, community colleges, and nonprofit organizations for projects that include energy efficiency improvements and renewable energy systems. Loans with an interest rate of 1% are available for certain renewable-energy and energy-recycling projects. Eligible renewable-energy projects generally include solar, wind, small hydropower (less than 20 megawatts) and biomass. Loans with a rate of 3% are available for projects that demonstrate energy efficiency, energy cost savings or reduced energy demand. (Financing and Contracting; Loan; Intended audiences: Commercial, Industrial, Nonprofit, Schools, Local Government) Enacted in 2001.

Source: <http://www.energync.net/funding/eilp.html>

## Oklahoma

**Community Energy Education Management Program** (Oklahoma Department of Commerce) - The Oklahoma Department of Commerce offers a revolving loan fund for local governments to make energy efficient improvements to government buildings. All eligible projects should increase energy efficiency, reduce energy consumption, project a positive return on investment and be paid back within six years of the loan award. Funds from this program can be used to pay for a technical assistance report/audit, energy conservation measures and operation and maintenance procedures that would contribute to overall reduced energy consumption. Generally, the loans will not be more than \$150,000, and the average loan amount is around \$60,000. An eligible local government may have only one active loan open at any time. (Financing and Contracting; Loan; Intended audience: Local government) Enacted in 2007.

Source: [http://www.okcommerce.gov/index.php?option=com\\_content&task=view&id=339&Itemid=425](http://www.okcommerce.gov/index.php?option=com_content&task=view&id=339&Itemid=425)

**Energy Loan Fund for Schools** (Oklahoma Department of Commerce) - The Oklahoma Department of Commerce has established a loan/lease fund for public and non-profit K-12 schools to improve energy efficiency. Two categories of funding are available for schools to reduce energy consumption: Category One funding will pay for technical and energy audits, the development of Energy Management Plans, and any professional services that contribute to the planning and design of energy reduction systems and measures. Category II funding covers the actual acquisition and installation of energy conservation measures. All projects must be shown to reduce energy consumption, have a positive return on investment, and be able to be repaid within six years. An eligible school district may only have one active loan at a time. (Financing and Contracting; Loan; Intended audiences: Schools) Enacted in 2007.

Source: <http://www.okcommerce.gov/index.php?option=content&task=view&id=286&Itemid=95#4>

## Oregon

**Small-Scale Energy Loan Program** (ORS § 470.050 et seq.) - The Oregon Department of Energy makes low-interest loans for projects that produce energy from renewable resources, that conserve energy resources or that use recycled materials to create products. The Small Scale Energy Loan Program (SELP) is a self-supporting loan program funded by the sale of Oregon general obligation bonds. Borrowers can use loan funds to pay most direct energy project costs and related project costs such as engineering and design, permit fees, loan fees and project management costs. (Financing and Contracting; Loan; Intended audience: Most Oregonians, Oregon businesses, non-profit organizations, state agencies, schools, cities, counties, special districts, state public corporations, federal agencies) Enacted in 1980.

Source: <http://www.oregon.gov/ENERGY/RENEW/Biomass/incentive.shtml#SELP>

## Rhode Island

**Rhode Island Renewable Energy Fund** (R.I. Gen. Laws § 39-2-1.2) - Rhode Island's Public Utilities Restructuring Act of 1996 created the nation's first public benefits fund (PBF) for renewable energy and demand-side management (DSM). Rhode Island's PBF is supported by a surcharge on electric customers' bills. The adjusted surcharge for renewables—is set at \$0.0003 (0.3 mills) per kWh -- and the adjusted surcharge for DSM programs —is set at \$0.002 (2.0 mills) per kWh. The annual budget for the renewables fund during this 10-year period is approximately \$2.4 million. Effective January 1, 2007, Rhode Island's gas-distribution utilities must include, with approval from the PUC, a surcharge of up to \$0.15 per decatherm delivered. The funds collected will support DSM programs that will be administered by the utilities, subject to PUC review. (Agency budgets; Surcharge; Intended audiences: Commercial, industrial, residential, general public/consumer, utility, institutional) Enacted in 1996.

Source: <http://www.energy.ri.gov/index.php>

## South Carolina

**Renewable Energy Revolving Loan Program** (HB 3748 [Sec. 68]) - The Renewable Energy Revolving Loan Program provides low-interest loans to an individual or organization that plans to build a qualified renewable energy production facility. For the purposes of this loan, a renewable energy production facility is a facility that produces energy or transportation fuels from biomass, solar or wind resources. This loan may provide up to 50% of the total cost of a project, but may not exceed \$250,000 for each project. (Financing and Contracting; Loan; Intended audiences: Commercial, Industrial, Residential, Nonprofit, Schools, Local Government, State Government, Agricultural) Enacted in 2007.

Source: <http://www.energy.sc.gov/index.aspx?m=29&t=90&h=404>

## Tennessee

**Small Business Energy Loan Program** (Tenn. Code § 4-3-710) - The Tennessee Energy Division offers low-interest loans of up to \$300,000, with terms of up to 7 years, for energy efficiency projects and other projects shown to save energy or decrease energy demand. Businesses with fewer than 300 employees or less than \$3.5 million in annual gross sales or receipts are eligible. The loan is offered with a 0% interest rate for businesses in the Three-Star communities, and at a 3% interest rate for all others. Loans cannot be used for new construction or business start-up. All renewable energy technologies are eligible under the program's guidelines. In addition to low-interest loans, the Energy Division offers free audits and technical assistance. (Financing and Contracting; Loan; Intended audiences: Commercial, industrial) Enacted in 1987.

Source: [http://www.state.tn.us/ecd/energy\\_sb1.htm](http://www.state.tn.us/ecd/energy_sb1.htm)

## Vermont

**Clean Energy Development Fund Loan Program** (10 V.S.A. § 6523) - The Clean Energy Development Fund (CEDF) Loan Program seeks to promote the development of clean electric-energy technologies by providing funding for purchasing land and buildings (when specific to qualifying projects), purchasing and installing machinery and equipment, and working capital. Low-interest loans with a fixed rate of 4% are available to individuals, companies, nonprofits and municipalities. Eligible clean electric-energy technologies generally include solar, wind, biomass, fuel cells and combined heat and power (CHP). The minimum loan amount is \$50,000; the maximum amount is \$250,000. Loans may not be used for more than 90% of the cost of a project. (Financing and Contracting; Loan; Intended audiences: Commercial, Residential, nonprofit, local government) Enacted in 2005.

Source: [http://publicservice.vermont.gov/energy/ee\\_cleanenergyfund.html](http://publicservice.vermont.gov/energy/ee_cleanenergyfund.html)

## Washington

**Alternative Fuel Grant and Loan Program** (Revised Code of Washington 43.325) - The Program awards low-interest loans and grants through a competitive application process. Eligible projects include: research and development of new and renewable energy and biofuel sources, including biomass, solar, and wind power; renewable energy and alternative fuel infrastructure, facilities, and technologies; and research and development to develop markets for alternative fuel byproducts. Construction of new alternative fueling facilities as well as upgrades and expansion of existing fueling infrastructure offered to the public are eligible for funding of up to \$50,000 per fueling infrastructure project. (Financing and Contracting; Loan; Intended audience: Researchers) Enacted in 2008.

Source: [http://www.eere.energy.gov/afdc/progs/all\\_state\\_summary.php/afdc/0](http://www.eere.energy.gov/afdc/progs/all_state_summary.php/afdc/0)