Developing State Policies Supportive of Bioenergy Development

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Submitted by
Kathryn Baskin
Southern States Energy Board
6325 Amherst Court
Norcross, Georgia 30092

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Abstract

Working within the context of the Southern States Biobased Alliance (SSBA) and with officials in each state, the Southern States Energy Board (SSEB) is identifying bioenergy-related policies and programs within each state to determine their impact on the development, deployment or use of bioenergy. In addition, SSEB will determine which policies have impacted industry's efforts to develop, deploy or use biobased technologies or products. As a result, SSEB will work with the Southern States Biobased Alliance to determine how policy changes might address any negative impacts or enhance positive impacts.

In addition to analysis of domestic policies and programs, this project will include the development of a U.S.-Brazil Biodiesel Pilot Project. The purpose of this effort is to promote and facilitate the commercialization of biodiesel and bioenergy production and demand in Brazil.

Introduction

The Southern States Energy Board (SSEB) is an interstate compact that includes 16 southeastern states and Puerto Rico and the U.S. Virgin Islands. One of the Southern States Energy Board's goals over its 40-year life is to "... develop, promote, and recommend policies and programs on energy and environment that encourage economic development." The Board accomplishes this goal primarily through a number of task forces comprised of members from its states, the private sector, non-profits and others.

Southern States Biobased Alliance (Tasks 1-3)

SSEB's Southern States Biobased Alliance works closely with the Southeast Biomass State/Regional Partnership which SSEB hosts. Activities of the Southern States Biobased Alliance are focused on creating awareness and providing information and education for its members. During this reporting period, SSEB focused on completing the compilation of bioenergy and bio-based related government policies and programs in the United States and to determine the effectiveness of these policies.

While awareness of existing policies and programs needs further development, state legislatures are moving forward with new policies and incentives that should create more favorable attraction to the bioenergy industry. During the 2005 legislative sessions, states in the southern region will pass new legislation that foster the growth of bioenergy investment. On the federal level, the American JOBS Creation Act established the volumetric ethanol excise tax credit. The JOBS Act also redefined the small producer tax credit to include farm cooperatives and simplified E85 taxes. These actions at the federal and state level should contribute further to expanding growth of the ethanol industry and use. Most recently, the U.S. House passed H.R. 6, a comprehensive energy bill that includes tax incentives for renewable energy. President Bush also is encouraging the passage of a national energy bill that supports tax incentives for renewable energy among other strategies to reduce dependence on foreign energy sources.

U.S.-Brazil Biodiesel Pilot Project

On June 19, 2003, Energy Secretary Spencer Abraham and Brazilian Mines and Energy Dilma Rousseff signed a Memorandum of Understanding (MOU) to conduct a Ministerial Summit in energy issues by January 2004 in Brazil. Pursuit of joint objectives in clean energy and biofuels were specifically addressed in the MOU. In support of this collaboration, U.S. DOE modified this cooperative agreement DE-FC26-01NT41128 to include a U.S.-Brazil Biodiesel Pilot Project as a bilateral effort to enhance the prospects for success in developing biodiesel use in Brazil.

This project involves continuous monitoring of any developments affecting biodiesel production in Brazil. In addition, U.S. Secretary of Energy Abraham and Brazil's Minister of Mines and Energy, Dilma Rouseff, signed another MOU for cooperation in energy in April 2004.

During this reporting period, project team members updated the feasibility study reflect changes in Brazilian policies.

Executive Summary

Goal

The goal of this project is to have state and international policies positively impact the development, deployment, or use of bioenergy and are consistent among states.

Statement of Work

Southern States Biobased Alliance (Tasks 1-3)

Working within the context of the Southern States Bio-Based Alliance and with officials in each state, a staff member and/or contractor will identify bioenergy-related policies and programs within each state and determine their impact (in any way) on the development, deployment, or use of bioenergy. The staff member and/or contractor will be asked to determine as quantitatively as possible how this impact occurs, and how the legislation originally came to be promulgated.

Additionally and simultaneously, the staff member and/or contractor will be interviewing bio-based industry officials to determine what policies (or lack of policies) have impacted their efforts to develop, deploy, or use biobased technologies or products. The staff member and/or contractor will also try to determine the nature of these impacts and how policy changes might address any negative impacts or increase positive impacts.

In addition to attaining the project goal, this project approach will facilitate information sharing and education on state policies and their ramifications, create peer reaction, and ultimately provide more uniform regulations across the region that are supportive of bioenergy development, deployment, and use.

U.S.-Brazil Biodiesel Pilot Project (Task 4)

Task 4 is to develop a U.S.-Brazil Biodiesel Pilot Project to promote the commercialization of biodiesel and bioenergy production, technologies, and usage in Brazil. This task will consist of three primary components: Policy and Program Development; Feasibility Study and Technical Analysis; and bioenergy meeting design and execution to meet the U.S. Department of Energy goals.

Experimental

Due to the nature of the project, no experimental methods, materials or equipment are necessary.

Task 1-3 Activities

The SSEB, through the Alliance, is assisting the U.S. Department of Energy to determine the effectiveness of relevant government policies and programs. The **goal of this project** is to identify and compile into one document bioenergy and biobased-related government policies and programs in the US and to determine the effectiveness of these policies and programs. The draft document is included below. Appendices to the document are included in the appendices of this report.

Assessment of Biomass-Related State Programs and Policies

Biomass is generally defined as current or recently grown vegetable matter. As such, it is usually associated with forestry and agricultural industries—two sectors of the U.S. economy that have struggled in recent years due to a variety of reasons. Part of this struggle pertains to growing global competition and the need to develop and maintain domestic markets for agricultural and forestry products. Making biomass a viable industry would decrease the need for tax-supported agricultural and forestry support payments, generate jobs and tax revenues in rural communities, create cash flow back into rural areas, and in general revitalize rural economies.

Achieving these benefits sometimes takes government policies and incentives to direct, guide, or lead people in the desired direction. The goal of this project is to identify and compile into one document bioenergy and biobased-related government policies and programs in the US and to determine the effectiveness of these policies and programs. This final document is meant to serve as a resource for industry that has interest in and need for this specific information, and for government officials contemplating modification of existing legislation or creation of new legislation, policies, or programs. As a result, government officials will be able to learn from the experiences of others and efficiently create new model legislation for their states.

To conduct this project, SSEB consulted the listing of state policies and incentives located in the (DSIRE) database at www.dsireusa.org, as of January 13, 2005. In general, this database contains biomass-related policies and incentives that are *not* related to alternative fuel vehicles (AFVs) or alternative fuels (AF). Policies and incentives related to AFVs and AFs are in a separate database under the U.S. Department of Energy Clean Cities Program at http://www.eere.energy.gov/afdc/laws/incen_laws.html. A master state by state listing of 492 policies and incentives was assembled from these two sources (Table 1A in the Appendix of this report), which also included a brief summary of the incentive, the governmental authorization for the incentive (where available), and a source for additional information. Although in a few cases it appeared that errors might have been made in the databases, no attempts to clarify or correct these errors were made as part of this project.

Since each state provided the information for the databases, the information should be fairly accurate as far the content of each listing. However, this approach can lead to inconsistency in the types of policies and incentives included in the database. For example, some states chose to include their in-house outreach programs while others, although they may have had quite extensive programs, did not include their programs. These omissions may have occurred because they felt that everyone had an outreach program, therefore listing their program was not important. Additionally, many states listed programs from the private sector, such as green pricing programs, that were voluntarily conducted by the private sector. Thus, although not a government-derived program or policy, it was an important incentive in that state. Because of

these differences, it was felt that national and regional trends were more important than comparing states against states.

Each listing in the master listing of state policies and incentives was then analyzed for national trends concerning (1) the types of incentives and policies used; (2) the types of biomass or biomass-related things targeted; and (3) the economic sectors targeted. Additionally, data on regional trends was analyzed. For the latter, the states were assigned regions based on the U.S. Department of Energy's Biomass State/Regional Partnership.

Part of the analysis of the DSIRE database is found in the following tables that are appended to this report:

Table 1A. A master state-by-state listing of all 492 state policies and incentives (Appendix A)

Table 2A. A master state-by-state listing of all 492 state policies and incentives in a condensed, outline form (Appendix B)

Table 3A. A breakdown by state of the different incentive and policy types (Appendix C)

Table 4A. A breakdown by state of the different types of biomass or things (e.g., equipment, facilities, vehicles) targeted by each incentive or policy (Appendix D)

Table 5A. A breakdown by state of the different eligible classifications targeted by each incentive or policy (Appendix E)

Types of Incentives and Policies

Table 1 lists the types of policies and incentives listed in the DSIRE database; along with the frequency each type was listed.

Table 1. The types and number of incentives and policies in the DSIRE database	
<i>Incentive or policy type</i>	<i>Number of incentives or policies</i>
Grants	
• Interest subsidies	2
• Production incentives	14
• Business development	5
• Clean air projects	1
• Demonstration projects	1
• R&D	18
• Outreach	6
• Equity investments	1
• AFV	17
• AF	5
• AFV conversion	2
• AF facilities	5
• Equipment	30
• Facilities	1
• Planning and studies	2
• Training	1
• Various	1
Total Grants	112
Rebates	
• AF	2
• AF outreach	1
• Equipment including AFV's	17

• Green Power purchases	2
Total Rebates	22
Loans	
• AFVs	7
• AFV conversions	1
• AF refueling facilities	3
• Business development	1
• Equipment and facilities (excluding AF refueling)	27
• Working capital	1
Total Loans	40
Tax Treatments	
• Tax credits	
o AF facilities	1
o AF conversion	1
o Corporate income	41
o Personal income	21
o Purchases	1
• Total Tax Credits	65
• Tax Deductions	
o AF	1
o Corporate income	5
o Personal income	3
o Sales	1
o AFV	1
• Total Tax Deductions	11
• Tax Deferment-Manufacturing	1
• Tax Exemptions	
o Property	17
o Corp income	3
o Personal income	1
o Sales-equipment	3
o Sales-AFV	19
o Sales-AF	2
o Excise	7
o Use	5
o Franchise	1
• Total Tax Exemptions	58
• Tax Imposition	
o Excise	6
o Sales	2
o Use	3
• Total Tax Impositions	11
• Tax Reduction	
o Excise	3
o Property	1
o Sales	2
o Use	1
o License	1
• Total Tax Reductions	8
Total all tax treatments	154
Mandates	
• AFV purchases and use	23
• AF purchase and use	14
• AF permit	1

• Facility certification	1
• Definitions	3
• Government planning	3
• Net metering	28
• Generation disclosure	12
• Renewable Portfolio Standards (RPS)	14
• Prohibiting AF incentives	1
• Regulation exemption	1
• Renewables set aside	2
• Use exemptions	8
• Emission reduction credits	1
• Emission inspection exemptions	3
• Emission testing requirements	1
• Green Power option	4
• Green Power purchases	5
• Green Power labeling	4
• AFV licensing	6
• Licensing exemptions	1
• AF price reduction	1
• Public benefits fund	1
• Standards	7
• Solid waste reduction credits	1
• Technician certification	1
• Outreach	3
Total Mandates	150
Voluntary	
• Outreach	32
• AFV and AF use	3
• Green Power option	33
• Green Power labeling	1
• Green Power purchases	3
• Net metering	1
• Rebates (equipment)	1
• Production incentive	1
Total Voluntary	74

Table 2 is a summary of Table 1. Note that although there are 492 policies and incentives, some are cross-cutting and therefore impact a total of 552 categories.

Table 2. A summary of Table 1; the types and number of incentives and policies and their frequency		
<i>Type of incentive or policy</i>	<i>Number of incentives or policies</i>	<i>% of total</i>
Total Tax treatments	154	27.9
Total Governmental mandates	150	27.2
Total Grants	112	20.3
Total Voluntary	74	13.4
Total Loans	40	7.2
Total Rebates	22	4.0
Grand Total Incentives and Policies	552	100.0

Table 3. A summary of the different types of tax treatments and their frequency

<i>Type of incentive or policy</i>	<i>Number of incentives or policies</i>	<i>% of total</i>
• Tax credits	65	42.2
• Tax exemptions	58	37.7
• Tax deductions	11	7.1
• Tax impositions	11	7.1
• Tax reduction	8	5.2
• Tax deferment	1	0.6
Total Tax treatments	154	100.0

Financial incentives are some of the most popular for obvious reasons. Financial incentives provided by the government can include grants, rebates, loans, and various tax treatments directed to a specific sector of the economy (e.g., industrial, residential) for a particular type of biomass-related activity (e.g., ethanol fuel production). As Table 2 shows, tax treatments (27.9%), grants (20.3%), loans (7.2%), and rebates (4.0%) together comprised almost 60% of all incentives and policies listed in the DSIRE database.

Table 3 summarizes the various kinds of tax treatments, which comprise 154 or 28% of the total 552 policies and incentives, with all but 11 (7%) of the 154 tax treatments providing positive inducements. The one exception was tax impositions, which were usually levied to “level the playing field” against other fuels. Generally, tax impositions were in the form of excise or use taxes applied to alternative fuels. Tax credits (65 of the 154, or 42%) and tax exemptions (58 of the 154, or 38%) accounted for most of the tax treatments. Table 4 provides more information on the types of taxes mentioned in the DSIRE database

Table 4. A Review of Different Kinds of Taxes

Ad Valorem Taxes

Ad valorem means "according to value." A tax based on the assessed value of real estate or personal property (see information on real estate and personal property taxes). In other words ad valorem taxes can be property tax or duty on imported items. Thus taxes can be either "ad valorem" or "specific." Example: A tax of \$5.00 per \$1,000.00 of value per house is "ad valorem." A tax of \$5.00 per house (irrespective of value) is "specific." Property ad valorem taxes are the major source of revenues for state and municipal governments.

Corporate Franchise Tax

A tax or fee usually levied annually upon a corporation, limited liability company, or similar business entity for the right or privilege to exist or do business in a particular state. It depends both on the net worth of the corporation and on its net income attributable to activities within the state. Businesses pay it whether or not they make a profit.

Employment Taxes

Employers have certain employment tax responsibilities that must be paid and forms filed. Employment taxes include the following:

- Social security and Medicare taxes
- Federal income tax withholding
- Federal unemployment (FUTA) tax

Excise Tax

Excise taxes are taxes paid when purchases are made on a specific good, such as gasoline or jewelry. Excise taxes are often included in the price of the product. There are also excise taxes on activities, such as on wagering or on highway usage by trucks.

Income Taxes—Corporate and Personal (Federal)

The federal income tax is a pay-as-you-go tax. Taxes must be paid as income is earned or received during the year. An employee usually has income tax withheld from his or her pay.

Corporate Income Tax Rates—2005, 2004, 2003, 2002, 2001, 2000		
Taxable income over	Not over	Tax rate
\$0	\$50,000	15%
50,000	75,000	25%
75,000	100,000	34%
100,000	335,000	39%
335,000	10,000,000	34%
15,000,000	18,333,333	38%
18,333,333	-	35%

Money paid to the government is based on the taxable income of an entity. Governmental tax accounting rules differ, sometimes significantly, from GAAP so an entity's net income for financial reporting may be very different than its taxable income. Income tax is usually computed as a percentage of taxable income.

Income Taxes—Corporate (State)

State corporate income tax laws vary by state, so local laws must be consulted for the specific requirements in your area. Corporations and artificial entities that conduct business, or earn or receive income in the state, including out-of-state corporations, may be required to file a state corporate income tax return unless specifically exempted by law. The return generally must be filed, even if no tax is due. Sole proprietorships, individuals, estates of decedents, and testamentary trusts are often exempted and are not required to file a state return.

License Tax

A fee paid to the government for the privilege of being licensed to do something (as selling liquor or practicing medicine)

Occupational Privilege Tax

The occupation tax has roots in England during the seventeenth and eighteenth centuries. At that time, many occupations were created by grant or title and could be sold or transferred between individuals. Occupations thus often were a form of property, which could be bought and sold, much like real estate.

It is not surprising then that the occupation tax is very similar to the real property tax. The tax is levied on the value of residents' occupations, as determined by the county tax assessor's office. The occupation of school bus driver may have an assessed value of \$25, for example, while that of a lawyer may be \$290. If the occupation tax is levied as a flat tax, assessed values are not based upon income, so all members of the same occupation will pay the same amount of occupation tax even if their income differs dramatically. The occupation tax may also be levied based on income level.

The local jurisdiction levies a tax rate on these occupational assessments. The occupation tax is collected from residents, without regard to where they actually practice their occupation.

Property Tax (Land, Real Estate, and Real)

The words land, real estate, and real property are often used interchangeably.

Land: Defined as the earth's surface extending downward to the center of the earth and upward to infinity, including permanent natural objects such as trees and water.

Real Estate: Defined as land at, above and below the earth's surface, plus all things permanently attached to it, whether natural or artificial. Real estate taxes are paid to the local taxing authority or municipality. The amount paid can generally be deducted from federal income taxes. Property taxes are often levied as a percentage of a home's assessed value (ad valorem). For example, if the property tax rate is 0.5% of the assessed value, a home assessed at \$250,000 would have a yearly property tax bill of \$1,250 (see information on ad valorem taxes).

Real Property: The broadest definition of them all. Real property is defined as the interests, benefits and rights that are automatically included in the ownership of land and real estate.

Property Tax (Personal)

All property that does not fit into the definition of real property. An important distinction between the two is that personal property is moveable.

Sales Tax

Sales taxes are imposed upon the sale and consumption of goods and services. It can be imposed either as a general tax on the retail price of all goods and services sold, or as a tax on the sale of selected goods and services.

Use Tax

A use tax is a tax on the storing, using, consuming, and sometimes distributing tangible personal property or providing a taxable service. One will be subject to the use tax in the state where that event occurs. To clarify, storing, as used in this context, does not mean storing for resale, demonstration or display. Inventory held for resale is not subject to a use tax.

A use tax is considered a compensating tax or complementary tax. This means the use tax is assessed and due on the property or taxable service when a sales tax has not been paid. For example, if someone buys something from a mail order company and the company did not charge sales tax on the item. In this case the buyer bought an item and did not pay sales tax to the seller, but the buyer stored, used, or consumed that item in his/her state. The purchase is now subject to the buyers state's use tax.

After tax treatments, government mandated actions, which were usually unfunded, comprised the second largest category of incentives and policies with 27.2%, or 150 out of the 552 total. Of mandated policies and incentives, net metering led with 18.7%, followed by AFV mandated

purchase and use with 15.3%, RPS and AF mandated purchase and use with 9.3% each, and generation disclosure at 8.0%.

Types of Biomass, Equipment, Facility, or System Targeted by the Incentive or Policy

Table 5 is a summary of Table 4A, which lists state-by-state the types of biomass, equipment, facility, or system targeted by the incentive or policy. As shown in these two tables, the types of biomass, equipment, facility, or system targeted varied widely; however, AFVs and AFs accounted for roughly 50% of the total number listings.

Table 5. A summary of Table 4A, types of biomass, equipment, facility, or system targeted by the incentive or policy		
	<i>Frequency</i>	<i>%</i>
AFVs	183	19.4
AF & Biofuels	175	18.5
Biomass	169	17.9
Fuel cells	88	9.3
Landfill gas	75	7.9
MSW	69	7.3
AF (ethanol)	40	4.2
AF (biodiesel)	32	3.4
CHP systems	27	2.9
AF refueling facilities	18	1.9
Biomass facilities/eqt/systems	13	1.4
Biogas	11	1.2
Micro/small turbines	10	1.1
Anaerobic digester/manure	5	0.5
Methanol	5	0.5
Hydrogen	5	0.5
Biopower	4	0.4
Internal combustion engines	4	0.4
Stirling engines	4	0.4
Industrial wood energy	4	0.4
Res. wood stoves	4	0.4
TOTAL	945	100.0

Note that overlap frequently occurs in these summary tables. For example, ethanol and biodiesel are biofuels; however, if they were called out specifically in the listing, they were kept in separate categories.

Landfill gas is a form of biogas; however, if the listing specifically stated that the policy/program only applied to landfill gas, it was placed under landfill gas.

Microturbines, fuel cells, Stirling engines, alternative fuels, and alternative fuel vehicles are all things that may or may not apply to biomass. If the listing was not specific, then these policies and programs were included in the master listing.

The term “wood energy” as commonly used in trade refers to industrial wood energy use. Thus the policies and programs pertaining to wood energy were kept separate from wood stoves, which are distinguished by their residential use.

Economic Sectors Targeted by Incentives and Policies

Table 5A provides a state-by-state listing of the types and frequency of occurrence of the various economic sectors targeted by the incentives or policies. Table 6 is a summary of Table 5A, showing the frequency and occurrence of policies and incentives by economic sector.

Table 6. A summary of Table 5A which lists the various economic sectors targeted by the incentives and policies		
<i>Economic Sector</i>	<i>Frequency</i>	<i>%</i>
Individuals/residential	218	16.7
Commercial	212	16.2
Industrial	169	13.0
State Govt	100	7.7
Local Govt	96	7.4
Private businesses	84	6.4
Utilities	80	6.1
Schools (inc universities)	77	5.9
Non-Profit organizations	68	5.2
Transportation	54	4.1
General public	39	3.0
Construction	22	1.7
Farms/agriculture	22	1.7
Institutional	18	1.4
Govt authorities	16	1.2
Hospitals	14	1.1
Consumers	13	1.0
Federal Govt	3	0.2
TOTAL	1305	100.0

This summary also has some overlap. For example private businesses can include commercial, industrial, and farmers/agriculture, transportation, construction, utilities and non-profits. Since the information was vague as to intent, no attempt was made to change the listings.

Task 4 Activities

Biodiesel Risk Workshop

MARC-IV assisted Mr. Andy Paterson with preparation and presentations at a Biodiesel Risk Workshop (developed by Mr. Paterson) held in conjunction with the NBB Biodiesel Conference & Expo in Ft. Lauderdale, FL. MARC-IV coordinated meeting logistics with the National Biodiesel Board, invited Brazilian and U.S. attendees, and presented economic information relative to the Brazilian industry. Attendees included the National Petroleum Agency (ANP), the Federal University of Parana, and a private fleet operator. In addition, representatives of U.S. firms were also present; including USDA, biodiesel producers, and firms providing technical support to the biodiesel industry.

The agenda for the workshop is attached in Appendix F of this report. In addition, MARC-IV monitored activity in Brazil related to specifications and national policy that would require modifications to the economic sections of the final report. A copy of the executive summary of that report, which was drafted in October, 2004 is attached (same file as attached to the previous progress report).

Activities next quarter will be final updates for the economic pre-feasibility report (incorporating industry updates and new tax incentive programs).

Biodiesel Economic Pre-Feasibility Study for Soybased Biodiesel Production in Brazil

Prepared by:
MARC-IV Consulting
101 East Main Street
Kearney, Missouri 64060
Phone: (816) 903-6272
Fax: (816) 635-4836

**Administered for the
United States Department of Energy**
by the
Southern States Energy Board
6325 Amherst Court
Norcross, GA 30092

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Executive Summary

From a renewable energy perspective, Brazil is many times viewed as a showcase example due to its significant use of ethanol from sugar cane and a large hydroelectric industry. Now, the Brazilian government has announced their plans to permit B2 blends (2% by volume biodiesel mixed with 98% by volume diesel fuel) that would require almost 200 million gallons of biodiesel production. Although the federal government has not finalized whether the program will be mandated or voluntary, the announcement has created a need to evaluate the feasibility of biodiesel production.

The purpose of this project is to evaluate the pre-feasibility of producing biodiesel from soybeans. Biodiesel is an alternative fuel that can be used in neat (pure) form, or blended with petroleum diesel for use in compression ignition (diesel) engines. Its physical and chemical properties as it relates to operation of diesel engines are similar to petroleum based diesel fuel. The Brazilian economy is heavily dependent upon diesel fuel and other petroleum products. Although there are 13 refineries in Brazil that produce diesel fuel, these facilities cannot meet Brazil's appetite for diesel. Last year, Brazil imported 10% of their refined diesel fuel needs.

Diesel fuel consumption is concentrated in the South and Southeast of Brazil. The most significant growth in diesel fuel consumption has been in the West Central agricultural regions where consumption grew by almost 5% between 2001 and 2002. Relative to the Southeast region, diesel fuel is slightly more expensive in the soy-producing regions such as Mato Grosso (West Central region); approximately \$0.04 per gallon on average.

Biodiesel has a number of inherent properties that are favorable compared to petroleum based diesel fuel. These properties include reduced exhaust emissions, a non-toxic and biodegradable product, reduced greenhouse gas emissions, and improved lubricity. Although these factors are very favorable, they are also difficult to quantify in terms of value to the diesel consumer. Without incentives for the use of an environmentally friendly fuel, many of these traits will have to be a side benefit of use instead of a primary driver.

Feedstocks make up a lion's share of the production costs for methyl esters. Animal fats and vegetable oils generally account for between 65% and 75% of the overall cost of producing a gallon of biodiesel. Meanwhile the other components, usually an alcohol source and a base catalyst comprise an additional 4% - 6% of production costs. The choice of the biodiesel feedstock is dependent upon many factors but the leading determinants are usually cost, quality, finished product impact and the reliability of supply. A common mistake of groups and individuals evaluating the location of biodiesel production plants is to evaluate the geographic regions where soybeans are produced and the number of bushels produced. In fact, this data is not near as important as the location and capacity of oilseed crushing plants. Sufficient crush capacity exists in Brazil to implement a B2 national policy. Furthermore, sufficient crush capacity exists in all five regions to supply a 2% blend for the existing diesel fuel demand in those respective regions.

Several biodiesel technology companies are able to provide cost effective biodiesel technology for refined soybean oil and are available to groups considering a biodiesel operation. A group interested in biodiesel production must thoroughly evaluate each technology company against their own internal criteria to determine which companies represent the most likely technology choices. The best option for crude glycerin resulting from the plant is most likely to sell the crude glycerin to existing glycerin refiners.

The preliminary analysis shows that soybased biodiesel plants will have an economic advantage in the interior region of Brazil compared to plants constructed on the coast. This is due to the slightly lower cost of soybean oil and the slightly higher price of diesel fuel in the interior. However, the analysis also demonstrates that public policy will play an important role in the development of the Brazilian biodiesel industry.

Even with higher than average petroleum prices and if consumers are willing to pay a slight premium for B2 blends, a biodiesel production facility may not be economic without a decrease in tax compared to petroleum diesel fuel. In this analysis, a biodiesel plant that sold biodiesel without paying federal tax could be profitable. Economies of scale do exist. That is, as plant size increases break-even costs decline and a significant cost savings can be realized by constructing a plant in the 15 to 20 million gallon per year range.

Conclusion

Beyond the potential economic development benefits, states gain the opportunity to strengthen and integrate the work of energy, agriculture, forestry, environmental and other state agencies. Where issues are the same among several states, strategies can be developed to address these issues without regard to state borders. Examples include the development of similar legislative actions, working with the private sector with multi-state locations, and multi-state training and outreach to economize resources.

Notably, several southern states have long-standing policies and programs that support the use of bioenergy. Therefore, some states have a more developed bioenergy economy than others. However, all states in the southern region have significant biomass resources. SSEB will report these findings in the final report.

During the 2005 state legislative sessions, SSEB member states are enacting addition policies and implementing programs that will support the use of biomass and biobased products and boost rural economies. During this reporting period, the final draft of the compilation of government policies and incentives is completed. The final analysis is underway and will be included in the final document. In addition, SSEB is planning to use the policy analysis as a basis for a workshop on state incentives in July 2005. However, the funding for the workshop primarily will come from other sources.

Under Task 4, the U.S.-Brazil Biodiesel Pilot Project, conducted a workshop on business risks to design approaches to overcome key risks and barriers to financing. Raising investment sources and options is a top priority for the Ministry of Mines and Energy in Brazil.

The Brazilian Government has undergone political and regulatory changes that impact the results of the feasibility study. The final draft of the feasibility study will be completed during the next quarter.

APPENDIX A

Table 1A. A master state-by-state listing of all 492 state policies and incentives

Table 1A, Master Listing of All Biomass-related State Policies and Incentives

AL-1 ALABAMA

Incentive Type: State Grant Program
Eligible Technologies: Biomass, Renewable Transportation Fuels
Applicable Sectors: Commercial, Industrial, Agricultural, Institutional facilities
Amount: varies
Max. Limit: \$75,000
Terms: interest subsidy varies
Authority 1: N/A

Summary:

Alabama's Science, Technology, and Energy Division of the Department of Economic and Community Affairs offers interest subsidies on loans for the installation of qualifying biomass energy and waste fuel systems in commercial, industrial, agricultural, or institutional facilities. Qualifying projects include the installation of, or modifications to, equipment for the production of hot water, steam or hot air from biomass. Also eligible is equipment for biomass fuel storage, preparation, and transport, as well as equipment (such as pollution controls) incidental to the production of biomass fuels.

The maximum interest subsidy available to any one project is \$75,000. A borrower obtains a loan from a commercial lending institution and applies to the Division for interest payment assistance. Assistance is given only for loans with interest rates no greater than 2% above the prime rate.

Contact:

Clarence Mann

Alabama Department of Economic and Community Affairs
Science, Technology & Energy Division
P.O. Box 5690

401 Adams Avenue

Montgomery, AL 36103-5690

Phone: (334) 242-5290

Fax: (334) 242-0552

E-Mail: clarencem@adeca.state.al.us

Web site: http://www.adeca.state.al.us/adeca/pages/pages_stm/STE_ECP_Energy-Conservation-Programs.stm

AL-2 ALABAMA

Incentive Type: Personal Deduction
Eligible Technologies: Biomass
Applicable Sectors: Residential
Amount: cost of installation
Max. Limit: unlimited
Terms: deduction must be taken in year of project's completion
Authority 1: [Code of Ala. § 40-18-15 \(a\)\(16\) \(2001\)](#)

Summary:

This code allows resident taxpayers a deduction from the taxpayer's adjusted gross income for state income tax purposes. The deduction is for the total cost of installation for conversion from gas or electricity to wood when the system is used as the primary energy source for heating one's home for the taxable year during which the conversion was completed. Note that this incentive is for conversion from gas or electric, not for first time installation of a wood burning system.

Contact:

Information Specialist - AL Dept. of Rev.

Alabama Department of Revenue

50 N. Ripley

Montgomery, AL 36132-7123

Phone: (334) 242-1000

Web site: <http://www.ador.state.al.us/>

AL-3 ALABAMA

Incentive Type: Green Pricing Program
Eligible Technologies: Photovoltaics, Landfill Gas, Wind
Applicable Sectors: Commercial, Residential
Premium: \$4/month/block; 150-kWh block
Co-funding: TVA
Commitment: monthly

Participants: 4,708 Residential; 214 Non-Residential

Date Enacted: 4/22/00

Website: <http://www.greenpowerswitch.com>

Summary:

Currently nineteen distributors of Tennessee Valley Authority (TVA) power offer their customers the choice of participating in a green pricing market program. The program, named Green Power Switch, allows customers to voluntarily pay a premium for renewable energy generated by solar, wind, and methane gas resources produced at TVA generating locations.

Customers can participate in Green Power Switch by paying \$4/month for each 150-kWh block they wish to purchase (one block is about 12% of a typical household's monthly use). Business customers participate in the program based on the size of their kWh load. As of December 31, 2001, 4,708 residential and 214 business customers are participating in the program, for a total of 13,611 blocks purchased.

The money collected from Green Power Switch is used to construct, maintain, and operate renewable electric generating facilities owned by TVA. TVA has built the first commercial wind-powered turbines in the southeastern US on Buffalo Mountain in Anderson County, Tennessee. TVA is also in the process of developing another 20 MW wind generating site to be operational in 2003. TVA operates solar generating sites throughout the valley along with, a landfill gas site in Murfreesboro, Tennessee and a methane wastewater generating site in Memphis, Tennessee.

TVA, the local public power companies, and the environmental community worked together to create the Green Power Switch Program. Approximately 40 new local power distributors in the Valley have expressed interest in joining the program in 2002. TVA is planning to make the program available to their entire seven-state area by 2005.

Alabama

-Huntsville Utilities

Kentucky

-Bowling Green Municipal Utilities

Mississippi

-North East Mississippi Electric Power Association

-City of Oxford Electric Department

Tennessee

-Appalachian Electric Cooperative

-Bristol Tennessee Electric System

-EPB (Chattanooga)

-Erwin Utilities

-Gibson Electric Membership Corporation

-Johnson City Power Board

-Knoxville Utilities Board

-Lenoir City Utilities Board

-Morristown Power System

-Mountain Electric Cooperative

-Nashville Electric Service

-Newport Utilities

-Oak Ridge Electric Department

-Powell Valley Electric Cooperative

-Sevier County Electric System

Contact:

Gary Harris

Tennessee Valley Authority

Green Power Switch

P.O. Box 292409, HRT-11D

Nashville, TN 37229-2409

Phone: (615) 232-6124

Fax: (615) 232-6038

E-Mail: gharris@tva.gov

Web site: <http://www.greenpowerswitch.com>

AK-1 ALASKA

Incentive Type: Sales Tax Exemption

Eligible Technologies: Renewable Transportation Fuels

Applicable Sectors: Transportation

Amount: \$.06/gallon

Max. Limit: \$.08/gallon

Expiration Date: 6/30/04

Authority 1: [Alaska Stat. § 43.40.010](#)

Summary:

Gasohol used on Alaska's highways is taxed at the same rate as gasoline (8¢ per gallon). However, the rate is reduced to 2¢ per gallon when gasohol is sold for consumption in a designated area and during the period that gasohol is required under state or federal law. At this time, the State of Alaska requires gasohol to be sold in Anchorage from October 27 to March 1. Gasohol is fully tax exempt if blended using wood alcohol or alcohol produced from the processing of waste seafood, and if produced within the first five years of a facility's processing such alcohol.

Contact:

Taxpayer Assistance

Alaska Department of Revenue
State Office Building
333 Willoughby Ave., 11th Floor
Juneau, AK 99811-0400

Phone: (907) 465-2300

Fax: (907) 465-2389

Web site: <http://www.revenue.state.ak.us/>

AK-2 ALASKA

Incentive Type: State Loan Program

Eligible Technologies: Solar Water Heat, Active Solar Space Heat, Solar Thermal Electric, Photovoltaics, Wind, Renewable Transportation Fuels, Waste

Applicable Sectors: Local Government, Utilities, Regional and Village Corporations, Village Councils, Nonprofit Marketing Cooperatives, and Independent Power Producers

Amount: varies

Max. Limit: none

Terms: interest rate tied to municipal bonds

Authority 1: [AS 42.45.010](#)

Summary:

Created by the Alaska State Legislature and administered by the Alaska Energy Authority, this fund provides loans to local utilities, local governments, regional and village corporations, village councils, nonprofit marketing cooperatives, 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 non-nuclear 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, or a rate the Division determines will allow the project to be financially feasible.

Contact:

Jim McMillan

Alaska Industrial Development and Export Authority
Alaska Energy Authority
813 W. Northern Lights Boulevard
Anchorage, AK 99503

Phone: (907) 269-3000

Fax: (907) 269-3044

E-Mail: jmcmillan@aidea.org

Web site: <http://www.aidea.org>

AZ-1 ARIZONA

Incentive Type: Personal Tax Deduction

Eligible Technologies: Biomass

Applicable Sectors: Residential

Amount: Cost excluding taxes

Max. Limit: \$500

Effective Date: 12/31/93

Expiration Date: None

Authority 1: [ARS 43-1027](#)

Summary:

This incentive allows Arizona taxpayers to deduct the cost of converting an existing wood fireplace to a qualifying wood stove. The cost may not exceed \$500. Qualifying wood stoves must meet the standards of performance for new wood heaters manufactured after July 1990, or sold after July 1992. This deduction is for taxable years after December 31, 1993.

Contact:

Jim Arwood

Arizona Department of Commerce

Energy Office

3800 North Central Avenue, Suite 1400

Phoenix, AZ 85012

Phone: (602) 280-1409

Fax: (602) 280-1445

E-Mail: jima@ep.state.az.us

Web site: <http://www.commerce.state.az.us/Energy/default.asp>

AZ-2 ARIZONA

Incentive Type: Green Pricing Program

Eligible Technologies: Photovoltaics, Landfill Gas

Applicable Sectors: Commercial, Residential

Premium: \$2/month first block; \$1.50/month second block; 20 kWh block

Commitment: Monthly

Date Enacted: 1/00

Website: <http://www.greenwatts.com>

Summary:

The Arizona Corporation Commission approved Tucson Electric Power (TEP) Company's green pricing tariff in January of 2000. The program, named GreenWatts, allows customers to voluntarily invest directly into the creation of "green" power. For each "GreenWatt" that a customer adopts, TEP will create 20 kilowatt hours per month of electricity from renewable energy resources. The renewable energy is generated through both photovoltaic arrays and a 5.5-MW methane landfill gas recovery project. The 5.5-MW landfill gas recovery project is a joint effort of the City of Tucson, TEP, and Zahren Alternative Power Corporation.

TEP customers can subscribe to the GreenWatts program by paying \$2/month for the first 20-kWh block, and \$1.50 for each additional block. TEP has 200,000 20 kWh blocks available each month.

The money collected from the GreenWatts program is used to construct, maintain, and operate solar electric generating facilities in Arizona. Solar electric generating facilities, such as the DeMoss Petrie Solar Generating Station completed in February 2001, Reid Park Zoo's refreshment stand, and the Los Reales Landfill have helped to eliminate over 30,000 tons of greenhouse gases that would have been created if coal had been used to generate the same amount of electricity.

TEP markets the GreenWatts program in several ways. Participants who subscribe to any one of three levels of participation in the GreenWatts program are rewarded by membership in one of 3 membership clubs. Subscribing to at least 5 blocks of power means membership in the Palo Verde Club; subscribing to at least 20 blocks of power means membership in the Acacia Club; and subscribing to at least 100 blocks means membership in the Mesquite Club. Club members names are included on the GreenWatts Membership program web site. Additionally, some employers are encouraging their employees to become GreenWatts subscribers. "Sunny", the program mascot, can also be seen throughout the Tucson community promoting the use of renewable energy.

Contact:

Kelly Hanson

Tucson Electric Power

P.O. Box 711

Tucson, AZ 85702

Phone: (520) 884-3736

E-Mail: KHanson@TucsonElectric.Com

Web site: <http://www.tucsonelectric.com/>

AZ-3 ARIZONA

Incentive Type: Green Pricing Program

Eligible Technologies: Photovoltaics, Landfill Gas

Applicable Sectors: Commercial, Residential

Premium: \$3/month/block; 100-kWh block

Commitment: Monthly

Participants: More than 2800 customers

Date Enacted: 3/1/01

Effective Date: 4/1/01

Expiration Date: None

Website: <http://www.srpnet.com/prices/earthwise/>

Summary:

Salt River Project (SRP) is the nation's third-largest public power utility and one of Arizona's largest water suppliers, providing power to customers throughout a 2,900-square-mile service territory in central Arizona.

SRP's green pricing tariff program, named EarthWise Energy, began accepting participants on March 1, 2001. The program allows customers to voluntarily pay a premium for renewable energy generated from renewable electric generating stations. SRP customers can subscribe to the EarthWise Energy program by paying \$3/month for a 100-kWh block.

The money collected from the EarthWise Energy program is used to construct, maintain, and operate solar electric generating facilities in Arizona. Currently, EarthWise Energy is derived from a 200-kW photovoltaic plant and a 4-MW landfill gas plant. Additional capacity will be added from a hydroelectric project on the SRP canal. SRP hopes to add wind generation and energy from fuel cells in the future.

Marketing efforts include bill stuffers, newsletters, mailings, and media events.

SRP's first green pricing tariff program, named Solar Choice, began accepting subscribers in October of 1998. The Solar Choice program was fully subscribed with a waiting list when SRP combined it with the EarthWise program.

Contact:

John Kirby

Salt River Project

P.O. Box 52025

ISB 695

Phoenix, AZ 85072-2025

Phone: (602) 236-4453

Fax: (602) 236-5755

E-Mail: jekirby@srpnet.com

Web site: <http://www.srpnet.com>

AZ-4 ARIZONA

Incentive Type: Net Metering Rules

Eligible Technologies: Solar Thermal Electric, Photovoltaics, Wind, Biomass, Hydro, Geothermal Electric

Applicable Sectors: Commercial, Industrial, Residential, Nonprofit

Limit on System Size: 100 kW for TEP; 10 kW for APS

Limit on Overall Enrollment: None

Treatment of Net Excess: APS: purchased at avoided cost, TEP: fixed seasonal rates

Utilities Involved: Investor-owned utilities and rural electric cooperatives

Date Enacted: 2/4/94

Expiration Date: None

Website: <http://www.cc.state.az.us/>

Authority 1: ACC Decision No. 52345; APS tariff: EPR-4 and TEP tariff: 101 and 102

Summary:

The original Arizona Corporation Commission regulatory decision allowing net metering was made on July 27, 1981. This ruling allows net metering for qualifying facilities (QF) as defined by PURPA.

No Arizona utility filed a net metering tariff until Arizona Public Service (APS) company filed in 1994 to allow net metering of all renewable energy generators under 10 kW. Net excess generation under the APS tariff is purchased at the utility's avoided cost. Tucson Electric Power Company (TEP) filed two net metering tariffs in 1996. The first is Tariff 101 applying to commercial customers, and Tariff 102 applies to all other customers. Under both tariffs, net metering is allowed for QFs 100 kW or smaller. Net excess generation is purchased at fixed seasonal rates. Commercial customers may receive 4.4¢/kWh May through October and 3.5¢/kWh for November through April. All other customers receive 4.84¢/kWh May through October and 3.85¢/kWh November through April.

Contact:

Ray Williamson

Arizona Corporation Commission

1200 W. Washington Street

Phoenix, AZ 85007

Phone: (602) 542-0828

Fax: (602) 542-2129

E-Mail: rwilliamson@cc.state.az.us

Web site: <http://www.cc.state.az.us/>

AZ-5 ARIZONA

Incentive Type: Renewables Portfolio Standard

Eligible Technologies: Solar Thermal Electric, Photovoltaics, Wind, Biomass, Geothermal Electric for AZ Public Service Co. only

Applicable Sectors: Utilities

Standard: 0.2% in 2001, increasing to 1.1% in 2007 through 2012

Technology Minimum: 50% solar electric and 50% other renewable technologies for 2001 through 2003, increasing to 60% solar electric and 40% other for 2004 through 2012

Date Enacted: 2001

Effective Date: 3/30/01

Expiration Date: 2012

Website: <http://www.cc.state.az.us/utility/electric/environmental.htm>

Authority 1: [ACC Rules R14-2-1618](#)

Summary:

Arizona's Environmental Portfolio Standard (EPS) became effective on March 30, 2001. The Arizona Corporation Commission (ACC) started the EPS process with Dec. #62506 in 2000, but it was Dec. #63364 in February 2001 that approved the EPS. In March 2001, Dec. #63486 resulted in small modifications to the rules in response to a request for reconsideration. Under the standard, regulated utilities in the state are required to provide a certain percentage of their electricity from renewable energy. The standard begins with 0.2% renewables for 2001 and increases to 1.1% renewables according to the following schedule.

% Renewables	Date
0.2%	-----2001
0.4%	-----2002
0.6%	-----2003
0.8%	-----2004
1.0%	-----2005
1.05%	-----2006
1.1%	-----2007 - 2012

Of these amounts, solar electric must make up 50% in 2001, increasing to 60% for 2004 through 2012. Applicable technologies include solar generation, solar water heating and solar air conditioning, landfill gas generators, wind generators, and biomass generators. (At one point, one of Arizona's portfolio standard proposals was applicable only to solar technologies.)

Funding for the EPS comes from existing system benefits charges and a new surcharge to be collected by the state's regulated utilities. The new surcharge is capped at 35¢ per month for residential customers, \$13/month for non-residential, and \$39/month for customers with loads over 3 MW. In total, at least \$15 - \$20 million is expected to be collected annually for the EPS.

Interestingly, the standard includes a caveat that if the cost of solar technologies do not decrease to a Commission determined cost/benefit point by the end of 2004, the portfolio requirement will not continue to increase. If sustained, the standard will produce almost 100 MW of solar power by 2007.

Contact:

Ray Williamson

Arizona Corporation Commission

1200 W. Washington Street

Phoenix, AZ 85007

Phone: (602) 542-0828

Fax: (602) 542-2129

E-Mail: rwilliamson@cc.state.az.us

Web site: <http://www.cc.state.az.us/>

AZ-6 ARIZONA

Incentive Type: Mandate-emissions testing

Eligible Technologies: AFVs

Applicable Sectors: all

Authority 1: ARS 49-542

www.azdeq.gov/enviro/air/vei/alternat.html.

Summary:

All alternative fuel vehicles (AFVs), except electric, solar and hydrogen vehicles, registered in or used to commute into the metro Phoenix or metro Tucson areas are required to have emissions testing before the vehicle can be registered. An in-lieu fee may be paid for Model Year 2001 and newer Original Equipment (OEM) AFVs instead of having the emissions test performed. New AFVs being registered for the first time are not required to be tested, but emissions testing will be required before registration in subsequent years. For more information, please visit the ADEQ.

Contact:

Bill Sheaffer
Valley of the Sun Clean Cities Coalition, Inc.
Phone (480) 314-2457
Fax (480) 314-2457
billsheaffer2000@yahoo.com

AZ-7 ARIZONA

Incentive Type: Mandates--licensing
Eligible Technologies: AFVs
Applicable Sectors: all
Authority 1: ARS 28-2416 and 28-737B

Summary:

AFVs are required to display special license plates. Once these plates are displayed, AFVs are allowed to use the high occupancy vehicle (HOV) lanes. An \$8 administration fee applies.

Contact:

Bill Sheaffer
Valley of the Sun Clean Cities Coalition, Inc.
Phone (480) 314-2457
Fax (480) 314-2457
billsheaffer2000@yahoo.com

AZ-8 ARIZONA

Incentive Type: Mandate—licensing exemption
Eligible Technologies: AFVs
Applicable Sectors: state government, federal government
Authority 1: ARS 28-2511 and 38-538.03B

Summary:

State or agency directors who conduct activities of a confidential nature and have a vehicle powered by an alternative fuel are exempt from the requirement of displaying an AFV special license plate. The Department of Transportation has the power to issue regular plates to AFVs that are used by law enforcement and the federal government.

Contact:

Bill Sheaffer
Valley of the Sun Clean Cities Coalition, Inc.
Phone (480) 314-2457
Fax (480) 314-2457
billsheaffer2000@yahoo.com

AZ-9 ARIZONA

Incentive Type: Mandate—use exemption
Eligible Technologies: AFVs
Applicable Sectors: individual, businesses
Authority 1: ARS 28-877

Summary:

A person who is driving a vehicle powered by an alternative fuel may park without penalty in parking areas that are designated for carpool operators.

Contact:

Bill Sheaffer
Valley of the Sun Clean Cities Coalition, Inc.
Phone (480) 314-2457
Fax (480) 314-2457
billsheaffer2000@yahoo.com

AZ-10 ARIZONA

Incentive Type: Mandates—tax reduction
Eligible Technologies: AFVs
Applicable Sectors: all private sector
Authority 1: ARS 28-5805 and 28-5801

Summary:

The initial annual vehicle license tax on an AFV is lower than the license tax on conventional vehicles. The vehicle license tax on an AFV is \$4 for every \$100 in assessed value. The assessed value of the AFV is determined as follows: during the first year after initial registration, the value of the AFV is 1% of the manufacturer's base retail price (as compared to 60% for conventional vehicles); during each succeeding year, the value of the license is reduced by 15%. The minimum amount of the license tax is \$5 per year for each motor vehicle subject to the tax.

Contact:

Bill Sheaffer
Valley of the Sun Clean Cities Coalition, Inc.
Phone (480) 314-2457
Fax (480) 314-2457
billsheaffer2000@yahoo.com

AZ-11 ARIZONA

Incentive Type: Mandates—fuel and eqt purchases
Eligible Technologies: AFVs, AF
Applicable Sectors: Local governments
Authority 1: ARS 9-500.04, 41-803, 41-2051, 49-412, and 49-571

Summary:

Local governments in defined areas of Arizona are required to develop and implement a vehicle fleet plan for the purpose of encouraging and increasing the use of alternative fuels and clean burning fuels in vehicles owned by a city or town. For each year after December 21, 2000, at least 75% of the local government fleet must operate on alternative fuels and clean burning fuels. With the use of an alcohol-fueled vehicle, the state agency must demonstrate that the fuel for the vehicle is available within a ten-mile radius of the primary home base of that vehicle. Applications for waivers are available. A city, town or county which purchases buses for use in a county with a population of more than five hundred thousand persons shall only purchase buses which operate on clean burning alternative fuel. Biodiesel is eligible for use in city transit bus plans and can now be used to achieve all of a fleet's alternative fuel use requirements.

Contact:

Bill Sheaffer
Valley of the Sun Clean Cities Coalition, Inc.
Phone (480) 314-2457
Fax (480) 314-2457
billsheaffer2000@yahoo.com

AZ-12 ARIZONA

Incentive Type: Mandated--Standards
Eligible Technologies: Renewable Transportation Fuels (Biodiesel)
Applicable Sectors: Commercial, Industrial, Residential, Nonprofit
Authority 1: ARS 41-2083

Summary:

Biodiesel sold in Arizona must meet the specifications established by the American Society for Testing and Materials. Blenders of biodiesel must submit monthly reports on the quantity and quality of biodiesel to the Director of the Department of Weights and Measures.

Contact:

Bill Sheaffer
Valley of the Sun Clean Cities Coalition, Inc.
Phone (480) 314-2457
Fax (480) 314-2457
billsheaffer2000@yahoo.com

AZ-13 ARIZONA

Incentive Type: Mandated--Outreach

Eligible Technologies: AFVs
Applicable Sectors: Commercial (Motor vehicle dealers)
Authority 1: ARS 28-4414

Summary:

New motor vehicle dealers are required to make information on AFVs and incentives in Arizona for purchasing or leasing AFVs available to the public.

Contact:

Bill Sheaffer
Valley of the Sun Clean Cities Coalition, Inc.
Phone (480) 314-2457
Fax (480) 314-2457
billsheaffer2000@yahoo.com

AR-1 ARKANSAS

Incentive Type: Corporate Tax Credit

Eligible Technologies: Renewable Transportation Fuels, Waste

Applicable Sectors: Commercial, Industrial, Transportation

Amount: 30% of the cost of buildings, equipment, etc.

Max. Limit: \$50,000 + 50% of any remaining income tax liability

Terms: 14-year carry forward

Date Enacted: 3/19/99

Effective Date: 1/1/97

Authority 1: [Act 900 of 2001](#)

Authority 2: AR Code § 2-8-109; Acts 1999 No. 1367

Summary:

This industrial recruitment incentive provides a 30% credit for the cost of buildings, equipment and intellectual property necessary to produce advanced biofuels, including ethanol or methanol and/or their derivatives. The credit is intended to offset the first \$50,000 of income tax liability arising during the credit year and 50% of any remaining income tax liability for the year. Any unused credit may be carried forward for a maximum of 14 taxable years after the credit year in which the credit originated.

Legislation enacted in 1999 revised a previous biotechnology code enacted in 1997 that provided credits for employee training and higher education partnerships (30%) and biotechnology research (20%). According to the code, biotechnology means "the uses of biochemistry, molecular biology, genetics, and bioengineering to meet the needs of agriculture, aquaculture, forestry, energy, and environmental industries."

Contact:

Chris Benson
Arkansas Department of Economic Development
Arkansas Energy Office
One State Capitol Mall, Suite 4B/215
Little Rock, AR 72201
Phone: (501) 682-8065
Fax: (501) 682-2703
E-Mail: cbenson@1800arkansas.com
Web site: <http://www.1-800-arkansas.com/>

AR-2 ARKANSAS

Incentive Type: Tax credit—Corporate

Eligible Technologies: Photovoltaics, Fuel Cells, Electric Vehicles, Microturbines, Stirling Engines

Applicable Sectors: Industrial

Amount: 50% of facility costs

Max. Limit: none

Terms: 14 year carry forward

Date Enacted: 1/1/00

Website: <http://www.1800arkansas.com/arkansas/legislation.html>

Authority 1: [AR Code 15-4-2101](#); [Act 976 of 1999](#) and [Act 1284 of 2001](#)

Summary:

The Arkansas Emerging Technology Development Act of 1999 (as amended in 2001) provides for an economic incentive to attract manufacturers of high tech/high growth energy technologies which are on the verge of full entry into the world-wide market. The intent of this act is to provide an environment that creates a diversity of economic opportunities for Arkansas and expands the state's ability to attract

higher paying jobs, as well as enhancing recruitment, training, and retention of a talented Arkansas workforce.

The act established a state income tax credit of 50% of the amount spent to purchase or construct a facility that designs, develops or produces photovoltaics (solar cells), electric vehicle components, fuel cells, microturbines, Stirling engines, or devices that are reliant on nanotechnology. The cost can include land, infrastructure, renovation, building improvements, and machinery. Any portion of the unclaimed tax credit may be carried forward for a maximum of 14 years.

Contact:

Chris Benson

Arkansas Department of Economic Development

Arkansas Energy Office

One State Capitol Mall, Suite 4B/215

Little Rock, AR 72201

Phone: (501) 682-8065

Fax: (501) 682-2703

E-Mail: cbenson@1800arkansas.com

Web site: <http://www.1-800-arkansas.com/>

AR-3 ARKANSAS

Incentive Type: Net Metering Rules

Eligible Technologies: Solar Thermal Electric, Photovoltaics, Wind, Biomass, Hydro, Geothermal Electric, Fuel Cells, Microturbines using renewable fuels

Applicable Sectors: Commercial, Residential

Limit on System Size: 25 kW for residential systems; 100 kW for commercial systems

Limit on Overall Enrollment: None

Treatment of Net Excess: Granted to the utility monthly

Utilities Involved: All utilities

Interconnection Stds. for Net Metering? Yes

Date Enacted: 4/13/01

Effective Date: 10/01/01

Authority 1: [The Arkansas Renewable Energy Development Act of 2001 \(Act 1781 of 2001; HB 2325\)](#)

Authority 2: [AR PSC Order 02-046-R](#)

Summary:

On July 3, 2002, the Arkansas Public Service Commission (PSC) filed Order 02-046-R, to adopt net metering rules as outlined in HB 2325 of the previous bill. As in that bill, residential customers generating up to 25 kW of renewable energy or commercial systems generating up to 100 kW are eligible for net metering. Eligible technologies include solar, wind, hydroelectric, geothermal, and biomass resources as well as fuel cells and microturbines using renewable fuels. There is no limit on how many customers per utility may net meter.

In addition, Order 02-046-R states that any excess generation will be credited to the utility at the end of the billing period, without any compensation to the customer. However, if it seems necessary in order to encourage net metering, the commission may reconsider the option of "banking" any excess generation, to be credited to the following month.

On April 13, 2001, the Arkansas legislature passed HB 2325, The Arkansas Renewable Energy Development Act of 2001, authorizing net metering effective October 1, 2001. It allowed for the same rules implemented by PSC Order 02-046-R.

Contact:

Chris Benson

Arkansas Department of Economic Development

Arkansas Energy Office

One State Capitol Mall, Suite 4B/215

Little Rock, AR 72201

Phone: (501) 682-8065

Fax: (501) 682-2703

E-Mail: cbenson@1800arkansas.com

Web site: <http://www.1-800-arkansas.com/>

AR-4 ARKANSAS

Incentive Type: Rebate for converting vehicles to AFVs

Eligible Technologies: AFVs

Applicable Sectors: Local governments, individuals

Authority 1: Public Resources Code Sections 25695-25698

Summary:

The Arkansas Department of Economic Development established a rebate fund for the cost of converting vehicles to operate on alternative fuels. The fund provides a 50% rebate of up to \$2,000 for each vehicle converted to operate on CNG, LNG, and electricity, and up to \$1,000 for each vehicle converted to operate on LPG, methanol, and ethanol. The 50% rebate is also available for the incremental cost of purchasing an OEM AFV, with a maximum of \$2,000 per rebate. Local governments and private individuals are eligible for these rebates; however, fuel suppliers and state governments are not.

Contact:

Reda Bowen

Arkansas Department of Economic Development

Arkansas Energy Office

One State Capitol Mall, Suite 4B/215

Little Rock, AR 72201

Phone: (501) 682-6103

Fax: (501) 682-2703

E-Mail: rbowen@1800arkansas.com

Web site: <http://www.1-800-arkansas.com/>

AR-5 ARKANSAS

Incentive Type: Grants

Eligible Technologies: Renewable Transportation Fuels (biodiesel)

Applicable Sectors: Industrial (biodiesel producers)

Summary:

Biodiesel production grants of up to \$0.10 per gallon are available.

Contact:

Reda Bowen

Arkansas Department of Economic Development

Arkansas Energy Office

One State Capitol Mall, Suite 4B/215

Little Rock, AR 72201

Phone: (501) 682-6103

Fax: (501) 682-2703

E-Mail: rbowen@1800arkansas.com

Web site: <http://www.1-800-arkansas.com/>

AR-6 ARKANSAS

Incentive Type: Income Tax Credit distribution of AF (biodiesel)

Eligible Technologies: Renewable Transportation Fuels

Applicable Sectors: Commercial (biodiesel wholesale and retail distributors)

Authority 1: [Arkansas Code](#) §15-4-2803 and §15-4-2804

Summary:

An income tax credit is available to biodiesel suppliers for up to 5% of the costs of the facilities and equipment used in the wholesale or retail distribution of biodiesel fuels. Additionally, the Alternative Fuels Commission may provide grants for the production of biodiesel of up to \$0.10 per gallon, up to 5 million gallons per producer per year, for a period not to exceed five years.

Contact:

Reda Bowen

Arkansas Department of Economic Development

Arkansas Energy Office

One State Capitol Mall, Suite 4B/215

Little Rock, AR 72201

Phone: (501) 682-6103

Fax: (501) 682-2703

E-Mail: rbowen@1800arkansas.com

Web site: <http://www.1-800-arkansas.com/>

CA-1 CALIFORNIA

Incentive Type: Grants—Business Development

Eligible Technologies: Passive Solar Space Heat, Solar Water Heat, Active Solar Space Heat, Solar Thermal Electric, Photovoltaics, Wind, Biomass, Hydro, Renewable Transportation Fuels, Geothermal Electric, Waste, All

Applicable Sectors: Commercial, Industrial

Amount: \$250,000 total funding for fiscal year 2002/03

Max. Limit: \$25,000 per pre-construction activity with applicant providing at least 50 percent of the total cost of the preconstruction activity

Terms: Annual Funding; Solicitation begins May 24, 2002, with proposals due no later than July 26, 2002. Awards made in September 2002.

Effective Date: 1988

Website: <http://www.energy.ca.gov/export/index.html>

Authority 1: Public Resources Code Sections 25695-25698

Summary:

Begun in 1988, this program of the California Energy Commission provides assistance in developing overseas energy projects as well as overseas trade opportunities. The program offers many services for companies looking to invest in projects abroad or make sales abroad. Program offerings include an Energy Technology Export Directory of California companies, foreign market and trade analyses, trade missions, orientation visits (foreign officials are invited to California), and Commission counsel to foreign governments.

Though the program focuses on such promotional efforts, it also provides pre-investment seed funding. Examples of projects supported by this program include wind projects in Wales and Costa Rica, a hospital cogeneration plant in Australia, a geothermal power plant in the Philippines, village power projects using solar photovoltaics in Kenya and Tanzania, and electronic controls for chillers in several Asian nations.

The Energy Commission has proposed \$250,000 of funding from fiscal year 2002/03. The Energy Commission anticipates making awards of up to \$25,000 per pre-construction activity. Applicants are required to provide at least 50 percent of the total cost of the preconstruction activity to be eligible for this fund. The solicitation begins May 24, 2002, with proposals due no later than July 26, 2002. It is expected that awards will be made in September 2002. Total funding for this solicitation is \$250,000.

Contact:

Tim Olson

California Energy Commission
Energy Technology Export Program
1516 Ninth Street, MS-45
Sacramento, CA 95814

Phone: (916) 654-4528

E-Mail: tolson@energy.state.ca.us

Web site: <http://www.energy.ca.gov/index.html>

CA-2 CALIFORNIA

Incentive Type: Grants—R&D

Eligible Technologies: Passive Solar Space Heat, Solar Thermal Electric, Photovoltaics, Wind, Biomass, Hydro, Renewable Transportation Fuels, Geothermal Electric, Fuel Cells

Applicable Sectors: Commercial, Industrial, Nonprofit, Individuals, Academia

Max. Limit: \$75,000

Date Enacted: 1997

Expiration Date: 9/2002

Website: <http://www.energy.ca.gov/research/innovations/index.html>

Authority 1: Senate Bill 90; Assembly Bill 1890

Summary:

Small Grants Innovation Program is intended to determine the feasibility of energy technology and science innovations for new energy concepts whose feasibility are not yet established. Approximately \$2 to \$2.5 million per year of PIER funds will be available for two years. The program will be administered by the California State University Institute, in collaboration with the University of California, San Diego State University and Commission staff who assist in implementation and project selection.

The Energy Innovations Small Grant (EISG) Program provides up to \$75,000 to small businesses, non-profits, individuals and academic institutions to conduct research that establishes the feasibility of new, innovative energy concepts. Research projects must target one of the six PIER program areas: (1) Industrial/Agriculture/Water End-use Efficiency; (2) Building End-use Efficiency; (3) Environmentally Preferred Advanced Generation; (4) Renewable Generation; (5) Energy-Related Environmental Research; and (6) Strategic Energy Research. The projects must address a California energy problem and provide a potential benefit to California electric ratepayers.

Up to four solicitations per year are planned. To encourage participation in the program the application and award process has been simplified and assistance is available in gaining access to technical experts and laboratory facilities. The Grant Application Manual and supporting documents can be downloaded from the web page containing the current solicitation notice.

Contact:**Philip Misemer**

California Energy Commission
Energy Innovations Small Grant (EISG) Program
5250 Campanile Drive
MC 1934

San Diego, CA 92182-1934

Phone: (619) 654-4552

Fax: (619) 594-0996

E-Mail: eisgp@energy.state.ca.us

Web site: <http://www.energy.ca.gov/research/innovations/index.html>

CA-3 CALIFORNIA

Incentive Type: Loans—Equipment

Eligible Technologies: Solar Thermal Electric, Solar Thermal Process Heat, Photovoltaics, Landfill Gas, Wind, Biomass, Geothermal Electric, Fuel Cells, Cogeneration, Biogas

Applicable Sectors: Industrial

Amount: \$500,000 - \$10,000,000

Max. Limit: \$10 million/applicant; \$40 million/company

Terms: Bonds are tax exempt; interest rates are dependent on the borrower's credit

Effective Date: 3/14/02

Website: <http://www.capowerauthority.ca.gov>

Summary:

The California Consumer Power and Conservation Financing Authority (the Power Authority or CPA) is offering below-market rate loans to manufacturing companies that will use the loan for the purchase and installation of renewable energy systems, energy-efficient equipment, or clean distributed generation systems on their own site(s); or a company that manufactures renewable energy distributed generation systems or components in California. Eligible technologies include photovoltaics, solar thermal electric, fuel cells, small and large wind turbines, biogas, landfill gas, biomass, geothermal electric, solar industrial process heating, and waste heat recovery.

Funding for the program includes \$30 million of tax-exempt industrial development bonds awarded in March 2002, and \$3-\$8 million that will be awarded in November 2002. Applications for the November funding are due August 23, 2002. Funding could be available for future loans. The minimum loan amount is \$500,000 and the maximum amount is \$10 million per applicant, with a limit of \$40 million by any one company. Application and issuance fees apply.

To help maintain minimum standards of quality, and to be eligible for the loan, an eligible project should offer the following conditions:

- A minimum of a full five year warranty on the entire generating system if installed by a licensed contractor, or a limited five year warranty if installed by the owner;
- Installation by an appropriately licensed contractor, or the system owner, and in compliance with appropriate electrical codes; and
- Key system components, or the entire generating system, are certified to meet certain established standards, where available.

Contact:**Richard Lopez**

Consumer Power and Conservation Financing Authority
901 P Street, Suite 142A
Sacramento, CA 95814

E-Mail: richard.lopez@dgs.ca.gov

Web site: <http://www.capowerauthority.ca.gov/>

CA-4 CALIFORNIA

Incentive Type: Loans—Equipment

Eligible Technologies: Photovoltaics, Landfill Gas, Wind, Fuel Cells, Biogas

Applicable Sectors: Schools, Local Government, State Government

Amount: \$2 million

Max. Limit: None

Terms: Tax-exempt market rates: for short-term or variable rate loans, currently as low as 3%; low longer-term rates ranging from 4.5-5% up to projects' useful life

Effective Date: Fall 2002

Website: <http://www.capowerauthority.ca.gov/financing/PULSE.htm>

Summary:

The California Consumer Power and Conservation Financing Authority (the Power Authority or CPA) has created the Public Leadership Solutions for Energy (PULSE) fund to provide loans to help finance energy efficiency and renewable energy projects in public buildings. The program is available to cities, counties, special districts, schools and community colleges across California, as well as State and other

local agencies.

This loan pool overcomes limitations of other State energy loan programs by supporting larger transactions, a broader range of eligible technologies, and longer loan terms. Loan amounts of \$2 million or more with no maximum are available for up to the expected life of the project. Tax-exempt market rates: for short-term or variable rate loans are currently as low as 3%; low longer-term rates range from 4.5-5% up to projects' useful life. Fixed or variable rate debt options are available and bonds issued under the program will be insured. Agencies still can claim rebates, buydowns, and grants from other sources.

Eligible projects include

- Energy efficiency.
- Advanced building metering and controls.
- Thermal storage.
- On-site renewable energy (solar PV, small scale wind, biogas and landfill gas recovery).
- On-site distributed generation (fuel cells, micro-turbines, combined heat & power).
- Incremental costs of exceeding Title 24 building energy standards in new construction and major renovations (for green or sustainable buildings).

Financeable costs include feasibility and engineering design, performance guarantees, equipment warranties, project management (managing bidding, equipment procurement, construction management, and commissioning the final outcome).

Contact:

Lynne Butler

Consumer Power and Conservation Financing Authority

901 P Street, Suite 142A

Sacramento, CA 95814

Phone: (916) 651-9750

Fax: (916) 651-9595

E-Mail: cpapublicloans@dgs.ca.gov

Web site: <http://www.cpowerauthority.ca.gov/>

CA-5 CALIFORNIA

Incentive Type: Rebates

Eligible Technologies: Solar Thermal Electric, Photovoltaics, Wind, Fuel Cells

Applicable Sectors: Commercial, Industrial, Residential, Agricultural

Rebate: Up to \$4.50/watt or 50% of system purchase price (whichever is less)

Date Enacted: 3/98

Website: <http://www.consumerenergycenter.org/buydown/index.html>

Summary:

The California Energy Commission provides rebates for the purchase of four types of renewable energy generating systems (photovoltaics, small wind turbines--10 kilowatts or less, fuel cells using renewable fuels, and solar thermal systems) through its Emerging Renewables Buy-Down Program. The program offers a rebate of \$4.50/watt or 50% off the price of purchasing the system, whichever is less.

This rebate is offered to all grid-connected utility customers within the electric utility service area of: Pacific Gas and Electric, San Diego Gas & Electric, Southern California Edison, or Bear Valley Electric Company. The following system requirements apply and are listed on the web site:

- electricity production not to exceed 200 % of the site's historical or current electricity needs;
- the equipment retailer must provide a 5-year warranty; and
- some systems/components to meet national standards.

Started in 1998, the Program has installed over 3,500 solar systems capable of producing over 12 megawatts of electricity. The Program has approved 1000 more rebate reservations for projects that can generate 10 megawatts of electricity. The majority of the systems are solar photovoltaic.

Contact:

Energy Call Center

California Energy Commission

Emerging Renewables Buydown Program

1516 9th Street MS-45

Sacramento, CA 95814-5512

Phone: (800) 555-7794

Fax: (916) 654-4420

E-Mail: renewable@energy.state.ca.us

Web site: <http://www.consumerenergycenter.org/>

CA-6 CALIFORNIA

Incentive Type: Rebates

Eligible Technologies: Photovoltaics, Wind, Fuel Cells

Applicable Sectors: Commercial, Residential

Rebate: Level 1 = lesser of \$4.50/watt or 50% of project cost; Level 2 = lesser of \$2.50/watt or 40% of project cost; Level 3 = lesser of \$1.00/watt or 30% of project cost

Max. Limit: Maximum system size = 1.5 MW

151 Total Systems producing 22.6 MW to date

Date Enacted: 3/27/01

Expiration Date: 12/31/04

Website: http://www.cpuc.ca.gov/PUBLISHED/NEWS_RELEASE/8319.htm

Authority 1: Assembly Bill 970

Summary:

On March 27, 2001, the California Public Utilities Commission announced new incentive programs to encourage residential and commercial customers to install grid-tied renewables and clean DG resources. The Self-Generation Incentive Program provides incentives to encourage customers to produce energy using microturbines, small gas turbines, wind turbines, photovoltaics, fuel cells, and internal combustion engines. The incentives include payments of \$1 - \$4.50/Watt depending on the technology used and will be funded at \$125 million annually through 2004.

The program has 3 incentive levels.

Level 1

Technologies: Photovoltaic, Fuel Cells operating on renewable fuel, Wind Turbines

Rebate: lesser of \$4.50/W or 50% of project cost

System Size: 30 kW minimum to 1.5 MW maximum; smaller systems can be aggregated to reach 30 kW (each must be < 200% peak demand)

Level 2

Technologies: Fuel Cells operating on non-renewable fuel and utilizing sufficient waste heat recovery

Rebate: lesser of \$2.50/W or 40% of project cost

System Size: No minimum, maximum up to 1.5 MW*

Level 3

Technologies: Microturbines, internal combustion engines and small gas turbines, both utilizing sufficient waste heat recovery and meeting reliability criteria

Rebate: lesser of \$1.00/W or 30% of project cost

System Size: No minimum, maximum up to 1.5 MW*

* Maximum system size is 1.5 MW, however, output capacity above the first 1.0 MW is not eligible for incentives.

Customers of PG&E, SDG&E, Edison and SoCal Gas may contact their program administrator for an application, program handbook, and additional eligibility information. PG&E, SCE, and SoCal Gas will administer the incentive program in their service territories; San Diego Regional Energy Office will administer the program in SDG&E's territory.

Utility customers are advised to contact their administrator with any questions:

Pacific Gas & Electric (PG&E)

Web Site: [PG&E SELFGEN Program](#)

Phone: 415-973-6436

Email: selfgen@pge.com

San Diego Regional Energy Office (administrator for San Diego Gas & Electric, or SDG&E)

San Diego Regional Energy Office Web Site: [SDREO SELFGEN Program](#)

or SDG&E Web Site: [SDG&E SELFGEN Program](#)

Contact Scott Anders of the San Diego Regional Energy Office at

Phone: 858-244-1180

Email: san@sdenergy.org

or

Phone Toll Free: 866-SDENERGY (733-6374)

Email: selfgen@sdenergy.org

Southern California Edison (Edison)

Web Site: [Edison SELFGEN Program](#)

Phone: 1-800-736-4777 or 626-302-8436

Email: greenh@sce.com

Southern California Gas Company (SoCalGas)

Web Site: [SoCalGas SELFGEN Program](#)

Phone: 1-866-347-3228
Email: selfgeneration@socalgas.com

Contact:

John Galloway
California Public Utilities Commission
Energy Division
505 Van Ness Ave. 4-A
San Francisco, CA 94102
Phone: (415) 703-2565
Fax: (415) 703-2200
E-Mail: jhg@cpuc.ca.gov
Web site: <http://www.cpuc.ca.gov/>

CA-7 CALIFORNIA

Incentive Type: Green Pricing Program
Eligible Technologies: Wind, Biomass, Hydro, Geothermal Electric, Solar
Applicable Sectors: Residential
Premium: 0.5 - 1.0 cents/kWh
Commitment: None
Effective Date: 10/01
Website: <http://www.burbankwaterandpower.com/rebate.htm>

Summary:

The option to support renewable resources is available to all Burbank households. Customers who opt for the 50% Clean Green Support plan will pay an additional monthly cost of \$3, or just over one-half cent more for every kilowatt-hour used. (Most households use about 500 kilowatt-hours monthly.) Customers opting for the 100% Clean Green Support plan will pay an extra \$5 on their utility bill, or about 1 cent more for every kilowatt-hour used in the household. There is no sign-up or discontinuation fee. Customers can sign up and cancel the following month if they like. All money generated from this program will be spent on purchasing Green Tickets. This is a purely optional program for residents who want to support green energy production. The mix of renewable energy sources depends on availability and cost.

Clean Green Support is available for any Burbank residential customer interested in joining. To do so, download the application, fill it out and return to Burbank Water and Power.

The application is available at: <http://www.burbankwaterandpower.com/rebate.htm>

Contact:

Jeanette Meyer
Burbank Water & Power
Burbank Water and Power
P.O. Box 631
Burbank, CA
Phone: (818) 238-3700
E-Mail: jmeyer@ci.burbank.ca.us
Web site: <http://www.burbankwaterandpower.com/>

CA-8 CALIFORNIA

Incentive Type: Green Pricing Program
Eligible Technologies: Wind, Hydro, Geothermal Electric, Waste
Applicable Sectors: Commercial, Industrial, Residential
Premium: \$0.008/kWh - \$0.03/kWh
Commitment: Voluntary
Date Enacted: 2000
Effective Date: 2000
Website: <http://www.cpau.com/futuregreen/index.html>

Summary:

On Earth Day 2000, the City of Palo Alto Utilities launched the Future Green Program. The Future Green Program is a voluntary program available to all City of Palo Alto Utilities (CPAU) customers. Through a low price premium on the electric rate, customers can choose to support the development and operation of green power. Future Green offers three products from which to choose: Future Green 25, Future Green 50 and Future Green 100. The City of Palo Alto Utilities' Future Green electric portfolio products feature 100% renewable power and are made up of varying mixes of "existing" to "future" sources of green power. Green power projects built before 2000 are considered "existing." Projects developed after January 1, 2000, are considered "future" sources of renewables. Renewable sources used to supply the

program may include small hydroelectric, geothermal, wind, landfill gas, solar and biomass.

The Future Green 25 option provides the customer with 100% power coming from renewable sources with 25% coming from future renewables and 75% coming from existing renewables at an additional cost of \$0.008 per kWh.

The Future Green 50 option provides the customer with 100% power coming from renewable sources with 50% coming from future renewables and 50% coming from existing renewables at an additional cost of \$0.016 per kWh.

The Future Green 100 option provides the customer with 100% power coming from renewable sources with 100% coming from future renewables and 0% coming from existing renewables at an additional cost of \$0.03 per kWh.

Contact:

Karl Knapp

City of Palo Alto Utilities

250 Hamilton Avenue

Palo Alto, CA 94301

Phone: (650) 329-2309

Fax: (650) 326-1507

E-Mail: karl_knapp@city.palo-alto.ca.us

Web site: <http://www.city.palo-alto.ca.us/utilities/>

CA-9 CALIFORNIA

Incentive Type: Green Pricing Program

Eligible Technologies: Photovoltaics, Wind, Biomass, Geothermal Electric

Applicable Sectors: Commercial, Industrial, Residential, General Public

Premium: 6%

Commitment: 1 year

Participants: 75,000

Effective Date: 1999

Website: <http://www.greenla.com/greenpower/index.htm>

Summary:

Green Power for a Green LA, offered by the Los Angeles Department of Water and Power (LADWP), is the nation's largest effort of its kind by a local utility. According to a National Renewable Energy Lab survey of the nation's green power programs, LADWP's Green Power for a Green LA program ranked number one in the survey for its success in signing up new customers. The program has more than 75,000 customers.

The Green Power program enables all DWP customers, residential, commercial and industrial, to participate. Initiated on May 13, 1999, Green LA offers 100% renewable energy with 20% coming from new sources. The average residential customer pays approximately \$3 a month. LADWP is helping homeowners offset the increased cost of green power by providing two free compact fluorescent light bulbs and a free home energy audit. Customers are asked to make a one year commitment to the program.

LADWP buys renewable power (solar, wind, biomass and geothermal) on the open market in California like most of the state's unregulated green power marketers. One of the program's goals is to create jobs by attracting manufacturers of solar power, wind turbines, and other clean air technologies to Los Angeles. LADWP plans to locate the new renewable energy sources in Los Angeles area.

People interested in Green Power living outside the LADWP service area can participate through the purchase of Green Power Certificates. The purchaser or recipient of the certificates need not be a LADWP customer. Funds from the sale of the certificates are used to purchase new green power for the city.

Contact the Green Power Team at
Green Power for a Green LA
LA Department of Water and Power
111 N. Hope Street
Los Angeles, CA 90012
email greenpower@greenla.com
1-800-GREEN LA (1-800-473-3652)

Contact:

Walter Zeisl

Los Angeles Department of Water & Power

111 North Hope Street

Los Angeles, CA 90051

Phone: (213) 367-1342

E-Mail: walter.zeisl@ladwp.com

Web site: <http://www.greenla.com>

CA-10 CALIFORNIA

Incentive Type: Green Pricing Program
Eligible Technologies: Photovoltaics, Wind, Biomass, Hydro, Geothermal Electric
Applicable Sectors: Commercial, Residential
Premium: 0.5¢/kWh - 1.0¢/kWh
Commitment: Monthly
Date Enacted: 2000
Website: <http://www.RosevilleElectric.org>

Summary:

Roseville Electric, a municipal utility in northern California, offers three Green Energy products to its residential and business customers. Customers have the option to receive either 50% (RE-Green50) or 100% (RE-Green100) of their electricity from renewable resources for an additional 0.5¢/kWh or 1.0¢/kWh, respectively. In addition, customers can contribute 1.0¢/kWh to the RE-New Green Fund to support the development of new renewable energy systems in the community. Customers can choose to donate to the RE-New Green Fund in addition to choosing one of the green pricing options. These renewable energy products are certified by the California Energy Commission.

Roseville Electric matches contributions to all the Green Energy programs dollar for dollar using their Public Benefits Fund. There are no fees to switch to Green Energy products, and customers may switch back to standard service at any time with no penalty. During the first six months of the Green Energy program, which began in February 2000, nearly 300 customers signed up for one or more of the products.

As part of the RE-Green50 program, as much as 3% of the power may come from biomass, wind, and solar resources, with the remaining amount generated from geothermal and hydroelectric energy from existing utility-owned resources. In the RE-Green100 program, 100% of the power is generated from geothermal and hydroelectric sources. As a member of the Northern California Power Agency (NCPA), Roseville owns a 3.6% share of a 200-MW geothermal facility at The Geysers and a 12% share of NCPA's 249 MW of hydro facilities. The Roseville City Council approved the green power plan in conjunction with a decision to phase in retail competition for all of its electricity customers by 2005.

Contact:

Carla Johannesen
Roseville Electric
2090 Hilltop Circle
Roseville, CA 95747
Phone: (916) 774-5600
E-Mail: cjohannesen@roseville.ca.us
Web site: <http://www.RosevilleElectric.org>

CA-11 CALIFORNIA

Incentive Type: Green Pricing Program
Eligible Technologies: Landfill Gas, Biomass, Geothermal Electric
Applicable Sectors: Residential
Premium: \$6.00 or \$3.00 per month
Commitment: Voluntary
Participants: 14,200
Effective Date: 1997
Website: <http://www.smud.org/green/index.html>

Summary:

The Greenergy program, managed by the Sacramento Municipal Utility District (SMUD), offers customers the choice of supporting energy created by green resources. There are four options to choose from when participating in the Greenergy program. The 100 Percent Option flat or usage rates involve an extra \$6.00 charge on the customer's monthly electric bill. In return, SMUD will match 100% of the customer's monthly electricity needs with special Greenergy purchases from renewable resources for use on the SMUD power system. The 50 Percent Option flat or usage rates involve an extra \$3.00 charge on the customer's monthly electric bill. In return, SMUD will match 50% of the customer's monthly electricity needs with special Greenergy purchases from renewable resources for use on the SMUD power system.

Approximately 14,200 customers participate in the Greenergy program and there is no minimum commitment length or early termination fee. SMUD has purchased output from the Sacramento County's Kiefer Landfill. A portfolio of renewable resources will be aggregated as the market continues to grow. In a continuing effort to support renewable energy, 40 percent of the Greenergy premium helps secure new power plants fueled by renewable resources.

Contact:

Jim Burke
Sacramento Municipal Utility District
P.O. Box 15830

Sacramento, CA 95852-1830
Phone: (916) 732-5411
E-Mail: jburke@smud.org
Web site: <http://www.smud.org>

CA-12 CALIFORNIA

Incentive Type: Research & Outreach

Eligible Technologies: Passive Solar Space Heat, Solar Water Heat, Active Solar Space Heat, Solar Thermal Electric, Solar Thermal Process Heat, Photovoltaics, Landfill Gas, Wind, Biomass, Hydro, Renewable Transportation Fuels, Renewable Fuel Vehicles, Geothermal Electric, Fuel Cells, Geothermal Heat Pumps, Waste, Cogeneration

Applicable Sectors: Commercial, Industrial, Residential, General Public

Funding: Electricity surcharge, federal grants

Date Enacted: 1/1/75

Expiration Date: none

Website: <http://www.energy.ca.gov/>

Authority 1: Warren-Alquist State Energy Resources Conservation and Development Act

Summary:

The California Energy Commission (CEC) is the state's primary energy policy and planning agency, charged with ensuring a reliable and affordable energy supply. Created by the California General Assembly in 1974, the Commission has five major responsibilities:

- (1) Forecasting future energy needs and keeping historical data on energy
- (2) Siting and licensing power plants
- (3) Promoting energy efficiency through appliance and building standards
- (4) Developing energy technologies and supporting renewable energy
- (5) Planning for and directing state response to energy emergencies

With the signing of the Electric Industry Deregulation Law (Assembly Bill 1890), the Commission's role includes overseeing funding programs that support public interest energy research; advance energy science and technology through research, development and demonstration; and provide market support to existing, new and emerging renewable technologies.

Contact:

Energy Call Center - CEC

California Energy Commission

1516 Ninth Street, MS-29

Sacramento, CA 95814-5512

Phone: (800) 555-7794

Fax: (916) 654-4420

E-Mail: renewable@energy.state.ca.us

Web site: <http://www.energy.ca.gov/>

CA-13A&B CALIFORNIA

Incentive Type: Generation Disclosure and Green Power Labeling

Eligible Technologies: Solar Thermal Electric, Photovoltaics, Wind, Biomass, Hydro, Renewable Transportation Fuels, Geothermal Electric, Waste

Applicable Sectors: Utilities

Fuel Mix: Yes

Emissions: Yes, for Green-e Labeling

Std Format: Yes

Date Enacted: 1/1/98

Expiration Date: none

Website: <http://www.energy.ca.gov/sb1305/index.html>

Authority 1: [1997 Senate Bill 1305](#)

Authority 2: [Public Utilities Code Section 398.1 through 398.5](#)

Summary:

California's energy suppliers must disclose to all customers the energy resource mix used in generation. Providers must use a standard label created by the California Energy Commission (CEC), and this information must be provided to end-use customers at least four times per year.

On the certification side of the issue, the Green-e Renewable Branding Program is being used by suppliers in the state. Designed by the Center for Resource Solutions, this voluntary certification and verification program designates energy offerings whose renewable energy content is at least 50%. For the non-renewable portion of energy with the Green-e label, if fossil fuels are used, those resources must have their air emissions per/kWh for SOx and NOx less than or equal to California System Power. The program is governed by the Green Power Board, an independent oversight board.

Contact:**Drake Johnson**

California Energy Commission

1516 Ninth Street, MS-45

Sacramento, CA 95814-5512

Phone: (916) 653-5898**Fax:** (916) 653-2543**E-Mail:** djohnson@energy.state.ca.gov**Web site:** <http://www.energy.ca.gov/>

CA-14 CALIFORNIA**Incentive Type:** Net Metering Rules**Eligible Technologies:** Photovoltaics, Wind, Biogas, Solar**Applicable Sectors:** Commercial, Industrial, Residential**Limit on System Size:** 1 MW (1,000 kW)**Limit on Overall Enrollment:** One half of one percent of a utility's peak demand**Treatment of Net Excess:** Granted to utility annually**Utilities Involved:** IOUs; Municipal utilities are allowed to permit either net-metering or co-metering**Date Enacted:** 1/1/96; amended 1998, 2000, 2001, 2002**Website:** http://www.energy.ca.gov/greengrid/net_metering.html**Authority 1:** [AB 58 in 9/02](#)**Authority 2:** [California Public Utility Code 2827, as amended, including AB 29X in 4/01](#)**Summary:**

California's net metering law requires that all California investor-owned electric utilities allow net metering for all customer classes for systems up to 1,000 kW (1 MW). Municipal utilities are allowed to permit either net-metering or co-metering. The Los Angeles Department of Water and Power, the largest municipal utility in the nation, is exempt from the net metering rules. Eligible systems include solar or wind turbine electrical generating facilities, or a hybrid system of both. Also, AB 2228, signed by the Governor in September 2002, provides that biogas electrical customer-generated facilities up to 1 MW are eligible for net metering until January 1, 2006, under a pilot program. The pilot program limits biogas digester generation load to 5 MW per energy service provider service territory and also provides for retail cost recovery.

The 2002 net metering amendments (AB 58), signed by the governor in September 2002, provide the following: (a) extend the system size limit to 1 MW; (b) limit the total amount of net metering to one half of one percent of a utility's peak demand; (c) exempt net metering from "exit fees" or "departing load fees"; (d) prohibit inter-class cost shifting that results from net metering; (e) allow municipal utilities to permit either net-metering or co-metering, which credits customers for generation on a "time-of-use" basis for the generation value of their production; (f) require the California Energy Commission to establish a separate rebate for public sector affordable housing projects of up to 75% of total installed costs for these projects; (g) establish that the Treasurer should consider net metering and co-metering projects as sustainable building methods or distributed energy technologies for purposes of evaluating low-income housing projects; (h) grandfather in projects permitted prior to December 31, 2002 and completed before September 30, 2003; and (i) permit wind energy projects up to 50 kW to net meter and requires wind energy projects from 50 kW up to 1 MW to utilize "wind energy co-metering" which provides for time-of-use pricing and credits.

Customers are billed annually. Any net excess generation at the end of each 12-month period is granted to the utility. Customers subject to time-of-use rates are entitled to deliver electricity back to the system for the same time-of-use (including real-time) price that they pay for power purchases. Any new or additional demand charge, standby charge, customer charge, minimum monthly charge, interconnection charge, or other charge that would increase an eligible customer-generator's costs beyond those of other customers in the rate class to which the eligible customer-generator would otherwise be assigned is not allowed.

The 2001 amendments to the original law, enacted in 1995: (a) extended eligibility to all customer classes; (b) extended the system size limit to 1,000kW (1MW); and (c) eliminated the overall "cap" of 0.1% of each utility's peak demand apply through the end of 2002 only.

California's original net metering law, enacted in 1995, required that all California's electric utilities (regulated and unregulated) allow net metering for residential customers with solar electric power systems under 10 kW with a capacity cap of 0.1% of each utility's 1996 peak demand. Customers were paid the utility's avoided cost for all net excess generation.

Contact:**Les Nelson**

California Solar Energy Industries Association

Southern California Office

30012 Avenida, Suite A

Rancho Santa Margarita, CA 92688

Phone: (949) 713-3500**Fax:** (949) 709-8044**E-Mail:** lnelson@westernrenewables.com**Web site:** <http://www.calseia.org/>

CA-15A&B CALIFORNIA

Incentive Type: Public Benefits Fund

Eligible Technologies: Solar Thermal Electric, Photovoltaics, Wind, Biomass, Hydro, Geothermal Electric, Waste

Applicable Sectors: Utilities

Types: Renewables

Total Fund: \$540 million

Charge: Varies by utility: 2-3 mills (\$0.002 - \$0.003)

Date Enacted: 1996

Expiration Date: 1/1/12

Website: <http://www.energy.ca.gov/renewables/00-REN-1194/index.html>

Authority 1: [Assembly Bill 1890, Docket No. 96-REN-1890](#)

Authority 2: [Assembly Bill 995](#)

Summary:

California set the bar for all other renewable energy funds with the creation of a \$540 million fund for renewables with its electric industry restructuring legislation (AB 1890) back in 1996. The success of that program led to legislation to extend that funding - at the same annual levels--another ten years through 2012 creating an additional \$1.35 billion in renewables funding. This extended funding was enabled through Assembly Bill 995, which passed in September 2000. The initial funding amount is being collected from 1998 - 2001 from customers of the state's three investor-owned utilities - SDG&E, SCE, and PG&E- which must pay specified amounts each year. California Energy Commission (CEC) manages the renewables funds through the following four accounts:

(1) existing technologies account - 45% (\$243 million)

(2) new technologies account - 30% (\$162 million)

(3) emerging technologies account - 10% (\$54 million)

(4) consumer side account - 15% (14% customer credit - \$75.6 million; 1% education \$5.4 million)

The existing technologies account (45% or \$243 million) is divided into three subaccounts: (a) biomass and solar thermal: 25% (\$135 million), (b) wind: 13% (\$70.2 million), and (c) geothermal, small hydro, digester gas, landfill gas, and municipal solid waste: 7% (\$37.8 million). This account is intended to support the development and maintenance of existing renewable energy projects, i.e. renewable projects that are already built. This account uses a \$/kWh production credit mechanism. In late 2000, in an effort to address part of the state's power generation shortfalls, the CEC reallocated \$40 million from the existing technologies account to the new technologies account.

The new renewable resources account (30% or \$162 million) supports prospective new renewable electricity generation projects. These projects must be brought on line by the end of 2001, and like the existing technologies account, money is awarded as a \$/kWh credit.

The emerging technologies account (10% or \$54 million) is being allocated through a rebate program. Senate Bill 90, the enabling legislation for the emerging technologies account, specifies that the eligible technologies under this account are photovoltaics, solar thermal electric, fuel cell technologies that use renewable fuels, and wind turbines up to 10 kW. Overall, sixty percent (60%) of the emerging technologies moneys will go toward rebates for systems of 10 kW or less with an additional 15% reserved for systems of 100 kW or less. The rebates - or buydowns - have been available on a declining scale to encourage early use of the program.

The consumer side account provides rebates to consumers who choose to buy green power from power marketers (14% or \$75.6 million) and marketing for renewables (1% or \$5.4 million). Renewables supported through the consumer side account include biomass, micro-hydro, geothermal, solar, and wind.

Efficiency funds are being administered by the California Board for Energy Efficiency (CBEE), a new advisory board created by the Public Utilities Commission (<http://www.cbee.org/>). The Low-Income Governing Board (LIGB <http://www.ligb.org/>), a new advisory board to the CPUC, will manage the weatherization and rate assistance funds.

Contact:

Mike DeAngelis

California Energy Commission

Energy Technology Development

1516 9th Street

Sacramento, CA 95814

Phone: (916) 654-4878

Fax: (916) 654-4420

E-Mail: mdeangel@energy.state.ca.us

Web site: <http://www.energy.ca.gov/greengrid/>

CA-16 CALIFORNIA

Incentive Type: Renewables Portfolio Standard

Eligible Technologies: Solar Thermal Electric, Photovoltaics, Landfill Gas, Wind, Biomass, Hydro, Geothermal Electric, Waste, Waste Tire, Digester Gas

Applicable Sectors: Utilities

Standard: increase 1% per year beginning in 2003 to reach at least 20% by end of 2017

Date Enacted: 9/12/02

Effective Date: 1/1/03

Authority 1: [SB 1078 of 2002](#)

Summary:

SB 1078 was signed by the Governor of California on September 12, 2002. This legislation establishes California as having the most aggressive renewables portfolio standard in the country by requiring utilities to purchase 20 percent of their electricity from renewable sources by 2017. Renewable sources include biomass, solar thermal, photovoltaic, wind, geothermal, small hydropower of 30 megawatts or less, waste tire, digester gas, landfill gas, and municipal solid waste generation technologies. There are restrictions for some of these technologies. The renewables portfolio standard program will be implemented by the California Public Utilities Commission.

Contact:

Consumer Help Desk - PUC

California Public Utilities Commission

505 Van Ness Avenue

San Francisco, CA 94102

Phone: (415) 703-2782

Fax: (415) 703-1758

E-Mail: consumerhelpdesk@cpuc.ca.gov

Web site: <http://www.cpuc.ca.gov>

CA-17 CALIFORNIA

Incentive Type: Grants

Eligible Technologies: AFV, AF, Alternative Fuel Stations

Applicable Sectors: Schools

Authority 1:

arb.ca.gov/msprog/schoolbus/schoolbus.htm

Summary:

The Lower-Emission School Bus Program provides grants to school districts to replace older, high-emitting pre-1987 model year school buses with lower-emitting models that meet the latest federal motor vehicle safety standards. Program funds can be used to purchase new buses operating either on ultra low-sulfur diesel fuel or on an alternative fuel; funds may also be used for alternative fuel infrastructure, based on demonstrated need.

Contact:

Krista Fregoso

Phone (916) 445-5035

CA-18 CALIFORNIA

Incentive Type: Grants

Eligible Technologies: AFVs

Applicable Sectors: all

Authority 1:

www.aqmd.gov/trans/aqip.html.

Summary:

The South Coast AQMD (SCAQMD) administers the Air Quality Investment Program, which funds projects that improve air quality through emissions reductions, including AFV projects on an on-going basis, with priority given to on-road vehicles.

Contact:

Shashi Singeetham

Phone (909) 396-3298

email at ssingeetham@aqmd.gov

CA-19 CALIFORNIA

Incentive Type: Grants

Eligible Technologies: AFVs

Applicable Sectors: local government, state government

Authority 1:

www.baaqmd.gov.

Summary:

The Bay Area AQMD (BAAQMD) offers several programs to provide incentives for clean-fuel vehicles, with an emphasis on public agency fleets. The Vehicle Incentive Program (VIP) offers incentives to public agencies that purchase AFVs with a Gross Vehicle Weight Rating (GVWR) of 10,000 pounds (lbs.) or less. Qualifying vehicles must be certified as super ultra low emission (SULEV), partial zero emission (PZEV) or zero emission vehicles (ZEV). Incentives range from \$1,000 to \$5,000 per vehicle.

Contact:

Andrea Gordon
Phone (415) 749-4940
email at agordon@baaqmd.gov

CA-20 CALIFORNIA

Incentive Type: Grants—AFV purchase

Eligible Technologies: AFVs

Applicable Sectors: local government, state government

Authority 1:

www.baaqmd.gov

Summary:

Through the Transportation Fund for Clean Air (TFCA) program, the BAAQMD offers incentives to cover the incremental cost of the purchase or lease of alternative fuel buses and the purchase of medium- and heavy-duty AFVs with a GVWR of 10,000 lbs. or greater. Any public agency within the BAAQMD's jurisdiction can apply for TFCA funds.

Contact:

David Burch
Phone (415) 749-4641
email at dburch@baaqmd.gov

CA-21 CALIFORNIA

Incentive Type: Grants

Eligible Technologies: AFVs

Applicable Sectors: businesses, local government

Authority 1:

www.airquality.org

Summary:

The Sacramento AQMD's Heavy-Duty Low-Emission Vehicle Incentive Program offers a variety of financial incentives to entities that lower NOx emissions from heavy-duty vehicles (both on and off-road) with a GVWR over 14,000 lbs. This includes purchasing new AFVs as well as retrofitting older diesel vehicles to ensure lower emissions. Private businesses and public agencies in the six-county Sacramento federal ozone non-attainment area are eligible to apply for this program. For more information on the Sacramento AQMD's Heavy Duty Vehicle Incentive Program, please contact or visit the Web site at

Contact:

Freya Arick
Phone (916) 874-4891
email at farick@airquality.org

CA-22 CALIFORNIA

Incentive Type: Grants

Eligible Technologies: AFVs, AF

Applicable Sectors: individuals, businesses

Authority 1:

Summary:

The Ventura County APCD offers the Clean Air Fund, which is seeking proposals for projects to reduce smog in the county, including alternative fuel vehicle related projects. Smog-reducing activities already mandated by existing local, state, or federal requirements are not eligible for funding. Proposals are accepted on an ongoing basis.

Contact:

Stan Cowen

CO-1 COLORADO

Incentive Type: Tax Credit--personal income

Eligible Technologies: Renewable Transportation Fuels, Renewable Fuel Vehicles

Applicable Sectors: Individual

Authority 1: Colorado Revised Statutes (CRS) §39-22-516 and §39-33-102)

Summary:

Prior to July 1, 2011, an income tax credit is available from the Colorado Department of Revenue for the incremental cost of purchasing an AFV or for the conversion of a vehicle to operate using an alternative fuel. HEVs also qualify for this incentive. This credit is only available in the year during which the vehicle was purchased or converted, and a vehicle can qualify for this credit only one time. For an AFV purchase or conversion that permanently replaces a motor vehicle or power source that is ten or more years old (such that the old vehicle or power source will no longer be operated on state highways), the percentage specified in the table below is doubled, up to a maximum of 100% of the incremental or conversion cost. To the extent the allowable credit exceeds the person's tax liability for that year, the excess may be carried forward for up to five years. The value of the credit is based on the EPA emissions classification of the vehicle as follows:

Type of Vehicle	Tax Year Beginning Prior to 2006	July 1, 2006-July 1, 2009	July 1, 2009-July 1, 2011
Low Emission Vehicle (LEV)	50%	25%	0%
Ultra Low or Inherently Low Emission Vehicle (ULEV or ILEV)	75%	50%	25%
Super Ultra Low or Zero Emission Vehicle (SULEV or ZEV)	85%	75%	50%

HEV Model	Tax Credit
2004 Toyota Prius	\$2,678
2004 Honda Insight (automatic)	\$4,310
2004 Honda Insight (manual)	\$3,803
2004 Honda Civic Hybrid (automatic)	\$2,580
2004 Honda Civic Hybrid (manual)	\$2,430

If the motor vehicle that qualifies for the AFV credit is owned by the state, a political subdivision of the state, or a tax-exempt organization, and is used in connection with the official activities of the entity, the entity will be eligible for a rebate in the same amount as specified above.

Contact:

www.revenue.state.co.us/fyi/html/income09.html

CO-2 COLORADO

Incentive Type: Income Tax Credit

Eligible Technologies: Renewable Transportation Fuels (refueling stations)

Applicable Sectors: Commercial, Residential, Transportation

Authority 1: CRS §39-22-516

Summary:

For tax years beginning on or after January 1, 1998 and prior to July 1, 2011, the Colorado Department of Revenue offers an income tax credit for the actual cost of construction, reconstruction or acquisition of an alternative fuel refueling facility that is directly attributable to the storage, compression, charging or dispensing of alternative fuels to motor vehicles. The credit has a value of:

Tax Year	Tax Credit
1998-2006	50%
2006-2009	35%
2009-2011	20%

For an alternative fuel refueling facility that will be generally accessible for use by persons in addition to the person claiming the credit, the percentages specified above shall be multiplied by 1.25. For an alternative fuel refueling facility that dispenses an alternative fuel derived from a renewable energy source, the credit percentages specified above shall be multiplied by 1.25 with certification that at least 70 percent

of the alternative fuel dispensed annually is derived from a renewable energy source for a period of ten years. The credit has a maximum value of \$400,000 in any consecutive five-year period for each refueling facility.

Contact:

Colorado Department of Revenue
Phone (303) 238-7378
www.revenue.state.co.us

CO-3 COLORADO

Incentive Type: Rebate

Eligible Technologies: Renewable Fuel Vehicles

Applicable Sectors: State government, Local Government, non-profits

Authority 1: CRS §39-33-101 through §39-33-106

Summary:

For tax years beginning on or after July 1, 1998 but prior to July 1, 2011, a rebate is available from the Colorado Department of Revenue for the purchase of an AFV or for the conversion of a vehicle to operate using an alternative fuel. Vehicles must be owned by the State of Colorado, a political subdivision of the state, or a tax-exempt organization, and be used in connection with the official activities of the entity. HEVs also qualify for this incentive. The rebate is a percentage of the incremental cost if used toward purchasing a new AFV, or is a percentage of the conversion cost if used towards the cost of converting a vehicle to operate using an alternative fuel. For an AFV purchase or conversion that permanently replaces a motor vehicle or power source that is ten or more years old, the percentage specified in the table below is doubled, up to a maximum of 100% of the incremental or conversion cost. Each qualified entity is limited to \$350,000 per state fiscal year in total rebates paid.

Type of Vehicle	1998-2006	2006-2009	2009-2011
LEV	50%	25%	0%
ULEV or ILEV	75%	50%	25%
SULEV or ZEV	85%	75%	50%

Contact:

Colorado Department of Revenue
Phone (303) 238-7378
www.revenue.state.co.us

CO-4 COLORADO

Incentive Type: Mandate-fuel purchase

Eligible Technologies: Renewable Transportation Fuels

Applicable Sectors: State government

Authority 1: CRS §24-30-1104

Summary:

By July 10, 2010, the Executive Director of the Department of Personnel must adopt a policy that at least 10% of all state-owned bi-fuel vehicles are to be fueled exclusively with an alternative fuel.

Contact:

Colorado
Executive Director of the Department of Personnel

CO-5 COLORADO

Incentive Type: Mandate—use exemption

Eligible Technologies: Renewable Fuel Vehicles

Applicable Sectors: Individuals

Authority 1: CRS §42-4-1012)

Summary:

Vehicles that meet or exceed the EPA ILEV classification and have a gross vehicle weight rating (GVWR) of 26,000 pounds (lbs.) or less may be operated upon high occupancy vehicle (HOV) lanes regardless of the number of occupants and without payment of a special toll or fee. A special sticker must be obtained from the State Department of Transportation. At this time, HEVs do not qualify as ILEVs due to the use of traditional fuel and cannot receive the HOV exemption decal.

Contact:

Teresa Carrillo, Colorado Department of Transportation, at (303) 757-9716 or via email at teresa.carrillo@dot.state.co.us.

CO-6 COLORADO

Incentive Type: Tax exemption-sales (eqt)

Eligible Technologies: Renewable Fuel Vehicles

Applicable Sectors: businesses, individuals

Authority 1: CRS §39-26-114

Summary:

Vehicles, vehicle power sources, or parts used for converting a vehicle power source certified to federal Low Emission Vehicle standards or better are exempt from state sales tax. This exemption applies to vehicles, power sources, or parts for vehicles over 10,000 lbs. GVWR.

Contact:

Teresa Carrillo, Colorado Department of Transportation, at (303) 757-9716 or via email at teresa.carrillo@dot.state.co.us.

CO-7 COLORADO

Incentive Type: Mandates—use exemptions

Eligible Technologies: Renewable Fuel Vehicles

Applicable Sectors: Businesses, Residential

Authority 1: CRS §42-4-508

Summary:

GVWR limits for AFVs are 1000 lbs. greater than corresponding conventional vehicles when the AFVs are operated on a highway that is not on the interstate system.

Contact:

Teresa Carrillo, Colorado Department of Transportation, at (303) 757-9716 or via email at teresa.carrillo@dot.state.co.us.

CO-8 COLORADO

Incentive Type: Mandate--Definitions

Eligible Technologies: Renewable Transportation Fuels

Applicable Sectors: Transportation

Authority 1: CRS §8-20-232.5

Summary:

The term 'gasoline gallon equivalent' is defined in order to equate the energy content of alternative fuels to that of a gallon of gasoline.

Contact:

Teresa Carrillo, Colorado Department of Transportation, at (303) 757-9716 or via email at teresa.carrillo@dot.state.co.us.

CT-1 CONNECTICUT

Incentive Type: Property Tax Exemption

Eligible Technologies: Passive Solar Space Heat, Solar Water Heat, Active Solar Space Heat, Photovoltaics, Wind, Hydro, Cogeneration

Applicable Sectors: Commercial, Industrial, Residential

Amount: varies

Max. Limit: varies

Terms: Applies to the first 15 assessment years following construction

Expiration Date: 10/1/06

Authority 1: C.G.S. Ch. 203, Sec.12-81-56,57,62,63

Summary:

The state of Connecticut allows municipalities the option of offering property tax exemptions for certain renewable energy systems. Such systems include solar space and water heating, photovoltaics, wind systems, fuel cells, and micro-hydro. Adoption of this exemption varies from one municipality to another. In some cases, the exemption applies to the total value of the qualifying renewable energy system and can be applied to residential, commercial, and industrial property.

For example, for "Class I renewable energy sources," defined as "energy derived from solar power, wind power, a fuel cell, methane gas from landfills, or a biomass facility, provided such facility begins operating on or after July 1, 1998, and such biomass is cultivated and harvested in a sustainable manner," and hydropower systems, the exemption is for residential applications and may apply to the total value of the equipment. For other technologies, the exemption may only apply to the increased value of the system as compared to conventional systems.

Contact:

Bill Cox

Connecticut Office of Policy and Management

Energy Unit

450 Capitol Avenue, MS #52 ENR

Hartford, CT 06106-1308

Phone: (860) 418-6238

Fax: (860) 418-6495

E-Mail: william.cox@po.state.ct.us

Web site: <http://www.opm.state.ct.us/pdpd2/energy/enserv.htm>

CT-2 CONNECTICUT

Incentive Type: State Grant Program

Eligible Technologies: Fuel Cells

Applicable Sectors: Commercial, Industrial, Nonprofit, Schools, Local Government

Amount: Varies

Max. Limit: \$8.8 million for all three project categories

Effective Date: 12/20/02

Expiration Date: Round 1 proposals due 1/30/03

Website: http://www.ctcleanenergy.com/rfp/RFP_CCEF-FC-002.pdf

Summary:

The Connecticut Clean Energy Fund (CCEF) has announced a request for proposals (RFP) to conduct commercial and demonstration projects under the CCEF Fuel Cell Initiative. CCEF is the state's public benefits fund financed by a surcharge levied against the state's electrical ratepayers. The Fund is administered by Connecticut Innovations, Incorporated which is a quasi-public agency of the State of Connecticut.

Proposals are requested from parties that will host the fuel cell or those who will own and operate the fuel cell installation, such as owners and operators of buildings or energy project developers. Applications must be within Connecticut Light & Power or United Illuminating's service territories.

Three general types of projects are being solicited under this RFP:

- a. Commercial Operation Category: Installation of a commercially-ready fuel cell into a commercial, institutional or industrial site, with the objective of indicating to the commercial and industrial community the benefits, feasibility and viability of fuel cells.
- b. Operational Demonstration Category: Operational demonstration projects aimed at establishing a track record of performance for near-commercial fuel cell units.
- c. Joint Commercial Project Category: The proposed project must incorporate Load Management and/or Commercial/Industrial programs to increase the overall electric energy efficiency and utilize all reasonable opportunities to recover the fuel cell waste heat. Co-funded with the state's Energy Conservation & Load Management Fund (EC&LMF) through their RD&D program.

CCEF will dedicate up to \$8 million to these projects. EC&LMF's co-funding level is \$0.8 million. There is no limit to the amount that a proposal may request subject to the \$8.8 million funding available under the 2002 RFP program. Multi-year and/or multi-unit requests will be considered.

The proposals submitted under this RFP will be assessed through four evaluation steps. First round applications are due January 30, 2003. Access the site shown above for the solicitation and application.

Contact:

Project Manager, Fuel Cell RFP

Connecticut Clean Energy Fund

999 West Street

Rocky Hill, CT 06067

Phone: (860) 563-0015

Fax: (860) 563-6978

E-Mail: cefinfo@ctinnovations.com

Web site: <http://www.ctcleanenergy.com>

CT-3 CONNECTICUT

Incentive Type: State Loan Program

Eligible Technologies: Passive Solar Space Heat, Solar Water Heat, Active Solar Space Heat, Photovoltaics, Wind, Biomass, Geothermal Heat Pumps

Applicable Sectors: Residential, Multifamily (1-4 units)

Amount: \$400 -- \$10,000

Max. Limit: \$10,000

Terms: up to 10 years

Website: http://www.chif.org/owner_borrowers/index.shtml#energy

Authority 1: [C.G.S. 32-315-7](#)

Summary:

Single-Family Energy Conservation Loans from \$400 to \$10,000 are available through the Connecticut Housing Investment Fund (CHIF) to owners of 1 - 4 family homes who meet established income limits for family size and location. These loans may be used for a variety of conservation improvements including alternative energy heating systems. Interest rates (currently 1%, 3 % and 6 %) vary in accordance with the borrower's family size and income. The repayment period may be up to 10 years. According to the CHIF, about a dozen loans per year are used for solar or geothermal applications.

Loans for large residential properties (more than 5 units) are available through the Multi-Family Energy Conservation Loan Program. Loans of up to \$2,000 per unit up to a maximum of \$60,000 per building are available. Interest rates (currently 3 % and 6 %) vary in accordance with the income of the tenants living in the building. The repayment period may be up to 10 years.

Applications for these programs are available from the Web site listed above.

Contact:

ECL Program Specialist

Connecticut Housing Investment Fund

121 Tremont Street

Hartford, CT 06106

Phone: (860) 233-5165

Fax: (860) 233-2930

E-Mail: loans@chif.org

Web site: <http://www.chif.org>

CT-4 CONNECTICUT

Incentive Type: Net Metering Rules

Eligible Technologies: Solar Thermal Electric, Photovoltaics, Landfill Gas, Wind, Biomass, Hydro, Fuel Cells

Applicable Sectors: Residential, includes 2-4 multifamily units

Limit on System Size: Fossil technologies: 50 kW; Renewable technologies: 100 kW

Limit on Overall Enrollment: None

Treatment of Net Excess: Purchased by utility at spot market energy rate

Utilities Involved: Investor-owned Utilities Only

Date Enacted: 1/1/90

Effective Date: 1/1/2000

Expiration Date: none

Authority 1: [CGS 16-243h; CT Legislature, Public Act 98-28](#)

Summary:

In 1998, the Connecticut Legislature, as part of its Electric Restructuring Public Act 98-28, requires all investor-owned utilities to provide net metering to residential customers who own solar, wind, hydro, biogas, fuel cell, or sustainable biomass electrical generators. No capacity limits were set.

Net excess generation is purchased at the spot market energy rate, which is essentially avoided cost. Electric suppliers must make required interconnections, install the necessary metering equipment, and give a credit for any electricity generated by a residential customer. Net metered customers are charged, however, for the competitive transition assessment and the systems benefits charge based on the amount of energy consumed by the customer from the facilities of the electric distribution company without netting any electricity produced by the customer.

In 1990, Connecticut's Department of Public Utility Control established net metering with Ruling 159. Under this ruling, utilities were required to purchase net excess generation from qualifying facilities up to 50 kW in capacity for systems using non-renewable energy and 100 kW for renewable energy systems.

Contact:

Mark Quinlan

Connecticut Department of Public Utility Control

Ten Franklin Square
New Britain, CT 06051
Phone: (860) 827-2691
Fax: (860) 827-2613
E-Mail: mark.quinlan@po.state.ct.us

CT-5 CONNECTICUT

Incentive Type: Grants—R&D; Grants—Equity Investments
Eligible Technologies: Photovoltaics, Wind, Biomass, Hydro, Renewable Transportation Fuels, Fuel Cells, Waste
Applicable Sectors: Commercial, Industrial, Residential
Types: Renewables, Efficiency
Total Fund: \$15 million rising to ~\$30 million annually
Charge: varies
Date Enacted: 4/98
Effective Date: 2000
Expiration Date: No set date
Website: <http://www.ctcleanenergy.com>
Authority 1: [CT Public Act No. 98-28, Section 44](#)

Summary:

The Connecticut public benefits program was enacted in April 1998 and programs began in earnest in January of 2000. The Connecticut Clean Energy Fund will generate \$118 million over five years via a surcharge that ramps up over time. In 2000-2001 the charge was 0.5 mill/kWh, rising to 0.75 mills/kWh in 2002-2003 and 1.0 mill/kWh from 2004 forward. The Fund is managed by Connecticut Innovations, Inc., a quasi-governmental investment organization. Connecticut Innovations receives guidance from a Renewable Energy Investments Advisory Committee, whose members are appointed by the House, Senate, Governor, and chairman of Connecticut Innovations.

There are few restrictions on use of the funds. The law permits “grants, direct or equity investments, contracts or other actions which support research, development, manufacture, commercialization, deployment and installation of renewable energy technologies, and actions which expand the expertise of individuals, businesses and lending institutions with regard to renewable energy technologies” (CT Public Act No. 98-28, Section 44(c)). One of the most important criteria for investments is that there be a direct economic benefit to the state of Connecticut. Some funds will be made available for non-investment programs such as R&D and demonstrations. In addition to investment the fund will also be used as a repository for any new federal funds for renewable energy programs.

Early investments included funding to Connecticut Electric Cooperative to develop a green power marketing program; seed funding for a joint venture to develop portable solar power systems; funding for a wind energy study for Connecticut; and funding to Green Mountain Energy Company to increase demand for cleaner and renewable electricity by residential and small business energy customers in Connecticut. More recently, the fund's initiatives have focused on commercial and demonstration fuel cell projects and photovoltaics for commercial, industrial and institutional buildings

For efficiency, the state provides a 3.0 mills/kWh charge for energy conservation and load management programs. Electric distribution companies will collect and disperse these funds with assistance from the Energy Conservation Management Board, which was appointed by the Connecticut Department of Public Utility Control (DPUC). The Board includes representatives from environmental groups; Office of Consumer Counsel; Office of Attorney General; Department of Environmental Protection; electric distribution companies; statewide business, retail, and manufacturing associations; and residential customers. Plans developed by the Board and electric distribution companies must be approved by the DPUC. Funds can be spent on direct funding of equipment, rebates, sale price and loan subsidies, leases, and promotional and educational activities.

The legislation also provides for a fund to continue weatherization and other already existing low-income programs. The level of the wires charge for the fund will be determined by the DPUC. Distribution utilities will implement the efficiency program with oversight by the DPUC through a Management Board. The DPUC will administer the other low-income programs (weatherization and bill assistance) and other elements such as public education.

Contact:

Richard R. Barredo
Connecticut Clean Energy Fund
999 West Street
Rocky Hill, CT 06067
Phone: (860) 563-0015
Fax: (860) 563-4877
Web site: <http://www.ctcleanenergy.com>
Charlie Moret
Connecticut Clean Energy Fund
999 West Street
Rocky Hill, CT 06067
Phone: (860) 563-0015
Fax: (860) 563-4877
E-Mail: charlie.moret@ctinnovations.com

CT-6 CONNECTICUT

Incentive Type: Renewables Portfolio Standard

Eligible Technologies: Solar Thermal Electric, Photovoltaics, Landfill Gas, Wind, Biomass, Hydro, Fuel Cells, Waste

Applicable Sectors: Utilities

Date Enacted: 4/29/1998

Effective Date: 1/1/2000

Expiration Date: 7/1/2009

Authority 1: [CT Public Act No. 98-28, Section 25](#)

Summary:

In addition to its public benefits fund, Connecticut's 1998 electric utility restructuring law (HB 5005) created a renewable portfolio standard. The RPS was revised in 1999 (HB 6621). Resources that qualify as renewable energy sources are divided into two classes. Class I renewable energy sources include solar, wind, new sustainable biomass, landfill gas, and fuel cells. Class II renewable energy sources include trash-to-energy facilities, biomass facilities not included in Class I, and certain approved hydro facilities. Electric providers must meet the following renewable energy portfolio requirements:

Class I Renewables

2000 0.5%

07/01/2001 0.75%

07/01/2002 1.0%

07/01/2003 1.5%

07/01/2004 2.0%

07/01/2005 2.5%

07/01/2006 3.0%

07/01/2007 4.0%

07/01/2008 5.0%

07/01/2009 6.0%

Additional Output from Class I and II Renewables

2000 5.5%

2005 6%

2009 7%

Electricity providers must provide documentation on an annual basis of compliance with the RPS for the previous 12 months. If a provider does not satisfy the RPS during a compliance period, penalties may include license revocation or suspension, or a prohibition from accepting new customers, or civil penalties. An electric provider may be able to meet the RPS requirements by participating in a renewable energy-trading program. The 1999 revisions to the RPS allow the Connecticut Department of Public Utility Control to delay the RPS targets by up to two years if it finds that requirements cannot reasonably be met. The RPS does not apply to Connecticut's municipal and cooperative utilities.

Contact:

Bill Cox

Connecticut Office of Policy and Management

Energy Unit

450 Capitol Avenue, MS #52 ENR

Hartford, CT 06106-1308

Phone: (860) 418-6238

Fax: (860) 418-6495

E-Mail: william.cox@po.state.ct.us

Web site: <http://www.opm.state.ct.us/pdpd2/energy/enserv.htm>

CT-7 CONNECTICUT

Incentive Type: Mandates—Purchases (eqt)

Eligible Technologies: AFVs

Applicable Sectors: State government

Authority 1: [C.G.S. 4a-67d](#) and Senate Bill 218 (Public Act 04-231), 2004

Summary:

The fleet average for cars or light-duty trucks purchased by the state must: 1) have a U.S. Environmental Protection Agency estimated fuel economy of at least 40 miles per gallon; 2) comply with state fleet vehicle acquisition requirements set forth under the Energy Policy Act of 1992; and 3) obtain the best achievable fuel economy per pound of carbon dioxide emitted in its vehicle class. AFVs purchased by the state to comply with these requirements must be capable of operating on an alternative fuel that is available in the state. Law enforcement vehicles and those used for other designated special use purposes are exempt from these provisions.

Contact:
Bill Cox
Connecticut Office of Policy and Management
Energy Unit
450 Capitol Avenue, MS #52 ENR
Hartford, CT 06106-1308
Phone: (860) 418-6238
Fax: (860) 418-6495
E-Mail: william.cox@po.state.ct.us
Web site: <http://www.opm.state.ct.us/pdpd2/energy/enserv.htm>

CT-8 CONNECTICUT

Incentive Type: Mandates--Standards
Eligible Technologies: AFVs, AF
Applicable Sectors: transportation
Authority 1: C.G.S. 22a-174g and Senate Bill 218 (Public Act 04-231), 2004

Summary:
Prior to January 1, 2005, the Commissioner of Environmental Protection must adopt regulations to implement the light-duty motor vehicle emission standards of the state of California for vehicles with a model year of 2008 or later.

Contact:
Connecticut Commissioner of Environmental Protection

CT-9 CONNECTICUT

Incentive Type: Mandates—AFV use
Eligible Technologies: AFVs
Applicable Sectors: Transportation
Authority 1: C.G.S. 13b-96

Summary:
Any alternative fuel sedan or station wagon with a wheelbase of at least 102 inches may be used to provide taxicab service.

Contact:
Bill Cox
Connecticut Office of Policy and Management
Energy Unit
450 Capitol Avenue, MS #52 ENR
Hartford, CT 06106-1308
Phone: (860) 418-6238
Fax: (860) 418-6495
E-Mail: william.cox@po.state.ct.us
Web site: <http://www.opm.state.ct.us/pdpd2/energy/enserv.htm>

CT-10 CONNECTICUT

Incentive Type: Mandate—emissions reductions
Eligible Technologies: AFVs
Applicable Sectors: Transportation
Authority 1: C.G.S. 22a-174i

Summary:
Any state mobile emission reduction credits program must allow credit for emission reductions achieved by vehicle conversions eligible for such a tax credit, even if the conversion took place before the credit program began.

Contact:
Bill Cox
Connecticut Office of Policy and Management
Energy Unit
450 Capitol Avenue, MS #52 ENR
Hartford, CT 06106-1308

Phone: (860) 418-6238
Fax: (860) 418-6495
E-Mail: william.cox@po.state.ct.us
Web site: <http://www.opm.state.ct.us/pdpd2/energy/enserv.htm>

CT-11 CONNECTICUT

Incentive Type: Loans—working capital
Eligible Technologies: AFVs
Applicable Sectors: businesses
Authority 1: C.G.S. 32-23z

Summary:

The Business Environmental Clean-Up Revolving Loan Fund offers loans for working or development capital to businesses that convert gas and diesel-powered vehicles to run on alternative fuels. In order to qualify, a business must meet the following four criteria:

- Have been in business for at least two years;
- Have gross revenues under \$3 million in its most recent fiscal year or have less than 150 employees;
- Derive at least 75% of its gross revenues from motor vehicle fuel conversion activities; and
- Demonstrate that it is unable to obtain financing from conventional sources on reasonable terms or in reasonable amounts.

Contact:

Bill Cox
Connecticut Office of Policy and Management
Energy Unit
450 Capitol Avenue, MS #52 ENR
Hartford, CT 06106-1308
Phone: (860) 418-6238
Fax: (860) 418-6495
E-Mail: william.cox@po.state.ct.us
Web site: <http://www.opm.state.ct.us/pdpd2/energy/enserv.htm>

DL-1 DELAWARE

Incentive Type: Generation Disclosure
Eligible Technologies: Photovoltaics, Landfill Gas, Wind, Biomass, Hydro, Geothermal Electric
Applicable Sectors: Utilities
Fuel Mix: Yes
Emissions: No
Std Format: No
Date Enacted: 1999
Effective Date: 8/99
Authority 1: DE Code Title 26, Ch. 10, § 1012 (1999 HB 10)
Authority 2: PSC Regulation Docket No. 49

Summary:

Delaware's 1999 restructuring law (HB 10) authorized the Public Service Commission (PSC) to develop environmental disclosure requirements and consumer protection standards for green power marketing. PSC rules require all electric suppliers to disclose fuel mix information to customers on a quarterly basis, effective August 31, 1999, although a standard label is not required. The fuel resource mix must be reported by percentage for the following resources: coal, oil, natural gas, nuclear, hydro, solar, wind, biomass, geothermal, and other.

Energy suppliers offering green power products are also required to accurately label their fuel mix in marketing materials and product offers. Suppliers that market a product as "environmentally beneficial" must show that 50% of the power is derived from renewable resources, such as solar, wind, hydro, biomass (agricultural wastes and landfill gas), or geothermal.

Contact:

Funmi Jegede
Delaware Public Service Commission
1560 South Dupont Highway
P.O. Box 457
Dover, DE 19903-0457
Phone: (302) 739-3227

DL-2 DELAWARE

Incentive Type: Net Metering Rules

Eligible Technologies: Solar Thermal Electric, Photovoltaics, Wind, Biomass, Hydro, Geothermal Electric

Applicable Sectors: Commercial, Residential

Limit on System Size: 25 kW

Limit on Overall Enrollment: None

Treatment of Net Excess: To be specified by Delaware Public Service

Utilities Involved: All utilities

Date Enacted: 1999

Website: <http://www.state.de.us/publicadvocate>

Authority 1: [26 DE Code Chapter 10 \(DE Legislature, Senate Amendment 1 HB10\)](#)

Authority 2: [PSC Regulation Docket No. 49](#)

Summary:

The Electric Utility Restructuring Act of 1999 requires Conectiv Power Delivery (Conectiv) and Delaware Electric Cooperative (DEC) to offer net metering for residential and small commercial customers operating renewable energy systems of 25 kilowatts or less. Eligible fuel sources include "solar, wind, hydro or other forms or renewable energy." There is no statewide limit on net metered capacity.

There is no buy-back provision for net excess generation except by special contract with Conectiv. DEC allows the customer to credit excess generation to the following month for up to twelve months. At the end of this period, the customer to sell unused credits to any electric supplier who agrees to purchase them. If no one purchases the excess, it is granted to the customer's electric supplier at the end of the previous annual period.

In 2000, the Delaware Public Service Commission approved interconnection standards for Conectiv. There are different technical requirements/standards for generators smaller than 25 kW and generators between 25 kW and 1 MW. DEC's standards are similar to Conectiv's. You can find both standards on the program web site shown above.

For non-net metered Conectiv customer generators under 1 MW (such as microturbines or fuel cells) the contract, or tariff, for interconnection is Rate X, which can be found at <http://www.conectiv.com/cpd/tariffs/index.cfm>.

Contact:

Charlie Smisson

Delaware Energy Office
149 Transportation Circle
Dover, DE 19901

Phone: (302) 739-5644

Fax: (302) 739-6148

E-Mail: csmisson@state.de.us

DL-3 DELAWARE

Incentive Type: Rebates, outreach

Eligible Technologies: AF

Applicable Sectors: all

Authority 1:

Summary:

The Delaware Soybean Board offers rebates and marketing, promotion and education assistance for biodiesel use on a case-by-case basis

Contact:

Melanie Rapp at (302) 698-4522 or via email at melanie.rapp@state.de.us.

DL-4 DELAWARE

Incentive Type: Mandate—Government planning

Eligible Technologies: all

Applicable Sectors: all

Authority 1: [Executive Order Number 31, 2002](#)

Summary:

The Delaware Energy Task Force was created for the purpose of developing the Delaware Energy Plan to recommend to the Governor courses of action to address the State's long and short-term energy challenges. The Task Force consists of 17 members, including representatives of: alternative energy generation and development companies; the transportation fuels industry; and agriculture, representing the biofuels industry. The Delaware Energy Plan shall address state energy goals including promoting production and use of bioenergy and

clean alternative energy, and broadening the existing diversity and decreasing the environmental impact of fuels that meet Delaware's transportation needs.

Contact:

www.state.de.us/planning/livedel/etfhome.htm.

DL-5 DELAWARE

Incentive Type: Tax exemptions—sales on fuel purchases

Eligible Technologies: AF

Applicable Sectors: Commercial, Residential

Authority 1: State Code Title 30, Chapter 51, Subchapter II

Summary:

Taxes on alternative fuels used in official vehicles for the U.S. or any governmental agency, including state agencies and volunteer fire and rescue companies, are waived. Additionally, alternative fuel retailers must obtain a fuel supplier's license from the state Department of Transportation, and operators or owners of vehicles using alternative fuel must obtain either a special fuel user's license from the Department of Transportation or pay the special fuel tax.

Contact:

Delaware Department of Transportation

DC-1 DISTRICT OF COLUMBIA

Incentive Type: Grants

Eligible Technologies: AFVs

Applicable Sectors: Businesses, local governments

Summary:

The Metropolitan Washington Council of Governments (MWCog) administers the Advanced Technology Vehicle Program - The Clean Alternative, which is funded by the MDOT and offers flexible incentives to private companies and local governments to cover the incremental cost of clean-fuel vehicles that reduce emissions of nitrogen oxides (NOx). In order to qualify for these incentives, interested businesses/organizations must meet certain criteria: the business/organization must have been in operation at least five years and have more than 10 vehicles in their fleet (exceptions may be made); fuel use must be greater than 3,000 gallons, or more than 45,000 miles traveled per year/per vehicle; the clean vehicle being introduced should reduce NOx; and the vehicles must be registered in Maryland and operate in the Washington, DC metropolitan area or the Baltimore metropolitan area. The exact amount of financial support is determined on a case-by-case basis, taking expected emissions benefits and other criteria into consideration. See www.mwcog.org/transportation/activities/clean.

Contact:

[Daivamani \(Siva\) Sivasailam](#)

siva@mwkog.org

(202) 962-3226

DC-2 DISTRICT OF COLUMBIA

Incentive Type: Use exemption

Eligible Technologies: AFVs

Applicable Sectors: Businesses, local governments (fleet operators)

Authority: D.C. Code, Division VIII, Title 50, Subtitle III § 50-714

Summary:

Clean fuel vehicles in fleets whose operators control at least 10 vehicles in an ozone non-attainment area, as defined by the Clean Air Act, are exempt from time-of-day and day-of-week restrictions and commercial vehicle bans. In addition, a fleet vehicle that is operated by a covered fleet, has been certified by the Environmental Protection Agency as an Inherently Low Emission Vehicle (ILEV), and continues to be in compliance with applicable ILEV emission standards, is exempt from High Occupancy Vehicle lane restrictions.

Contact:

[Daivamani \(Siva\) Sivasailam](#)

siva@mwkog.org

(202) 962-3226

DC-3 DISTRICT OF COLUMBIA

Incentive Type: Mandated use
Eligible Technologies: AFVs
Applicable Sectors: Businesses, local governments (fleet operators)
Authority: [D.C. Code](#), Division VIII, Title 50, Subtitle III 50-703

Summary:

For covered fleets, certain percentages of new vehicle purchases must be clean fuel vehicles. Beginning in model year (MY) 2000 and every MY thereafter, 70% of newly purchased vehicles 8,500 pounds (lbs.) gross vehicle weight rating (GVWR) and under, and 50% of vehicles between 8,500 lbs. and 26,000 lbs. GVWR, must be clean fuel vehicles.

Contact:

[Daivamani \(Siva\) Sivasailam](#)
siva@mwccog.org
(202) 962-3226

FL-1 FLORIDA

Incentive Type: Green Pricing Program
Eligible Technologies: Landfill Gas
Applicable Sectors: Commercial, Industrial, Residential
Premium: \$0.02/kWh sold in 100-kWh blocks
Commitment: None
Capacity Installed/Planned: 2300 kW planned (0.90 capacity factor)
Effective Date: 2003
Website: <http://www.gru.com/OurEnvironment/GreenEnergy/landfillgasenergy.jsp>

Summary:

Gainesville Regional Utilities and the Alachua County Public Works Department have begun developing a Landfill Gas to Energy project slated to come on line in February 2003. The program will use the gas produce by the Southwest Landfill near Archer to generate the power. The Southwest Landfill will provide a fuel source capable of generating 3 megawatts of power in the initial phases of the project. Because the landfill is closed, the amount of gas produced will diminish each year. The program will have an approximate premium of \$0.02/kWh, sold in 100 kWh blocks and will be available to residential, commercial, and industrial customers.

Contact:

Mark Spiller
Gainesville Regional Utilities
Strategic Planning Special Projects
P.O. Box 147117, Station A136
Gainesville, FL 32614-7117
Phone: (352) 334-1293
Fax: (352) 334-3151
E-Mail: spillermb@gru.com

FL-2 FLORIDA

Incentive Type: Green Pricing Program
Eligible Technologies: Biomass, Solar
Applicable Sectors: Commercial, Industrial, Residential, Nonprofit
Premium: 1.6¢/kWh or 11.6¢/kWh
Commitment: none
Capacity Installed/Planned: 126kW of PV planned
Effective Date: 12/02
Website: <http://www.sterlingplanet.com/sp/TL/tallBuyEnergy1.jsp>

Summary:

Tallahassee offers a green power program for the city's residential and business customers in conjunction with Sterling Planet, a Georgia-based green power marketer. The municipal utility is offering two options under the Green for You program: a power blend of solar and biomass, or an all-solar product.

Customers can purchase the blended product, which is generated by 95% biomass and 5% solar resources, to meet 50%, 75% or 100% of their electricity needs at a premium of 1.6¢/kWh. The solar-only product, which is supplied from solar systems in Tallahassee and other areas of Florida, is offered at a premium of 11.6¢/kWh in increments of 10%, up to 100% of a customer's electricity use. Sterling Planet plans to develop a 126-kW photovoltaic system in Tallahassee and a wood chip-fired biomass plant in Florida to supply the program.

Contact:

Gary Brinkworth

City of Tallahassee Electric Utility
2602 Jackson Bluff Road
Tallahassee, FL 32304
Phone: (850) 891-8903
Fax: (850) 891-0038
Web site: <http://talgov.com/citytlh/utilities/electric/>

FL-3 FLORIDA

Incentive Type: Green Pricing Program
Eligible Technologies: Photovoltaics, organic plant materials
Applicable Sectors: Commercial, Residential
Premium: \$5 per month per block; one block = 50 kilowatt-hours
Commitment: No minimum commitment length
Participants: 200
Capacity Installed/Planned: 1000 MWh
Date Enacted: 4/13/2000
Effective Date: 10/1/2000
Website: <http://smartsourcesource.tampaelectric.com/>

Summary:

Smart Source is a Green Energy program that offers customers a unique opportunity to support cleaner, renewable energy sources to supply a portion of their electricity needs.

For each monthly subscription block of \$5, Tampa Electric distributes 50 kilowatt-hours of renewable energy to the central electric system. Customers may sign up for as many blocks per month as they wish, and the fee is added to their base monthly electric bills.

Smart Source's use of renewable energy helps to preserve the environment by reducing the amount of emissions and greenhouse gases produced by traditional sources. The bulk of electricity that supports the Smart Source program will be derived from organic plant materials from local county resource recovery facilities. Tampa Electric's 18,000-watt solar generating station at the Museum of Science and Industry (MOSI) will also provide electricity. Each 50 kilowatt-hour block subscribed to will replace over 700 pounds of coal each year with renewable energy sources. Subscribing to three blocks or more will replace over one ton of coal each year.

For additional information on Tampa Electric's Smart Source program, or to sign up online, visit smartsourcesource.tampaelectric.com.

Contact:

Joe Cascio
Tampa Electric
TECO
P.O. Box 111
Tampa, FL 33601
Phone: (813) 228-1375
Fax: (813) 228-1670
E-Mail: jncascio@tecoenergy.com
Web site: <http://www.tecoenergy.com>

FL-4 FLORIDA

Incentive Type: Waste Reduction Credits
Eligible Technologies: Renewable fuels
Applicable Sectors: Local governments (County)
Authority: [Florida Statutes](#) 403.706

Summary:

County governments get waste reduction credits for using yard clippings, clean wood waste, or paper waste as feedstocks for the production of clean-burning fuels such as ethanol.

Contact:

Mr. Michael Ohlsen
Florida Department of Environmental Protection
Florida Energy Office
3900 Commonwealth Boulevard MS #19
Tallahassee, Florida 32399-3000
(850) 245-2450 (Telephone)
(850) 245-2947 (Fax)
michael.ohlsen@dep.state.fl.us

FL-5 FLORIDA

Incentive Type: Mandate (Use Tax)

Eligible Technologies: AF

Applicable Sectors: Private sector

Authority: [Florida Statutes](#) 206.877

Summary:

A person operating an AFV must purchase an annual decal from the Florida Department of Motor Vehicles in lieu of the excise tax on gasoline. Refueling stations are not allowed to fuel an AFV that does not display the proper decal. State and local government AFV fleets are exempt from paying the decal fee. A person fueling vehicles from his or her own facilities shall, in addition to the state alternative fuel fee imposed by this section, pay a local alternative fuel fee in lieu of each cent of excise tax levied by a county.

Contact:

Bill Young

Florida Space Coast Clean Cities Coalition

Clean Cities Coordinator

Phone (321) 638-1443

Fax (321) 638-1010

young@alpha.fsec.ucf.edu

Carlos Andres Gonzalez

Florida Gold Coast Clean Cities Coalition

Clean Cities Coordinator

Phone (954) 985-4416

Fax (954) 985-4417

carlosg@sfrpc.com

FL-6 FLORIDA

Incentive Type: Mandate (license)

Eligible Technologies: AF

Applicable Sectors: commercial (AF distributors)

Authority: [Florida Statutes](#) 206.89

Summary:

Anyone who wishes to be a wholesale distributor of an alternative fuel must first obtain a license from the Florida Department of Revenue.

Contact:

Bill Young

Florida Space Coast Clean Cities Coalition

Clean Cities Coordinator

Phone (321) 638-1443

Fax (321) 638-1010

young@alpha.fsec.ucf.edu

Carlos Andres Gonzalez

Florida Gold Coast Clean Cities Coalition

Clean Cities Coordinator

Phone (954) 985-4416

Fax (954) 985-4417

carlosg@sfrpc.com

GA-1 GEORGIA

Incentive Type: Corporate Tax Credit

Eligible Technologies: Renewable Fuel Vehicles

Applicable Sectors: Commercial

Amount: varies

Max. Limit: \$5,000 per vehicle

Effective Date: 1/1/98

Authority 1: [O.C.G.A. § 48-7-40.16](#)

Summary:

Georgia offers a credit against the tax imposed for the purchase or lease of a new low-emission vehicle or zero-emission vehicle that is registered in the state. The amount is \$2,500 per new low-emission vehicle and \$5,000 per new zero-emission vehicle. Georgia also allows a credit for the conversion of a conventionally fueled vehicle to a converted vehicle that is registered in the state. The amount of this credit is equal to the cost of conversion, with a maximum credit of \$2,500 per converted vehicle.

All claims for any credit must be accompanied by a certification approved by the Environmental Protection Division of the Georgia Department of Natural Resources. Any credit claimed but not used in any taxable year may be carried forward for five years from the close of the taxable year in which a new clean-fueled vehicle was purchased or leased, or a conventionally fueled vehicle was changed into a converted vehicle.

By definition, "clean-fueled vehicles" utilize motors certified by the Environmental Protection Agency to meet, for any model year, a set of emission standards that classifies it as a low-emission vehicle or zero emission vehicle. "Zero-emission vehicles" have zero tailpipe and evaporative emissions as defined under rules and regulations of the Georgia Board of Natural Resources applicable to clean fueled vehicles. Electric vehicles are generally qualify as zero-emission vehicles. "Low-emission vehicles" are fueled solely by an alternative fuel, including methanol, denatured ethanol, and other alcohols; mixtures containing 85 percent or more by volume of methanol, denatured ethanol, and other alcohols with gasoline or other fuels; natural gas; liquefied petroleum gas; hydrogen; coal-derived liquid fuels; fuels other than alcohol derived from biological materials; and electricity, including electricity from solar energy.

Contact:**Anthony Jackson**

Georgia Department of Revenue

1800 Century Center Blvd, NE

Atlanta, GA 30345-3205

Phone: (404) 417-2100

E-Mail: aljackso@gatax.org

Web site: <http://www2.state.ga.us/Departments/DOR/>

GA-2 GEORGIA

Incentive Type: Personal Tax Credit

Eligible Technologies: Renewable Fuel Vehicles

Applicable Sectors: Residential

Amount: varies

Max. Limit: \$5,000 per vehicle

Effective Date: 1/1/98

Authority 1: [O.C.G.A. § 48-7-40.16](#)

Summary:

Georgia offers a credit against the tax imposed for the purchase or lease of a new low-emission vehicle or zero-emission vehicle that is registered in the state. The amount is \$2,500 per new low-emission vehicle and \$5,000 per new zero-emission vehicle. Georgia also allows a credit for the conversion of a conventionally fueled vehicle to a converted vehicle that is registered in the state. The amount of this credit is equal to the cost of conversion, with a maximum credit of \$2,500 per converted vehicle.

All claims for any credit must be accompanied by a certification approved by the Environmental Protection Division of the Georgia Department of Natural Resources. Any credit claimed but not used in any taxable year may be carried forward for five years from the close of the taxable year in which a new clean-fueled vehicle was purchased or leased, or a conventionally fueled vehicle was changed into a converted vehicle.

By definition, "clean-fueled vehicles" utilize motors certified by the Environmental Protection Agency to meet, for any model year, a set of emission standards that classifies it as a low-emission vehicle or zero emission vehicle. "Zero-emission vehicles" have zero tailpipe and evaporative emissions as defined under rules and regulations of the Georgia Board of Natural Resources applicable to clean fueled vehicles. Electric vehicles are generally qualify as zero-emission vehicles. "Low-emission vehicles" are fueled solely by an alternative fuel, including methanol, denatured ethanol, and other alcohols; mixtures containing 85 percent or more by volume of methanol, denatured ethanol, and other alcohols with gasoline or other fuels; natural gas; liquefied petroleum gas; hydrogen; coal-derived liquid fuels; fuels other than alcohol derived from biological materials; and electricity, including electricity from solar energy.

Contact:**Anthony Jackson**

Georgia Department of Revenue

1800 Century Center Blvd, NE

Atlanta, GA 30345-3205

Phone: (404) 417-2100

E-Mail: aljackso@gatax.org

Web site: <http://www2.state.ga.us/Departments/DOR/>

GA-3 GEORGIA

Incentive Type: Green Pricing Program

Eligible Technologies: Landfill Gas, Wind, Biomass, Hydro, Solar

Applicable Sectors: Commercial, Industrial, Residential, Nonprofit, Schools, Local Government, State Government

Premium: varies

Capacity Installed/Planned: 8 MW available

Effective Date: 4/22/02

Website: <http://www.georgiaemc.com/p.asp?section=p>

Summary:

Georgia consumers can purchase renewable energy through Green Power EMC, a new energy cooperative formed by 16 of Georgia's Electric Membership Corporations (EMCs). These Green Power EMC business partners will sign up customers on a first-come, first-served basis for their allocation of the 8 MW of power generated by Green Power EMC in the first year - enough green power to serve about 30,000 customers of the more than 900,000 Georgia homes, businesses, factories and farms served by the 16 EMCs. Generation will initially come from reclaimed methane gas at three North and Middle Georgia landfills. Green Power EMC projects will include biomass and wind, and solar and low-impact hydroelectric energy sources will be added to its generating capacity in 2003. Green power is available in 150-kilowatt-hour blocks; pricing varies among the cooperatives.

The following electric cooperatives participate in Georgia's Green Power Program:

Carroll EMC of Carrollton
155 N. Highway 113
Carrollton, GA 30117
(770) 832-3552
www.cemc.com

Coastal Electric Cooperative
P.O. Box 109, 1265 South Coastal Hwy.
Midway, GA 31320-0109
(912) 884-3311
www.coastalemc.com

Cobb EMC of Marietta
P.O. Box 369
Marietta, GA 30061
(770) 429-2100
www.cobbemc.com

Coweta-Fayette EMC of Newnan
P.O. Box 488, 390 North Hwy. 29
Newnan, GA 30264
(770) 502-0226
www.utility.org

Flint Energies of Reynolds
P.O. Box 308, 103 S. Macon St.
Reynolds, GA 31076-0308
(478) 847-3415
www.flintenergies.com

GreyStone Power of Douglasville
P.O. Box 897, 4040 Bankhead Hwy.
Douglasville, GA 30133-0897
(770) 942-6576
www.greystonepower.com

Habersham EMC of Clarkesville
P.O. Box 25, 6257 State Highway 115
Clarkesville, GA 30523
(706) 754-2114
(800) 640-6812
www.habershamemc.com

Irwin EMC of Ocilla
P.O. Box 125, 915 West 4th St.
Ocilla, GA 31774
(229) 468-7415
(800) 237-3745
www.irwinemc.com

Jackson EMC of Jefferson
P.O. Box 38, 850 Commerce Hwy.
Jefferson, GA 30549
(706) 367-5281
www.jacksonemc.com

Jefferson Energy of Wrens
P.O. Box 457, 3077 Highway 17 North
Wrens, GA 30833
(706) 547-2167
(877) 533-3377
www.jeffersonenergy.com

Lamar EMC of Barnesville
P.O. Box 40, 1367 Hwy 341 South
Barnesville, GA 30204
(770) 358-1383
www.lamaremc.com

Ocmulgee EMC of Eastman
P.O. Box 669, 802 Eastman St.
Eastman, GA 31023
(478) 374-7001
(800) 342-5509

Sawnee EMC of Cumming
P.O. Box 266
Cumming, GA 30028
(770) 887-2363
(800) 635-9131 metro area only
www.sawnee.com

Snapping Shoals EMC of Covington
14750 Brown Bridge Rd.
Covington, GA 30016
(770) 786-3484
www.ssemc.com

Tri-County EMC of Gray
P.O. Box 487, 310 W. Clinton St.
Gray, GA 31032
(866) 254-8100
(478) 986-8100
www.tri-countyemc.com

Walton EMC of Monroe
P.O. Box 260, 842 U.S. Hwy. 78, NW
Monroe, GA 30655
(770) 267-2505
www.waltonemc.com

Contact:
Customer Service
Green Power EMC
2100 East Exchange Place
Tucker, GA 30084
Phone: (770) 270-7110
Fax: (770) 270-7935
Web site: <http://www.greenpoweremc.com/>

GA-4 GEORGIA

Incentive Type: Net Metering Rules
Eligible Technologies: Photovoltaics, Wind, Fuel Cells
Applicable Sectors: Commercial, Industrial, Residential
Limit on System Size: 10 kW for residential systems and 100 kW for commercial systems
Limit on Overall Enrollment: 0.2% of the utility's system peak

Treatment of Net Excess: Credited to the following month, then granted to the utility at end of annual period with no compensation

Utilities Involved: All utilities

Date Enacted: 4/28/01

Authority 1: [2001 O.C.G.A. 46-3-50 through 46-3-56 \(SB 93\)](#)

Summary:

On April 28, 2001, Governor Roy Barnes signed into law Georgia's Cogeneration and Distributed Generation Act of 2001. While resembling a standard net metering law on the surface, Georgia's legislation helps pave the way for a new relationship between utility and customer-generator by combining net metering with green pricing. The law draws from the work in many other states with the following typical net metering features:

- Eligible technologies include PV, fuel cells, and wind systems up to 10 kW for residential applications and 100 kW for commercial applications;
- Purchasing of energy continues until renewable capacity reaches 0.2% of the utility's system peak;
- Eligible systems must meet the standards specified by Underwriters Laboratories, the Institute of Electrical and Electronics Engineers, and the National Electrical Code; and
- System owners are not required to purchase additional liability insurance.

The key to the law is the provision that power flows to and from the home are separately measured with the intent that customers will see added value because the utility can package the excess kilowatts as part of its green pricing offering. Georgia Power and the state's other utilities have not yet established their green pricing program, and the green pricing tariffs still need to be filed.

Customers are given a choice of metering arrangements: the customer's system can be interconnected on the customer side of the meter and have a bi-directional meter to measure flows in each direction or customers can send all of the power from their system directly to the grid by connecting ahead of the customer meter and essentially sell it all rather than meeting on-site load with part of the energy and then selling any excess generation.

Although this is the first state law designed to accommodate the net metering-green power symbiosis, this concept is already being used by at least four utilities: Tampa Electric Company (investor owned), the City of Ashland, Oregon, San Juan County, Washington, and the City of Aspen, Colorado.

Contact:

Rita Kilpatrick

Georgians for Clean Energy

427 Moreland Avenue NE, Suite 100

Atlanta, GA 30307

Phone: (404) 659-5675

Fax: (770) 234-3909

E-Mail: kilpatrick@cleanenergy.ws

Web site: <http://www.cleanenergy.ws>

GA-5 GEORGIA

Incentive Type: Grants

Eligible Technologies: AFVs

Applicable Sectors: Businesses, local governments, and authorities (within Atlanta Metro area)

Summary:

Funded through Congestion Mitigation and Air Quality (CMAQ) funds, the Alternative Fuel Vehicle Incremental Cost Incentive Program is available to local businesses, governments, and authorities throughout the 13-county Metropolitan Atlanta area. The program provides an incentive for fleets to purchase alternative fuel vehicles (AFVs) by offering funding to offset the incremental cost difference of AFVs from comparable gasoline- or diesel-powered vehicles. Applicants must have a demonstrated commitment to use alternative fuels and all vehicles must operate full-time on the alternative fuel. There is a 20% matched dollar requirement for each project.

Contact:

Anthony Jackson

Georgia Department of Revenue

1800 Century Center Blvd, NE

Atlanta, GA 30345-3205

Phone: (404) 417-2100

E-Mail: aljackso@gatax.org

Web site: <http://www2.state.ga.us/Departments/DOR/>

GA-6 GEORGIA

Incentive Type: Use exemption

Eligible Technologies: AFVs
Applicable Sectors: all
Authority: Georgia Code Sec. 32-9-4 and 40-2-76

Summary:

AFVs displaying the proper alternative fuel license plate are allowed to use high occupancy vehicle lanes, regardless of the number of passengers.

Contact:

Anthony Jackson
Georgia Department of Revenue
1800 Century Center Blvd, NE
Atlanta, GA 30345-3205
Phone: (404) 417-2100
E-Mail: aljackso@gatax.org
Web site: <http://www2.state.ga.us/Departments/DOR/>

GA-7 GEORGIA

Incentive Type: Tax Imposition, Excise
Eligible Technologies: AF
Applicable Sectors: commercial (AF distributors)
Authority: Georgia Code Sec. 48-9-3

Summary:

An excise tax is imposed at the rate of \$0.075 per gallon on distributors who sell or use motor fuel within Georgia. Motor fuels which are not commonly sold or measured by the gallon, and are used in any motor vehicles on Georgia's public highways, may be taxed according to their gasoline gallon equivalent. Propane and special fuels sold in bulk to a licensed consumer distributor are exempt from this tax.

Contact:

Anthony Jackson
Georgia Department of Revenue
1800 Century Center Blvd, NE
Atlanta, GA 30345-3205
Phone: (404) 417-2100
E-Mail: aljackso@gatax.org
Web site: <http://www2.state.ga.us/Departments/DOR/>

HI-1 HAWAII

Incentive Type: Corporate Tax Credit
Eligible Technologies: Renewable Transportation Fuels
Applicable Sectors: Industrial
Amount: approximately \$0.30/gallon
Max. Limit: \$4.5 million per facility per year (depends on facility size)
Terms: maximum of 10 years (see summary for details)
Date Enacted: 6/30/00
Effective Date: 1/1/02
Website: <http://www.state.hi.us/dbedt/ert/ethanol-incentive.html>
Authority 1: Act 289 (Senate Bill 2221)

Summary:

On June 30, 2000, Governor Cayetano signed into law Act 289, (Senate Bill 2221), which provides an ethanol investment tax credit (30% of each \$1 million per 1 million gallons per year capacity), roughly equal to thirty cents per gallon, subject to investment amount and facility size thresholds. The maximum tax credit is \$4.5 million per facility per year, for facilities over 15 million gallons per year; less for smaller facilities. The facility must produce at least 75% of its nameplate capacity in order to be eligible to receive the tax credit in that year.

The tax credit may be taken for up to eight years if the investment in the facility (exclusive of land costs) is less than \$50 million; if the total investment in the facility is over \$50 million, the credit may be taken for up to 10 years. If the credit exceeds the taxpayer's income tax liability, the excess shall be refunded to the taxpayer (i.e. the taxpayer shall receive a payment). The Act shall apply to taxable years beginning January 1, 2002.

The credit shall only be available to the first 40 million gallons of capacity in the state, and the facility must be in production before January 1, 2012.

The existing excise tax exemption for the sale of alcohol fuels (Section 237-27.1) is to be repealed on December 31, 2006.

Contact:**Information Specialist - Dept. of Taxation**

Hawaii Department of Taxation

Taxpayer Services Branch

P.O. Box 259

Honolulu, HI 96809

Phone: (808) 587-4242**Web site:** www.state.hi.us/tax/tax.html

HI-2 HAWAII**Incentive Type:** Tax Credit—Corporate**Eligible Technologies:** Solar Water Heat, Active Solar Space Heat, Solar Thermal Electric, Solar Thermal Process Heat, Photovoltaics, Landfill Gas, Wind, Biomass, Hydro, Renewable Transportation Fuels, Geothermal Electric, Fuel Cells, Geothermal Heat Pumps, ocean thermal, wave energy, Solar**Applicable Sectors:** Industrial**Amount:** 100% (over five years)**Max. Limit:** \$2,000,000 (over five years)**Effective Date:** 7/1/01**Expiration Date:** 12/31/05**Website:** http://www.capitol.hawaii.gov/hrscurrent/vol04_ch201-257/hrs235/hrs_235-110_9.htm**Authority 1:** §235-110.9**Summary:**

On July 1, 2001, Hawaii became 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 tech 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," which is defined as "energy produced by wind, solar energy, hydropower, geothermal resources, ocean thermal energy conversion, wave energy, hydrogen, fuel cells, landfill gas, waste to energy, biomass including municipal solid waste, and biofuels."

The credit will be allocated as follows:

- (1) 35% in the year the investment was made (maximum credit of \$700,000)
- (2) 25% in the first year following the year in which the investment was made (maximum credit of \$500,000)
- (3) 20% in the second year following the investment (maximum credit of \$400,000)
- (4) 10% in the third year following the investment (maximum credit of \$200,000)
- (5) 10% in the fourth year following the investment (maximum credit of \$200,000)

Contact:**Information Specialist - Dept. of Taxation**

Hawaii Department of Taxation

Taxpayer Services Branch

P.O. Box 259

Honolulu, HI 96809

Phone: (808) 587-4242**Web site:** www.state.hi.us/tax/tax.html

HI-3 HAWAII**Incentive Type:** Sales Tax Exemption**Eligible Technologies:** Renewable Transportation Fuels**Applicable Sectors:** General Public, Transportation**Amount:** 100% exemption from sales tax**Date Enacted:** 6/30/02**Effective Date:** Tax year 2002**Expiration Date:** 12/31/06**Website:** http://www.capitol.hawaii.gov/hrscurrent/Vol04_Ch201-257/hrs237/HRS_237-27_1.htm**Authority 1:** [H.R.S. § 237-27.1](#)**Summary:**

Alcohol fuels are exempt from the 4% state excise tax on retail sales.

Alcohol fuels are defined as "neat biomass-derived alcohol liquid fuel or a petroleum-derived fuel and alcohol liquid fuel mixture consisting

of at least ten volume per cent denatured biomass-derived alcohol commercially usable as a fuel to power aircraft, seacraft, spacecraft, automobiles, or other motorized vehicles."

Contact:

Tax Information Specialist

Hawaii Department of Taxation

Taxpayer Services Branch

P.O. Box 259

Honolulu, HI 96809

Phone: (808) 587-4242

Web site: www.state.hi.us/tax/tax.html

HI-4 HAWAII

Incentive Type: Sales Tax Reduction

Eligible Technologies: Renewable Transportation Fuels, AF

Applicable Sectors: General Public

Amount: varies depending on fuel type

Max. Limit: varies depending on fuel type

Date Enacted: 5/24/01

Effective Date: 1/1/02

Website: http://www.capitol.hawaii.gov/session2001/bills/HB1345_hd1_.htm

Authority 1: [Act 143 \(HB1345, Relating to Energy Content of Fuels\)](#)

Summary:

Hawaii's state legislature declared that "there is a need to remove unnecessary disincentives to the use of alternative fuels, by adjusting transportation fuel tax rates to reflect energy content of alternative fuels, and to provide an incentive to the use of these fuels by providing reduced tax rates for several years."

Act 143 (HB1345, Relating to Energy Content of Fuels) was signed on May 24, 2001. It encourages the use of alternative fuels by adjusting the fuel tax to reflect the energy content of alternative fuels and reducing the fuel tax rate of alternative fuels for several years.

The legislature defined "alternative fuels" as "methanol, denatured ethanol, and other alcohols; mixtures containing eighty-five per cent or more by volume of methanol, denatured ethanol, and other alcohols with gasoline or other fuels; natural gas; liquefied petroleum gas; hydrogen; coal-derived liquid fuels; biodiesel; mixtures containing twenty per cent or more by volume of biodiesel with diesel or other fuels; fuels (other than alcohol) derived from biological materials; and any other fuel that is substantially not a petroleum product and that the governor determines would yield substantial energy security benefits or substantial environmental benefits."

Prior to Act 143, most alternative fuels were taxed at a higher effective rate than conventional fuels such as gasoline or diesel. Highway fuel taxes were assessed at the same rate per gallon of fuel, regardless of the energy content of the fuel. Because alternative fuels have less energy per gallon, the effective tax rates were higher for alternative fuels.

Call the Hawaii Department of Taxation for more information.

Contact:

Information Specialist - Dept. of Taxation

Hawaii Department of Taxation

Taxpayer Services Branch

P.O. Box 259

Honolulu, HI 96809

Phone: (808) 587-4242

Web site: www.state.hi.us/tax/tax.html

HI-5 HAWAII

Incentive Type: Net Metering Rules

Eligible Technologies: Photovoltaics, Wind, Biomass, Hydro

Applicable Sectors: Commercial, Residential

Limit on System Size: 10 kW

Limit on Overall Enrollment: 0.5% of each utility's peak demand

Treatment of Net Excess: Granted to utility monthly

Utilities Involved: All utilities

Date Enacted: 6/25/01

Authority 1: [Act 272 of 2001 \(HB 173\)](#)

Summary:

Hawaii's net metering law was signed by the Governor on June 25, 2001. The law limits eligibility to solar, wind, biomass and hydroelectric systems 10 kW and smaller, and to residential and "small commercial" customers. Utilities have to offer net metering on a first-come, first-serve basis to eligible customers until total net metering capacity equals 0.5% of each utility's peak demand, which corresponds to a total 'cap' of approximately 10 MW for the state.

A customer whose system produces more electricity than the customer consumes during the month will be able to net his or her energy use to zero, but will not receive any compensation for the excess generation. Furthermore, excess generation may not be carried over to the next month.

Hawaii joins other states in adopting uniform, standardized interconnection requirements as part of its net metering law. The law requires eligible systems to meet national standards developed by the IEEE and UL, and to be installed in accordance with the requirements of the National Electrical Code (NEC) and local codes. Systems meeting these standards, however, cannot be required by utilities to install additional controls, perform or pay for additional tests, or purchase additional liability insurance.

Contact:

Maria Tome

Hawaii Department of Business, Economic Development, and Tourism

Energy Division

P.O. Box 2359

Honolulu, HI 96804

Phone: (808) 587-3809

Fax: (808) 587-3820

E-Mail: mtome@dbedt.hawaii.gov

Web site: <http://www.state.hi.us/dbedt/ert/>

HI-6 HAWAII

Incentive Type: Renewables Portfolio Standard

Eligible Technologies: Solar Water Heat, Active Solar Space Heat, Solar Thermal Electric, Solar Thermal Process Heat, Photovoltaics, Landfill Gas, Wind, Biomass, Hydro, Geothermal Electric, Fuel Cells, Geothermal Heat Pumps, Waste, Cogeneration, Ocean Thermal Energy, Wave Energy

Applicable Sectors: Utilities

Date Enacted: 6/25/01

Effective Date: 12/31/03

Website: <http://www.hawaii.gov/dbedt/ert/rps.html>

Authority 1: Act 272 of 2001

Summary:

Act 272 of 2001 establishes goals for electric utility companies in implementing a renewables portfolio standard (RPS) by including a minimum percentage of renewable energy resources within an overall resource portfolio.

Each electric utility is required to establish the following RPS goals:

- (1) 7% of its net electricity sales by December 31, 2003;
- (2) 8% of its net electricity sales by December 31, 2005; and
- (3) 9% of its net electricity sales by December 31, 2010.

It should be noted that existing renewables, about 7% statewide, can be counted in the total. This differs from some other states, which have requirements for "new" renewables. In addition, an electric utility company and its electric utility affiliates may aggregate their renewable portfolios in order to achieve the renewable portfolio standard (i.e. the Hawaiian Electric Company affiliates -- Hawaiian Electric, Maui Electric, and Hawaii Electric Light Company -- may add together their renewable energy numbers to meet the goal).

"Renewable energy" means electrical energy produced by wind, solar energy, hydropower, landfill gas, waste to energy, geothermal resources, ocean thermal energy conversion, wave energy, biomass including municipal solid waste, biofuels or fuels derived entirely from organic sources, hydrogen fuels derived entirely from renewable energy, or fuel cells where the fuel is derived entirely from renewable sources. "Renewable energy" also means electrical energy savings brought about by the use of solar and heat pump water heating.

An electric utility company that does not meet the renewable portfolio standard must report to the public utilities commission within 90 days following the goal dates and provide an explanation for not meeting the renewable portfolio standard. The public utilities commission will have the option to either grant a waiver from the renewable portfolio standard or an extension for meeting the standard. This legislation does not provide penalties for non-compliance; therefore, it is most appropriately characterized as a renewable energy "goal" rather than a requirement.

The public utilities commission may provide incentives to encourage electric utility companies to exceed their renewable portfolio standards or to meet their renewable portfolio standards ahead of time, or both.

Act 272 also established net metering rules (see DSIRE's net metering summary for Hawaii).

Contact:**Maria Tome**

Hawaii Department of Business, Economic Development, and Tourism

Energy Division

P.O. Box 2359

Honolulu, HI 96804

Phone: (808) 587-3809**Fax:** (808) 587-3820**E-Mail:** mtome@dbedt.hawaii.gov**Web site:** <http://www.state.hi.us/dbedt/ert/>**HI-7 HAWAII****Incentive Type:** Tax Credit—Corporate**Eligible Technologies:** all**Applicable Sectors:** businesses**Authority 1:** Hawaii Revised Statutes (HRS) §235-7.3 and §235-110.9)**Summary:**

Through December 31, 2005, taxpayers making a high technology business investment are eligible for a tax credit the year the investment is made and for the following four years. A 'qualified high technology business' is one in which more than 50% of the activities are qualified research (75% if which is conducted in Hawaii) and in which more than 75% of the income (i.e. income from products sold from, manufactured or produced in Hawaii or from services performed in Hawaii) is derived from qualified research. 'Qualified research' includes research that is related to non-fossil fuel energy-related technology. The tax credit is equal to a percentage of the investment made, up to the following maximums:

Year	Tax Credit (percent of investment made)	Maximum Value of Credit
Year of Investment	35%	\$700,000
1 st Year Following Investment	25%	\$500,000
2 nd Year Following Investment	20%	\$400,000
3 rd Year Following Investment	10%	\$200,000
4 th Year Following Investment	10%	\$200,000

If the tax credit exceeds the taxpayer's income tax liability for any of the five years that the credit is taken, the excess of the tax credit may be used as a credit in subsequent years until exhausted. A taxpayer may continue to claim the credits if the five-year period to claim the credits commences in taxable years beginning before January 1, 2006.

Contact:**Maria Tome**

Hawaii Department of Business, Economic Development, and Tourism

Energy Division

P.O. Box 2359

Honolulu, HI 96804

Phone: (808) 587-3809**Fax:** (808) 587-3820**E-Mail:** mtome@dbedt.hawaii.gov**Web site:** <http://www.state.hi.us/dbedt/ert/>**HI-8 HAWAII****Incentive Type:** Tax deductions**Eligible Technologies:** AF**Applicable Sectors:** Transportation (refueling stations)**Authority 1:****Summary:**

The state provides income tax deductions of \$2,000 to \$50,000, identical to the federal income tax deductions, for the installation of clean-fuel refueling property provided in the Energy Policy Act of 1992.

Contact:

Hawaii State Department of Taxation at (800) 222-3229 or see form N35 on the Department of Taxation Web site at

www.state.hi.us/tax/alphalist.html.

HI-9 HAWAII

Incentive Type: Tax exemption—excise (fuel)

Eligible Technologies: AF (ethanol)

Applicable Sectors: individual, businesses

Authority 1: HRS §237-27.1

Summary:

Alcohol fuels are exempt from the 4% state excise tax on retail sales.

Contact:

Maria Tome

Hawaii Department of Business, Economic Development, and Tourism

Energy Division

P.O. Box 2359

Honolulu, HI 96804

Phone: (808) 587-3809

Fax: (808) 587-3820

E-Mail: mtome@dbedt.hawaii.gov

Web site: <http://www.state.hi.us/dbedt/ert/>

HI-10 HAWAII

Incentive Type: Tax Imposition, Excise (AF)

Eligible Technologies: AF

Applicable Sectors: Commercial (fuel distributors)

Authority 1: HRS §243-4

Summary:

Every distributor of any fuel for operation of an internal combustion engine is required to pay a license tax of \$0.01 for each gallon of alternative fuel sold or used by the distributor. In addition, every distributor is required to pay a license tax for each gallon of fuel sold or used by the distributor for operating a motor vehicle(s) on state public highways according to the following rates:

Fuel Type	Tax
Ethanol	0.29 times the rate for diesel
Methanol	0.22 times the rate for diesel
Liquefied Petroleum Gas (propane)	0.33 times the rate for diesel

For other alternative fuels, the rate shall be based on the energy content of the fuels as compared to diesel fuel, using a lower heating value of one hundred thirty thousand British thermal units per gallon as a standard for diesel, so that the tax rate, on an energy content basis, is equal to half the rate for diesel fuel.

Contact:

Maria Tome

Hawaii Department of Business, Economic Development, and Tourism

Energy Division

P.O. Box 2359

Honolulu, HI 96804

Phone: (808) 587-3809

Fax: (808) 587-3820

E-Mail: mtome@dbedt.hawaii.gov

Web site: <http://www.state.hi.us/dbedt/ert/>

ID-1 IDAHO

Incentive Type: Tax Exemption—Excise (fuel)

Eligible Technologies: Renewable Transportation Fuels

Applicable Sectors: Distributor

Amount: \$0.025 per gallon

Max. Limit: 10%

Authority 1: 63-2405, Idaho Code

Summary:

Idaho offers distributors of alternative fuels an exemption of up to 10% off the state excise tax on fuels. The 10% exemption is equivalent to a 2.5-cents per gallon exemption; the state tax on fuels is 25-cents per gallon. The exemption applies to gasahol and biodiesel. Gasahol is defined as gasoline containing a mixture of no more than 10% blend anhydrous ethanol. Biodiesel is defined as any fuel or mixture of fuels

that is derived in whole or part from agricultural products or animal fats for the waste of such products, and is suitable for use as fuel in diesel engines.

Contact:

John Crockett
Idaho Department of Water Resources
Energy Division
Statehouse Mail
1301 North Orchard
Boise, ID 83706
Phone: (208) 327-7962
Fax: (208) 327-7866
E-Mail: jbcrocke@idwr.state.id.us
Web site: <http://www.idwr.state.id.us/energy/>

ID-2 IDAHO

Incentive Type: State Loan Program
Eligible Technologies: Solar Water Heat, Active Solar Space Heat, Photovoltaics, Wind, Biomass, Hydro, Geothermal Heat Pumps
Applicable Sectors: Commercial, Industrial, Residential
Amount: Varies
Max. Limit: residential: \$1,000 - \$10,000; commercial: \$1,000 - \$100,000
Terms: 4% interest, 5-year term of loan
Website: <http://www.idwr.state.id.us/energy/>

Summary:

This low interest loan program, administered by the Energy Division of the Idaho Department of Water Resources, makes funds available at a 4% interest rate for active solar, photovoltaic, wind, geothermal, hydropower and biomass energy projects. The program also makes loans for energy conservation projects. Residential loans are available from \$1,000 to \$10,000. In commercial and industrial sectors there is no minimum loan amount but there is a maximum cap of \$100,000. Loans are repaid in five years or less.

Loans for 80 percent of the project costs are available to residents for on-grid, residential PV systems, with a maximum of \$10,000. Payback criteria are waived for these projects only.

Certain restrictions apply to this program. For existing homes or businesses, the savings from reduced usage of conventional fuel must be sufficient to pay for the project's installation cost (e.g. simple payback of 10 years or less). For new projects, use of a renewable energy resource must be the least cost alternative. Renewable energy projects that are intended to sell the energy generated or the commodity produced are not eligible. While the program's financing requires repayment within five years, this further stipulation for existing homes and businesses states that the project's cumulative energy savings over a ten year period must be great enough to offset the cost of the project.

Contact:

John Crockett
Idaho Department of Water Resources
Energy Division
Statehouse Mail
1301 North Orchard
Boise, ID 83706
Phone: (208) 327-7962
Fax: (208) 327-7866
E-Mail: jbcrocke@idwr.state.id.us
Web site: <http://www.idwr.state.id.us/energy/>

ID-3 IDAHO

Incentive Type: Net Metering Rules
Eligible Technologies: Solar Thermal Electric, Photovoltaics, Wind, Biomass, Hydro, Fuel Cells
Applicable Sectors: Commercial, Residential
Limit on System Size: 25 kW
Limit on Overall Enrollment: None for Idaho Power; 0.1% of Avista's 1996 peak demand (or 1.52 MW)
Treatment of Net Excess: Idaho Power: purchased at avoided cost; Avista: credited to the following month, then granted to the utility at end of annual period with no compensation
Utilities Involved: Idaho Power and Avista
Date Enacted: 1980, modified 1997
Expiration Date: none
Website: <http://www.idwr.state.id.us/energy/>

Authority 1: [PUC Order 26750--Idaho Power](#)

Authority 2: [PUC Order 28035--Avista](#)

Summary:

On January 22, 1997, Idaho's Public Utility Commission (PUC) issued Order No. 26750 to Idaho Power. This modified Order No. 16025 of December 1980, which allowed qualifying facilities under 100 kW to net meter. The new order modified the previous one and still allowed net metering as a pricing option for Idaho Power. In 2002, the PUC issued Order No. 28951, which allowed Idaho Power to file a new net metering tariff, Schedule 84. This schedule made net metering available only to residential and small commercial customers generating up to 25 kW of wind, solar, biomass, hydro, or power from fuel cells. Total enrollment cannot exceed 2.9 MW, or .1% of Idaho Power's peak demand in 2000.

In 1999, the PUC issued Order No. 28035, allowing Avista Power (another investor-owned utility operating in Idaho) to add net metering to its Schedule 62. As with Idaho Power, Avista allows qualifying facilities generating up to 25 kW of solar, wind, or hydropower to net meter. Enrollment is limited to .1% of 1996 peak demand, or 1.52 MW.

Idaho Power purchases its customers' excess generation at avoided cost. Avista allows its customers to credit any excess to the following month. At the end of the year, any remaining credits are granted to Avista.

The other investor-owned utility in Idaho, Utah Power/PacifiCorp, has existing net metering tariffs in all of its states except Idaho and Utah. Idaho's PUC does not regulate municipal utilities or rural electric cooperatives. There is currently no statewide rule or practice regarding net metering.

Contact:

Rick Sterling

Idaho Public Utilities Commission

Statehouse Mail

Boise, ID 83720

Phone: (208) 334-0351

Fax: (208) 334-3762

E-Mail: rsterli@puc.state.id.us

ID-4 IDAHO

Incentive Type: Tax deduction—sales (fuel)

Eligible Technologies: AF (Ethanol, biodiesel)

Applicable Sectors: individuals, businesses

Website: Idaho Code Sec. 63-2407

Summary:

Idaho offers a tax deduction for the use of biodiesel and ethanol. Gasoline and diesel blends containing either fuel are eligible.

Contact:

Ms. K.T. Hanna

Idaho Department of Water Resources

Energy Division

Statehouse Mail

1301 North Orchard

Boise, ID 83706

Phone: (208) 327-7978

Fax: (208) 327-7866

E-Mail: khanna@idwr.state.id.us

Web site: <http://www.idwr.state.id.us/energy/>

ID-5 IDAHO

Incentive Type: Mandates—Definition (fuel)

Eligible Technologies: renewable transportation fuels (biodiesel)

Applicable Sectors: Transportation

Authority: Idaho Statutes, Sec. 63-2401

Website: <http://www.idwr.state.id.us/energy/>

Summary:

Idaho defines biodiesel as any fuel or mixture of fuels that is derived in whole or in part from agricultural products and is suitable for use in diesel engines.

Contact:

John Crockett
Idaho Department of Water Resources
Energy Division
Statehouse Mail
1301 North Orchard
Boise, ID 83706
Phone: (208) 327-7962
Fax: (208) 327-7866
E-Mail: jbcrocke@idwr.state.id.us
Web site: <http://www.idwr.state.id.us/energy/>

IL-1 ILLINOIS

Incentive Type: Sales Tax Reduction
Eligible Technologies: Renewable Transportation Fuels
Applicable Sectors: Commercial, Residential, Nonprofit, Schools, Local Government, Transportation, Construction, Utilities, State Government
Amount: 30% sales tax reduction
Date Enacted: 1989
Effective Date: 1/1/1990
Expiration Date: 7/1/2003
Authority 1: [35 ILCS 105/3-10](#)

Summary:

Illinois reduces the state sales tax rate for the purchase of ethanol. Under this incentive, the state sales tax on ethanol is reduced to 70% of the state sales tax. This effectively lowers the current 6.25% state sales tax to 4.375%.

Contact:

Public Information - IL DOR
Illinois Department of Revenue
Willard Ice Building
101 West Jefferson Street
Springfield, IL 62702
Phone: (800) 732-8866
Web site: <http://www.revenue.state.il.us>

IL-2 ILLINOIS

Incentive Type: State Grant Program
Eligible Technologies: Solar Water Heat, Active Solar Space Heat, Solar Thermal Electric, Photovoltaics, Landfill Gas, Wind, Biomass, Hydro, Renewable Transportation Fuels, Geothermal Electric
Applicable Sectors: Commercial, Industrial
Amount: up to 100% of cost
Max. Limit: \$1,000,000
Date Enacted: 1979

Summary:

This grant program funds capital projects of any renewable energy technology--including biofuels, solar, wind, hydro, geothermal, and landfill and digester gases-- at up to 100 percent of capital cost. Grants range from \$60,000 to \$1,000,000, and current appropriations for the program are \$5 million. Note that this fund is not available for residential projects.

Contact:

David Loos
Illinois Department of Commerce and Community Affairs
Bureau of Energy and Recycling
325 West Adams, Room 300
Springfield, IL 62704-1892
Phone: (217) 785-3969
Fax: (217) 785-2618
E-Mail: dloos@commerce.state.il.us
Web site: <http://www.commerce.state.il.us/com/energy/index.html>

IL-3 ILLINOIS

Incentive Type: State Grant Program

Eligible Technologies: Passive Solar Space Heat, Solar Thermal Electric, Solar Thermal Process Heat, Wind, Biomass, Fuel Cells, Solar

Applicable Sectors: Nonprofit, Schools, Local Government, State Government

Amount: varies

Max. Limit: varies

Terms: see summary

Effective Date: 2001

Website: <http://www.illinoiscleanenergy.org/programs/overview.htm>

Authority 1: [220 ILCS 5/16-111.1](#)

Summary:

When operationalized in 2001, the Clean Energy Community Trust was re-named the Illinois Clean Energy Community Foundation (ICECF). This independent, nonprofit foundation was authorized by the Illinois legislature, and its board of directors is primarily appointed by state government officials. The ICECF invests in clean energy development and land preservation efforts to improve environmental quality in the state. The ICECF supports programs and projects that will improve energy efficiency, develop renewable energy resources, and preserve and enhance natural areas throughout Illinois. In 2001 and 2002, the ICECF awarded more than \$17 million in grants for energy efficiency, renewable energy and natural areas conservation projects in Illinois.

The ICECF provides funding to charitable (501c3) organizations, educational institutions and state and local government agencies serving Illinois residents. The ICECF provides financial support in three principal ways:

1. Grantmaking - The ICECF provides grants, loans and other financial support, on a competitive basis, in response to proposals submitted by organizations in accord with the Foundation's announced strategic priorities. The ICECF can provide several different types of financial support, including grants, loans and other investments.
2. Partnerships with Public Agencies - The ICECF jointly supports projects and programs with state and local government agencies. The ICECF will both respond to and initiate these partnership opportunities with public agencies.
3. Direct Initiatives - The ICECF identifies strategic opportunities to undertake large-scale, high impact projects and special initiatives that further its program objectives in energy efficiency, renewable energy and natural areas conservation.

Submitting a letter of inquiry is the first step in the grant application process. The letter may be no longer than three pages. It must describe the proposed project, explain the need for the project and summarize the total project expenses and proposed sources of funding, including the specific amount requested from the ICECF. Following review of letters of inquiry, the ICECF will notify all applicants whether to submit a full proposal. When the ICECF invites a full proposal, it will specify what information the proposal should include and the supporting documents that must be submitted with the proposal.

Letters of inquiry will be reviewed as a group in two competitive grant cycles during 2003. For the winter grant cycle, the deadline to submit a letter of inquiry is January 15. For the summer grant cycle, the deadline to submit a letter of inquiry is July 15.

The ICECF's priorities for renewable energy projects include the following:

1. Development of consumer demand for clean renewable energy, including aggregation approaches.
2. Policy development and other activities to support growth in large-scale wind or solar power generation.
3. Demonstration projects and policy development leading to wider adoption of solar thermal, biomass, fuel cells or emerging renewable energy technologies.

The ICECF will also award a series of grants throughout 2003, with no deadline.

Letters of inquiry for proposed renewable energy projects submitted for "rolling review" during 2003 must fit within program priorities.

Nonprofit organizations and local or state government agencies may apply for funding for small-scale solar or wind generation systems through the "rolling review" process. Eligible photovoltaic projects will receive \$2,000 per kW, with a maximum system capacity of 50 kW. Eligible small wind turbine projects will receive \$500 per kW, with a maximum system capacity of 20 kW. Foundation funding for these systems will be limited such that no more than 80% of the total cost of a project is being provided by the ICECF and by government renewable energy funding programs. Nonprofit organizations and state or local government agencies with photovoltaic projects larger than 50 kW or wind projects larger than 20 kW may seek funding in the January or July competitive grant cycles.

The Illinois Clean Energy Community Foundation's web site--www.illinoiscleanenergy.org--offers additional resources for organizations seeking funding, including lists of grants awarded previously, more information on the grant application process and announcements about new program initiatives that may be launched during 2003.

The ICECF receives funding each year from the investment income earned on its endowment. Its \$225 million endowment was provided by Commonwealth Edison.

Contact:
Ed Miller
Illinois Clean Energy Community Foundation
2 N. LaSalle St., Ste. 950
Chicago, IL 60602
Phone: (312) 372-5191
Fax: (312) 372-5190
E-Mail: emiller@illinoiscleanenergy.org
Web site: www.illinoiscleanenergy.org

IL-4 ILLINOIS

Incentive Type: State Grant Program
Eligible Technologies: Solar Water Heat, Active Solar Space Heat, Photovoltaics, Wind, Biomass, Hydro, Fuel Cells
Applicable Sectors: Commercial, Industrial, Residential, Nonprofit, Schools, Local Government, State Government, Associations
Amount: 50 - 60%; varies by technology
Max. Limit: \$150,000 - \$2.75 million; varies by technology
Date Enacted: 12/1997
Effective Date: 1/1/98
Expiration Date: 12/2007
Website: http://www.commerce.state.il.us/bus/gri/grants_energy.html
Authority 1: Public Act 90-561 (HB 362)

Summary:

The Renewable Energy Resources Program (RERP) fosters investment in and the development and use of renewable energy resources within the state of Illinois. This program is funded by the Renewable Energy Resources Trust Fund, the state's public benefits fund, and administered by the Illinois Department of Commerce and Community Affairs (Department). RERP distributes funds in the form of grants (for large systems) and rebates (for small systems). See DSIRE summaries of the Illinois public benefits fund and rebate program for more information.

The Department may provide up to, but not more than, the following funds for a single project:

Dedicated Crops: 50% with a maximum of \$150,000
Solar Thermal Energy: 50% with a maximum of \$150,000
PV: 60 % with a maximum of \$6/watt and \$300,000
Wind (10kW - 990kW): 50 % with a maximum of \$2/watt and \$400,000
Wind (1MW - 10MW): 35 % with a maximum of \$1,000,000
Wind (> 10MW): 10 % with a maximum of \$2,750,000
Organic Waste Biomass (electrical production): 50 % with a maximum of \$550,000
Organic Waste Biomass (heat production): 50% with a maximum of \$350,000
Hydropower: 50 % with a maximum of \$1,000,000
Fuel Cell: 50% with a maximum of \$550,000

Grant funds may only be used for actual equipment and installation expenses. Eligible applicants include associations, individuals, private companies, public and private schools, colleges and universities, not-for-profit organizations and units of state and local government. Applications are accepted on an ongoing basis. Potential recipients for program funding must be located within the service area of an investor-owned or a municipal gas or electric utility or an electric cooperative that imposes the Renewable Energy Resources and Coal Technology Development Assistance Charge.

Potential Grantees are encouraged to contact the Department before proceeding with any potential grant related costs -- costs incurred prior to a grant award are not eligible for grant reimbursement.

RERP has funded multiple PV projects in the Chicago area to the tune of \$6.00/watt. For more information, see the "Chicago - PV Projects" program information in DSIRE.

Contact:
Rex Buhrmester
Illinois Department of Commerce and Community Affairs
Bureau of Energy and Recycling
620 East Adams Street
Springfield, IL 62701
Phone: (217) 557-1925
Fax: (217) 785-2618
E-Mail: rbuhrmes@commerce.state.il.us
Web site: <http://www.commerce.state.il.us>

IL-5 ILLINOIS

Incentive Type: State Rebate Program

Eligible Technologies: Renewable Transportation Fuels

Applicable Sectors: Commercial, Industrial, Residential, Nonprofit, Schools, Local Government, Transportation, Construction, Utilities, State Government

Rebate: Varies depending on vehicle mileage and alternate fuel

Max. Limit: \$450/year for three years

Effective Date: 1995

Expiration Date: No expiration date

Website: <http://www.epa.state.il.us/air/fact-sheets/alternate-fuels-rebate.html>

Authority 1: [415 ILCS 120/30](#)

Summary:

Illinois' Alternate Fuels Rebate Program provides rebates to owners of vehicles operating on ethanol (E-85) or biodiesel at least half of the year. Under the Fuel Cost Differential Rebate, owners of ethanol-powered vehicles will receive an annual rebate of either \$450 (for vehicles accruing at least 17,500 per year) or \$360 (for vehicles accruing less than 17,500 per year). A formula is used to calculate the rebate amount for biodiesel blends. Applicants for a domestic fuel rebate may receive a rebate each year over a three-year period, provided the necessary documentation for rebate renewal is submitted the following two years to the Illinois EPA prior to the end of the respective calendar year.

Any business, local or state government agency, organization, or individual located in Illinois may apply for this rebate. In order to qualify, vehicles must be registered and operated in Illinois. To request an application for a rebate or to receive additional information regarding the Alternate Fuels Rebate Program, call Darwin Burkhardt or Mary Cruse at the Illinois EPA at (217) 524-4343.

Contact:

Darwin Burkhardt

Illinois EPA

Bureau of Air

1021 N. Grand Ave. East

Box 19276

Springfield, IL 62794-9276

Phone: (217) 524-4343

E-Mail: darwin.burkhardt@epa.state.il.us

Web site: <http://www.epa.state.il.us>

IL-6 ILLINOIS

Incentive Type: State Rebate Program

Eligible Technologies: Renewable Fuel Vehicles

Applicable Sectors: Commercial, Industrial, Residential, Nonprofit, Schools, Local Government, Transportation, Construction, Utilities, State Government

Rebate: 80% of the additional cost of purchasing an OEM vehicle

Max. Limit: \$4,000

Effective Date: 1995

Expiration Date: No expiration date

Website: <http://www.epa.state.il.us/air/fact-sheets/alternate-fuels-rebate.html>

Authority 1: [415 ILCS 120/30](#)

Summary:

The Alternate Fuels Rebate Program provides rebates to those who acquire alternate fuel vehicles. The Original Equipment Manufacturer (OEM) Vehicle Rebate is equal to 80 percent of the additional cost of acquiring an alternate fuel vehicle as compared to the cost of the same type of conventional vehicle. The maximum rebate is \$4,000. Any business, local or state government agency, organization, or individual located in Illinois may apply for this rebate. In order to qualify, vehicles must run on ethanol or biodiesel, and must be registered and operated in Illinois.

The rebate application must be submitted in the calendar year when the conversion was completed. Applications are reviewed and processed twice per year, at the end of June and December. To request an application for a rebate or to receive additional information regarding the Alternate Fuels Rebate Program, call Darwin Burkhardt or Mary Cruse at the Illinois EPA at (217) 524-4343.

Contact:

Darwin Burkhardt

Illinois EPA

Bureau of Air

1021 N. Grand Ave. East

Box 19276

Springfield, IL 62794-9276

Phone: (217) 524-4343

E-Mail: darwin.burkhardt@epa.state.il.us

Web site: <http://www.epa.state.il.us>

IL-7 ILLINOIS

Incentive Type: State Rebate Program

Eligible Technologies: Renewable Fuel Vehicles

Applicable Sectors: Commercial, Industrial, Residential, Nonprofit, Schools, Local Government, Transportation, Construction, Utilities, State Government

Rebate: 80% of conversion cost

Max. Limit: \$4,000

Effective Date: 1995

Expiration Date: No expiration date

Website: <http://www.epa.state.il.us/air/fact-sheets/alternate-fuels-rebate.html>

Authority 1: [415 ILCS 120/30](#)

Summary:

Illinois' Alternate Fuels Rebate Program provides rebates for those who convert an existing conventional vehicle to an alternate fuel vehicle. The Vehicle Conversion Rebate is equal to 80% of the cost of converting a conventional vehicle to operate using ethanol or biodiesel, with a maximum rebate of \$4,000. Any business, local or state government agency, organization, or individual located in Illinois may apply for this rebate. In order to qualify, vehicle conversion must take place in Illinois, and converted vehicles must be registered and operated in Illinois.

The rebate application must be submitted in the calendar year when the conversion was completed. Applications are reviewed and processed twice per year, at the end of June and December. To request an application for a rebate or to receive additional information regarding the Alternate Fuels Rebate Program, call Darwin Burkhardt or Mary Cruse at the Illinois EPA at (217) 524-4343.

Contact:

Darwin Burkhardt

Illinois EPA

Bureau of Air

1021 N. Grand Ave. East

Box 19276

Springfield, IL 62794-9276

Phone: (217) 524-4343

E-Mail: darwin.burkhardt@epa.state.il.us

Web site: <http://www.epa.state.il.us>

IL-8 ILLINOIS

Incentive Type: Generation Disclosure

Eligible Technologies: Solar Thermal Electric, Photovoltaics, Landfill Gas, Wind, Biomass, Hydro, Geothermal Electric, Waste

Applicable Sectors: Utilities

Fuel Mix: Yes

Emissions: Yes

Std Format: Yes

Date Enacted: 12/97

Effective Date: 1/99

Expiration Date: none

Website: <http://www.icc.state.il.us/rl/rules/83iac421.pdf>

Authority 1: 1997 Public Act 90-561

Authority 2: 83 IL Admin Code, CHI, Sec. 421, Subch. C

Summary:

As part of its 1997 electric utility restructuring legislation, Illinois included provisions for the disclosure of fuel mixes and emissions by all retail suppliers of electricity in the state. Electric bills must list by percentage electricity supplied by the following sources: biomass power, coal-fired power, hydropower, natural gas-fired power, nuclear power, oil-fired power, solar power, wind power and other resources, respectively. These percentages must also be presented in the form of a pie chart on customer bills.

Emissions information must also be provided by electric suppliers on a quarterly basis listing of the following pollutants: carbon dioxide, nitrous oxides, sulfur dioxide emissions, and nuclear waste. The inclusion of nuclear waste is important as Illinois is one of the most nuclear dependent states in the country.

Contact:

Bill Riley

Illinois Commerce Commission

527 East Capitol

P.O. Box 19280
Springfield, IL 62794-9280
Phone: (217) 782-5911
Fax: (217) 782-1042
E-Mail: briley@icc.state.il.us

IL-9 ILLINOIS

Incentive Type: Green Power Purchasing/Aggregation
Eligible Technologies: Solar Thermal Electric, Photovoltaics, Wind, Biomass, Hydro
Applicable Sectors: State Government
% Renewables: 5% by 2010; 15% by 2020
Date Enacted: 4/02
Effective Date: 4/02
Website: <http://www100.state.il.us/PressReleases/ShowPressRelease.cfm?SubjectID=3&RecNum=1751>
Authority 1: [Executive Order Number 6 of 2002](#)

Summary:

Illinois Governor George Ryan marked Earth Day 2002 by issuing an executive order committing the state to purchase by 2010 green power for at least 5% of the electricity used by buildings owned or operated by agencies under the governor's control. The amount of renewable energy purchased will grow to at least 15% by 2020. The executive order defines "green power" as electricity generated from renewable sources such as wind, solar, organic wastes and hydropower. It excludes the burning of municipal solid waste, wood waste, or tires.

Contact:

Public Information - Governor

IL Office of the Governor
207 Statehouse
Springfield, IL 62706
Phone: (217) 782-0244
Fax: (217) 524-4049
E-Mail: governor@state.il.us
Web site: <http://www100.state.il.us/gov/>

IL-10 ILLINOIS

Incentive Type: Public Benefits Fund
Eligible Technologies: Solar Water Heat, Active Solar Space Heat, Solar Thermal Electric, Solar Thermal Process Heat, Photovoltaics, Wind, Biomass, Hydro, Geothermal Electric
Applicable Sectors: Commercial, Industrial, Residential, General Public, Utilities
Types: renewables, efficiency
Total Fund: ~ \$50 million over ten years for renewables
Charge: \$0.50/month for renewables
Date Enacted: 12/16/97
Expiration Date: none
Authority 1: Public Act 90-561 (HB 362)

Summary:

Renewable Energy Resources Trust Fund

Through its 1997 electric utility restructuring law, the Illinois legislature created the Illinois Public Benefit Program. The overall program funds low-income rate assistance and weatherization, the Renewable Energy Resources Trust Fund, and the Energy Efficiency Program. These programs are cited within the law under the short title, "Renewable Energy, Energy Efficiency, and Coal Resources Development Law of 1997." The Renewable Energy Resources Trust Fund supports renewables through grants, loans, and other incentives administered by the Department of Commerce and Community Affairs. The ten year program is slated to end in 2007. In addition to the Renewable Energy Resources Trust Fund, a \$250 million Clean Energy Community Trust Fund was established through a settlement with Commonwealth Edison. (See Clean Energy Community Trust)

The Renewable Energy Resources Trust Fund is collected at the following rates:

\$0.50 per month for residential and small commercial electric and gas customers; and
\$37.50 per month for large commercial electric customers having a peak electric demand greater than 10 MW and using more than 4,000,000 therms of gas in the previous calendar year.

Revenue from this fund is expected to amount to almost \$100 million per year over ten years. Of this money, 50% goes toward the Renewable Energy Resources Trust, and the remaining 50% goes to the Coal Technology Development Assistance Fund. Moneys for the Coal Fund are distributed according to the Illinois Coal Technology Development Assistance Act. (See write-ups on grant and rebate programs developed through the Renewable Energy Resources Trust.)

For the Energy Efficiency Program each electric utility and alternative retail electric supplier shall annually contribute a pro rata share of a total amount of \$3,000,000 based on their kilowatt hour sales. Money from this program will be distributed by the Department of Commerce and Community Affairs to residential electric customers. Eligible projects include energy efficiency efforts for low income households; window, appliance and insulation replacement; and other energy efficiency improvements.

Illinois Clean Energy Community Trust (CECT)

In May of 1999, the state of Illinois and Commonwealth Edison Corp. came to a settlement as part of the approval of ComEd's merger with PECO Energy of Pennsylvania. Through a one time payment by ComEd, the settlement created a \$250 million fund for renewable energy and energy efficiency entitled the Illinois Clean Energy Community Trust (CECT). This new fund is administered by the Illinois Clean Energy Community Foundation which is comprised of six appointees of House, Senate, Governor, and ComEd, as well as three nonvoting representatives of state agencies.

Of the \$250 million, \$200-225 million is being spent on programs for efficiency and renewables, and at least \$25 million is earmarked for clean coal programs. The mechanisms the CECT is using include grants, loans, venture capital support, and other financial incentives. Funding is limited to projects in-state, but as with the funds in Connecticut, the CECT programs must demonstrate a benefit Illinois's environment or economy.

Contact:

Rex Buhrmester

Illinois Department of Commerce and Community Affairs

Bureau of Energy and Recycling

620 East Adams Street

Springfield, IL 62701

Phone: (217) 557-1925

Fax: (217) 785-2618

E-Mail: rbuhrmes@commerce.state.il.us

Web site: <http://www.commerce.state.il.us>

IL-11 ILLINOIS

Incentive Type: Renewables Portfolio Standard

Eligible Technologies: Photovoltaics, Wind, Biomass

Applicable Sectors: Utilities

Standard: 5% by 2010; 15% by 2020

Date Enacted: 6/22/2001

Effective Date: 7/1/2001

Website: <http://www.legis.state.il.us/legisnet/legisnet92/hbggroups/hb/920HB1599LV.html>

Authority 1: [20 ILCS 688/5](#)

Summary:

On June 22, 2001, Illinois Governor George Ryan signed legislation (HB 1599) creating the Illinois Resource Development and Energy Security Act. The legislation states as an explicit goal that at least 5% of the state's energy production and use be derived from renewable forms of energy by 2010 and at least 15% from renewable forms of energy by 2020. However, it does not include an implementation schedule, compliance verification, or credit trading provisions.

HB 1599 also authorizes up to \$500 million of new state revenue bonding to support the development of technologies for wind, biomass, and solar power in Illinois.

Contact:

David Loos

Illinois Department of Commerce and Community Affairs

Bureau of Energy and Recycling

325 West Adams, Room 300

Springfield, IL 62704-1892

Phone: (217) 785-3969

Fax: (217) 785-2618

E-Mail: dloos@commerce.state.il.us

Web site: <http://www.commerce.state.il.us/com/energy/index.html>

IL-12 ILLINOIS

Incentive Type: Grants

Eligible Technologies: AF

Applicable Sectors: Schools

Authority 1:

Summary:

Governor Rod Blagojevich and the Illinois Environmental Protection Agency (EPA) established the Illinois Clean School Bus Program in November 2003 to provide a healthier environment for Illinois school children. The Illinois Clean School Bus Program provides funding to assist schools/school districts to reduce emissions from diesel-powered school buses through emission control retrofits and implementation of cleaner fuels, including biodiesel, propane and natural gas. Funding is initially restricted to 24 counties, and further funding is being secured through federal grants and other resources to implement the program on a statewide basis.

Contact:

Illinois EPA Division of Mobile Source Programs at (217) 557-1441, or visit the Web site at www.epa.state.il.us/air/cleanbus.

IL-13 ILLINOIS

Incentive Type: Tax exemption—Sales (fuel)

Eligible Technologies: AF (ethanol)

Applicable Sectors: Individuals, Businesses

Authority 1: Illinois Compiled Statutes (ILCS) Chapter 35 120/2-10

Summary:

Sales and use taxes do not apply to ethanol-blended fuels (containing between 70% and 90% ethanol) sold between July 1, 2003 and December 31, 2013. These taxes apply to 100% of the proceeds from sales made thereafter.

Contact:

David Loos

Illinois Department of Commerce and Community Affairs

Bureau of Energy and Recycling

325 West Adams, Room 300

Springfield, IL 62704-1892

Phone: (217) 785-3969

Fax: (217) 785-2618

E-Mail: dloos@commerce.state.il.us

Web site: <http://www.commerce.state.il.us/com/energy/index.html>

IL-14 ILLINOIS

Incentive Type: Tax application—Sales and Use (fuels)

Eligible Technologies: AF (Biodiesel)

Applicable Sectors: Individuals, Businesses

Authority 1: 35 ILCS 120/2-10

Summary:

Sales and use taxes apply to 80% of the proceeds from the sale of biodiesel-blended fuels (containing between 1% and 10% biodiesel) made between July 1, 2003 and December 31, 2013. However, if these taxes are ever imposed at a rate of 1.25%, then the tax on these biodiesel blends will apply to 100% of the proceeds of sales. These taxes do not apply to the proceeds from the sale of biodiesel blends containing more than 10% biodiesel made. The taxes apply to 100% of the proceeds from sales made thereafter.

Contact:

David Loos

Illinois Department of Commerce and Community Affairs

Bureau of Energy and Recycling

325 West Adams, Room 300

Springfield, IL 62704-1892

Phone: (217) 785-3969

Fax: (217) 785-2618

E-Mail: dloos@commerce.state.il.us

Web site: <http://www.commerce.state.il.us/com/energy/index.html>

IL-15 ILLINOIS

Incentive Type: Rebates—equipment

Eligible Technologies: AFVs

Applicable Sectors: Individuals, Businesses, Local government, non-profits

Authority 1: 415 ILCS 120/30

Summary:

The Illinois Alternate Fuels Rebate Program (Rebate Program) provides rebates for 80% of the incremental cost of purchasing an AFV or converting a vehicle to operate on an alternative fuel. The maximum amount of each rebate is \$4,000. Eligible vehicles include natural gas, propane, and electric. Gasoline-electric hybrid vehicles are not eligible. In addition, the Rebate Program includes E85 and biodiesel fuel rebates. For E85, the rebate is up to \$450 per year for three years for each flexible fuel vehicle that uses E85 at least half the time. For biodiesel, the fuel must contain at least 80% biomass content to be eligible. The Rebate Program was extended indefinitely in June 2003 and is currently funded. Eligibility is open to all Illinois residents, businesses, government units (except federal government) and organizations that are located in Illinois and who purchase or convert their vehicles to operate on an alternative fuel or who purchase E85 or a minimum of 80% biodiesel fuel in Illinois.

Contact:**David Loos**

Illinois Department of Commerce and Community Affairs
Bureau of Energy and Recycling
325 West Adams, Room 300
Springfield, IL 62704-1892

Phone: (217) 785-3969

Fax: (217) 785-2618

E-Mail: dloos@commerce.state.il.us

Web site: <http://www.commerce.state.il.us/com/energy/index.html>

IL-16 ILLINOIS

Incentive Type: Outreach

Eligible Technologies: AFVs

Applicable Sectors: Commercial (car dealers)

Authority 1:

Summary:

The Illinois Green Fleets Program recognizes and provides additional marketing opportunities for progressive fleets in Illinois that have a significant number of AFVs and use clean, "American" fuels. The Illinois Environmental Protection Agency (EPA), in cooperation with Chicago Area Clean Cities, is also launching the Illinois Green Fuels and Illinois Green Dealers programs. The Illinois Green Fuels Program recognizes and highlights retail or commercial fuel stations that implement E85, natural gas, propane, or other clean fuels for sale to the public or to surrounding fleets. The Illinois Green Dealers Program recognizes Illinois car dealerships that promote the sale of AFVs and educate their customers on the benefits of AFVs, including which vehicle models can use E85 and where the nearest E85 stations are located.

Contact:

Darwin Burkhardt of the Illinois Environmental Protection Agency at (217) 557-1441, or via email darwin.burkhart@epa.state.il.us
www.illinoisgreenfleets.org.

IL-17 ILLINOIS

Incentive Type: Grants, R&D

Eligible Technologies: AF (ethanol)

Applicable Sectors: all

Authority 1:

Summary:

The Alternative Energy Research, Development, and Demonstration Program is administered by the Illinois Department of Commerce and Economic Opportunity (DCEO). The goal of this program is to promote and expand the use of ethanol as a clean, renewable transportation fuel. DCEO manages ethanol test and demonstration projects designed to encourage economic growth in both industrial manufacturing and rural communities. DCEO also sponsors the research and development of new and innovative technologies to help reduce ethanol production costs, and to develop new value-added products.

Contact:**David Loos**

Illinois Department of Commerce and Community Affairs
Bureau of Energy and Recycling
325 West Adams, Room 300
Springfield, IL 62704-1892

Phone: (217) 785-3969

Fax: (217) 785-2618

E-Mail: dloos@commerce.state.il.us

Web site: <http://www.commerce.state.il.us/com/energy/index.html>

IL-18 ILLINOIS

Incentive Type: Outreach
Eligible Technologies: AFVs, AF
Applicable Sectors: Transportation
Authority 1:

Summary:

The Illinois Department of Commerce and Economic Opportunity (DCEO) and the Illinois Coalition, along with 70 leaders from industry, academia, and the public sector, met in April 2003 with the vision of creating an Illinois industry around future developments in the field of hydrogen and fuel cell technology. Based on the recommendations of the group, the Illinois Coalition and DCEO formed a public-private partnership, Illinois 2 H2. These activities led to the publication of a report in March 2004, "The Hydrogen Highway: Illinois' Path to a Sustainable Economy and Environment," which includes numerous recommendations including the establishment of a 'Hydrogen Highway,' a corridor of hydrogen energy demonstration projects situated around I-90, with the purpose of stimulating the Illinois economy and protecting the environment.

Contact:

David Loos
Illinois Department of Commerce and Community Affairs
Bureau of Energy and Recycling
325 West Adams, Room 300
Springfield, IL 62704-1892
Phone: (217) 785-3969
Fax: (217) 785-2618
E-Mail: dloos@commerce.state.il.us
Web site: <http://www.commerce.state.il.us/com/energy/index.html>

IL-19 ILLINOIS

Incentive Type: Outreach
Eligible Technologies: AFVs
Applicable Sectors: Transportation
Authority 1: 415 ILCS 120/22 and House Bill 5129, 2004

Summary:

To support the production of ethanol and create and expand markets for E85 and other biofuels in the state, the Secretary of State is required to create a database of registered flexible fuel vehicles (FFVs), based on information about the zip code, make, model, and vehicle identification number of each FFV and listing the number of vehicles by zip code. The database must be made available to the public in both print and electronic format by January 1, 2005.

Contact:

David Loos
Illinois Department of Commerce and Community Affairs
Bureau of Energy and Recycling
325 West Adams, Room 300
Springfield, IL 62704-1892
Phone: (217) 785-3969
Fax: (217) 785-2618
E-Mail: dloos@commerce.state.il.us
Web site: <http://www.commerce.state.il.us/com/energy/index.html>

IL-20 ILLINOIS

Incentive Type: Mandate—Licensing
Eligible Technologies: AFVs
Applicable Sectors: Transportation
Authority 1: 415 ILCS 120/35

Summary:

A \$20 per vehicle annual user fee is imposed on fleets with 10 or more vehicles in defined areas. Owners of state, county, or local government vehicles or electric vehicles are exempt from this fee.

Contact:

David Loos

Illinois Department of Commerce and Community Affairs
Bureau of Energy and Recycling
325 West Adams, Room 300
Springfield, IL 62704-1892
Phone: (217) 785-3969
Fax: (217) 785-2618
E-Mail: dloos@commerce.state.il.us
Web site: <http://www.commerce.state.il.us/com/energy/index.html>

IL-21 ILLINOIS

Incentive Type: Mandates—Purchase requirements (vehicles)
Eligible Technologies: AFVs
Applicable Sectors: State government
Authority 1: 30 ILCS 500/45-60

Summary:

In awarding contracts that require procurement of vehicles, state agencies must give preference to an otherwise qualified bidder who will fulfill the contract through the use of vehicles powered by ethanol produced from Illinois corn or biodiesel fuels produced from Illinois soybeans.

Contact:

David Loos
Illinois Department of Commerce and Community Affairs
Bureau of Energy and Recycling
325 West Adams, Room 300
Springfield, IL 62704-1892
Phone: (217) 785-3969
Fax: (217) 785-2618
E-Mail: dloos@commerce.state.il.us
Web site: <http://www.commerce.state.il.us/com/energy/index.html>

IL-22 ILLINOIS

Incentive Type: Mandate—Government planning
Eligible Technologies: AFVs, AF
Applicable Sectors: State government
Authority 1: Executive Order Number 2, 2003

Summary:

The Director of the Department of Central Management Services was instructed to prepare a thorough and comprehensive motor vehicle fleet management study, including, among other items, a proposal or recommendation for the implementation of means to research and promote the cost effective use of alternative fuels in state owned motor vehicles, particularly those fuels utilizing Illinois agricultural products.

Contact:

David Loos
Illinois Department of Commerce and Community Affairs
Bureau of Energy and Recycling
325 West Adams, Room 300
Springfield, IL 62704-1892
Phone: (217) 785-3969
Fax: (217) 785-2618
E-Mail: dloos@commerce.state.il.us
Web site: <http://www.commerce.state.il.us/com/energy/index.html>

IL-23 ILLINOIS

Incentive Type: Outreach
Eligible Technologies: AF (ethanol)
Applicable Sectors: Transportation
Authority 1: 20 ILCS 1105/3, and 110 ILCS 520/6.5 to 520/6.6

Summary:

The Energy Conservation and Coal Development Act was amended to continue the Illinois Ethanol Research Advisory Board's responsibility of managing and operating the National Corn-to-Ethanol Research Pilot Plant. The aim of the National Corn-to-Ethanol Research Pilot Plant is to reduce the cost of new production technologies, equipment, processes, feedstocks, and new value added co- and by-products. The Illinois Ethanol Research Advisory Board has five main responsibilities:

- Review the annual operating plans and budget of the National Corn-to-Ethanol Research Pilot Plant;
- Advise on research and development priorities and projects to be carried out at the National Corn-to-Ethanol Research Pilot Plant;
- Advise on policies and procedures regarding the management and operation of the National Corn-to-Ethanol Research Pilot Plant (including contracts, project selection, and personnel issues);
- Develop by-laws; and
- Submit a final report to the Governor and General Assembly outlining the progress and accomplishments made during the year along with a financial report for the year.

Contact:

David Loos

Illinois Department of Commerce and Community Affairs
Bureau of Energy and Recycling
325 West Adams, Room 300
Springfield, IL 62704-1892

Phone: (217) 785-3969

Fax: (217) 785-2618

E-Mail: dloos@commerce.state.il.us

Web site: <http://www.commerce.state.il.us/com/energy/index.html>

IN-1 INDIANA

Incentive Type: State Grant Program

Eligible Technologies: Renewable Transportation Fuels, Renewable Fuel Vehicles, Fuel Cells

Applicable Sectors: Commercial, Nonprofit, Local Government

Amount: \$2,000 - \$10,000

Max. Limit: \$10,000

Website: http://www.in.gov/doc/businesses/EP_transportation.html

Summary:

Indiana's Alternative Fuel Transportation Grant Program is designed to enable businesses and institutions to acquire alternative fuel vehicles and to make use of alternative transportation fuels. This program replaces the transportation components of the EPD's previous Alternative Energy Systems Grant Program.

Businesses, non-profit institutions and units of local government (including public school systems) are eligible to apply for grants. Projects eligible for grants include those that involve the purchase of alternative fuel vehicles, the conversion of conventionally fueled vehicles to run on alternative fuels, the installation of alternative fuel vehicle refueling facilities, the purchase and use of renewable transportation fuels, or combinations of these purposes. Alternative fuel vehicles include vehicles capable of running on electricity, ethanol, propane, hydrogen and natural gas. They do not include hybrid electric vehicles. For the purposes of this program, alternative fuel vehicles and alternative fuels are defined according to applicable U.S. Department of Energy definitions under the Energy Policy Act of 1992. Eligible projects will apply commercially available technologies. Grants under this program will not be awarded to fund research projects. Entities that are required to purchase alternative fuel vehicles under the Energy Policy Act of 1992 are not eligible for grants under this program.

Grant amounts range from \$2,000 to \$10,000 and are determined according to the following formulas:

1. For the purchase of factory-built alternative fuel vehicles for which the manufacturer produces a conventionally fueled equivalent, 80% of the additional cost of the alternatively fueled version is eligible for funding.
2. For the purchase of factory-built alternative fuel vehicles for which the manufacturer does not produce a conventionally fueled equivalent, 30% of the overall cost of the vehicle is eligible for funding.
3. For the conversion of vehicles to use alternative fuel, 80% of the cost of conversion.
4. For the purchase and installation of refueling facilities for alternative fuel to be used in vehicles, 80% of the cost is eligible for funding.
5. For the purchase and use of 85% ethanol (E-85) and for biodiesel in blends of 20% or higher, 50% of the additional purchase cost above that of conventional fuel is eligible for funding.

Applications will be evaluated and scored based on the following criteria:

1. Project soundness. Applicants should demonstrate that the proposed project is appropriate and technically feasible. The applicant should demonstrate the ability to acquire the appropriate alternative fuel for the vehicles envisioned in the project. The applicant should also provide reliable estimates of the service life and annual mileage of vehicles to be bought or converted to alternative fuel. Because the State of Indiana must make payments in arrears, applicants should demonstrate their ability to make full payment of project costs before reimbursement by the state. Applicants may also be required to submit written estimates of costs from service or equipment providers and/or documentation of comparable technology applications.
2. Petroleum fuel savings. Applicants should demonstrate that the proposed project will result in a significant decrease in the consumption

of gasoline or diesel fuel. Applications should include projections of service life and annual miles for each vehicle, along with fuel mileage, to calculate overall petroleum fuel savings.

3. Environmental effect. Applicants should describe how their use of alternative fuel vehicles will produce environmental benefits. Greater credit in this category will go to projects involving dedicated fuel vehicles, vehicles with zero or very low tailpipe emissions, and those projects that represent the greatest emission reductions compared to conventional vehicle use.

4. Economic development. Applicants should describe how the project will facilitate economic development in Indiana. This may be demonstrated, for example, by the creation of new jobs, increased productivity, cost-of-business savings to the applicant, or support of Indiana business and industry. Consideration is given to the level of commitment to and the effect on alternative energy use in Indiana.

Successful grant recipients are required to complete reports describing progress toward contracted goals.

Contact:

Philip Powlick

Indiana Department of Commerce

Energy Policy Division

One North Capitol, #700

Indianapolis, IN 46204-2248

Phone: (317) 232-8970

Fax: (317) 232-8995

E-Mail: ppowlick@commerce.state.in.us

IN-2 INDIANA

Incentive Type: State Grant Program

Eligible Technologies: Solar Water Heat, Active Solar Space Heat, Solar Thermal Electric, Photovoltaics, Wind, Biomass, Hydro, Renewable Transportation Fuels, Geothermal Electric, Waste

Applicable Sectors: Commercial, Nonprofit, Schools, Local Government

Amount: 20% - 30% of project costs

Max. Limit: \$30,000

Website: http://www.in.gov/doc/businesses/EP_transportation.html

Summary:

The Energy Policy Division (EPD) of the Indiana Department of Commerce offers this grant program to enable businesses and institutions to install and study alternative and renewable energy system applications. This program replaces all non-transportation applications of the EPD's previous Alternative Energy Systems Grant Program.

Businesses, non-profit institutions and units of local government (including public schools) are eligible to apply for grants. Eligible projects include non-transportation applications of solar, wind, geothermal, hydropower, alcohol fuels, waste-to-energy and biomass technologies. These applications may be applied to the direct generation of electricity (for either on-site use or placement of power onto a utility grid), heating and/or cooling of buildings, or the production of fuels.

Grant amounts are available up to a maximum of \$30,000, but no less than \$5,000. Up to 30% of project costs (or \$30,000, whichever is less) may be awarded, however grant funds may only be used for the purchase and installation of power generation, heating, and cooling equipment, and for other equipment necessary for the operation of the renewable energy system. Other associated costs (such as engineering studies, system design, site preparation, storage facilities, building improvements, etc.) may, however, be included in the total project cost used to determine the amount of the AP&E award. Project budgets may include funding from third party sources, but the applicant itself must directly contribute at least 20% of the project's total budget.

If a project is accepted for award, the applicant may receive funds on a reimbursement basis only. Payments are paid in two stages; 1) An initial payment equal to 70% of the grant award is paid once a grant contract has been completed and the recipient submits valid claim vouchers; 2) A final payment equal to 30% of the grant amount is made upon successful completion of two site visits, spaced at least six months apart, by EPD representatives.

Contact:

Philip Powlick

Indiana Department of Commerce

Energy Policy Division

One North Capitol, #700

Indianapolis, IN 46204-2248

Phone: (317) 232-8970

Fax: (317) 232-8995

E-Mail: ppowlick@commerce.state.in.us

IN-3 INDIANA

Incentive Type: State Grant Program

Eligible Technologies: Photovoltaics, Landfill Gas, Wind, Biomass, Fuel Cells, Cogeneration

Applicable Sectors: Commercial, Industrial, Schools, Local Government, State Government

Amount: \$5,000 - \$30,000

Max. Limit: \$30,000

Website: <http://www.in.gov/doc/businesses/PDFs/DGGPguidelines.pdf>

Summary:

The Distributed Generation Grant Program (DGGP) offers grants of up to \$30,000 to enable businesses and institutions to install and study alternatives to central generation. Eligible technologies include fuel cells, microturbines, cogeneration, combined heat & power, photovoltaics (PV), wind, biomass, and landfill gas.

Projects should be technically feasible for full-scale operation. Commercially proven projects are preferred. Eligible projects are those that demonstrate measurable energy savings in kWh, Btu or other units of measurement. Projects must be conducted in Indiana and should comply with all applicable environmental, safety and legal regulations. In addition, projects must provide baseload power of at least 20 kW for the facility at which they are located and should have a thermal efficiency of 50% or greater. Co-generation projects are strongly encouraged.

Grant amounts range from \$5,000 to \$30,000 and are determined according to the following formulas:

1. Where the average thermal efficiency of the distributed generation facility is greater than 50%, the eligible amount is equal to 20% of the equipment cost, or \$30,000--whichever is less.
2. Where the average thermal efficiency of the distributed generation facility is greater than 70%, the eligible amount is equal to 30% of the equipment cost, or \$30,000--whichever is less.
3. Where the distributed generation facility uses renewable energy, and/or low or zero emissions technology fuel cells, the eligible amount is equal to 30% of the equipment cost, or \$30,000--whichever is less.

The DGGP is administered by the Energy Policy Division. Interested parties should review the DGGP program guidelines and contact the Industrial Program Manager to request an application.

Contact:

Ethan Rogers

Indiana Department of Commerce

Energy Policy Division

One North Capitol, Suite 700

Indianapolis, IN 46204-2248

Phone: (317) 232-8961

Fax: (317) 232-8995

E-Mail: erogers@commerce.state.in.us

Web site: <http://www.in.gov/doc/>

IN-4 INDIANA

Incentive Type: State Grant Program

Eligible Technologies: Passive Solar Space Heat, Solar Water Heat, Photovoltaics, Wind, Biomass, Hydro, Geothermal Electric, Waste

Applicable Sectors: Commercial, General Public, Nonprofit

Amount: varies

Max. Limit: \$30,000

Terms: n/a

Authority 1: N/A

Summary:

This program makes small-scale grants for projects that demonstrate applications of energy efficiency and renewable energy technologies for businesses, institutions, or units of local government. To be eligible for consideration, a project must demonstrate a commercially available technology--research projects will not be funded. Each project must demonstrate either a novel technology or a novel application of an available technology, or a technology that is uncommon in Indiana. Each project must include a public education component, such as being integrated into an educational program or being located at a public facility that provides tours.

Contact:

Philip Powlick

Indiana Department of Commerce

Energy Policy Division

One North Capitol, #700

Indianapolis, IN 46204-2248

Phone: (317) 232-8970

Fax: (317) 232-8995

E-Mail: ppowlick@commerce.state.in.us

IN-5 INDIANA

Incentive Type: State Grant Program
Eligible Technologies: Biomass, Renewable Transportation Fuels
Applicable Sectors: Industrial, General Public, Utilities
Amount: \$20,000
Website: <http://www.state.in.us/doc/energy/research.html>

Summary:

This grant program was created to assist with research, development and production of biomass energy systems. Goals include increasing the role of biomass in Indiana's energy mix, deploying cost-effective biomass energy technologies and promoting private and public sector investment in biomass technology and resources. The program focuses on project partnerships among local and regional organizations, researchers, industries, utilities and government. Grants of up to \$20,000 per project will be available to successful applicants. Projects should have near-term commercialization potential, should not duplicate the work of others and should capitalize on in-state expertise and resources. Applications are considered only in response to Requests for Proposals, which are made periodically every 2-3 years.

Contact:

Philip Powlick
Indiana Department of Commerce
Energy Policy Division
One North Capitol, #700
Indianapolis, IN 46204-2248
Phone: (317) 232-8970
Fax: (317) 232-8995
E-Mail: ppowlick@commerce.state.in.us

IN-6 INDIANA

Incentive Type: Green Pricing Program
Eligible Technologies: Landfill Gas, Small Hydro
Applicable Sectors: Commercial, Industrial, Residential
Premium: \$0.09/kWh
Effective Date: 1998
Website: http://www.ipalco.com/YOURHOME/Renewable_Energy.html

Summary:

As part of the IPL Elect Plan, Indianapolis Power & Light is now offering customers a Green Power Option in an effort to reduce reliance on fossil-fueled generation. This option is available to all of IPL's residential customers and to those commercial and industrial customers whose demand does not exceed 2,000 kilowatts per hour. The Green Power Option allows customers to specify an amount equal to 25%, 50%, or 100% of their electricity to be generated by renewable resources at a premium of \$0.09/kWh.

Contact:

Dan Melvin
Indianapolis Power & Light
One Monument Circle
P.O. Box 1595
Indianapolis, IN 46204
Phone: (317) 261-8504
E-Mail: dan.melvin@aes.com
Web site: <http://www.ipalco.com/>

IN-7 INDIANA

Incentive Type: Green Pricing Program
Eligible Technologies: Landfill Gas, Biomass
Applicable Sectors: Commercial, Industrial, Residential, Nonprofit, Schools, Local Government
Premium: \$4.00/month/block; 100-kWh block
Commitment: One year
Effective Date: 6/02
Website: http://www.sciremc.com/EnviroWatts_FAQ.htm

Summary:

Southeast Indiana REMC offers its customers the option to purchase electricity generated by renewable energy resources for an additional \$0.04 per kWh. Therefore, a 100-kWh block of renewable energy will add \$4.00 to a customer's electric bill. Customers who enroll in the EnviroWatts program must commit to a one-year purchase agreement. The renewable energy offered by Southeast Indiana REMC comes

from landfill gas purchased from Waste Management of Indiana. After program administrative costs are recovered, South Central Indiana REMC will donate all margins from the sale of EnviroWatts energy to a local or state environmental project.

Contact:

Sue Lester

South Central Indiana REMC

300 Morton Avenue

Martinsville, IN 46151

Phone: (800) 264-7362

Web site: <http://www.sciremc.com>

IN-8 INDIANA

Incentive Type: Green Pricing Program

Eligible Technologies: Landfill Gas

Applicable Sectors: Commercial, Residential

Premium: \$0.005/kWh - \$0.01/kWh

Participants: 7 distribution cooperatives

Capacity Installed/Planned: 7.5 MW installed/3.2 additional MW planned

Effective Date: 2001

Summary:

Wabash Valley Power Association, a generation and transmission cooperative serving 24 member distribution systems in Indiana, Michigan, and Ohio, is offering customers the option to purchase green power generated from landfill gas facilities. Wabash Valley currently contracts with Waste Management of Indiana for the output of three landfill gas facilities in northwestern Indiana with a combined capacity of 7.5 MW. The cooperative has also entered into an agreement to purchase power from a 3.2 MW landfill gas facility. Currently, 7 distribution cooperatives are participating in the program and offering the green power to end-use customers at price premiums from \$0.005 kWh to \$0.01 kWh.

Contact:

Wendy Williams

Wabash Valley Power Association, IN

Phone: (317) 481-2817

E-Mail: wendyw@wvpa.com

Web site: <http://www.wvpa.com>

IN-9 INDIANA

Incentive Type: Net Metering Rules

Eligible Technologies: Solar Thermal Electric, Photovoltaics, Wind, Biomass, Hydro, Renewable Transportation Fuels, Geothermal Electric, Waste, Cogeneration

Applicable Sectors: Commercial, Industrial, Residential

Limit on System Size: 1,000 kWh/month

Limit on Overall Enrollment: None

Treatment of Net Excess: Granted to utility

Utilities Involved: Investor-owned utilities only

Date Enacted: 3/7/85

Expiration Date: none

Authority 1: [Indiana Utility Regulatory Commission Regulation 170 IAC 4-4.1-7](#)

Summary:

As part of the Indiana Utility Regulatory Commission's overall cogeneration and small power production rules, Indiana has adopted net billing rules for generators producing less than 1,000 kWh per month. Indiana is the only state with net metering rules that has set the individual system limit based on kilowatt hours (actual output) instead of kilowatts (rated capacity). Qualifying facilities must be renewable energy generators including waste methane recovery systems. There is no statewide limit on the total capacity that may be generated by qualifying facilities engaged in net metering.

For generators producing less than 1,000 kWh per month, net excess generation is granted to the utilities. For systems producing more than 1,000 kWh per month, generators can request that the utility purchase the net generation, in which case two meters are installed. Thus far, this program has been used primarily by owners of small wind turbines.

Contact:

Laura Cvengros

Indiana Utility Regulatory Commission

302 West Washington Street, Suite E306

Indianapolis, IN 46204

Phone: (317) 233-5315
E-Mail: lcvorgros@urc.state.in.us

IN-10 INDIANA

Incentive Type: Grants

Eligible Technologies: AFVs, AF, AF Refueling Stations

Applicable Sectors: Businesses, non-profit institutions and units of local government (including public school systems)

Summary:

The Indiana Department of Commerce administers the Alternative Fuel Transportation Grant Program for projects that involve the purchase of alternative fuel vehicles, conversion of conventionally fueled vehicles to operate on alternative fuels, installation of alternative fuel vehicle refueling facilities, purchase and use of renewable transportation fuels, or combinations of these purposes. Alternative fuel vehicles include vehicles capable of operating on electricity, ethanol, propane, hydrogen and natural gas. They do not include hybrid electric vehicles. Grant amounts range from \$2,000 to \$30,000 and are determined according to the following formulas:

1. For the purchase of OEM AFVs for which the manufacturer produces a conventionally fueled equivalent, 80% of the incremental cost is eligible for funding.
2. For the purchase of OEM AFVs for which the manufacturer does not produce a conventionally fueled equivalent, 30% of the overall cost of the vehicle is eligible for funding.
3. For the conversion of vehicles to run on an alternative fuel, 80% of the cost of conversion is eligible for funding.
4. For the purchase and installation of refueling facilities for an alternative fuel to be used in vehicles, 50% of the facility cost is eligible for funding.
5. For the purchase and use of E85 or biodiesel in blends of 20% or higher, 50% of the incremental cost is eligible for funding.

Combinations of acquisitions in the above categories (e.g., refueling infrastructure with vehicle conversions) may be bundled into a single grant. Businesses, non-profit institutions and units of local government (including public school systems) are eligible to apply. Entities that are required to purchase alternative fuel vehicles under the Energy Policy Act of 1992 are not eligible for grants under this program.

Contact:

Heather Rippey of the Indiana Department of Commerce at (317) 232-8965, or via email at hrippy@commerce.state.in.us
www.in.gov/doc/businesses/AFTGPguidelines.html

IN-11 INDIANA

Incentive Type: Tax Credit--Corporate

Eligible Technologies: AF (Biodiesel)

Applicable Sectors: Industrial (Biodiesel producer)

Authority 1: [Indiana Code](#) 6-3.1-27

Summary:

A taxpayer that produces biodiesel at a facility located in Indiana is entitled to a credit of \$1 per gallon of biodiesel that is used to produce blended biodiesel (diesel/biodiesel blends of at least 2% biodiesel).

Contact:

Philip Powlick

Indiana Department of Commerce

Energy Policy Division

One North Capitol, #700

Indianapolis, IN 46204-2248

Phone: (317) 232-8970

Fax: (317) 232-8995

E-Mail: ppowlick@commerce.state.in.us

IN-12 INDIANA

Incentive Type: Tax Credit—Corporate

Eligible Technologies: AF (Biodiesel)

Applicable Sectors: Industrial (Biodiesel producer/blenders)

Authority 1: [Indiana Code](#) 6-3.1-27

Summary:

A taxpayer that produces blended biodiesel at a facility located in Indiana is entitled to a credit of \$0.02 per gallon of blended biodiesel. Both the biodiesel blend and the biodiesel used in the blend must be produced at a facility located in Indiana.

Contact:

Philip Powlick
Indiana Department of Commerce
Energy Policy Division
One North Capitol, #700
Indianapolis, IN 46204-2248
Phone: (317) 232-8970
Fax: (317) 232-8995
E-Mail: ppowlick@commerce.state.in.us

IN-13 INDIANA

Incentive Type: Tax Credit—Corporate
Eligible Technologies: AF (Biodiesel)
Applicable Sectors: Commercial (fuel distributors)
Authority 1: Indiana Code 6-3.1-27

Summary:

A taxpayer that is a fuel retailer and operates a service station in Indiana at which blended biodiesel is sold and dispensed through a metered pump in a taxable year is entitled to a credit of \$0.01 per gallon of blended biodiesel sold and dispensed through all the metered pumps located at a service station.

Contact:

Philip Powlick
Indiana Department of Commerce
Energy Policy Division
One North Capitol, #700
Indianapolis, IN 46204-2248
Phone: (317) 232-8970
Fax: (317) 232-8995
E-Mail: ppowlick@commerce.state.in.us

IN-14 INDIANA

Incentive Type: Mandates—Certification (facility)
Eligible Technologies: AFVs
Applicable Sectors: Commercial, Industrial
Authority 1: Indiana Code 36-7-32

Summary:

The Indiana Department of Commerce may designate an area as a certified technology park if certain criteria are met, including a firm commitment from at least one business engaged in a high technology activity creating a significant number of jobs. The establishment of high technology activities and public facilities within a technology park serves a public purpose and is of benefit to the general welfare of a unit by encouraging investment, job creation and retention, and economic growth and diversity. “High technology activity” includes advanced vehicles technology, which is any technology that involves EVs, hybrid electric vehicles, or AFVs, or components used in the construction of these vehicles.

Contact:

Philip Powlick
Indiana Department of Commerce
Energy Policy Division
One North Capitol, #700
Indianapolis, IN 46204-2248
Phone: (317) 232-8970
Fax: (317) 232-8995
E-Mail: ppowlick@commerce.state.in.us

IN-15 INDIANA

Incentive Type: Mandated price reduction (fuel)
Eligible Technologies: AF (Biodiesel)
Applicable Sectors: State government, local government, schools, institutions
Authority 1: Indiana Code Sec. 5-22-15-19

Summary:

A governmental body, state educational institution, or instrumentality of the state that performs essential governmental functions on a statewide or local basis is entitled to a price preference of 10% for the purchase of fuels which are at least 20% biodiesel or a primarily ester-derived fuel (other than alcohol) made from biological materials, including oilseeds and animal fats, for use in compression and ignition engines.

Contact:

Philip Powlick

Indiana Department of Commerce

Energy Policy Division

One North Capitol, #700

Indianapolis, IN 46204-2248

Phone: (317) 232-8970

Fax: (317) 232-8995

E-Mail: ppowlick@commerce.state.in.us

IN-16 INDIANA

Incentive Type: Mandated-labeling (vehicles)

Eligible Technologies: AFVs,

Applicable Sectors: Transportation

Authority 1: Indiana Code Sec. 6-6-2.1-203

Summary:

Vehicle decals must be purchased annually for heavy-duty AFVs and for light-duty and heavy-duty vehicles owned by a public or private utility. Decal costs vary according to vehicle type and weight.

Contact:

Indiana Department of Revenue Web site (www.in.gov/dor/).

IA-1 IOWA

Incentive Type: Corporate Tax Credit

Eligible Technologies: Renewable Transportation Fuels

Applicable Sectors: Retail service stations

Amount: 2.5 cents per gallon

Max. Limit: none

Effective Date: 1/1/02

Expiration Date: 6/30/07

Website: <http://www.state.ia.us/dnr/energy/programs/renewable/incentives.htm>

Authority 1: House File 716

Summary:

This gives a tax credit to retail service stations at which more than 60% of the total gallons of gasoline sold and dispensed through one or more metered pumps is ethanol-blended for tax years beginning on or after January 1, 2002. The amount of the tax credit for each eligible service station is two and one-half cents multiplied by the total number of gallons of ethanol blended gasoline sold and dispensed through all metered pumps located at that service station during the tax year in excess of sixty percent of all gasoline sold and dispensed through metered pumps at that service station during the tax year.

Contact:

David Downing

Iowa Department of Natural Resources

Energy Bureau

Wallace State Office Building

Des Moines, IA 50319-0034

Phone: (515) 281-4876

Fax: (515) 281-8995

E-Mail: David.Downing@dnr.state.ia.us

Web site: <http://www.state.ia.us/dnr/energy/>

IA-2 IOWA

Incentive Type: Property Tax Exemption

Eligible Technologies: Renewable Fuels

Applicable Sectors: Commercial, Industrial, Residential

Amount: 100%
Max. Limit: None
Terms: N/A
Website: <http://www.state.ia.us/dnr/energy/index.htm>
Authority 1: Iowa Code 427.1(29)

Summary:

This statute exempts from the state property tax personal property, real property, and improvements to real property used to collect and convert methane gas to energy. If the property also burns another fuel, "the exemption shall apply to that portion of the value of such property, which equals the ratio that its use of methane gas bears to total fuel consumed."

Contact:

Angela Chen
Iowa Department of Natural Resources
Energy Bureau
Wallace State Office Building
Des Moines, IA 50319-0034
Phone: (515) 281-4736
Fax: (515) 281-6794
E-Mail: angela.chen@dnr.state.ia.us
Web site: <http://www.state.ia.us/dnr/energy/index.htm>

IA-3 IOWA

Incentive Type: Sales (Excise) Tax Exemption
Eligible Technologies: Renewable Transportation Fuels
Applicable Sectors: Transportation
Amount: \$.01 per gallon
Max. Limit: none
Terms: N/A
Date Enacted: N/A
Expiration Date: 6/30/2007
Website: <http://www.state.ia.us/dnr/energy/programs/renewable/incentives.htm>
Authority 1: [Iowa Code 452A.21, 452A.3](#)

Summary:

This specific excise tax exemption allows those who blend conventional motor fuel with alcohol to produce ethanol to file for a refund for the "difference between taxes paid on the motor fuel purchased to produce ethanol blended gasoline and the tax due on the ethanol blended gasoline." In effect, ethanol-blended gasoline is taxed at 19 cents per gallon while non-ethanol blended gasoline is taxed at 20 cents per gallon.

Contact:

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Iowa Department of Natural Resources
Energy Bureau
Wallace State Office Building
Des Moines, IA 50319-0034
Phone: (515) 281-4736
Fax: (515) 281-6794
E-Mail: angela.chen@dnr.state.ia.us
Web site: <http://www.state.ia.us/dnr/energy/index.htm>

IA-4 IOWA

Incentive Type: State Grant Program
Eligible Technologies: Passive Solar Space Heat, Solar Water Heat, Active Solar Space Heat, Solar Thermal Electric, Photovoltaics, Wind, Biomass, Hydro, Renewable Transportation Fuels, Geothermal Electric, Waste
Applicable Sectors: Commercial, Industrial, Residential, Transportation, Agricultural
Amount: varies
Max. Limit: based on available funds
Terms: one-year period with potential for continuation beyond first year
Website: <http://www.energy.iastate.edu/>
Authority 1: [Iowa Code § 266.39C](#)

Summary:

The Iowa Energy Center administers this competitive grants program. The Center provides grants to eligible organizations for energy research on topics that have strong relevance to Iowa. Eligible organizations are Iowa's colleges and universities, Iowa-based private non-profit organizations, and Iowa-based foundations. Private sector research partnerships are encouraged. Research grants are awarded in two broad categories: renewable energy and energy efficiency.

A request for pre-proposals is issued annually in September. Specific projects are selected for further review via full proposals. Grants are provided for projects demonstrating highest value and relevance to current Iowa-specific energy research needs.

Past grants have supported research in bio fuels, wind resource assessment, photovoltaic research, biomass gasification, energy-efficient livestock confinement ventilation, process manufacturing efficiency, commercial building HVAC control, among many other topics.

Contact:

Keith Kutz

Iowa State University

Iowa Energy Center

2521 Elwood Dr.

Suite 124

Ames, IA 50010-8229

Phone: (515) 294-8819

Fax: (515) 294-9912

E-Mail: kkutz@energy.iastate.edu

Web site: <http://www.energy.iastate.edu/>

IA-5 IOWA

Incentive Type: State Loan Program

Eligible Technologies: Solar Water Heat, Active Solar Space Heat, Solar Thermal Electric, Photovoltaics, Wind, Biomass, Hydro

Applicable Sectors: Commercial, Industrial, Residential

Amount: Half of financed project cost

Max. Limit: \$250,000

Terms: 0% interest on half of the financed project cost

Maximum loan term of 20 years

Date Enacted: 1996

Website: <http://www.energy.iastate.edu/about/grantloan/AERLP/index.htm>

Authority 1: [Iowa Code 476.46](#)

Summary:

The Alternate Energy Revolving Loan Program (AERLP) is administered by the Iowa Energy Center and funded by the state's investor-owned utilities. The AERLP provides loan funds to any individual or organization that wants to build renewable energy production facilities in Iowa. Renewable energy includes technologies such as solar, biomass, wind, and small hydro. Successful applicants receive a single, low-interest loan that consists of a combination of AERLP funds and lender-provided funds. The AERLP provides 50% of the total loan, up to a maximum of \$250,000 at 0% interest. The remainder of the loan is made by the lender at market rate. The maximum loan term allowed for the AERLP funds is 20 years. As the loans are paid back to the Iowa Energy Center, those funds revolve back into the program and are made available to new applicants.

Contact:

Keith Kutz

Iowa State University

Iowa Energy Center

2521 Elwood Dr.

Suite 124

Ames, IA 50010-8229

Phone: (515) 294-8819

Fax: (515) 294-9912

E-Mail: kkutz@energy.iastate.edu

Web site: <http://www.energy.iastate.edu/>

IA-6 IOWA

Incentive Type: State Loan Program

Eligible Technologies: Passive Solar Space Heat, Solar Water Heat, Active Solar Space Heat, Solar Thermal Electric, Photovoltaics, Wind, Biomass, Hydro, Renewable Transportation Fuels

Applicable Sectors: Nonprofit, Local Government, State Government, Hospitals, Private Colleges

Amount: varies

Max. Limit: varies

Terms: varies

Date Enacted: 5/1/86

Website: <http://www.state.ia.us/dnr/energy/programs/bem/index.htm>

Authority 1: [Iowa Code 473.19](#)

Summary:

Initiated in 1986, Iowa's Building Energy Management Program provides financing for public and select non-profit organizations for energy management programs. 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 primary goals of the program is to make energy improvements for participating agencies and organizations budget neutral. This is possible by making available loans that can be repaid by the energy savings that result from the project. The program follows three phases: (1) memorandum of agreement (MOA), (2) building energy analysis, and (3) implementation. After signing a MOA, the participating organization receives a six month interest-free loan for the energy analysis, which is performed by an auditing firm pre-qualified by the Department of Natural Resources. Implementation plans include only those energy improvements which will pay for themselves within their useful lives. Financing of the improvements is done through a pre-arranged, low interest capital loan note or lease purchase agreement with a local or regional investment bank.

The Building Energy Management Program aims to implement more than \$500 million in energy improvements. The program actively markets to each of the eligible sector. To date most of Iowa's school districts have participated as have dozens of hospitals and private colleges. Local governments and state agencies have also participated in large numbers.

Contact:

Monica Stone

Iowa Department of Natural Resources

Energy Bureau

Wallace State Office Building

Des Moines, IA 50319-0034

Phone: (515) 281-8681

Fax: (515) 281-8995

E-Mail: mstone@max.state.ia.us

IA-7 IOWA

Incentive Type: State Loan Program

Eligible Technologies: Biomass, Renewable Transportation Fuels

Applicable Sectors: Commercial, Industrial

Amount: 20% forgivable loan, 80% traditional loan

Max. Limit: \$400,000

Terms: prime rate

Website: <http://www.smart.state.ia.us/financial.htm#vaapfap>

Summary:

This program, administered by the Iowa Department of Economic Development, is a value-added grant/loan program. The renewable fuel fund is one of two separate programs under the Value-Added Agricultural Products and Processes Financial Assistance Program (VAAPFAP). VAAPFAP funds \$4 million in projects annually, with approximately half going toward the Renewable Fuel Fund. The maximum amount per project is \$400,000. Approximately 20% of the money awarded to a project is in the form of a grant and the remaining 80% in the form of a low interest loan. The interest rate on the loan is typically the prime rate. Research and development projects are not eligible for this program. A sample of funded projects include six ethanol plants, two soy process plants and a methane recapture program for hog farmers.

There are three eligibility requirements:

1. The proposed project must be located in Iowa.
2. Applicants must have a business plan demonstrating a viable market, as well as managerial and technical experience.
3. Applicants should have completed a feasibility study documenting the viability of the proposed start-up business.

Contact:

Joe Jones

Iowa Department of Economic Development

Bureau of Business Finance

200 E. Grand

Des Moines, IA 50309

Phone: (515) 242-4801

Fax: (515) 242-4809

E-Mail: joe.jones@ided.state.ia.us

IA-8 IOWA

Incentive Type: Green Pricing Program
Eligible Technologies: Wind, Biomass
Applicable Sectors: All (Alliant Energy customers)
Premium: Varies depending on customer choice
Commitment: None
Website: <http://www.alliantenergy.com/hplinks/secondnature.php>

Summary:

Second Nature is a voluntary program that allows Alliant Energy electric customers to elect to purchase electricity generated from renewable resources. Alliant Energy offers three pricing options under the Second Nature program. Customers may purchase 25% renewable power for an added charge of \$0.005/kWh, 50% renewable power for an added charge of \$0.01/kWh, or 100% renewable power for an added charge of \$0.02/kWh.

Contact:

Customer Service - Alliant
Alliant Energy
222 West Washington Avenue
P.O. Box 192
Madison, IA 53701-0192
Phone: (800) 255-4268
Fax: (608) 758-1459
E-Mail: customercare@alliant-energy.com
Web site: <http://www.alliantenergy.com>

IA-9 IOWA

Incentive Type: Mandatory Utility Green Power Option
Eligible Technologies: Photovoltaics, Wind, Biomass, Hydro, Waste
Applicable Sectors: Utilities
Date Enacted: 7/01
Effective Date: 1/1/04
Website: <http://www.legis.state.ia.us/GA/79GA/Legislation/HF/00500/HF00577/Current.html>
Authority 1: Code of Iowa 476.47

Summary:

Iowa enacted a statute requiring all electric utilities operating in the state, including those not rate regulated by the Iowa Utilities Board (IUB), to offer green power options to their customers beginning January 1, 2004. The statute requires utilities to offer programs that allow customers to make contributions to support the development of alternate (renewable) energy sources in Iowa. The IUB will adopt rules to implement the statute. Utilities must then file program plans and tariff schedules with the IUB.

Contact:

John Pearce
Iowa Utilities Board
350 Maple Street
Des Moines, IA 50319
Phone: (515) 281-5679
Fax: (515) 281-5329
E-Mail: john.pearce@iub.state.ia.us

IA-10 IOWA

Incentive Type: Net Metering Rules
Eligible Technologies: Photovoltaics, Wind, Biomass, Hydro, Waste
Applicable Sectors: Commercial, Industrial, Residential, Rate-Regulated Utilities
Limit on System Size: None
Limit on Overall Enrollment: None
Treatment of Net Excess: Purchased at avoided cost
Utilities Involved: Investor-owned utilities only
Date Enacted: 1983
Expiration Date: None
Website: <http://www.state.ia.us/dnr/energy/policy/deregulation.htm>
Authority 1: [Iowa Administrative Code Section 199-15.11\(5\)](#)

Summary:

Created by the Iowa Utilities Board in 1983, Iowa's net metering rule allows customers with alternative energy generation systems to sell electricity to their investor-owned utilities on a netted basis against their metered retail usage. The rule applies to all customer classes, and there is no mention of a limit on either the size of a net metering system or on total enrollment.

Iowa's net metering rule requires that customers' net excess generation be purchased by the utilities at their avoided cost. It is worth noting that Iowa Utilities Board has also required the state's investor owned utilities to purchase up to a total of 105 MW of renewable energy under a separate ruling.

Contact:

John Pearce

Iowa Utilities Board

350 Maple Street

Des Moines, IA 50319

Phone: (515) 281-5679

Fax: (515) 281-5329

E-Mail: john.pearce@iub.state.ia.us

IA-11 IOWA

Incentive Type: Renewables Set Aside

Eligible Technologies: Photovoltaics, Wind, Biomass, Hydro, Waste

Applicable Sectors: Utilities (Investor Owned)

Date Enacted: 1/1/91

Authority 1: [Code of Iowa 476.41-476.45](#)

Summary:

This law requires investor-owned utilities to purchase a combined total of 105 average MW of their generation from renewable and small hydropower sources. The Iowa Utilities Board has allocated the 105 average MW between the state's two investor-owned utilities -- Mid-American and Interstate Power and Light -- based on each utility's percentage of the total Iowa retail peak demand. This requirement is being met mostly with wind power and biomass applications.

Contact:

John Pearce

Iowa Utilities Board

350 Maple Street

Des Moines, IA 50319

Phone: (515) 281-5679

Fax: (515) 281-5329

E-Mail: john.pearce@iub.state.ia.us

IA-12 IOWA

Incentive Type: Grants (Outreach & Research)

Eligible Technologies: Renewable Transportation Fuels, AFVs

Applicable Sectors: Schools, Industrial

Authority 1: [Iowa Code 214A.19](#)

Summary:

The DNR conducts marketing and education outreach to encourage the use of alternative fuels and, contingent upon funding availability, also awards demonstration grants to persons who purchase vehicles that operate on alternative fuels, including but not limited to, high blend ethanol, compressed natural gas, electricity, solar energy, or hydrogen. Grants are awarded for research connected with the fuel or the vehicle, and not for the purchase of the vehicle itself. A vehicle may be purchased with these funds only if the department retains the title to the vehicle and if the vehicle is used for continuing research. If the vehicle is sold, the proceeds of the sale of the vehicle will be used for additional research.

Contact:

Jennifer Moehlmann

Iowa Department of Natural Resources

Energy Bureau

Wallace State Office Building

Des Moines, IA 50319-0034

Phone: (515) 281-8518

Fax: (515) 281-8995

E-Mail: jennifer.moehlmann@dnr.state.ia.us

Web site: <http://www.state.ia.us/dnr/energy/>

IA-13 IOWA

Incentive Type: Corporate Tax Credit
Eligible Technologies: Renewable Transportation Fuels (ethanol)
Applicable Sectors: Commercial (fueling stations)
Authority 1: Iowa Code 422.33

Summary:

A tax credit is available to retail service stations at which more than 60% of the total gallons of gasoline sold through metered pumps are ethanol-blended. Once station owners surpass the 60 percent threshold, they are eligible for a tax credit of \$0.025 for every additional gallon of ethanol-blended gasoline sold during the tax year, from 2002 through 2007.

Contact:

Jennifer Moehlmann
Iowa Department of Natural Resources
Energy Bureau
Wallace State Office Building
Des Moines, IA 50319-0034
Phone: (515) 281-8518
Fax: (515) 281-8995
E-Mail: jennifer.moehlmann@dnr.state.ia.us
Web site: <http://www.state.ia.us/dnr/energy/>

IA-14 IOWA

Incentive Type: Tax exemption—sales (fuel)
Eligible Technologies: Renewable Transportation Fuels (ethanol)
Applicable Sectors: Industrial, commercial
Authority 1: Iowa Code 452A.21

Summary:

Ethanol-blended gasoline is taxed at \$0.19 per gallon, while non-ethanol blended gasoline is taxed at \$0.203 per gallon. Natural gas is taxed at \$0.16 per gasoline gallon equivalent. Those who blend conventional motor fuel with ethanol may file for a refund for the difference between sales taxes paid on the motor fuel purchased to produce ethanol-blended gasoline and the tax due on the ethanol-blended gasoline. This tax incentive expires June 30, 2007.

Contact:

Jennifer Moehlmann
Iowa Department of Natural Resources
Energy Bureau
Wallace State Office Building
Des Moines, IA 50319-0034
Phone: (515) 281-8518
Fax: (515) 281-8995
E-Mail: jennifer.moehlmann@dnr.state.ia.us
Web site: <http://www.state.ia.us/dnr/energy/>

IA-15 IOWA

Incentive Type: Grants
Eligible Technologies: Renewable Transportation Fuels (Biodiesel)
Applicable Sectors: State government
Authority 1: Iowa Code 307.20

Summary:

A biodiesel fuel revolving fund has been created in the state treasury. The fund consists of money received from the sale of Energy Policy Act (EPA) credits banked by the Iowa Department of Transportation (IDOT) as of April 19, 2001, and other money obtained or accepted by IDOT for deposit in the fund. The fund shall be used by IDOT for the purchase of biodiesel fuel for use in IDOT vehicles. An IDOT motor vehicle operating on biodiesel fuel shall be affixed with a brightly visible sticker that notifies the traveling public that the motor vehicle uses biodiesel fuel.

Contact:

Jennifer Moehlmann
Iowa Department of Natural Resources

Energy Bureau
Wallace State Office Building
Des Moines, IA 50319-0034
Phone: (515) 281-8518
Fax: (515) 281-8995
E-Mail: jennifer.moehlmann@dnr.state.ia.us
Web site: <http://www.state.ia.us/dnr/energy/>

IA-16 IOWA

Incentive Type: Mandated purchases (eqt)
Eligible Technologies: AFVs
Applicable Sectors: Institutional
Authority 1: Iowa Code 216B.3, 260C.19A, 262.25A, 307.21 and 904.312A

Summary:

At least 10% of new light-duty vehicles purchased by institutions under the control of the state fleet administrator, IDOT administrator of administrative services, board of directors of community colleges, state board of regents, commission for the blind, and department of corrections must be capable of using alternative fuels. Vehicles and trucks purchased and directly used for law enforcement, off-road maintenance work, or to pull loaded trailers are exempt.

Contact:

Jennifer Moehlmann
Iowa Department of Natural Resources
Energy Bureau
Wallace State Office Building
Des Moines, IA 50319-0034
Phone: (515) 281-8518
Fax: (515) 281-8995
E-Mail: jennifer.moehlmann@dnr.state.ia.us
Web site: <http://www.state.ia.us/dnr/energy/>

IA-17 IOWA

Incentive Type: Mandated labeling (vehicles)
Eligible Technologies: AFVs
Applicable Sectors: Individuals
Authority 1: Iowa Code 321.41

Summary:

When a motor vehicle is modified to use a different fuel type or to use more than one fuel type, the person in whose name the vehicle is registered shall within 30 days notify the county treasurer of the new fuel type or alternative fuel types. If the vehicle uses, or may use a special fuel, the county treasurer shall issue a special fuel identification sticker.

Contact:

Jennifer Moehlmann
Iowa Department of Natural Resources
Energy Bureau
Wallace State Office Building
Des Moines, IA 50319-0034
Phone: (515) 281-8518
Fax: (515) 281-8995
E-Mail: jennifer.moehlmann@dnr.state.ia.us
Web site: <http://www.state.ia.us/dnr/energy/>

IA-18 IOWA

Incentive Type: Mandated labeling
Eligible Technologies: Renewable Transportation Fuels
Applicable Sectors: Commercial (fueling stations)
Authority 1: Iowa Code 214.16

Summary:

If motor vehicle fuel containing a renewable fuel is sold from a motor vehicle fuel pump, the pump shall have affixed a decal identifying the name of the renewable fuel. The decal may be different based on the type of renewable fuel used. The may approve an application to place a decal in a special location on a pump with special lettering or colors if the decal appears clear and conspicuous to the consumer. The application must be made in writing to the Department.

Contact:

Jennifer Moehlmann

Iowa Department of Natural Resources

Energy Bureau

Wallace State Office Building

Des Moines, IA 50319-0034

Phone: (515) 281-8518

Fax: (515) 281-8995

E-Mail: jennifer.moehlmann@dnr.state.ia.us

Web site: <http://www.state.ia.us/dnr/energy/>

KS-1 KANSAS

Incentive Type: Corporate Tax Credit

Eligible Technologies: Renewable Fuel Vehicles, Refueling Stations

Applicable Sectors: Commercial, Industrial, Residential

Max. Limit: \$3,000; \$5,000; \$50,000 for vehicles; 50% of the total amount for each alternative-fuel fueling station, not to exceed \$200,000

Terms: Carryover for 3 years

Date Enacted: 5/13/99

Effective Date: 1/1/96

Website: http://www.kcc.state.ks.us/energy/alt_info.htm

Authority 1: [K.S.A. 79-32.201 as amended by \(1999 SB 45\)](#)

Summary:

Senate Bill 45, passed during the 1999 Session of the Kansas Legislature, was signed into law by the Governor on May 13, 1999. This bill allows taxpayers that purchase qualified alternative-fueled vehicles or alternative-fuel fueling stations to receive a credit on their state income taxes.

For vehicles placed in service on or after January 1, 1996, and before January 1, 2005, the income tax credit amount must not exceed \$3,000 for a vehicle with a weight of less than 10,000 lbs.; \$5,000 for a heavy duty motor vehicle with a weight of greater than 10,000 lbs. but less than 26,000 lbs.; and \$50,000 for motor vehicles having a weight of greater than 26,000 lbs. For vehicles placed in service on or after January 1, 2005, the income tax credit amount is equal to 40% of the incremental cost or conversion cost for each qualified alternative-fueled motor vehicle, but not to exceed \$2,400 for each vehicle with a weight of less than 10,000 lbs.; \$4,000 for a heavy duty motor vehicle with a gross vehicle weight of greater than 10,000 lbs. but less than 26,000 lbs.; and \$40,000 for motor vehicles having a gross vehicle weight of greater than 26,000 lbs.;

For alternative-fuel fueling stations placed in service on or after January 1, 1996, and before January 1, 2005, the bill allows an income tax credit amount equal to 50% of the total amount expended for each qualified alternative-fuel fueling station but not to exceed \$200,000 for each fueling station. For alternative-fuel fueling station placed in service on or after January 1, 2005, the bill allows an income tax credit amount equal to 40% of the total amount expended for each qualified alternative-fuel fueling station, but not to exceed \$160,000 for each fueling station.

If no credit has been claimed, a credit in an amount not exceeding the lesser of 5% of the cost of the vehicle or \$750 shall be allowed to a taxpayer who purchases a motor vehicle equipped by the vehicle manufacturer with an alternative fuel system and who is unable or elects not to determine the exact basis attributable to such property. The credit under this subsection shall be allowed only to the first individual to take title to such motor vehicle, other than for resale.

If the amount of the tax credit exceeds the taxpayer's income tax liability for the taxable year, the amount which exceeds the tax liability may be carried over for three years.

Contact:

Jim Ploger

Kansas Corporation Commission

Energy Office

1500 SW Arrowhead Road

Topeka, KS 66604-4027

Phone: (785) 271-3349

Fax: (785) 271-3268

E-Mail: j.ploger@kcc.state.ks.us

Web site: <http://www.kcc.state.ks.us/energy/energy.htm>

KS-2 KANSAS

Incentive Type: Personal Tax Credit

Eligible Technologies: Renewable Fuel Vehicles, Refueling Stations

Applicable Sectors: Commercial, Industrial, Residential

Max. Limit: \$3,000; \$5,000; \$50,000 for vehicles; 50% of the total amount for each alternative-fuel fueling station, not to exceed \$200,000

Terms: Carryover for 3 years

Date Enacted: 5/13/99

Effective Date: 1/1/96

Website: http://www.kcc.state.ks.us/energy/alt_info.htm

Authority 1: [K.S.A. 79-32.201 as amended by \(1999 SB 45\)](#)

Summary:

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For vehicles placed in service on or after January 1, 1996, and before January 1, 2005, the income tax credit amount must not exceed \$3,000 for a vehicle with a weight of less than 10,000 lbs.; \$5,000 for a heavy duty motor vehicle with a weight of greater than 10,000 lbs. but less than 26,000 lbs.; and \$50,000 for motor vehicles having a weight of greater than 26,000 lbs. For vehicles placed in service on or after January 1, 2005, the income tax credit amount is equal to 40% of the incremental cost or conversion cost for each qualified alternative-fueled motor vehicle, but not to exceed \$2,400 for each vehicle with a weight of less than 10,000 lbs.; \$4,000 for a heavy duty motor vehicle with a gross vehicle weight of greater than 10,000 lbs. but less than 26,000 lbs.; and \$40,000 for motor vehicles having a gross vehicle weight of greater than 26,000 lbs.;

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If no credit has been claimed, a credit in an amount not exceeding the lesser of 5% of the cost of the vehicle or \$750 shall be allowed to a taxpayer who purchases a motor vehicle equipped by the vehicle manufacturer with an alternative fuel system and who is unable or elects not to determine the exact basis attributable to such property. The credit under this subsection shall be allowed only to the first individual to take title to such motor vehicle, other than for resale.

If the amount of the tax credit exceeds the taxpayer's income tax liability for the taxable year, the amount which exceeds the tax liability may be carried over for three years.

Contact:

Jim Ploger

Kansas Corporation Commission

Energy Office

1500 SW Arrowhead Road

Topeka, KS 66604-4027

Phone: (785) 271-3349

Fax: (785) 271-3268

E-Mail: j.ploger@kcc.state.ks.us

Web site: <http://www.kcc.state.ks.us/energy/energy.htm>

KS-3 KANSAS

Incentive Type: Production Incentive

Eligible Technologies: Renewable Transportation Fuels

Applicable Sectors: Commercial, Industrial

Amount: \$0.05 to \$0.075 for each gallon sold

Max. Limit: \$0.075 for each gallon sold

Terms: Up to 15,000,000 gallons sold

Date Enacted: 7/1/01

Effective Date: 7/1/01

Expiration Date: 7/1/2011

Website: <http://www.ksrevenue.org/pdf/forms/mf400.pdf>

Authority 1: [K.S.A 79-34.163](#)

Summary:

The Kansas Qualified Agricultural Ethyl Alcohol Producer Fund enables qualified agricultural ethyl alcohol producers to apply to the Department of Revenue for a production incentive. Producers who are in production before July 1, 2001 may receive \$0.05 for each gallon sold to an alcohol blender during 2002, 2003, and 2004. For a capacity increase by 5,000,000 gallons over base sales, \$0.075 may be collected per gallon sold that is in excess of base sales (up to 15,000,000 gallons). Producers who start production after July 1, 2001 and who have sold at least 5,000,000 gallons may receive \$0.075 for each gallon sold (up to 15,000,000 gallons).

Contact:

Patricia Platt

Kansas Department of Revenue

915 S.W. Harrison St.

Topeka, KS 66625-8000

Phone: (785) 291-3670

E-Mail: Patricia_L.Platt@kdor.state.ks.us

Web site: <http://www.ksrevenue.org>

KS-4 KANSAS

Incentive Type: Property Tax Exemption

Eligible Technologies: Solar Thermal Electric, Photovoltaics, Landfill Gas, Wind, Biomass, Hydro, Geothermal Electric

Applicable Sectors: Commercial, Industrial, Residential, Utilities

Amount: 100%

Effective Date: 1/1/99

Authority 1: [Kansas Statutes 79-201](#)

Summary:

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.

Contact:

Jim Ploger

Kansas Corporation Commission

Energy Office

1500 SW Arrowhead Road

Topeka, KS 66604-4027

Phone: (785) 271-3349

Fax: (785) 271-3268

E-Mail: j.ploger@kcc.state.ks.us

Web site: <http://www.kcc.state.ks.us/energy/energy.htm>

KS-5 KANSAS

Incentive Type: State Grant Program

Eligible Technologies: Passive Solar Space Heat, Solar Water Heat, Active Solar Space Heat, Solar Thermal Electric, Solar Thermal Process Heat, Photovoltaics, Landfill Gas, Wind, Biomass, Hydro, Renewable Transportation Fuels, Renewable Fuel Vehicles, Geothermal Electric, Fuel Cells, Geothermal Heat Pumps, Waste, Cogeneration, Energy Education, Solar

Applicable Sectors: Commercial, Industrial, Nonprofit, Schools, Local Government, Transportation, Construction, Utilities, State Government

Amount: Varies by project

Summary:

The Kansas Corporation Commission Energy Programs offers approximately \$400,000 in grants each year as part of the State Energy Program (SEP), a program of the Department of Energy. The Kansas Corporation Commission Energy Programs' goals are to accelerate the deployment of energy efficiency and renewable energy technologies and education and to facilitate the commercialization of emerging and underutilized energy efficiency and renewable energy technologies. Grants are available to fund state agencies, counties, municipalities, universities, schools, non-profit organizations, small businesses, consultants, and others. Normally this grant is not available to homeowners. All renewable energy technologies are eligible. Proposals are accepted on an ongoing basis; with applications due of March of each year.

Contact:

Jim Ploger

Kansas Corporation Commission

Energy Office

1500 SW Arrowhead Road

Topeka, KS 66604-4027

Phone: (785) 271-3349

Fax: (785) 271-3268

KS-6 KANSAS

Incentive Type: Tax Credit--personal
Eligible Technologies: AFVs
Applicable Sectors: Individual
Authority: Kansas Statutes 79-32,201

Summary:

The state offers an income tax credit equal to 50% of the incremental or conversion cost of qualified AFVs placed in service on or after January 1, 1996 and before January 1, 2005:

Vehicle GVW (lbs)	Credit
Less than 10,000	Up to \$3,000
10,000 to 26,000	Up to \$5,000
Over 26,000	Up to \$50,000

For AFVs placed in service after January 1, 2005:

Vehicle GVW (lbs)	Credit
Less than 10,000	Up to \$2,400
10,000 to 26,000	Up to \$4,000
Over 26,000	Up to \$40,000

Alternatively, a tax credit in an amount not to exceed the lesser of \$750 or 5% of the cost of an AFV shall be allowed to a taxpayer who purchases an original equipment manufacturer (OEM) AFV. This credit shall be allowed only to the first individual to take title of the vehicle. For motor vehicles capable of operating on a blend of 85% ethanol and 15% gasoline (E85), this credit is allowed for taxable years after December 31, 1999. The individual claiming the credit must provide evidence of purchasing at least 500 gallons of E85 between the time the vehicle was purchased and December 31 of the next calendar year.

The state offers an income tax credit equal to 50% of the cost of constructing or setting up a qualified alternative fuel refueling station (up to \$200,000) placed in service on or after January 1, 1996 and before January 1, 2005. For refueling stations placed in service after January 1, 2005 the tax credit may not exceed \$160,000.

These tax credits should be deducted from the taxpayer's income tax liability for the taxable year in which the expenditures are made. In the event the credit is more than the taxpayer's tax liability for that year, the remaining credit may be carried over for up to three years after the year in which the expenditures were made.

Contact:
Jim Ploger
Kansas Corporation Commission
Energy Office
1500 SW Arrowhead Road
Topeka, KS 66604-4027
Phone: (785) 271-3349
Fax: (785) 271-3268
E-Mail: j.ploger@kcc.state.ks.us
Web site:

KS-7 KANSAS

Incentive Type: Outreach
Eligible Technologies: AF (Biodiesel, ethanol)
Applicable Sectors: Federal government
Authority: Senate Concurrent Resolution 1604, 2003

Summary:

The legislature of Kansas urges the United States President and Congress to approve federal energy legislation that promotes the use of ethanol and biodiesel fuel.

Contact:
Jim Ploger
Kansas Corporation Commission

Energy Office
1500 SW Arrowhead Road
Topeka, KS 66604-4027
Phone: (785) 271-3349
Fax: (785) 271-3268
E-Mail: j.ploger@kcc.state.ks.us
Web site: www.kcc.state.ks.us/energy/alt_fuels.htm

KS-8 KANSAS

Incentive Type: Mandated purchase—Fuel
Eligible Technologies: AF, AFVs
Applicable Sectors: State government
Authority: Kansas Statutes 75-3744a

Summary:

Where available, and as long as the price is not greater than 10 cents more per gallon than the price of diesel fuel, a 2% or higher blend of biodiesel must be purchased for use in state-owned diesel powered vehicles and equipment.

Contact:

Jim Ploger
Kansas Corporation Commission
Energy Office
1500 SW Arrowhead Road
Topeka, KS 66604-4027
Phone: (785) 271-3349
Fax: (785) 271-3268
E-Mail: j.ploger@kcc.state.ks.us
Web site: www.kcc.state.ks.us/energy/alt_fuels.htm

KS-9 KANSAS

Incentive Type: Mandates—Purchases (vehicles)
Eligible Technologies: AFVs
Applicable Sectors: State government
Authority: Kansas Statutes 75-4616

Summary:

In model year 2000 and thereafter, 75% of new light-duty (less than or equal to 8,500 lbs. GVW) motor vehicles acquired by the state fleet and its agencies, which are used primarily within a metropolitan statistical area or a consolidated metropolitan statistical area, are required to be AFVs.

Contact:

Jim Ploger
Kansas Corporation Commission
Energy Office
1500 SW Arrowhead Road
Topeka, KS 66604-4027
Phone: (785) 271-3349
Fax: (785) 271-3268
E-Mail: j.ploger@kcc.state.ks.us
Web site: www.kcc.state.ks.us/energy/alt_fuels.htm

KS-10 KANSAS

Incentive Type: Loans
Eligible Technologies: AF, AFVs
Applicable Sectors: State government, local government
Authority: Kansas Statutes 75-37,116 through 75-37,119

Summary:

An alternative fuels loan program was established for the purpose of making loans to government agencies that own and operate motor vehicles to encourage the use of alternative fuels and the development of the alternative fuel infrastructure. However, no funds have been allocated for this program.

Contact:**Jim Ploger**

Kansas Corporation Commission

Energy Office

1500 SW Arrowhead Road

Topeka, KS 66604-4027

Phone: (785) 271-3349**Fax:** (785) 271-3268**E-Mail:** j.ploger@kcc.state.ks.us**Web site:** www.kcc.state.ks.us/energy/alt_fuels.htm

KY-1 KENTUCKY**Incentive Type:** Green Pricing Program**Eligible Technologies:** Photovoltaics, Landfill Gas, Wind**Applicable Sectors:** Commercial, Residential**Premium:** \$4/month/block; 150-kWh block**Co-funding:** TVA**Commitment:** Monthly**Participants:** 4,708 Residential; 214 Non-Residential**Effective Date:** 2000**Website:** <http://www.greenpowerswitch.com>**Summary:**

Currently nineteen distributors of Tennessee Valley Authority (TVA) power offer their customers the choice of participating in a green pricing market program. The program, named Green Power Switch, allows customers to voluntarily pay a premium for renewable energy generated by solar, wind, and methane gas resources produced at TVA generating locations.

Customers can participate in Green Power Switch by paying \$4/month for each 150-kWh block they wish to purchase (one block is about 12% of a typical household's monthly use). Business customers participate in the program based on the size of their kWh load. As of December 31, 2001, 4,708 residential and 214 business customers are participating in the program, for a total of 13,611 blocks purchased.

The money collected from Green Power Switch is used to construct, maintain, and operate renewable electric generating facilities owned by TVA. TVA has built the first commercial wind-powered turbines in the southeastern US on Buffalo Mountain in Anderson County, Tennessee. TVA is also in the process of developing another 20 MW wind generating site to be operational in 2003. TVA operates solar generating sites throughout the valley along with, a landfill gas site in Murfreesboro, Tennessee and a methane waste water generating site in Memphis, Tennessee.

TVA, the local public power companies, and the environmental community worked together to create the Green Power Switch Program. Approximately 40 new local power distributors in the Valley have expressed interest in joining the program in 2002. TVA is planning to make the program available to their entire seven-state area by 2005.

Alabama

- Huntsville Utilities

Kentucky

- Bowling Green Municipal Utilities

Mississippi

- North East Mississippi Electric Power Association

- City of Oxford Electric Department

Tennessee

- Appalachian Electric Cooperative

- Bristol Tennessee Electric System

- EPB (Chattanooga)

- Erwin Utilities

- Gibson Electric Membership Corporation

- Johnson City Power Board

- Knoxville Utilities Board

- Lenoir City Utilities Board

- Morristown Power System

- Mountain Electric Cooperative

- Nashville Electric Service

- Newport Utilities

- Oak Ridge Electric Department

-Powell Valley Electric Cooperative
-Sevier County Electric System

Contact:

Gary Harris
Tennessee Valley Authority
Green Power Switch
P.O. Box 292409, HRT-11D
Nashville, TN 37229-2409
Phone: (615) 232-6124
Fax: (615) 232-6038
E-Mail: gharris@tva.gov
Web site: <http://www.greenpowerswitch.com>

KY-2 KENTUCKY

Incentive Type: Green Pricing Program
Eligible Technologies: Landfill Gas
Applicable Sectors: Commercial, Industrial, Residential, Other Owen Electric customers
Premium: Minimum of \$2.75/month/block; 100-kWh block
Commitment: One year
Participants: 75
Capacity Installed/Planned: 1MW/10.4 MW
Effective Date: 12/01
Website: <http://www.owenelectric.com/EnviroWatts.htm>

Summary:

The EnviroWatts program provides Owen Electric Cooperative customers with the option to purchase a portion of their monthly power from landfill gas, a renewable energy resource. Customers can purchase 100-kWh blocks of green power for an additional minimum cost of \$2.75 each. Participants must agree to purchase a specified amount of green power for a one-year period.

In December 2001, Toyota Motor Manufacturing North America signed an agreement with Owen Electric to purchase green power. Toyota estimates that the annual usage under the contract will amount to 1,560,000 kWh, equal to the amount of power used annually by 130 average Kentucky homes.

Contact:

Customer Service - Owen Electric
Owen Electric Cooperative, Inc.
510 South Main Street
Owenton, KY 40359
Phone: (800) 372-7612
E-Mail: owenbill@owenelectric.com
Web site: <http://www.owenelectric.com/>

KY-3 KENTUCKY

Incentive Type: Rebate (equipment)
Eligible Technologies: AFV
Applicable Sectors: Non-profits, Residential

Summary:

Organizations or individuals located in non-attainment areas are eligible for Congestion Mitigation and Air Quality Improvement Program vehicle rebates for dedicated Original Equipment Manufactured (OEM) alternative fuel vehicles (AFVs): \$2,000 per dedicated light or medium-duty AFV and \$4,000 per dedicated heavy-duty AFV. There is a limit of five vehicles per fleet per calendar year, and mandated fleets are not eligible. Each participant must pay a minimum of 20% of the incremental cost. Rebates are also available for hybrid electric vehicles and low speed vehicles operating within a fleet. This rebate program expires June 30, 2004.

Contact:

Melissa Howell
Clean Cities Coordinator
Commonwealth Clean Cities Partnership, Inc.
Phone (502) 452-9152
Fax (502) 452-9152
Email kcfc@aol.com

LA-1 LOUISIANA

Incentive Type: Income Tax Credit (purchases, conversions)
Eligible Technologies: AFV
Applicable Sectors: Business, Individuals
Authority: LA [Revised Statutes](#) (RS) §47:38 and §47:287.757)

Summary:

The state offers an income tax credit worth 20% of the cost of converting a vehicle to operate on an alternative fuel, 20% of the incremental cost of purchasing an OEM AFV, and 20% of the cost of constructing an alternative fuel refueling station. For the purchase of an OEM AFV, the tax credit cannot exceed the lesser of 2% of the total cost of the vehicle or \$1,500. Only those vehicles registered in Louisiana can receive the tax credit.

Contact:

Tammy Morgan
Clean Cities Coordinator
Greater Baton Rouge Clean Cities Coalition
Phone (225) 389-8560
Fax (225) 389-8838
Email tlmorgan@brgov.com

ME-1 MAINE

Incentive Type: Net Metering Rules
Eligible Technologies: Solar Thermal Electric, Photovoltaics, Wind, Biomass, Hydro, Renewable Transportation Fuels, Geothermal Electric, Waste, Cogeneration
Applicable Sectors: Commercial, Industrial, Residential
Limit on System Size: 100 kW
Limit on Overall Enrollment: None
Treatment of Net Excess: Credited to the following month, then granted to the utility at end of annual period with no compensation
Utilities Involved: All utilities
Date Enacted: 1/1/87
Expiration Date: none
Authority 1: [Maine PUC 65-407, Chapter 313](#)

Summary:

In 1997, Maine's legislature enacted a restructuring law that provides for retail competition starting March 1, 2000. The Public Utilities Commission, which is charged with implementing the new law, issued new rules effective December 20, 1998. Included under Maine's restructuring rules are renewable technologies, fuel cells, and recycled municipal solid waste. There is no limit on the amount of energy generated through net metering.

Net excess generation can be credited to the following month until an annual period ends, at which point all excess generation is granted to the utility at no cost.

Maine has had net metering rules since 1987, when the Public Utility Commission Code provided for net metering for the state's qualified facilities with a maximum capacity of 100 kW.

Contact:

Mitchell Tannenbaum
Maine Public Utilities Commission
#18 State House Station
Augusta, ME
Phone: (207) 287-1391
E-Mail: Mitchell.tannenbaum@state.me.us

ME-2 MAINE

Incentive Type: Public Benefits Fund
Eligible Technologies: Solar Water Heat, Active Solar Space Heat, Solar Thermal Electric, Photovoltaics, Wind, Biomass, Hydro, Renewable Transportation Fuels, Geothermal Electric, Fuel Cells, Waste
Applicable Sectors: Utilities
Date Enacted: 1997
Authority 1: [35-A M.R.S.A. §3210 \(LD 1804 of 1997\)](#)
Authority 2: [ME PUC 65.407, Ch. 312](#)

Summary:

The Maine public benefits program was enacted as part of the state's 1997 electric restructuring law, and the programs are being implemented through rulemakings by the Maine Public Utilities Commission (MPUC). In general, the law provides funding for energy efficiency and low-income assistance programs based on 1999 levels. Renewables receive funding only through voluntary customer contributions.

Despite there being no mandated funding level for renewables as part of the Maine public benefits program, the law directed the MPUC to develop a voluntary program allowing consumers to contribute to a renewable energy program. Funds from this program can go toward renewable energy R&D at the University of Maine System, the Maine Maritime Academy, or the Maine Technical College System. The MPUC has ruled that utilities must offer customers the option to check off a contribution of \$1, \$5, \$10 or other amount each month on their electric bill. At least every six months, each utility must notify customers about the existence, purpose, means to contribute to the fund, and summaries of the projects that have been funded. In addition, Maine has established a renewable portfolio standard requiring that 30 percent of electricity supplies come from renewable resources. This was enacted to protect existing renewables resources in the state which comprised 51% of generation as of 1997. (see write-up on Maine's portfolio standard)

The MPUC has ruled on the development of energy efficiency programs which is funded at \$8.8 million/year (1.35 mills/kWh) since the inception of retail competition in March 2000. This funding level was determined to be comparable to the expected DSM funding levels in 1999, the last year before retail competition. Funds will be collected over three years for a total of \$26.4 million. This program provides money to residential, small commercial, and small industrial customers.

The low-income program is anticipated to be funded at the current levels of \$6.1 million (0.5 mills/kWh), with the MPUC to set the exact funding levels. The program will be administered by distribution utilities and will provide for rate assistance but not weatherization, which may be covered by other energy efficiency programs.

Contact:**Mitchell Tannenbaum**

Maine Public Utilities Commission

#18 State House Station

Augusta, ME

Phone: (207) 287-1391

E-Mail: Mitchell.tannenbaum@state.me.us

ME-3 MAINE

Incentive Type: Renewables Portfolio Standard

Eligible Technologies: Solar Thermal Electric, Photovoltaics, Wind, Biomass, Hydro, Renewable Transportation Fuels, Fuel Cells, Waste

Applicable Sectors: Utilities

Date Enacted: 1999

Effective Date: 1999

Authority 1: [35-A M.R.S.A. §3210 \(LD 1804 Public Law 316\)](#)

Authority 2: [ME PUC 65.404, Ch. 311](#)

Summary:

The State of Maine Public Utility Commission adopted a Renewable Resource Portfolio Requirement rule on September 28, 1999, and became effective November 4, 1999. The rule requires electric providers to supply at least 30% of their total retail electric sales in Maine with electricity from eligible renewable resources. Eligible resources must be a "small power production facility" that produces electricity using only a primary energy source of biomass, waste, renewable resources, or a combination of these resources and has a production capacity of 80 megawatts or less including any other facilities at the same site. A renewable resource may also be a generation facility of 100 MW or less that uses fuel cells, tidal power, solar arrays and installations, wind power installations, geothermal installations, hydroelectric generators, biomass generators, or generators fueled by municipal solid waste in conjunction with recycling. In addition to renewables, the portfolio standard can be met with "efficient resources," specifically, qualified cogeneration facilities.

Electric providers that fail to comply with the 30% RPS are subject to penalties including include license revocation, an optional payment into a renewable resource research and development fund, or other monetary penalties determined by the Maine Commission. Interesting, Maine allows electric providers to meet the RPS through averages over a period of two or more years. That is, a provider that does not satisfy the RPS during a certain annual period but meets at least 20% of the RPS, may make up for it over the next annual period so that over the two years the 30% RPS is met.

Maine presents an interesting case because the state already had the highest percentage of renewables use in the country at over 50% of total capacity, most of which is hydropower and biomass. Thus, while Maine's RPS is the highest in the country, the percentage is in fact lower than the existing level of renewables use. While this may be a threat to existing renewable power sources, it has been proposed that the New England region develop a collective portfolio standard with tradable credits. Under such a scenario, Maine could sell the credits it earns from its excess renewable energy generation to support the continued use of that renewable generation.

Contact:**Mitchell Tannenbaum**

Maine Public Utilities Commission

#18 State House Station

Augusta, ME
Phone: (207) 287-1391
E-Mail: Mitchell.tannenbaum@state.me.us

ME-4 MAINE

Incentive Type: Tax credit--Income
Eligible Technologies: Renewable Transportation Fuels
Applicable Sectors: Industrial (fuel producers)
Authority 1: Legislative Document (LD) 1492, 2004 and Maine Revised Statutes (MRSA) Title 36 §5219-W

Summary:

There is a state income tax credit of \$0.05 per gallon for the production of biofuels for use in motor vehicles or otherwise substitute for liquid fuels. A taxpayer claiming this credit must provide information to the Commissioner of Environmental Protection regarding the biofuel being produced, including the type of forest or agricultural product being utilized, the nature and composition of the biofuel being produced, the proportion and composition of any nonbiofuel with which the biofuel is blended and the type of application for which it is intended to be used. Upon review of the information, the commissioner will provide the taxpayer with a letter of certification that the biofuel produced during the taxable year is eligible for this tax credit. For blends of biofuels with petroleum or other nonbiofuels the credit is allowed only on the portion of that blend that the biofuel constitutes. Any portion of unused credits may be carried over for the succeeding five taxable years.

Contact:

Steve Linnell
Clean Cities Coordinator
Maine Clean Communities
Phone (207) 774-9891
Fax (207) 774-7149
Email slinnell@GPCOG.org

ME-5 MAINE

Incentive Type: Tax exemption-Sales (vehicles)
Eligible Technologies: Renewable Transportation Fuels
Applicable Sectors: Transportation
Authority 1: MRSA Title 36 §1752 and §1760-79)

Summary:

Maine provides a partial tax exemption for the purchase of clean-fuel vehicles. For original equipment manufacturer (OEM) vehicles, the incremental cost of the sale or lease of a clean-fuel vehicle for which there is an identical gasoline-powered vehicle is tax-exempt. If there is no identical vehicle powered by gasoline, 30% of the sale or lease price of an internal combustion engine clean-fuel vehicle, and 50% of the sale or lease price of a clean-fuel vehicle either fully or partly powered by electricity stored in batteries, generated by a dynamic flywheel or generated by a fuel cell on board the vehicle, is tax-exempt. The tax exemption expires January 1, 2006. Clean-fuels include, but are not limited to, compressed natural gas (CNG); liquefied natural gas; liquefied petroleum gas (LPG); hydrogen; hythane; dynamic flywheels; solar energy; alcohol fuels containing not less than 85% alcohol by volume; and electricity.

Contact:

Lynne Cayting of the Department of Environmental Protection at (207) 287-7599, or via email at lynne.a.cayting@state.me.us.

ME-6 MAINE

Incentive Type: Tax Credit--Corporate
Eligible Technologies: Renewable Transportation Fuels
Applicable Sectors: Commercial (refueling stations)
Authority 1: MRSA Title 36 § 5219-P

Summary:

A tax credit is available for the construction or installation of, or improvements to, any refueling or charging station for the purposes of providing clean fuels to the general public for use in motor vehicles. The qualifying percentage is 25% for expenditures made from January 1, 2002 to December 31, 2005.

Contact:

Steve Linnell
Clean Cities Coordinator
Maine Clean Communities

Phone (207) 774-9891
Fax (207) 774-7149
Email slinnell@GPCOG.org

ME-7 MAINE

Incentive Type: Mandate purchases (AFVs)
Eligible Technologies: AFVs
Applicable Sectors: State government
Authority 1: Executive Order 5, 2002

Summary:

In addition to promoting improved vehicle fuel efficiency, state agencies shall promote the procurement of dedicated alternative fuel vehicles, dual fuel vehicles (AFVs) and supporting refueling infrastructures.

Contact:

Steve Linnell
Clean Cities Coordinator
Maine Clean Communities
Phone (207) 774-9891
Fax (207) 774-7149
Email slinnell@GPCOG.org

ME-8 MAINE

Incentive Type: Outreach
Eligible Technologies: AFVs, Renewable Transportation Fuels
Applicable Sectors: State government
Authority 1: LD 1184 and Executive Order 11, 2004

Summary:

The Energy Resources Council, in coordination with the Department of Environmental Protection, shall study the costs and benefits of state government actions to stimulate an increase in use of alternative fuels and AFVs as well as stimulate the use and production of biofuels in the State pursuant to Resolve 2003, Chapter 50.

Contact:

Steve Linnell
Clean Cities Coordinator
Maine Clean Communities
Phone (207) 774-9891
Fax (207) 774-7149
Email slinnell@GPCOG.org

ME-9 MAINE

Incentive Type: Grants, loans
Eligible Technologies: all
Applicable Sectors: Renewable Energy
Authority 1: LD 805, 2003

Summary:

The Sustainable Energy Trust Fund was established to provide loans or other financial assistance to support sustainable energy projects. The Finance Authority of Maine, in consultation with the Energy Resources Council, is directed to adopt rules governing eligibility, project feasibility and terms and conditions for loans or other financial assistance, including grants. Sustainable energy projects eligible for financial support may include demonstration projects that promote or support clean transportation alternatives.

Contact:

Steve Linnell
Clean Cities Coordinator
Maine Clean Communities
Phone (207) 774-9891
Fax (207) 774-7149
Email slinnell@GPCOG.org

ME-10 MAINE

Incentive Type: Mandates—Standards (emission)

Eligible Technologies: AFVs

Applicable Sectors: Transportation

Authority 1: New Motor Vehicle Emission Standards, Department of Environmental Protection, Chapter 127

Summary:

Maine has adopted the California vehicle exhaust emissions requirements, excluding the zero emission vehicle mandate. This regulation applies to any Model Year (MY) 2001 and subsequent MY passenger cars and light duty trucks, MY 2003 and subsequent MY medium-duty vehicles, and MY 2005 and 2006 heavy-duty vehicles and diesel engines.

Contact:

Steve Linnell

Clean Cities Coordinator

Maine Clean Communities

Phone (207) 774-9891

Fax (207) 774-7149

Email slinnell@gpcog.org

ME-11 MAINE

Incentive Type: Tax Credit--Corporate

Eligible Technologies: Renewable Transportation Fuels

Applicable Sectors: Commercial (refueling stations)

Authority 1: Statutes Title 36 §5219P

Summary:

A taxpayer is allowed a credit for the construction, installation or improvements to any alternative fuel refueling or charging station. The value of this credit is equal to the qualifying percentage of expenditures paid or incurred. The qualifying percentage of expenditures is 50% from January 1, 1999, to December 31, 2001, and 25% from January 1, 2002, to December 31, 2005.

Contact:

Steve Linnell

Clean Cities Coordinator

Maine Clean Communities

Phone (207) 774-9891

Fax (207) 774-7149

Email slinnell@gpcog.org

ME-12 MAINE

Incentive Type: Loans

Eligible Technologies: AFVs, Renewable Transportation Fuels

Applicable Sectors: Transportation

Authority 1: MRSA Title 10 §1023-K and §1026-P

Summary:

The Finance Authority of Maine manages the Clean Fuel Vehicle Fund, a non-lapsing revolving loan fund that may be used for direct loans to finance all or part of any clean-fuel vehicle project. The Authority may also insure up to 100% of mortgage payments with respect to mortgage loans for clean-fuel vehicle projects.

Contact:

Steve Linnell

Clean Cities Coordinator

Maine Clean Communities

Phone (207) 774-9891

Fax (207) 774-7149

Email slinnell@gpcog.org

ME-13 MAINE

Incentive Type: Grants, loans
Eligible Technologies: AFVs, Renewable Transportation Fuels
Applicable Sectors: Transportation
Authority 1: MRSA Title 10 §997-A

Summary:

The Agriculturally Derived Fuel Fund was developed to provide direct loans and subsidies to a business or cooperative for the design and construction of a facility to produce agriculturally derived fuel, such as methanol and ethanol. It is a non-lapsing fund, which is controlled by the Finance Authority of Maine.

Contact:

Steve Linnell
Clean Cities Coordinator
Maine Clean Communities
Phone (207) 774-9891
Fax (207) 774-7149
Email slinnell@GPCOG.org

ME-14 MAINE

Incentive Type: Tax Imposition—Use (AF)
Eligible Technologies: Renewable Transportation Fuels
Applicable Sectors: Transportation
Authority 1: MRSA Title 36 §3203

Summary:

The State Highway tax for each special fuel used in transportation is based on each fuel's energy content relative to gasoline. Ethanol (E85) is taxed at a rate of \$0.156 per gallon, propane (LPG) at \$0.16 per gallon, and compressed natural gas (CNG) at \$0.191 per 100 standard cubic feet. Gasoline is taxed at a rate of \$0.22 per gallon.

Contact:

Steve Linnell
Clean Cities Coordinator
Maine Clean Communities
Phone (207) 774-9891
Fax (207) 774-7149
Email slinnell@GPCOG.org

ME-15 MAINE

Incentive Type: Outreach
Eligible Technologies: AFVs
Applicable Sectors: Commercial
Authority 1: MRSA Title 24-A §2303-B)

Summary:

An insurer may credit or refund any portion of the premium charges for an insurance policy for a clean-fuel vehicle in order to encourage its policyholders to use clean-fuel vehicles if insurance premiums on other vehicles are not increased to fund these credits or refunds.

Contact:

Steve Linnell
Clean Cities Coordinator
Maine Clean Communities
Phone (207) 774-9891
Fax (207) 774-7149
Email slinnell@GPCOG.org

MD-1 MARYLAND

Incentive Type: Corporate Tax Credit
Eligible Technologies: Solar Water Heat, Active Solar Space Heat, Solar Thermal Process Heat, Photovoltaics, Landfill Gas, Biomass
Applicable Sectors: Commercial, Industrial
Amount: 15%
Max. Limit: \$1000 for solar thermal; \$2000 for PV

Date Enacted: 7/1/2000
Effective Date: 7/1/2000
Expiration Date: 7/1/2004
Website: <http://www.energy.state.md.us/cleanincentives.html>
Authority 1: [Maryland Code: Tax - General § 10-719 -- 10-720](#)

Summary:

The Maryland Clean Energy Incentive Act, which went into effect on July 1, 2000, provides Maryland sales tax exemptions or income tax credits when purchasing certain qualifying high efficiency Energy Star appliances, electric and hybrid-electric vehicles, and certain renewable resource energy systems.

Regarding renewable energy incentives, an individual or a corporation may claim a state income tax credit of 15% of the total installed cost of a solar water heating or photovoltaic system. The maximum credit is \$2,000 for a PV system and \$1,000 for a solar water heating system. The unused amount of the credit for any taxable year may not be carried over to any other taxable year. Eligible systems must meet performance, quality standards, and certification requirements specified by the Maryland Energy Administration. Swimming pool and hot tub systems are excluded.

The Act also provides for a personal or corporate income tax credit for the production of electricity from commercial and industrial waste, forestry (excluding old growth residue) and agricultural by-products, and landfill and anaerobic digestion biogas. The credit is 0.85¢/kWh (or 0.5¢/kWh for electricity generated in a co-fired plant). The electricity must be sold to an unrelated party to take advantage of the credit. The unused amount of the credit may be carried forward and applied for succeeding taxable years for up to ten years.

Contact:

Tim LaRonde

Maryland Energy Administration
1623 Forest Drive, Suite 300
Annapolis, MD 21403

Phone: (410) 260-7539

Fax: (410) 974-2250

E-Mail: tlaronde@energy.state.md.us

Web site: <http://www.energy.state.md.us>

Louise Collins

Comptroller of Maryland
Revenue Administration Division
Annapolis, MD 21411-0001

Phone: (410) 260-7980

E-Mail: lcollins@comp.state.md.us

Web site: <http://www.marylandtaxes.com/default.asp>

MD-2 MARYLAND

Incentive Type: Corporate Tax Credit

Eligible Technologies: Photovoltaics, Wind, Fuel Cells

Applicable Sectors: Commercial, Industrial, Multi-Unit Residential

Amount: 6-8% Green Bldg; 20-25% PV; 25% Wind; 30% Fuel Cell

Terms: 10-year carry forward

Date Enacted: 7/1/01

Effective Date: 7/1/01; eligible costs; credits: 2003 tax year

Expiration Date: 12/31/11

Website: <http://business.marylandtaxes.com/taxinfo/taxcredit/greenbldg/default.asp>

Authority 1: [Maryland Code: Tax - General § 10-722 \(HB 8 of 2001\)](#)

Summary:

Passed by the Maryland legislature in 2001, this income tax credit applies to nonresidential and residential multifamily buildings of at least 20,000 square feet that are constructed or rehabilitated to meet criteria set forth by the US Green Building Council or other similar criteria.

Newly constructed buildings must be located on a qualified brownfields site, or in a priority funding area, and not in a wetlands area.

Building rehabilitation projects are eligible if they do not increase the size of the building by 25%, or if they are located in a priority funding area.

Credits apply to three types of alternative energy sources: photovoltaics, wind turbines and fuel cells. Tax credits for alternate energy sources can only be claimed if they serve a green whole building, a green base building, or green tenant space.

The tax credit amounts are as follows:

- 20% of the incremental cost for building-integrated photovoltaics;
- 25% of the incremental cost for nonbuilding-integrated photovoltaics;
- 30% of the costs, including installation, for a fuel cell;

- 25% of the costs, including installation, for a wind turbine;
- 6% of the allowable costs for the construction of or rehabilitation to a green base building or green tenant space;
- 8% of the allowable costs for the construction or rehabilitation of a green whole building.
- Allowable costs cannot exceed \$120 in the case of a whole building or base building and \$60 in the case of green tenant space.

Credits will be allowed for amounts spent on or after July 1, 2001 and will be available for tax years beginning after December 31, 2002. Once the taxpayer applies for the credit from the Maryland Energy Administration, he/she will be issued an initial credit certificate. This credit certificate will provide the earliest taxable year that the credit may be claimed and an expiration date. Any unused credit may be carried forward and applied for succeeding taxable years for up to 10 years. There are some restrictions on eligibility and there is an annual cap on the total number of credits allowed.

These provisions are scheduled to expire on December 31, 2011.

Contact:

Susanne Sullivan

Maryland Energy Administration

1623 Forest Drive, Suite 300

Annapolis, MD 21403

Phone: (800) 723-6374

Fax: (410) 974-2250

E-Mail: ssullivan@energy.state.md.us

Web site: <http://www.energy.state.md.us/>

Information Specialist

Comptroller of Maryland

Revenue Administration Division

Annapolis, MD 21411-0001

Phone: (410) 260-7980

E-Mail: taxhelp@comp.state.md.us

Web site: <http://www.marylandtaxes.com/default.asp>

MD-3 MARYLAND

Incentive Type: Personal Tax Credit

Eligible Technologies: Solar Water Heat, Active Solar Space Heat, Photovoltaics, Landfill Gas, Biomass

Applicable Sectors: Commercial, Residential

Amount: 15%

Max. Limit: \$1000 for solar thermal; \$2000 for PV

Date Enacted: 7/1/2000

Effective Date: 7/1/00

Expiration Date: 7/1/2004

Website: <http://www.energy.state.md.us/cleanincentives.html>

Authority 1: [Maryland Code: Tax - General § 10-719 -- 10-720](#)

Summary:

The Maryland Clean Energy Incentive Act, which went into effect on July 1, 2000, provides Maryland sales tax exemptions or income tax credits when purchasing certain qualifying high efficiency Energy Star appliances, electric and hybrid-electric vehicles, and certain renewable resource energy systems.

An individual or a corporation may claim a state income tax credit of 15% of the total installed cost of a solar water heating or photovoltaic system. The maximum credit is \$2,000 for a PV system and \$1,000 for a solar water heating system. The unused amount of the credit for any taxable year may not be carried over to any other taxable year. Eligible systems must meet performance, quality standards, and certification requirements specified by the Maryland Energy Administration. Swimming pool and hot tub systems are excluded.

In addition, the Act also provides for a personal or corporate income tax credit for the production of electricity from commercial and industrial waste, forestry (excluding old growth residue) and agricultural by-products, and landfill and anaerobic digestion biogas. The credit is 0.85¢/kWh (or 0.5¢/kWh for electricity generated in a co-fired plant). The electricity must be sold to an unrelated party to take advantage of the credit. The unused amount of the credit may be carried forward and applied for succeeding taxable years for up to ten years.

Contact:

Tim LaRonde

Maryland Energy Administration

1623 Forest Drive, Suite 300

Annapolis, MD 21403

Phone: (410) 260-7539

Fax: (410) 974-2250

E-Mail: tlaronde@energy.state.md.us

Web site: <http://www.energy.state.md.us>

Louise Collins

Comptroller of Maryland
Revenue Administration Division
Annapolis, MD 21411-0001

Phone: (410) 260-7980

E-Mail: lcollins@comp.state.md.us

Web site: <http://www.marylandtaxes.com/default.asp>

MD-4 MARYLAND

Incentive Type: Personal Tax Credit

Eligible Technologies: Photovoltaics, Wind, Fuel Cells

Applicable Sectors: Commercial, Industrial, Multi-Unit Residential

Amount: 6-8% Green Bldg; 20-25% PV; 25% Wind; 30% Fuel Cell

Terms: 10-year carry forward

Date Enacted: 7/1/01

Effective Date: 7/1/01

Expiration Date: 12/31/11

Website: <http://business.marylandtaxes.com/taxinfo/taxcredit/greenbldg/default.asp>

Authority 1: [Maryland Code: Tax - General § 10-722 \(HB 8 of 2001\)](#)

Summary:

Passed by the Maryland legislature in 2001, this income tax credit applies to nonresidential and residential multifamily buildings of at least 20,000 square feet that are constructed or rehabilitated to meet criteria set forth by the US Green Building Council or other similar criteria.

Newly constructed buildings must be located on a qualified brownfields site, or in a priority funding area, and not in a wetlands area.

Building rehabilitation projects are eligible if they do not increase the size of the building by 25%, or if they are located in a priority funding area.

Credits apply to three types of alternative energy sources: photovoltaics, wind turbines and fuel cells. Tax credits for alternate energy sources can only be claimed if they serve a green whole building, a green base building, or green tenant space.

The tax credit amounts are as follows:

- 20% of the incremental cost for building-integrated photovoltaics;
- 25% of the incremental cost for nonbuilding-integrated photovoltaics;
- 30% of the costs, including installation, for a fuel cell;
- 25% of the costs, including installation, for a wind turbine;
- 6% of the allowable costs for the construction of or rehabilitation to a green base building or green tenant space;
- 8% of the allowable costs for the construction or rehabilitation of a green whole building.
- Allowable costs cannot exceed \$120 in the case of a whole building or base building and \$60 in the case of green tenant space.

Definitions for green base building, green whole building, and green tenant space must meet the criteria set forth in the US Green Building Council or other similar criteria.

Once the taxpayer applies for the credit from the Maryland Energy Administration, they will be issued an initial credit certificate. This credit certificate will provide the earliest taxable year that the credit may be claimed and an expiration date. Any unused credit may be carried forward and applied for succeeding taxable years for up to 10 years. There are some restrictions on eligibility and there is an annual cap on the total number of credits allowed.

These provisions are scheduled to expire on December 31, 2011.

Contact:

Susanne Sullivan

Maryland Energy Administration
1623 Forest Drive, Suite 300
Annapolis, MD 21403

Phone: (800) 723-6374

Fax: (410) 974-2250

E-Mail: ssullivan@energy.state.md.us

Web site: <http://www.energy.state.md.us/>

Information Specialist

Comptroller of Maryland
Revenue Administration Division
Annapolis, MD 21411-0001

Phone: (410) 260-7980

E-Mail: taxhelp@comp.state.md.us

Web site: <http://www.marylandtaxes.com/default.asp>

MD-5 MARYLAND

Incentive Type: Sales Tax Exemption

Eligible Technologies: Fuel Cells

Applicable Sectors: Commercial

Amount: 100%

Max. Limit: none

Date Enacted: 7/1/2000

Effective Date: 7/1/2000

Expiration Date: 7/1/2004

Website: <http://www.energy.state.md.us/cleanincentives.html>

Authority 1: [Maryland Code: Tax - General § 11-226](#)

Summary:

The Maryland Clean Energy Incentives Act provides for a sales tax exemption for fuel cells that: (i) generate electricity and heat using an electrochemical process; (ii) have an electricity-only generation efficiency greater than 35%; and (iii) have a generating capacity of at least 2 kW.

Under Maryland law, sales tax for many types of heating, ventilation, and air conditioning equipment is charged at the wholesale level and not to the consumer directly. Therefore, in this case, the contractor who installs the fuel cell is the one who would pay the sales tax and, therefore, is eligible to receive the tax exemption.

The process for obtaining the tax exemption for the following equipment requires the applicant to submit four documents to the Maryland Comptrollers Office: (1) system components purchased as a package; (2) Invoice from vendor showing sales tax was actually paid; (3) Statement or Certification from manufacturer, vendor or accepted industry rating association showing that the system meets applicable efficiency rating requirements; (4) Comptroller Sales and Use Tax Refund Application (Form # COT/ST 205).

Louise Collins

Comptroller of Maryland

Revenue Administration Division

Annapolis, MD 21411-0001

Phone: (410) 260-7980

E-Mail: lcollins@comp.state.md.us

Web site: <http://www.marylandtaxes.com/default.asp>

MD-6 MARYLAND

Incentive Type: Sales Tax Exemption

Eligible Technologies: Biomass

Applicable Sectors: Residential

Amount: 100%

Max. Limit: None

Authority 1: [Maryland Code: Tax - General § 11-207](#)

Summary:

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.

Information Specialist

Comptroller of Maryland

Revenue Administration Division

Annapolis, MD 21411-0001

Phone: (410) 260-7980

E-Mail: taxhelp@comp.state.md.us

Web site: <http://www.marylandtaxes.com/default.asp>

MD-7 MARYLAND

Incentive Type: Generation Disclosure

Eligible Technologies: Solar Thermal Electric, Photovoltaics, Wind, Biomass, Hydro

Applicable Sectors: Utilities

Fuel Mix: Yes

Emissions: Yes

Std Format: Yes

Date Enacted: 1999
Effective Date: 7/00
Website: <http://www.psc.state.md.us/psc/home.htm>
Authority 1: [Maryland Code § 7-505 \(1999 Senate Bill 300\)](#)
Authority 2: [MD PSC Case 8738, Order 76241](#)

Summary:

As part of its 1999 electric utility restructuring legislation, Maryland included provisions for the disclosure of fuel mixes and emissions by all retail suppliers of electricity in the state. Beginning July 1, 2000, this information must be provided in a standard format to customers every six months. Electric bills must list by percentage electricity supplied by the following sources: coal, natural gas, nuclear, oil, hydroelectric, solar, biomass, wind, and other resources, or disclosure of a regional fuel mix average. Fuel mix data should be based on annually updated historical data.

Emissions information must also be provided by electric suppliers on a pound per megawatt-hour basis, of pollutants identified by the Commission, or disclosure of a regional fuel mix average.

Contact:

Geraldine Nicholson
Maryland Energy Administration
1623 Forest Drive
Suite 300
Annapolis, MD 21403
Phone: (410) 260-7207
Fax: (410) 974-2250
E-Mail: mea@energy.state.md.us
Web site: <http://www.energy.state.md.us>

MD-8 MARYLAND

Incentive Type: Green Power Purchasing/Aggregation
Eligible Technologies: Landfill Gas, Wind, Biomass, Waste
Applicable Sectors: State Government
% Renewables: 6%
Date Enacted: 3/13/01
Effective Date: 3/13/01
Authority 1: [Executive Order 01.01.2001.02](#)

Summary:

Maryland Governor Parris Glendening issued an executive order on March 13, 2001 calling for at least 6% of the electricity consumed by state-owned facilities to be generated from "green" energy sources, such as wind, solar, landfill gas, and other biomass resources. The order specifies that no more than 50% of the power procured to meet the requirement come from municipal solid waste facilities. There are no penalties for agencies that do not comply.

The order also calls for a reduction in energy use in state buildings of 10% by 2005 and 15% by 2010, and requires all new energy-using products to carry the "Energy Star" label or "be in the top 25% of energy-efficiency when labeled products are unavailable." The Executive Order also makes it easier for the State to purchase alternative-fuel and low-emission vehicles for its fleet.

Furthermore, the Governor's Order establishes a 16-member Green Buildings Council to develop a High Efficiency Green Buildings Program which will guide the design, construction, operations and maintenance of all new state-built facilities, as well as the renovations of existing state owned and leased buildings.

This comprehensive green initiative is designed to help Maryland meet the goals of the Chesapeake 2000 Agreement, the landmark regional pact that requires aggressive new efforts by States in the mid-Atlantic to redirect land use and conservation policies to significantly reduce the release of noxious pollutants into the Bay.

Contact:

Geraldine Nicholson
Maryland Energy Administration
1623 Forest Drive
Suite 300
Annapolis, MD 21403
Phone: (410) 260-7207
Fax: (410) 974-2250
E-Mail: mea@energy.state.md.us
Web site: <http://www.energy.state.md.us>

MD-9 MARYLAND

Incentive Type: Rebates

Eligible Technologies: AFVs

Applicable Sectors: State Government, local government

Authority 1:

Summary:

The Maryland Energy Administration (MEA) has a limited amount of money to help offset the purchase of alternative fuel shuttle and school buses. The rebate will pay up to \$10,000 of the incremental cost of purchasing an alternative fuel shuttle bus. To receive the rebate, first confirm that funds are available by contacting Michael Li, (410) 260-7183, or via email at mli@energy.state.md.us. After purchasing a qualified vehicle, submit the receipt or invoice to MEA along with documentation of the incremental cost. This rebate does not apply to vehicle fleets mandated to comply with the Energy Policy Act of 1992 (EPAAct).

Contact:

Michael Li

Metropolitan Baltimore Clean Cities Coordinator

Maryland Energy Administration

1623 Forest Drive

Suite 300

Annapolis, MD 21403

Phone: (410) 260-7655

Fax: (410) 974-2250

E-Mail: mli@energy.state.md.us

Web site: <http://www.energy.state.md.us>

MD-10 MARYLAND

Incentive Type: Grants

Eligible Technologies: AFVs

Applicable Sectors: Local government, businesses

Authority 1:

Summary:

The MWCOC administers the Advanced Technology Vehicle Program - The Clean Alternative, which is funded by the MDOT and offers flexible incentives to private companies and local governments to cover the incremental cost of dedicated CNG and other clean-fuel vehicles that reduce emissions of nitrogen oxides (NOx). In order to qualify for these incentives, interested businesses/organizations must meet certain criteria: the business/organization must have been in operation at least five years and have more than 10 vehicles in their fleet (exceptions may be made); fuel use must be greater than 3,000 gallons, or more than 45,000 miles traveled per year/per vehicle; and the vehicles must be registered in Maryland and operate in the Washington, DC metropolitan area or the Baltimore metropolitan area. The exact amount of financial support is determined on a case-by-case basis, taking expected emissions benefits and other criteria into consideration.

Contact:

Daivamani (Siva) Sivasailam of MWCOC at (202) 962-3226, via email at siva@mwccog.org, or visit the Web site at www.mwccog.org/transportation/activities/clean.

MD-11 MARYLAND

Incentive Type: Mandated-Purchases (vehicle)

Eligible Technologies: AFVs,

Applicable Sectors: State Government

Authority 1: Executive Order 01.01.2001.02

Summary:

Maryland established an alternative fuel vehicle (AFV) goal under the plan for 'Sustaining Maryland's Future with Clean Power, Green Buildings and Energy Efficiency.' The State shall revise fleet policy and purchasing guidelines to offer more flexibility in purchasing, where practical, low emission vehicles and AFVs for its fleet. The State shall ensure that an average of 50% of the fuel used by bi-fuel and flex-fuel vehicles shall be alternative fuel. The State shall help develop the refueling and maintenance infrastructure required to make certain types of AFVs practical and may provide technical assistance and other incentives to use clean technology, where practical, in State transit fleets.

Contact:

Michael Li

Metropolitan Baltimore Clean Cities Coordinator

Maryland Energy Administration

1623 Forest Drive

Suite 300
Annapolis, MD 21403
Phone: (410) 260-7655
Fax: (410) 974-2250
E-Mail: mli@energy.state.md.us
Web site: <http://www.energy.state.md.us>

MA-1 MASSACHUSETTS

Incentive Type: Corporate Deduction

Eligible Technologies: Passive Solar Space Heat, Solar Water Heat, Active Solar Space Heat, Solar Thermal Electric, Photovoltaics, Wind, Biomass, Hydro, Renewable Transportation Fuels, Geothermal Electric, Waste

Applicable Sectors: Commercial, Industrial, Residential

Amount: 100% deduction

Terms: Allowable for 5 years

Date Enacted: 1/1/79

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

Authority 1: [M.G.L. ch. 62, sec. 2\(a\)\(2\)\(G\)](#)

Summary:

Massachusetts offers both corporate and personal income tax deductions for any income received from the sale of or royalty income from a patent that is deemed beneficial for energy conservation or alternative energy development. The Commissioner of Energy Resources determines whether a patent is eligible, and part of the criteria is that the patent is ". . . of economic value, practicable, and necessary." This deduction, if granted, may be used for five years after it is granted. This deduction is unique among incentives in that it targets patents and not simply real property.

Contact:

Public Information Officer

Massachusetts Division of Energy Resources

70 Franklin Street

7th Floor

Boston, MA 02110-1313

Phone: (617) 727-4732

Fax: (617) 727-0030

E-Mail: DOER.Energy@State.MA.US

Web site: <http://www.mass.gov/doer>

MA-2 MASSACHUSETTS

Incentive Type: Personal Deduction

Eligible Technologies: Passive Solar Space Heat, Solar Water Heat, Active Solar Space Heat, Solar Thermal Electric, Photovoltaics, Wind, Biomass, Hydro, Renewable Transportation Fuels, Geothermal Electric, Waste

Applicable Sectors: Commercial, Industrial, Residential

Amount: 100% deduction

Terms: Allowable for 5 years

Date Enacted: 1/1/79

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

Authority 1: [M.G.L. ch. 62, sec. 2\(a\)\(2\)\(G\)](#)

Summary:

Massachusetts offers both corporate and personal income tax deductions for any income received from the sale of or royalty income from a patent that is deemed beneficial for energy conservation or alternative energy development. The Commissioner of Energy Resources determines whether a patent is eligible, and part of the criteria is that the patent is ". . . of economic value, practicable, and necessary." This deduction, if granted, may be used for five years after it is granted. This deduction is unique among incentives in that it targets patents and not simply real property.

Contact:

Public Information Officer

Massachusetts Division of Energy Resources

70 Franklin Street

7th Floor

Boston, MA 02110-1313

Phone: (617) 727-4732

Fax: (617) 727-0030

E-Mail: DOER.Energy@State.MA.US

Web site: <http://www.mass.gov/doer>

MA-3 MASSACHUSETTS

Incentive Type: State Grant Program

Eligible Technologies: Passive Solar Space Heat, Solar Water Heat, Active Solar Space Heat, Photovoltaics, Wind, Fuel Cells, Geothermal Heat Pumps, Daylighting

Applicable Sectors: Commercial, Nonprofit, Local Government, State Government

Amount: \$20,000 (feasibility studies); \$500,000 (design & construction); \$30,000 (education)

Effective Date: 2002

Website: http://www.mtpc.org/RenewableEnergy/Green_Buildings.htm

Summary:

The Massachusetts Green Building Initiative, launched in March 2002, provides competitive awards to fund the planning and construction of renewable technologies in all types of Green Buildings. The Initiative selects awardees on a competitive basis from two separate categories of applicants: public and tax-exempt nonprofit organizations, and private and other nonprofit organizations. The Initiative is administered by the Massachusetts Technology Collaborative (MTC) and funded through the Massachusetts Renewable Energy Trust, the state's public benefits fund (see DSIRE summary) created in 1997 as a result of the state's electric utility industry restructuring legislation.

The following Green Building grant opportunities are available:

1. Early Stage Feasibility Study Grants of up to \$20,000 to support the costs of early stage feasibility studies to evaluate and assess the inclusion of eligible renewable energy technologies and related renewable energy and energy efficiency features in new green building construction, or major renovation or rehabilitation projects. Over \$500,000 in total funding is available.

A 100% matching cost share (e.g., \$20,000 match for \$20,000 Trust funds) will be required of successful applicants that are private for-profit entities or are non-profit organizations that are not tax-exempt. In-kind contributions will not be counted towards the match requirement. There is no mandatory cost share for public sector and tax-exempt non-profit applicants.

Applications will be considered for projects that involve either new construction or major renovation or rehabilitation and that will commence construction within two years, and be completed within five years of the date of the grant award. Applications can be made for any type of building. Multiple buildings being developed jointly at a single site may be submitted as a single project or as separate projects.

2. Design And Construction Grants of up to \$500,000 per project to support the costs of eligible renewable energy technologies, and related renewable energy and energy efficiency features in new green building construction or major renovation or rehabilitation projects. A total of \$13.5 million is available.

The grant may be used to support a range of activities, including the costs associated with the planning and design, and the purchase and installation of the eligible renewable energy technologies. A minimum of seventy (70%) percent of the grant must be used for the costs resulting in the purchase, installation, and commissioning of the eligible renewable energy technologies that actively generate electricity. The remaining 30% may be used for other renewable and energy efficiency features. MTC will reimburse grantees for 75% of the incremental first costs of these technologies and features, subject to the maximum grant amount.

In order to be eligible for assistance under this Solicitation, the project must be a "green building." The U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED) rating system is the preferred benchmark for the Green Building Initiative. Applicants are not required to undertake green building certification of their proposed project under LEED. However, projects that commit to undertake certification will receive additional points in the evaluation rankings.

3. Public Education and Awareness Grants of up to \$30,000 per project to support a broad range of activities to educate and demonstrate the benefits of and the practices involved in completed green building projects. A total of \$600,000 in funding is available. Examples of eligible activities include, but are not limited to, the following:

- Information dissemination activities about the building's green and renewable energy attributes;
- Workshops for building professionals concerning design and construction practices, or the renewable energy or green attribute processes;
- Activities that promote the recognition and consideration of the value of green building and renewable energy attributes among real estate, insurance and finance professionals;
- Public awareness displays and tours; and
- Use of the green building as part of an educational curriculum.

Owners of eligible projects may submit an application for any type of building or group of buildings. Applicants for projects located in Massachusetts investor-owned electric distribution company service territories are preferred. However, as there are only a few qualified green buildings at present, MTC will consider funding requests relating to projects sited in municipal utility service territories or outside the Commonwealth.

Contact:

Quincy Vale

Massachusetts Technology Collaborative
Renewable Energy Trust

75 North Drive
Westborough, MA 01581
Phone: (508) 870-0312
Fax: (508) 898-2275
E-Mail: vale@mtpc.org
Web site: <http://www.mtpc.org/RenewableEnergy/index.htm>

MA-4 MASSACHUSETTS

Incentive Type: State Grant Program

Eligible Technologies: Passive Solar Space Heat, Solar Water Heat, Active Solar Space Heat, Photovoltaics, Wind, Fuel Cells, Geothermal Heat Pumps, Daylighting

Applicable Sectors: Schools

Amount: Up to \$20,000 for feasibility grants; Up to \$630,000 for design and construction assistance grants

Effective Date: 2002

Website: <http://www.mtpc.org/massrenew/greenschools.htm>

Summary:

The Massachusetts Green Schools Initiative provides information services, and funding for feasibility studies, design, construction, and ongoing green education activities of green public schools employing renewable technologies. This program is the result of a new partnership between the Massachusetts Technology Collaborative's Renewable Energy Trust and the Massachusetts Department of Education's School Building Assistance Program. The Renewable Energy Trust is the state's public benefits fund (see DSIRE summary) created in 1998 as a result of the state's electric utility industry restructuring legislation.

With \$13.5 million in total funding available, the program's initial funding (Track I) offered design and construction funding on a competitive basis for major school renovation or construction projects. This track is now closed. Funding is currently available under Track II, which provides (1.) educational workshops; (2.) feasibility study grants of up to \$20,000; and (3.) design/construction awards of up to \$630,000. Technical and/or financial resources are available to Pilot Program participants in each.

1. Workshops and Information Service

On-site workshops are available to school districts upon written request to the Trust that will assist school officials and their consultants to increase their baseline knowledge of high-performance green building principles, practices, and resources.

2. Feasibility Study

Grant awards of up to \$20,000 are available for 40 school building projects to support one or more feasibility studies of high-performance green design and building options.

3. Design and Construction Assistance

The Trust expects to select five new construction and five major renovation projects distributed throughout the Commonwealth for high-performance green school design and construction grant awards. Successful applicants will be eligible for the following:

a) Design Assistance

The Trust will pay up to \$130,000 per project for incremental high-performance green school planning and design costs.

b) Construction and Post-Construction Assistance

The state's Department of Education will add two percentage points to the calculation of the total facilities grant for approved school projects that qualify as Massachusetts Green Schools, and will strongly consider waivers of project funding caps necessitated by incremental Pilot Program costs.

The Trust will pay up to \$500,000 per project for the incremental costs of incorporating and commissioning eligible renewable energy technologies into a Massachusetts Green School. Also, up to \$30,000 of this assistance may be used by the school to develop and implement a plan to use, maintain, foster and operate the school as a Massachusetts Green School and as a student and community educational tool.

c) Significant assistance (up to 100% of incremental costs in some cases) is also available from electric and gas utility programs for energy efficient design and construction. The Trust and utilities are working to coordinate the Pilot Program and utility offerings.

All school districts eligible to receive assistance through the state's Department of Education's School Building Assistance Program may apply. However, projects in the service territory of a municipally-owned lighting plant are not eligible to receive assistance from the Trust.

Contact:

Kim Ashton

Massachusetts Technology Collaborative

Renewable Energy Trust

75 North Drive

Westborough, MA 01581

Phone: (508) 870-0312

Fax: (508) 898-2275

E-Mail: ashton@mtpc.org

Web site: <http://www.mtpc.org/massrenew/highlights.htm>

MA-5 MASSACHUSETTS

Incentive Type: Generation Disclosure

Eligible Technologies: Solar Thermal Electric, Photovoltaics, Wind, Biomass, Hydro, Renewable Transportation Fuels, Geothermal Electric, Waste, Cogeneration

Applicable Sectors: Utilities

Fuel Mix: Yes

Emissions: Yes

Std Format: Yes

Date Enacted: 11/19/97

Effective Date: 9/1/98

Expiration Date: none

Website: <http://www.state.ma.us/dpu/restruct/competition/index.htm#Current>

Authority 1: [M.G.L. Part I, Title II, Ch. 25A, Sec. 11D; Title XXII, Ch. 164, Sec. 1F \(Ch. 164 of the Acts of 1997\)](#)

Authority 2: [220 CMR 11.06](#)

Summary:

As part of its 1997 electric utility restructuring legislation, Massachusetts mandates the disclosure of fuel mixes and emissions to end-use customers. In February 1998, the Massachusetts Department of Telecommunications and Energy (DTE) issued final rules (220 CMR 11.06) requiring electric retailers to provide customers with a standard disclosure label containing information on price, fuel mix, emissions, and labor characteristics of generating sources prior to service, with the first billing statement, and on a quarterly basis, beginning September 1, 1998. Suppliers must also issue notices in all advertisements stating that disclosure labels are available upon request. Annual reports are due to DTE containing "statements of verification by the ISO or an independent auditor."

Supply mix information must be based on market settlement data or equivalent data provided by the Independent System Operator (ISO) available for the most recent one-year period. At least the following fuel sources must be separately identified on the label: biomass; coal; hydro-large; hydro-small; imports; municipal trash; natural gas; nuclear; oil; other renewable resources (including fuel cells utilizing renewable fuel sources, landfill gas, and ocean thermal); solar; and wind.

Data on carbon dioxide, nitrogen oxides, and sulfur dioxide emissions must be presented in a format comparing them to the regional average.

Electricity providers are also required to report the percentage of power generated from sources that have union contracts with their employees and the percentage generated from sources that use replacement labor during labor disputes.

Visit the Web site shown above for samples of disclosure labels.

Contact:

Barry Perlmutter

Massachusetts Department of Telecommunications and Energy

100 Cambridge Street, Room 1210

Boston, MA 02202

Phone: (617) 305-3575

Fax: (617) 723-8812

E-Mail: barry.perlmutter@state.ma.us

Web site: <http://www.state.ma.us/dpu>

MA-6 MASSACHUSETTS

Incentive Type: Net Metering Rules

Eligible Technologies: Solar Thermal Electric, Photovoltaics, Wind, Biomass, Hydro, Geothermal Electric, Fuel Cells, Waste, Cogeneration

Applicable Sectors: Commercial, Industrial, Residential

Limit on System Size: 60 kW

Limit on Overall Enrollment: None

Treatment of Net Excess: Purchased at avoided cost

Utilities Involved: All utilities

Date Enacted: 1/1/82

Expiration Date: none

Website: <http://www.state.ma.us/dpu>

Authority 1: [DPU/DTE 97-111; M.G.L. Ch. 164, Sec. 1\(G\)\(g\) \(Ch. 164 of the Acts of 1997\)](#)

Authority 2: [220 CMR 11.04 \(7\)\(C\)](#)

Summary:

The Massachusetts net metering program was originally ordered by the Department of Public Utilities through 220 Code of Massachusetts Regulation, Section 8.04(2)(C), in 1982. In 1997, the Department of Telecommunications and Energy amended the net metering program through 220 Code of Massachusetts Regulation, Section 11.04(7)(C). Originally, qualifying facilities with a generating capacity of 30 kW or less were eligible for net metering and excess generation was to be purchased at the utility's avoided cost. The 1997 amendments increase the allowable capacity to 60 kW or less and stipulate that any net energy generated by the qualifying facility during the course of a month be credited at the average monthly market rate to the next month's bill.

Distribution Companies are prohibited from imposing special fees on net metering customers, such as backup charges and demand charges, or additional controls, or liability insurance, as long as the generation facility meets the interconnection standards and all relevant safety and power quality standards.

Contact:

Barry Perlmutter

Massachusetts Department of Telecommunications and Energy

100 Cambridge Street, Room 1210

Boston, MA 02202

Phone: (617) 305-3575

Fax: (617) 723-8812

E-Mail: barry.perlmutter@state.ma.us

Web site: <http://www.state.ma.us>

MA-7 MASSACHUSETTS

Incentive Type: Public Benefits Fund

Eligible Technologies: Solar Thermal Electric, Photovoltaics, Wind, Biomass, Hydro, Renewable Transportation Fuels, Geothermal Electric, Fuel Cells, storage connected to renewables

Applicable Sectors: Commercial, Industrial, Residential, General Public, Utilities

Types: Renewables and efficiency

Total Fund: \$150 million over a five-year period

Charge: Varies by year

Date Enacted: 11/27/97

Effective Date: 3/1/98

Expiration Date: to be determined by Commonwealth of Massachusetts

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

Authority 1: [M.G.L. ch. 25, sec. 20; ch. 40J, sec. 4E \(Ch. 164 of the Acts of 1997\)](#)

Summary:

As part of its November 1997 electric utility restructuring legislation, Massachusetts has created public benefit funds for renewables, energy efficiency programs, and low-income assistance programs. The Renewable Energy Trust Fund is supported through a system benefits charge with total funding of roughly \$150 million over a five year period, with approximately \$20 million per year for an undefined period beyond 2002. For 2001 and 2002, the charge levels are 1.0 mill/kWh and 0.75 mills/kWh, respectively. Qualifying renewables include: solar; wind; ocean thermal, wave, or tidal energy; fuel cells; landfill gas; hydroelectric; advanced biomass, and storage technologies connected to qualifying projects.

The Massachusetts Technology Collaborative (MTC), a quasi-public research and development entity, is administering the fund with oversight and planning assistance from the State Division of Energy Resources (DOER) and an advisory board. The 2001-2002 operating plan calls for efforts to focus in the following three areas:

- (1) Green Buildings. Promote the use of renewable energy technologies in highly energy-efficient buildings with high performance design.
- (2) Distributed Generation / Premium Power. The principal aim of the program is to promote the use of and increased energy generation from distributed power generation technologies, including fuel cells, biomass, low-impact hydroelectric, solar photoelectric and advanced storage devices, in Massachusetts.
- (3) Green Power Development Program. Promote the development of electric generators that use wind, biomass, landfill gas, photovoltaics and low impact hydro and increase consumer demand for power from these sources

Additionally, the fund has awarded grants to municipalities to help cut pollution at waste-to-energy plants.

In March 2001, The MTC began releasing public solicitations seeking applications for funding for the development of renewable energy technologies and the purchase of green power.

Current solicitations include:

1. Premium Power Planning Grants (Solicitation No. 2001-PP-01)
2. Premium Power Installation Grants (Solicitation No. 2001-PP-02)
3. Massachusetts Green Schools, Early Stage Planning and Design Assistance Track II (Solicitation No. 2002-GS-02)

A list of all solicitations released by MTC is available at www.mtpc.org/Grants_and_Awards/grant_dollars.htm

Massachusetts' 1997 restructuring law also mandates five year funding totaling roughly \$500 million for energy efficiency investments. The law created an energy efficiency surcharge of 3.3 mills/kWh in 1998, declining to 2.5 mills/kWh by 2002 and 0.25 mill in subsequent years. The DOER is administering these energy efficiency funds through the utilities. Of the energy efficiency funds, 20% of the amount spent in any year is for low-income weatherization and education programs. A low-income weatherization and fuel assistance network will implement these programs. In addition, the restructuring law requires utilities to continue low-income financial assistance at current levels with the funds collected via a separate systems benefit charge.

Total spending for efficiency and renewable programs is increased from pre-restructuring levels of about \$84 million to about \$200 million. Massachusetts also established a renewable portfolio standard through restructuring and was the first state to have enacted both a portfolio standard and renewables fund.

Contact:

Anajnette Alpher

Massachusetts Technology Collaborative

Renewable Energy Trust

75 North Drive

Westborough, MA 01581

Phone: (508) 870-0312

Fax: (508) 898-2275

E-Mail: alpher@masstech.org

Web site: <http://www.mtpc.org/massrenew/highlights.htm>

MA-8 MASSACHUSETTS

Incentive Type: Renewables Portfolio Standard

Eligible Technologies: Solar Thermal Electric, Photovoltaics, Landfill Gas, Wind, Biomass, Fuel Cells, Ocean Thermal, Wave, Tidal

Applicable Sectors: ???

Date Enacted: 11/19/97

Effective Date: 4/2002

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

Authority 1: [M.G.L. ch. 25A, sec. 11F \(Ch. 164 of the Acts of 1997\)](#)

Authority 2: [225 CMR 14.00](#)

Summary:

As part of its 1997 electric utility restructuring legislation, Massachusetts created the outlines for a renewable portfolio standard (RPS). In April 2002, the Massachusetts Division of Energy Resources (DOER) released its final regulations for the RPS which require 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 (see schedule below).

Eligible new renewables include solar; wind; ocean thermal, wave, and tidal; fuel cells using renewable fuels; landfill gas; and low emission, advanced technology biomass. To qualify as a new renewable resource, systems must have been installed after December 31, 1997.

New Renewables Compliance Date

1.0% by 2003

1.5% by 2004

2.0% by 2005

2.5% by 2006

3.0% by 2007

3.5% by 2008

4.0% by 2009

An additional 1.0% each year afterward until ended by DOER.

Electricity suppliers can alternatively meet compliance by submitting Alternative Compliance Payment (ACP) to the Massachusetts Technology Park Corporation, which administers the state's Renewable Energy Trust. For 2003, the ACP is set at \$50 per megawatt-hour, or 5 cents per kilowatt-hour, which is likely to be higher than the incremental cost of new renewable power sources.

Contact:

RPS Mailbox

Massachusetts Division of Energy Resources

70 Franklin Street

7th Floor

Boston, MA 02110-1313

Phone: (617) 727-4732

Fax: (617) 727-0030

E-Mail: doer.rps@state.ma.us

Web site: <http://www.state.ma.us/doer/>

MA-9 MASSACHUSETTS

Incentive Type: Mandated purchases (AFVs)

Eligible Technologies: AFVs

Applicable Sectors: State government

Authority 1: EO 388

Summary:

A 1996 Executive Order (EO) requires state fleets to acquire AFVs according to the requirements of the Energy Policy Act (EPAct). In Fiscal Year 2001 and thereafter, at least 75% of non-excluded vehicles purchased by the Department of Procurement and General Services (DPGS) shall be the cleanest AFVs available and practical; at least 10% of the total non-excluded vehicles purchased by DPGS shall be zero emission vehicles.

Contact:

David Rand

Clean Cities Coordinator

Massachusetts Division of Energy Resources

70 Franklin Street

7th Floor

Boston, MA 02110-1313

Phone: (617) 727-4732

Fax: (617) 727-0030

E-Mail: david.rand@state.ma.us

MI-1 MICHIGAN

Incentive Type: Corporate Tax Credit

Eligible Technologies: Solar Thermal Electric, Photovoltaics, Wind, Renewable Transportation Fuels, Renewable Fuel Vehicles, Fuel Cells, Cogeneration, Microturbines

Applicable Sectors: Commercial, Industrial

Amount: Varies

Max. Limit: None

Date Enacted: 7/25/02

Effective Date: 1/1/03

Expiration Date: 12/31/22

Authority 1: [2002 SB 1322](#)

Authority 2: 2002 SB 1316

Summary:

Certified companies that locate in the NextEnergy Zone and develop alternative energy technologies are eligible for a personal income tax credit, whereby the sum of state income taxes paid by a company's employees (who work in the Zone) is refunded to the company. This credit is effective through 2022.

The NextEnergy Zone, located at Wayne State University Research and Technology Park in the city of Detroit, will be the home to the NextEnergy Center. The 40,000-square-foot center will be the catalyst of the NextEnergy initiative. It will include laboratory facilities, business incubator space, collaborative meeting space and other facilities that will support the alternative energy industry.

In addition to increasing environmental concerns and the risks of continued dependence on foreign oil, NextEnergy was created in response to growing evidence that the internal combustion engine eventually may be phased out. NextEnergy is a comprehensive economic development plan to make the state of Michigan a world leader in the research, development, commercialization and manufacture of alternative energy technologies.

Michigan has designated the NextEnergy Zone a Renaissance Zone. Created in 1996, the Renaissance Zone program set aside geographic areas of the state as virtually tax-free for any business or resident located in or moving to one of the zones.

Contact:

Rachel Kuntzsch

NextEnergy

3011 W. Grand Blvd., Suite 320

Detroit, MI 48202

Phone: (313) 873-9260

E-Mail: rachelk@nextenergy.org

Web site: <http://www.nextenergy.org>

MI-2 MICHIGAN

Incentive Type: Property Tax Exemption

Eligible Technologies: Solar Thermal Electric, Photovoltaics, Wind, Renewable Transportation Fuels, Renewable Fuel Vehicles, Fuel Cells, Cogeneration, Microturbines

Applicable Sectors: Commercial, Industrial

Amount: 100% of equipment value

Max. Limit: No limit

Date Enacted: 7/26/02

Effective Date: 1/1/03

Expiration Date: 12/31/12

Authority 1: [2002 HB 6074](#)

Authority 2: 2002 SB 1316

Summary:

Companies located in Michigan and engaged in the research, development, or production of alternative energy sources, as defined by the Michigan Next Energy Authority Act, are eligible for a property tax exemption on all alternative energy equipment. Certified companies are exempt through 2012.

NextEnergy is a comprehensive economic development plan to make the state of Michigan a world leader in the research, development, commercialization and manufacture of alternative energy technologies. Michigan created NextEnergy in response to increasing environmental concerns, the risks of continued dependence on foreign oil, and growing evidence that the internal combustion engine eventually may be phased out.

Contact:

Rachel Kuntzsch

NextEnergy

3011 W. Grand Blvd., Suite 320

Detroit, MI 48202

Phone: (313) 873-9260

E-Mail: rachelk@nextenergy.org

Web site: <http://www.nextenergy.org>

MI-3 MICHIGAN

Incentive Type: Property Tax Exemption

Eligible Technologies: Solar Thermal Electric, Photovoltaics, Wind, Renewable Transportation Fuels, Renewable Fuel Vehicles, Fuel Cells, Cogeneration, Microturbines

Applicable Sectors: Commercial, Industrial

Amount: 100% of value

Max. Limit: No limit

Date Enacted: 10/16/02

Effective Date: 1/1/03

Expiration Date: 12/31/22

Authority 1: [2002 SB 1316](#)

Summary:

Companies located in Michigan's NextEnergy Zone and engaged in the research, development, or production of alternative energy sources (as defined by the Michigan Next Energy Authority Act) are exempt from certain state and local taxes, including personal property taxes, real property taxes, and the state's education tax. These exemptions are effective through 2022.

The NextEnergy Zone, located at Wayne State University Research and Technology Park in the city of Detroit, will be the home to the NextEnergy Center. The 40,000-square-foot center will be the catalyst of the NextEnergy initiative. It will include laboratory facilities, business incubator space, collaborative meeting space and other facilities that will support the alternative energy industry.

In addition to increasing environmental concerns and the risks of continued dependence on foreign oil, NextEnergy was created in response to growing evidence that the internal combustion engine eventually may be phased out. NextEnergy is a comprehensive economic development plan to make the state of Michigan a world leader in the research, development, commercialization and manufacture of alternative energy technologies.

Michigan has designated the NextEnergy Zone a Renaissance Zone. Created in 1996, the Renaissance Zone program set aside geographic areas of the state as virtually tax-free for any business or resident located in or moving to one of the zones.

Contact:

Rachel Kuntzsch

NextEnergy

3011 W. Grand Blvd., Suite 320
Detroit, MI 48202
Phone: (313) 873-9260
E-Mail: rachelk@nextenergy.org
Web site: <http://www.nextenergy.org>

MI-4 MICHIGAN

Incentive Type: State Grant Program

Eligible Technologies: Passive Solar Space Heat, Solar Water Heat, Active Solar Space Heat, Solar Thermal Electric, Solar Thermal Process Heat, Photovoltaics, Wind, Renewable Fuel Vehicles, Solar

Applicable Sectors: Nonprofit, Local Government

Amount: varies

Max. Limit: \$5,000

Effective Date: 10/1/01

Expiration Date: N/A (no annual solicitation)

Website: <http://www.cis.state.mi.us/opla/eo/>

Summary:

On an annual basis, Michigan's Energy Office solicits proposals for community education or information programs to assist consumers to identify and select energy efficiency and renewable energy options. In past solicitations, Community Energy Project Grants have been available to public and non-profit agencies to implement the following options:

- (1) Solar and/or wind energy demonstrations,
- (2) Solar and/or wind seminars,
- (3) Green commuting projects,
- (4) Energy Star promotional projects, and
- (5) Statewide energy conferences and/or fairs.

The grants are for one year, with a maximum limit of \$5,000 per grant. An organization may only submit one proposal for each project option, but may submit one proposal for each of the five project options. The deadline for proposals is usually in the summer. For further information, contact John Sarver at john.h.sarver@cis.state.mi.us

Contact:

John Sarver

Department of Consumer and Industry Services

Energy Office

P.O. Box 30221

Lansing, MI 48909

Phone: (517) 241-6228

Fax: (517) 882-5170

E-Mail: john.h.sarver@cis.state.mi.us

MI-5 MICHIGAN

Incentive Type: Green Pricing Program

Eligible Technologies: Biomass, Hydro

Applicable Sectors: Commercial, Residential

Premium: \$7.50/month/block; 250-kWh block

Commitment: 3 years

Participants: 741 blocks of green power sold as of 9/02

Capacity Installed/Planned: 0.5 MW hydro, 0.5 MW biomass

Effective Date: 8/01

Website: <http://www.lbwl.com/GreenPower.asp>

Summary:

Lansing Board of Water and Light offers customers the option to purchase green power. For an additional \$7.50 per month, customers can purchase one 250-kW block of green power, generated primarily from wind, hydropower, and biomass resources. Customers can purchase as many blocks of green power as they wish. All participants must commit to an initial three-year purchase agreement.

Contact:

Sue Warren

Lansing Board of Water and Light

1232 Haco

Lansing, MI 48901

Phone: (517) 702-6585

Fax: (517) 702-6855
E-Mail: slw@lbwl.com
Web site: <http://www.lbwl.com>

MI-6 MICHIGAN

Incentive Type: Generation Disclosure
Eligible Technologies: Solar Water Heat, Active Solar Space Heat, Solar Thermal Electric, Photovoltaics, Wind, Biomass, Hydro, Geothermal Electric, Fuel Cells, Waste
Applicable Sectors: Utilities
Fuel Mix: Yes
Emissions: Yes
Std Format: Yes
Date Enacted: 6/5/2000
Effective Date: 1/1/2002
Website: <http://198.109.122.10/txt/publicAct/1999-2000/pa014100.htm>
Authority 1: Senate Bill 937, Public Act 141 of 2000
Authority 2: PSC Case U-12487

Summary:

Michigan's Customer Choice and Electric Reliability Act of 2000 directs the Michigan Public Service Commission (MPSC) to establish a standard format for disclosure, explanations, or sales information disseminated by electric suppliers. Starting January 1, 2002, all electric suppliers must disclose on the customer's bill, a bill insert, or customer contracts, or, for cooperatives, periodicals issued by an association of rural electric cooperatives, information about the environmental characteristics of electricity products, including all of the following:

- The average fuel mix, including categories for oil, gas, coal, solar, hydroelectric, wind, biofuel, nuclear, solid waste incineration, biomass, and other fuel sources;
- The average emissions (lbs./MWh) of sulfur dioxide, carbon dioxide, and oxides of nitrogen;
- The average of the high-level nuclear waste generated (lbs./MWh); and
- The regional average fuel mix and emissions.

The information is to be provided no more than twice annually and should be based on a rolling annual average. Disclosure information will also be included on the MPSC's internet site, <http://www.cis.state.mi.us/mpsc>.

Contact:

Tom Stanton
Michigan Public Service Commission
Office of Planning, Policy and Evaluation
P.O. Box 30221
Lansing, MI 48909
Phone: (517) 334-7121
Fax: (517) 882-5170
E-Mail: tsstant@michigan.gov

MI-7 MICHIGAN

Incentive Type: Tax exemptions--Property
Eligible Technologies: AFVs, AF
Applicable Sectors: Industrial
Authority 1: Michigan Compiled Laws (MCL) 207.552 and 207.803, House Bill 4010, 2004, and Senate Bill 824, 2004

Summary:

Certain property tax exemptions apply to industrial property which is used for, among other purposes, high-technology activities or the creation or synthesis of biodiesel fuel. High-technology activities include those related to advanced vehicle technologies such as electric vehicles, hybrid vehicles, or alternative fuel vehicles and their components. In order to qualify for the tax exemptions, an industrial facilities exemption certificate for the property must be obtained from the State Tax Commission.

Contact:

Teresa Walker
Michigan Public Service Commission
Office of Planning, Policy and Evaluation
P.O. Box 30221
Lansing, MI 48909

Phone: (517) 334-2247
Fax: (517) 882-5170
E-Mail: walkertr@michigan.gov

MI-8 MICHIGAN

Incentive Type: Outreach (voluntary emissions trading)
Eligible Technologies: AFVs, AF
Applicable Sectors: Transportation
Authority 1:

Summary:

A voluntary statewide emissions trading program allows AFV credits to be traded or retained for future use based on an emission reductions basis, not on a per vehicle basis.

Contact:

Teresa Walker
Michigan Public Service Commission
Office of Planning, Policy and Evaluation
P.O. Box 30221
Lansing, MI 48909
Phone: (517) 334-2247
Fax: (517) 882-5170
E-Mail: walkertr@michigan.gov

MI-9 MICHIGAN

Incentive Type: Grants
Eligible Technologies: all
Applicable Sectors: Businesses
Authority 1:

Summary:

NextEnergy is a comprehensive set of actions and incentives designed to position Michigan as the world's leading center for alternative energy technology, research and development, education, and manufacturing. The program supports technologies for both mobile and stationary applications using renewable and distributed energy solutions. NextEnergy offers several incentives for companies that develop or utilize alternative energy applications.

Contact:

Judith McNeeley at (313) 873-9260, via email at judithm@nextenergy.org, or visit the Web site at www.nextenergy.org

MN-1 MINNESOTA

Incentive Type: Production Incentive
Eligible Technologies: Biomass, Renewable Transportation Fuels
Applicable Sectors: Industrial
Amount: 11 to 20 cents/gallon; 1.5 cents/kWh
Max. Limit: \$3.75 million/year; \$37 million annual cap
Date Enacted: 1997
Expiration Date: 6/30/2010
Authority 1: MS2000 41A.09

Summary:

This incentive is for producers of ethanol, anhydrous alcohol, and wet alcohol fermented in Minnesota and produced at plants that began production by June 30, 2000. Makers of ethanol or anhydrous alcohol produced on or before June 30, 2000, or ten years after the start of production, whichever is later, will receive 20 cents/gallon. Makers of wet alcohol will receive at least 11 cents/gallon, with the exact amount dependant on an alcohol purity formula devised by the state. Payments will be made to either the original producer or the secondary processor, but not both. Once a plant's production capacity reaches 15,000,000 gallons per year, no additional increment will qualify for the payment.

In addition, producers will receive 1.5 cents/kWh of electricity generated using closed-loop biomass in a cogeneration facility at an ethanol plant located in the state. Payments shall be made only for electricity generated at cogeneration facilities that begin operation by June 30, 2000. The payments apply to electricity generated on or before the date ten years after the producer first qualifies for payment under this paragraph. Total payments in any fiscal year may not exceed \$750,000.

Payments to all producers (for production alone) may not exceed \$37,000,000 in a fiscal year. Total payments to a producer (for production alone) in a fiscal year may not exceed \$3,000,000.

Contact:

Alan Dupay

Minnesota Department of Agriculture
Finance and Budget
90 West Plato Boulevard
St. Paul, MN 55107-2094

Phone: (651) 296-1686

Fax: (651) 297-1056

E-Mail: alan.dupay@state.mn.us

MN-2 MINNESOTA

Incentive Type: Production Incentive

Eligible Technologies: Wind, Hydro, on-farm anaerobic digester

Applicable Sectors: Commercial, Residential, Nonprofit, tribal council

Amount: 1.5 cents per kWh

Max. Limit: none

Terms: available for 10 years

Date Enacted: 7/1/97; revised 2001

Effective Date: 7/1/99 (hydro); 1/1/97 (wind); 7/1/01 (digester)

Expiration Date: 12/31/2005 (hydro); 1/1/2005 (wind); 12/31/2015 (digester)

Website: <http://www.commerce.state.mn.us/pages/Energy/ModTech/prodincentives.htm>

Authority 1: [MS2001 216C.41](#)

Summary:

Minnesota's program is unique in its offering of payments for actual energy output. There is an advantage in programs that offer credits or payments based on production rather than for investment: production payments and credits place a premium on project output and hence quality-not just rated capacity which may or may not be fully utilized once installed.

From July 1999 to June 2005, Minnesota will offer a 1.5 cent per kilowatt hour payment for electricity generated from new wind energy projects less than 2 MW in capacity. Certain hydroelectric facilities that began generating electricity after July 1, 1994, and before December 31, 2005, are also eligible. In 2001, the incentive was expanded to include anaerobic manure methane digesters that begin generating electricity after July 1, 2001, through December 31, 2015.

Qualifying projects will receive payments for ten years. Payments will be made available on a first come, first serve basis until new wind capacity statewide totals 100 MW. The ten year payment period extends to December 31, 2015 -- beyond the eligibility window for facility installation. As of August 2002, approximately 44 MW of wind capacity had been installed under this program. A recent survey of potential new projects revealed that the program may reach the 100 MW limit in 2003. Legislative approval will be needed to extend the payment.

This program and Minnesota's other programs promoting wind generation were created to help Xcel Energy (formerly Northern States Power), the state's largest electricity generator, meet the Minnesota legislature's mandate that NSP build or purchase 425 MW of wind power by 2002 and an additional 400 MW by 2012. Through its other wind energy incentives Minnesota has had success in developing large, centralized wind electricity generation projects through the benefit of existing incentives. This production incentive program for small scale wind projects has been initiated with the goal of establishing dispersed wind generation infrastructure and has not been used extensively to fulfill Xcel's requirement.

This is one of the few state-level, performance-based renewable energy incentives offered in the U.S. Minnesota's production credit roughly mirrors the federal corporate production tax credit that allows a 1.5 cent per kilowatt hour tax credit for electricity produced from wind and closed loop biomass.

Contact:

Energy Information Center

Minnesota Department of Commerce
Energy Division
85 7th Place East, Suite 600
St. Paul, MN 55101-3165

Phone: (651) 296-5175

Fax: (651) 297-7891

E-Mail: energy.info@state.mn.us

Web site: <http://www.commerce.state.mn.us/pages/EnergyMain.htm>

MN-3 MINNESOTA

Incentive Type: Mandatory Utility Green Power Option
Eligible Technologies: Photovoltaics, Landfill Gas, Wind, Biomass, Hydro, Geothermal Electric, Fuel Cells
Applicable Sectors: Utilities
Date Enacted: 2001
Effective Date: 10/2001
Website: <http://www.revisor.leg.state.mn.us/stats/216B/169.html>
Authority 1: [MN Statutes 2001, 216B.169](#)

Summary:

Electric utilities in the Minnesota must give customers the option to purchase power generated from renewable sources or "high-efficiency, low-emission distributed generation, such as fuel cells or microturbines fueled by a renewable fuel." The legislation, SB 772, which was signed by the Governor on May 29, 2001, also sets a non-binding goal for utilities to obtain at least 10% of the energy supplied to retail customers from renewable sources by 2015.

Rates charged for the offerings must be based on the difference between the cost of the renewable energy and the same amount of nonrenewable energy. Utilities may generate the renewable energy or purchase credits from a renewable energy provider certified by the Public Utilities Commission.

Contact:

Energy Information Center

Minnesota Department of Commerce
Energy Division
85 7th Place East, Suite 600
St. Paul, MN 55101-3165

Phone: (651) 296-5175

Fax: (651) 297-7891

E-Mail: energy.info@state.mn.us

Web site: <http://www.commerce.state.mn.us/pages/EnergyMain.htm>

MN-4 MINNESOTA

Incentive Type: Net Metering Rules
Eligible Technologies: Photovoltaics, Wind, Biomass, Hydro, Waste, Cogeneration
Applicable Sectors: Commercial, Industrial, Residential
Limit on System Size: 40 kW
Limit on Overall Enrollment: None
Treatment of Net Excess: Average retail utility energy rate
Utilities Involved: All utilities
Date Enacted: 1/1/83
Expiration Date: None
Authority 1: [MRS @ 216B.164\(3\)](#)

Summary:

Minnesota's statute based net metering laws were established in 1983 and apply to all of the state's utilities' investor-owned utilities, municipalities and rural cooperatives. Qualifying facilities of 40 kW or less are eligible for the program and there is no limit to statewide capacity allowed under net metering.

Utilities must purchase net excess generation at the average retail rate. The average retail rate is the total annual class revenue from sales of electricity minus the annual revenue resulting from fixed charges, divided by the annual class kWh sales. The purchase of net excess generation at retail rates distinguishes Minnesota's net metering legislation from programs in most other states. Only Wisconsin also provides for the purchase of net excess generation at retail rates. It is also worth noting that Minnesota, Maryland, Nevada, New York, and California are the only states where net metering is mandated in statute by the state legislature.

As of 2000, the Minnesota Department of Commerce reported that there were 110 facilities with net billing arrangements. Of these facilities, 23 were photovoltaic and 87 were wind facilities.

Contact:

Energy Information Center

Minnesota Department of Commerce
Energy Division
85 7th Place East, Suite 600
St. Paul, MN 55101-3165

Phone: (651) 296-5175

Fax: (651) 297-7891

E-Mail: energy.info@state.mn.us

Web site: <http://www.commerce.state.mn.us/pages/EnergyMain.htm>

MN-5 MINNESOTA

Incentive Type: Public Benefits Fund

Eligible Technologies: Solar Thermal Electric, Photovoltaics, Wind, Biomass, Hydro, Fuel Cells

Applicable Sectors: Commercial, Industrial, Nonprofit, Schools, Local Government, State Government

Types: Renewables

Total Fund: Approximately \$9 million/year

Date Enacted: 1994

Effective Date: 2001

Expiration Date: None

Website: <http://www.xcelenergy.com/EnergyMarkets/EnergyMarketsRFPmain.asp>

Authority 1: [Minn. Stat. § 216B.2422](#)

Authority 2: [116C.779](#)

Summary:

Xcel Energy created the Renewable Development Fund (RDF) in May 1999 as an outcome of 1994 Minnesota legislation concerning spent fuel storage at the Prairie Island Nuclear Plant. Xcel must transfer to the fund \$500,000 each year for each dry cask containing spent fuel that is located at the independent spent fuel storage installation at Prairie Island after January 1, 1999. The fund is administered by the Renewable Development Board which consists of two representatives of Xcel Energy and two representatives from the environmental community. Funds in the account may be expended only for development of renewable energy sources. Preference must be given to development of renewable energy source projects located within the state. The Xcel RDF will grow by approximately \$9 million per year.

In 2001 the Xcel Energy RDF program selected a total of 19 research projects, during two phases, to receive nearly \$16 million in funding. Funding was provided for various sized projects in three categories (see Web site shown above for project details):

1. commercial technology
2. experimental technology
3. research and development

The second RDF funding cycle will begin in late 2002 or early 2003 when Xcel Energy expects to release a Request for Proposals for the second round of funding. Renewable technology types eligible for funding will include wind, biomass, solar and hydro, and funding will be split between new development projects that result in the production of renewable energy, and research & development to lead these technologies toward full commercialization.

Contact:

Energy Information Center

Minnesota Department of Commerce

Energy Division

85 7th Place East, Suite 600

St. Paul, MN 55101-3165

Phone: (651) 296-5175

Fax: (651) 297-7891

E-Mail: energy.info@state.mn.us

Web site: <http://www.commerce.state.mn.us/pages/EnergyMain.htm>

MN-6 MINNESOTA

Incentive Type: Renewables Portfolio Standard

Eligible Technologies: Photovoltaics, Wind, Biomass, Hydro

Applicable Sectors: Utilities

Standard: 1% in 2005 increasing by 1% per year to reach at least 10% in 2015

Technology Minimum: At least 0.5% biomass by 2010 and 1% by 2015

Date Enacted: 2001

Effective Date: 7/1/05

Expiration Date: 12/31/15

Website: <http://www.revisor.leg.state.mn.us/stats/216B/1691.html>

Authority 1: [MN statutes 2001, 216B.1691](#)

Summary:

Electric utilities must make a good faith effort to generate or procure a percentage of the electricity that they generate from an eligible energy technology -- solar, wind, hydroelectric (< 60 megawatts), or biomass which was not mandated by state law or commission order.

Beginning in 2005, at least one percent of the electric energy provided to retail customers must be generated by eligible energy technologies, and this amount must be increased by one percent each year until 2015 at which time 10% of electricity provided is generated by eligible renewables. At least 0.5 percent of the energy must be generated by biomass energy technologies by 2010 and one percent by 2015.

Each electric utility must report on its activities and progress with regard to these objectives.

The commission, in consultation with the commissioner of commerce, is required to review the utility reports and report to the chairs of the house of representatives and senate committees on the progress of utilities in the state in increasing the amount of renewable energy provided to retail customers.

Contact:

Energy Information Center

Minnesota Department of Commerce

Energy Division

85 7th Place East, Suite 600

St. Paul, MN 55101-3165

Phone: (651) 296-5175

Fax: (651) 297-7891

E-Mail: energy.info@state.mn.us

Web site: <http://www.commerce.state.mn.us/pages/EnergyMain.htm>

MN-7 MINNESOTA

Incentive Type: Renewables Set Aside

Eligible Technologies: Wind, Biomass

Applicable Sectors: Utilities

12/31/01 - 425 MW wind, 125 MW biomass

12/31/12 - 400 MW additional wind

Date Enacted: 7/1/97

Website: <http://www.revisor.leg.state.mn.us/stats/216B/2423.html>

Authority 1: [216B.2423](#)

Authority 2: 216B.2424

Summary:

The Minnesota legislature has required Xcel Energy (formerly Northern States Power) to build or contract for 425 MW of wind power and 125 MW biomass by December 31, 2001. Xcel must build or contract out an additional 400 MW of wind by December 31, 2012.

Contact:

Energy Information Center

Minnesota Department of Commerce

Energy Division

85 7th Place East, Suite 600

St. Paul, MN 55101-3165

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E-Mail: energy.info@state.mn.us

Web site: <http://www.commerce.state.mn.us/pages/EnergyMain.htm>

MN-8 MINNESOTA

Incentive Type: Grants---Production Incentive

Eligible Technologies: AF (Ethanol)

Applicable Sectors: Industrial (producer)

Authority 1: [Minnesota Statutes §41A.09](#) and [Senate File 905](#), Article 3, Section 2, 2003

Summary:

There is an ethanol production incentive of \$0.20 per gallon of ethanol produced. This incentive only applies to qualified ethanol production facilities that began production on or before June 30, 2000. Annual payments are limited to \$3.0 million to any one producer. For fiscal years 2004 through 2007, this incentive is \$0.13 per gallon of ethanol, up to \$1.95 million annually to any one producer. This incentive may return to \$0.20 after 2007 and expires June 30, 2010.

Contact:

Ralph Groschen of the Minnesota Department of Agriculture (MDA) at (651) 297-2223, or via email at ralph.groschen@state.mn.us.

MN-9 MINNESOTA

Incentive Type: Mandate—Fuel use

Eligible Technologies: AF (Biodiesel)
Applicable Sectors: Transportation
Authority 1: Minnesota Statutes §239.77

Summary:

All diesel fuel sold or offered for sale in the state for use in internal combustion engines must contain at least 2% biodiesel fuel by volume. This mandate will take effect by June 30, 2005 as long as one of the following conditions has been met: the state is able to produce more than eight million gallons of biodiesel fuel annually, or a federal action creates a \$0.02 per gallon or greater reduction in the price of taxable fuel containing at least 2% biodiesel fuel sold in the state.

Contact:

Ralph Groschen of the Minnesota Department of Agriculture (MDA) at (651) 297-2223, or via email at ralph.groschen@state.mn.us.

MN-10 MINNESOTA

Incentive Type: Outreach

Eligible Technologies: AF (Biodiesel)

Applicable Sectors: Individuals, Industrial, Commercial

Authority 1:

Summary:

To help reach the state's goal of an eight million gallon biodiesel production capacity and ensure a smooth introduction of biodiesel into the marketplace, a new task force announced by Governor Tim Pawlenty in March 2003 will help promote and educate possible biodiesel developers, marketers, consumers and manufacturers. The nine-member task force will advise the MDA on methods to increase production and use of biodiesel in Minnesota.

Contact:

Ralph Groschen of the Minnesota Department of Agriculture (MDA) at (651) 297-2223, or via email at ralph.groschen@state.mn.us.

MN-11 MINNESOTA

Incentive Type: Mandated purchases—Fuel

Eligible Technologies: AFVs, AF

Applicable Sectors: State government

Authority 1: Minnesota Statutes §16C.135

Summary:

A state agency shall use clean fuels for use in motor vehicles owned or leased by the agency if the clean fuels are reasonably available at similar costs to other fuels and are compatible with the use to which the motor vehicle is put. Clean fuels are defined as biodiesel blends of 20% or greater by volume, compressed natural gas (CNG), ethanol blends of 70% ethanol or greater by volume, hydrogen, liquefied natural gas (LNG), and liquefied petroleum gas (LPG). Additionally, a state agency, when purchasing a motor vehicle for the central motor pool or for use by the agency, shall purchase a motor vehicle that is capable of being powered by clean fuels or a motor vehicle powered by electricity or by a combination of electricity and liquid fuel, if such a motor vehicle is reasonably available at similar costs to other vehicles and if the vehicle is capable of carrying out the purpose for which it is purchased.

Contact:

Ralph Groschen of the Minnesota Department of Agriculture (MDA) at (651) 297-2223, or via email at ralph.groschen@state.mn.us.

MN-12 MINNESOTA

Incentive Type: Tax Imposition—Excise (AF)

Eligible Technologies: AF

Applicable Sectors: Commercial

Authority 1: Minnesota Statutes §296A.07 and §296A.08

Summary:

An excise tax is imposed on the first licensed distributor who receives E85 fuel products in the state and on distributors, special fuel dealers, or bulk purchasers of other alternative fuels. E85 is taxed at a rate of \$0.142 per gallon, blends of 85% methanol and 15% gasoline (M85) are taxed at the rate of \$0.114 per gallon, LPG is taxed at \$0.15 per gallon, LNG is taxed at \$0.12 per gallon, and CNG is taxed at the rate of \$1.739 per thousand cubic feet or \$0.20 per gasoline gallon equivalent. Gasoline is taxed at the rate of \$0.20 per gallon.

Contact:

Ralph Groschen of the Minnesota Department of Agriculture (MDA) at (651) 297-2223, or via email at ralph.groschen@state.mn.us.

MS-1 MISSISSIPPI

Incentive Type: State Loan Program

Eligible Technologies: Solar Water Heat, Active Solar Space Heat, Solar Thermal Electric, Photovoltaics, Biomass, Hydro, Renewable Transportation Fuels, Geothermal Electric, Waste

Applicable Sectors: Commercial, Industrial

Amount: 85%

Max. Limit: \$300,000

Terms: 3% below prime rate; 10-year payback

Date Enacted: 1/1/89

Authority 1: N/A

Summary:

The Energy Division of Mississippi's Development Authority administers this program, which makes low-interest loans for a wide variety of renewable and non-renewable energy projects. Eligible technologies include solar thermal, solar space heat, solar process heat, photovoltaics, alternative fuels, geothermal, biomass, hydropower, and recycling facilities. All projects must demonstrate that they will reduce energy costs. The interest rate is three percent (3%) below the prime rate with a ten-year payback period. The maximum loan amount is \$300,000. This \$7 million revolving loan fund was established through federal oil overcharge funds.

Contact:

Wes Miller

Mississippi Development Authority

Energy Division

P.O. Box 850

510 George Street, Suite 300

Jackson, MS 39205-0850

Phone: (601) 359-6606

Fax: (601) 359-6642

E-Mail: wmiller@mississippi.org

Web site: <http://www.decd.state.ms.us/>

MS-2 MISSISSIPPI

Incentive Type: Green Pricing Program

Eligible Technologies: Photovoltaics, Landfill Gas, Wind

Applicable Sectors: Commercial, Residential

Premium: \$4/month/block; 150-kWh block

Co-funding: TVA

Commitment: monthly

Participants: 4,708 Residential; 214 Non-Residential

Date Enacted: 4/22/00

Website: <http://www.greenpowerswitch.com>

Summary:

Currently nineteen distributors of Tennessee Valley Authority (TVA) power offer their customers the choice of participating in a green pricing market program. The program, named Green Power Switch, allows customers to voluntarily pay a premium for renewable energy generated by solar, wind, and methane gas resources produced at TVA generating locations.

Customers can participate in Green Power Switch by paying \$4/month for each 150-kWh block they wish to purchase (one block is about 12% of a typical household's monthly use). Business customers participate in the program based on the size of their kWh load. As of December 31, 2001, 4,708 residential and 214 business customers are participating in the program, for a total of 13,611 blocks purchased.

The money collected from Green Power Switch is used to construct, maintain, and operate renewable electric generating facilities owned by TVA. TVA has built the first commercial wind-powered turbines in the southeastern US on Buffalo Mountain in Anderson County, Tennessee. TVA is also in the process of developing another 20 MW wind generating site to be operational in 2003. TVA operates solar generating sites throughout the valley along with, a landfill gas site in Murfreesboro, Tennessee and a methane waste water generating site in Memphis, Tennessee.

TVA, the local public power companies, and the environmental community worked together to create the Green Power Switch Program. Approximately 40 new local power distributors in the Valley have expressed interest in joining the program in 2002. TVA is planning to make the program available to their entire seven-state area by 2005.

Alabama

-Huntsville Utilities

Kentucky

-Bowling Green Municipal Utilities

Mississippi

-North East Mississippi Electric Power Association
-City of Oxford Electric Department

Tennessee

- Appalachian Electric Cooperative
-Bristol Tennessee Electric System
-EPB (Chattanooga)
-Erwin Utilities
-Gibson Electric Membership Corporation
-Johnson City Power Board
-Knoxville Utilities Board
-Lenoir City Utilities Board
-Morristown Power System
-Mountain Electric Cooperative
-Nashville Electric Service
-Newport Utilities
-Oak Ridge Electric Department
-Powell Valley Electric Cooperative
-Sevier County Electric System

Contact:

Gary Harris

Tennessee Valley Authority
Green Power Switch
P.O. Box 292409, HRT-11D
Nashville, TN 37229-2409

Phone: (615) 232-6124

Fax: (615) 232-6038

E-Mail: ghharris@tva.gov

Web site: <http://www.greenpowerswitch.com>

MS-3 MISSISSIPPI

Incentive Type: Grants

Eligible Technologies: businesses

Applicable Sectors: Commercial, Industrial

Summary:

The Mississippi Ace Fund (Ace Fund), administered by the Mississippi Development Authority (MDA), is a program that provides grants to Economic Development Entities (Local Sponsors) to assist in funding economic development opportunities to promote economic growth in the State of Mississippi (State). Local sponsors are encouraged to use these grants in connection with other State and federal programs. Projects, which are eligible for assistance, must be related to the construction, renovation, or expansion of a new or expanded industry. The maximum amount of ACE funds, which may be provided for any one project, is \$150,000.

Contact:

Mr. Kenneth Calvin

Mississippi Development Authority
Energy Division
PO Box 849
Jackson, Mississippi 39205-0849
Phone (601) 359-6600/6606
Fax (601) 359-6642 fax
kcalvin@mississippi.org

MS-4 MISSISSIPPI

Incentive Type: Grants

Eligible Technologies: Renewable fuels (ethanol)

Applicable Sectors: industrial (ethanol producers)

Authority: [Mississippi Code](#) §69-51-5

Summary:

Under state law, Mississippi's Commissioner of Agriculture and Commerce is authorized to make direct payments to new ethanol producers in the amount of \$0.20 per gallon, up to 30 million gallons per year per producer, for a period of up to 10 years. The incentive program expires June 30, 2015.

Contact:

Mr. Kenneth Calvin

Mississippi Development Authority
Energy Division
PO Box 849
Jackson, Mississippi 39205-0849
Phone (601) 359-6600/6606
Fax (601) 359-6642 fax
kcalvin@mississippi.org

MS-5 MISSISSIPPI

Incentive Type: Mandated purchases

Eligible Technologies: AFVs

Applicable Sectors: Schools (state universities)

Authority: [Senate Bill](#) 3141, 2002

Summary:

When possible, any vehicle purchased or leased by a state university in Mississippi shall be an alternative fuel or a hybrid-electric vehicle.

Contact:

Mr. Kenneth Calvin

Mississippi Development Authority
Energy Division
PO Box 849
Jackson, Mississippi 39205-0849
Phone (601) 359-6600/6606
Fax (601) 359-6642 fax
kcalvin@mississippi.org

MO-1 MISSOURI

Incentive Type: Corporate Tax Credit

Eligible Technologies: Biomass

Applicable Sectors: Commercial, Industrial

Amount: \$5 per ton

Max. Limit: None

Terms: Carryforward up to four years

Effective Date: 1/1/97

Website: <http://www.dnr.state.mo.us/energy/dersmo.htm>

Authority 1: [Missouri Revised Statutes 135.300-135.311](#)

Summary:

The Wood Energy Tax Credit, effective January 1, 1997, allows corporations processing Missouri forestry industry residues into fuels an income tax credit of \$5.00 per ton of processed material. Any amount of credit which exceeds the tax due by the company in the year of production may be carried over to a subsequent taxable year, not to exceed four years. A credit earned under this program may also be transferred to third parties for use within this five-year period. To be considered an eligible fuel, the forestry industry residues must have undergone some thermal, chemical or mechanical process(es) sufficient to alter the residues into a fuel product.

Contact:

Sam Orr

Missouri Department of Natural Resources
Energy Center
P.O. Box 176
Jefferson City, MO 65102-0176
Phone: (573) 751-8386
Fax: (573) 751-6860
E-Mail: norrs@mail.dnr.state.mo.us
Web site: <http://www.dnr.state.mo.us/energy>

MO-2 MISSOURI

Incentive Type: State Loan Program

Eligible Technologies: Passive Solar Space Heat, Solar Water Heat, Active Solar Space Heat, Photovoltaics, Wind, Biomass

Applicable Sectors: Local Government, Public K-12 Schools

Amount: varies

Max. Limit: varies

Terms: determined individually

Date Enacted: 1/1/91

Website: <http://www.dnr.state.mo.us/de/financial/loan.htm>

Authority 1: [Missouri Revised Statutes 640.651 through 640.686](#)

Summary:

This statute-based loan program is administered by the Energy Center of Missouri under the Department of Natural Resources. The loans are available for energy efficiency and renewable energy projects and are available to public schools (K-12) and local governments. The next sectors to be targeted for assistance in the future include private schools and hospitals. The loans are provided at a fixed interest rate below the market rate and repayment schedules are determined on an individual project basis. Since the program's inception, \$9.9 million in loans have been made to units of local government and \$23 million to public K-12 schools.

Contact:

Bernard Thompson

Missouri Department of Natural Resources

Energy Center

P.O. Box 176

Jefferson City, MO 65102-0176

Phone: (573) 751-7466

Fax: (573) 751-6860

E-Mail: nrthomb@mail.dnr.state.mo.us

Web site: <http://www.dnr.state.mo.us/energy>

MO-3 MISSOURI

Incentive Type: Grants

Eligible Technologies: Renewable fuels (ethanol)

Applicable Sectors: industrial (ethanol producers)

Authority: Missouri Revised Statutes 142.028 and 142.029

Summary:

The Missouri Ethanol Producer Incentive Fund provides a financial incentive to a qualified Missouri ethanol fuel producer of \$0.20 per gallon for the first 12.5 million gallons and \$0.05 for the second 12.5 million gallons produced. This fund is administered by the Department of Agriculture and expires on December 31, 2007.

Contact:

Cindy Carroll

Missouri Department of Natural Resources

Energy Center

P.O. Box 176

Jefferson City, MO 65102-0176

Phone: (573) 751-3443

Fax: (573) 751-6860

E-Mail: cindy.carroll@dnr.mo.gov

Web site: <http://www.dnr.state.mo.us/energy>

MO-4 MISSOURI

Incentive Type: Grants

Eligible Technologies: Renewable fuels (biodiesel)

Applicable Sectors: Industrial (biodiesel producers)

Authority: Missouri Revised Statutes 142.031

Summary:

The Missouri Qualified Biodiesel Producer Incentive Fund provides a financial incentive to a qualified Missouri biodiesel producer of \$0.30 per gallon for the first 15 million gallons produced. This fund is administered by the Department of Agriculture. There is currently no funding available for this incentive.

Contact:

Cindy Carroll
Missouri Department of Natural Resources
Energy Center
P.O. Box 176
Jefferson City, MO 65102-0176
Phone: (573) 751-3443
Fax: (573) 751-6860
E-Mail: cindy.carroll@dnr.mo.gov
Web site: <http://www.dnr.state.mo.us/energy>

MO-5 MISSOURI

Incentive Type: Voluntary—AF purchases
Eligible Technologies: Renewable fuels (biodiesel)
Applicable Sectors: Schools (K-12)
Authority: Missouri Revised Statutes 414.433

Summary:

School districts are allowed to establish contracts with nonprofit, farmer-owned new generation cooperatives to purchase biodiesel blends of 20% biodiesel (B20) or higher for use as bus fuel. Each district can receive additional state school aid to help offset the incremental cost of purchasing the biodiesel. This incentive expires after the 2005-06 school year.

Contact:

Cindy Carroll
Missouri Department of Natural Resources
Energy Center
P.O. Box 176
Jefferson City, MO 65102-0176
Phone: (573) 751-3443
Fax: (573) 751-6860
E-Mail: cindy.carroll@dnr.mo.gov
Web site: <http://www.dnr.state.mo.us/energy>

MO-6 MISSOURI

Incentive Type: Grants
Eligible Technologies: AFVs
Applicable Sectors: State government
Authority: Missouri Revised Statutes 414.407

Summary:

The Biodiesel Fuel Revolving Fund uses the money generated by the sale of EPA credits to cover the incremental cost of purchasing fuel containing B20 or higher biodiesel blends for use by state fleet vehicles.

Contact:

Cindy Carroll
Missouri Department of Natural Resources
Energy Center
P.O. Box 176
Jefferson City, MO 65102-0176
Phone: (573) 751-3443
Fax: (573) 751-6860
E-Mail: cindy.carroll@dnr.mo.gov
Web site: <http://www.dnr.state.mo.us/energy>

MO-7 MISSOURI

Incentive Type: Mandate (AF fuel use)
Eligible Technologies: AF
Applicable Sectors: State governments
Authority: Missouri Revised Statutes 414.365

Summary:

The Missouri Department of Transportation (MoDOT) was directed to develop a program that provides for the opportunity to use B20 or higher biodiesel blends in its vehicle fleet and heavy equipment that use diesel fuel. By July 1, 2004, at least 50% and by July 1, 2005, at least 75% of the MoDOT vehicle fleet and heavy equipment that use diesel fuel must be fueled with B20 or higher biodiesel blends, if such fuel is commercially available. The blended biodiesel fuel shall be presumed to be commercially available if the incremental cost of purchasing the fuel is not more than \$0.25. To the maximum extent practicable, MoDOT shall obtain funding for the incremental cost of the blended biodiesel fuel from the Biodiesel Fuel Revolving Fund.

Contact:

Cindy Carroll

Missouri Department of Natural Resources

Energy Center

P.O. Box 176

Jefferson City, MO 65102-0176

Phone: (573) 751-3443

Fax: (573) 751-6860

E-Mail: cindy.carroll@dnr.mo.gov

Web site: <http://www.dnr.state.mo.us/energy>

MO-8 MISSOURI

Incentive Type: Mandate (Emission inspection exemptions)

Eligible Technologies: AF

Applicable Sectors: private sector

Authority: Missouri Revised Statutes 643.315

Summary:

Vehicles that are powered exclusively by electric or hydrogen power, or by fuels other than gasoline which are exempt from motor vehicle emissions inspection under federal regulation, are exempt from state emissions inspection requirements.

Contact:

Cindy Carroll

Missouri Department of Natural Resources

Energy Center

P.O. Box 176

Jefferson City, MO 65102-0176

Phone: (573) 751-3443

Fax: (573) 751-6860

E-Mail: cindy.carroll@dnr.mo.gov

Web site: <http://www.dnr.state.mo.us/energy>

MO-9 MISSOURI

Incentive Type: Mandate (AF fuel use)

Eligible Technologies: AF

Applicable Sectors: State governments

Authority: Missouri Revised Statutes 142.803 and 142.869

Summary:

The \$0.17 per gallon motor fuel tax does not apply to passenger motor vehicles, certain buses or commercial motor vehicles that are powered by an alternative fuel. Instead, the owners or operators of such vehicles shall pay an annual alternative fuel decal fee as follows (certain restrictions apply):

Gross Vehicle Weight

Type of Vehicle

Decal Fee

18,000 pounds (lbs.) or less

Passenger, School Bus, Commercial

\$75

18,000 lbs.-36,000 lbs.

Farm or Farming Transportation with an 'F' License Plate

\$100

18,000 lbs.-36,000 lbs.

Passenger-Carrying and Other Motor Vehicles

\$150

36,000 lbs. or more

Farm or Farming Transportation with an 'F' License Plate

\$250

36,000 lbs. or more
All Other Motor Vehicles
\$1,000

It is unlawful for any person to operate a motor vehicle required to have an alternative fuel decal upon the highways of this state without a valid decal. No person shall fuel alternative fuel vehicles with liquefied petroleum gas (LPG) or natural gas unless the vehicle has a valid decal.

Contact:

Cindy Carroll

Missouri Department of Natural Resources

Energy Center

P.O. Box 176

Jefferson City, MO 65102-0176

Phone: (573) 751-3443

Fax: (573) 751-6860

E-Mail: cindy.carroll@dnr.mo.gov

Web site: <http://www.dnr.state.mo.us/energy>

MO-10 MISSOURI

Incentive Type: Mandate (AFV purchases, AF fuel use)

Eligible Technologies: AFVs, AF

Applicable Sectors: State governments

Authority: Missouri Revised Statutes 414.400 and 414.410

Summary:

Any state agency operating a fleet of more than 15 motor vehicles must ensure that 50% of new vehicles acquired by the fleet between July 1, 1998, and July 1, 2000, and each biennial period thereafter are capable of running on alternative fuels. Excess acquisitions of AFVs may be credited towards future biennial goals. If a state agency fails to meet a biennial acquisition goal, purchases of any non-AFVs are not permitted until the goals are met, or an exemption or goal reduction has been granted. In addition, 30% of the fuel purchased annually for use in state fleet vehicles must be alternative fuels.

Contact:

Cindy Carroll

Missouri Department of Natural Resources

Energy Center

P.O. Box 176

Jefferson City, MO 65102-0176

Phone: (573) 751-3443

Fax: (573) 751-6860

E-Mail: cindy.carroll@dnr.mo.gov

Web site: <http://www.dnr.state.mo.us/energy>

MO-11 MISSOURI

Incentive Type: loans (AFV purchases, vehicle conversions, AF refueling stations)

Eligible Technologies: AFVs, AF

Applicable Sectors: Local government

Authority: Missouri Revised Statutes 414.353, 414.356, and 414.359

Summary:

The Missouri Energy Center has developed an administrative plan for implementing a loan program that provides financial assistance to political subdivisions for establishing the use of alternative fuels in their vehicle fleets. The loans can be used toward the purchase of new AFVs, conversion of gasoline motor vehicles to operate on alternative fuels, or construction of alternative fuel refueling stations. The loans will be available for a maximum of \$2,000 for the incremental cost of purchasing a new AFV or the conversion of a new or existing vehicle to operate on an alternative fuel, and a maximum of \$100,000 for the construction of an alternative fuel refueling station. There is currently no appropriation for the implementation of this legislation.

Contact:

Cindy Carroll

Missouri Department of Natural Resources

Energy Center

P.O. Box 176

Jefferson City, MO 65102-0176

Phone: (573) 751-3443

Fax: (573) 751-6860
E-Mail: cindy.carroll@dnr.mo.gov
Web site: <http://www.dnr.state.mo.us/energy>

MO-12 MISSOURI

Incentive Type: Outreach
Eligible Technologies: AF
Applicable Sectors: all
Authority: [RSMo](#) 414.420

Summary:

The Missouri Ethanol and Other Renewable Fuel Sources Commission was established in 1993 to promote the continued production and use of ethanol, ethanol blends and other renewable fuel sources in Missouri.

Contact:

Cindy Carroll
Missouri Department of Natural Resources
Energy Center
P.O. Box 176
Jefferson City, MO 65102-0176
Phone: (573) 751-3443
Fax: (573) 751-6860
E-Mail: cindy.carroll@dnr.mo.gov
Web site: <http://www.dnr.state.mo.us/energy>

MT-1 MONTANA

Incentive Type: Corporate Tax Credit
Eligible Technologies: Solar Thermal Electric, Solar Thermal Process Heat, Photovoltaics, Landfill Gas, Wind, Biomass, Hydro, Geothermal Electric, Fuel Cells
Applicable Sectors: Commercial, Industrial
Amount: 35%; \$5,000 minimum investment
Date Enacted: 5/5/01
Effective Date: 1/1/02
Expiration Date: None
Website: <http://data.opi.state.mt.us/bills/2001/billhtml/SB0506.htm>
Authority 1: [MCA 15-32-402 through 15-32-406](#)

Summary:

This statute allows a 35% tax credit for an individual, corporation, partnership, or small business corporation which makes an investment of \$5,000 or more in a commercial system or a net metering system that generates energy by means of an alternative renewable energy source. The credit is for manufacturing plants that produce alternative energy generating equipment, a business facility for which the alternative energy generating equipment supplies - on a direct contract sales basis - the basic energy needed, or alternative energy generating equipment in which the investment for which a credit is being claimed was made.

This tax credit broadens the previous tax credit, which only applied to wind systems, to now apply to alternative energy systems. Alternative energy systems include solar, wind, geothermal, conversion of biomass, fuel cells that do not require hydrocarbon fuel, small hydroelectric generators producing less than 1 megawatt, or methane from solid waste.

Contact:

Mark Hines
Montana Department of Environmental Quality
Planning, Prevention and Assistance Division
P.O. Box 202901
1520 E. 6th Avenue
Helena, MT 59620-2901
Phone: (406) 444-6769
Fax: (406) 444-6836
E-Mail: mhines@state.mt.us
Web site: <http://www.deq.state.mt.us/ppa/index.asp>

MT-2 MONTANA

Incentive Type: Tax credit—personal and corporate

Eligible Technologies: Solar Thermal Electric, Solar Thermal Process Heat, Photovoltaics, Landfill Gas, Wind, Biomass, Hydro, Geothermal Electric, Fuel Cells

Applicable Sectors: Commercial, Industrial

Amount: 35%; \$5,000 minimum investment

Date Enacted: 5/5/01

Effective Date: 1/1/02

Website: <http://data.opi.state.mt.us/bills/2001/billhtml/SB0506.htm>

Authority 1: Montana Code 15-32-401/15-32-402, as amended by SB 506 in 2001

Summary:

This statute allows a 35% tax credit for an individual, partnership or corporation which makes an investment of \$5,000 or more in a wind electricity generating system or facilities to manufacture wind energy equipment. Eligible property includes wind energy system equipment, transmission lines, and equipment used in the manufacture of wind energy devices. The credit must be taken the year the equipment is placed in service; however, excess credit may be carried over for the following 7 years. Certain rules apply when using other state or federal financial incentives.

This tax credit broadens the previous tax credit - which only applied to wind systems - to alternative energy systems. Alternative energy systems include solar, wind, geothermal, conversion of biomass, fuel cells that do not require hydrocarbon fuel, small hydroelectric generators producing less than 1 megawatt, or methane from solid waste.

Contact:

Mark Hines

Montana Department of Environmental Quality

Planning, Prevention and Assistance Division

P.O. Box 202901

1520 E. 6th Avenue

Helena, MT 59620-2901

Phone: (406) 444-6769

Fax: (406) 444-6836

E-Mail: mhines@state.mt.us

Web site: <http://www.deq.state.mt.us/ppa/index.asp>

MT-3 MONTANA

Incentive Type: Personal Tax Credit

Eligible Technologies: Solar Thermal Electric, Solar Thermal Process Heat, Photovoltaics, Landfill Gas, Wind, Biomass, Hydro, Geothermal Electric, Fuel Cells

Applicable Sectors: Commercial, Industrial

Amount: 35%; \$5,000 minimum investment

Date Enacted: 5/5/01

Effective Date: 1/1/02

Expiration Date: None

Website: <http://data.opi.state.mt.us/bills/2001/billhtml/SB0506.htm>

Authority 1: MCA 15-32-402 through 15-32-406

Summary:

This statute allows a 35% tax credit for an individual, corporation, partnership, or small business corporation which makes an investment of \$5,000 or more in a commercial system or a net metering system that generates energy by means of an alternative renewable energy source. The credit is for manufacturing plants that produce alternative energy generating equipment, a business facility for which the alternative energy generating equipment supplies - on a direct contract sales basis - the basic energy needed, or alternative energy generating equipment in which the investment for which a credit is being claimed was made.

This tax credit broadens the previous tax credit, which only applied to wind systems, to now apply to alternative energy systems. Alternative energy systems include solar, wind, geothermal, conversion of biomass, fuel cells that do not require hydrocarbon fuel, small hydroelectric generators producing less than 1 megawatt, or methane from solid waste.

Contact:

Mark Hines

Montana Department of Environmental Quality

Planning, Prevention and Assistance Division

P.O. Box 202901

1520 E. 6th Avenue

Helena, MT 59620-2901

Phone: (406) 444-6769

Fax: (406) 444-6836

E-Mail: mhines@state.mt.us
Web site: <http://www.deq.state.mt.us/ppa/index.asp>

MT-4 MONTANA

Incentive Type: Personal Tax Credit
Eligible Technologies: Photovoltaics, Wind, Biomass, Hydro, Fuel Cells, Geothermal Heat Pumps, Low-Emission Wood Stoves, Nonfossil Energy Gen
Applicable Sectors: Residential
Max. Limit: \$500
Terms: 5 years
Effective Date: 1/1/02
Website: <http://www.deq.state.mt.us/energy/Renewable/TaxIncentRenew.asp>
Authority 1: [MCA 15-32-201 through 15-32-203](#)

Summary:

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.

Recognized non-fossil forms of energy generation means:

1. A system that captures energy or converts energy sources into usable sources, including electricity, by using:
 - solar energy, including passive solar systems;
 - wind;
 - solid waste;
 - the decomposition of organic wastes;
 - geothermal;
 - fuel cells that do not require hydrocarbon fuel; or
 - an alternative energy system;
2. A system that produces electric power from biomass or solid wood wastes; or
3. A small system that uses water power by means of an impoundment that is not over 20 acres in surface area.

Contact:

Mark Hines
Montana Department of Environmental Quality
Planning, Prevention and Assistance Division
P.O. Box 202901
1520 E. 6th Avenue
Helena, MT 59620-2901
Phone: (406) 444-6769
Fax: (406) 444-6836
E-Mail: mhines@state.mt.us
Web site: <http://www.deq.state.mt.us/ppa/index.asp>

MT-5 MONTANA

Incentive Type: Property Tax Exemption
Eligible Technologies: Passive Solar Space Heat, Solar Water Heat, Active Solar Space Heat, Solar Thermal Electric, Photovoltaics, Wind, Biomass, Hydro, Waste
Applicable Sectors: Commercial, Residential
Amount: \$20,000 for single family, \$100,000 multi family
Max. Limit: N/A
Terms: 10 years
Website: http://www.deq.state.mt.us/ppa/energy_tax/page1.htm
Authority 1: [MCA 15-6-201\(b\)\(3\)](#)

Summary:

This statute exempts from property taxation the value added by a qualified renewable energy source. Qualified equipment includes active and passive solar, wind, hydropower, solid waste, and the decomposition of organic wastes. Such equipment is exempt from taxation for a period of 10 years following installation. The value added exemption applies to systems with up to \$20,000 in value in the case of a single-family residential dwelling and \$100,000 in the case of a multifamily residential dwelling or a nonresidential structure.

Contact:

Mark Hines
Montana Department of Environmental Quality
Planning, Prevention and Assistance Division

P.O. Box 202901
1520 E. 6th Avenue
Helena, MT 59620-2901
Phone: (406) 444-6769
Fax: (406) 444-6836
E-Mail: mhines@state.mt.us
Web site: <http://www.deq.state.mt.us/ppa/index.asp>

MT-6 MONTANA

Incentive Type: State Grant Program

Eligible Technologies: Passive Solar Space Heat, Solar Water Heat, Active Solar Space Heat, Solar Thermal Electric, Photovoltaics, Wind, Biomass, Hydro, Geothermal Electric, Geothermal Heat Pumps

Applicable Sectors: Commercial, Industrial, Residential, General Public

Amount: \$5,000 to \$1.5 million

Website: http://www.northwesternenergy.com/energy/renewables/renewable_energy.htm

Summary:

NorthWestern Energy, formerly Montana Power Company, periodically provides funding to its customers for renewable energy projects. As part of Montana's 1997 restructuring legislation, Montana established its Universal System Benefits (USB) Program. The USB requires all electric and gas utilities to establish USB funds for low-income energy assistance, weatherization, energy efficiency activities, and development of renewable energy resources. A typical NorthWestern Energy residential customer pays approximately \$1 per month in electric USB charges. About \$8.6 million is collected annually by NorthWestern, and about \$1 million is used for renewable energy projects.

In 2001, NorthWestern funded 15 of more than 20 RFPs received. Projects included wind and solar projects for residents and businesses and most of the projects included a public education or demonstration component to increase awareness of renewable energy.

A guide to funding renewable energy projects, "Bright Ideas in Renewable Energy," explains the program and the request for proposal (RFP) process. This guide is available for download on the program's Web site. The RFP should be submitted along with a cover sheet, equipment and installation cost information, and a completed and signed copy of the interconnection agreement, if applicable. Proposals are generally processed in 4 to 8 weeks.

Contact:

Information Specialist - NorthWestern

NorthWestern Energy

E+ renewable energy programs

40 East Broadway

Butte, MT 59701

Phone: (888) 700-6878

E-Mail: E+Programs@northwestern.com

Web site: <http://www.northwesternenergy.com/>

MT-7 MONTANA

Incentive Type: State Loan Program

Eligible Technologies: Photovoltaics, Landfill Gas, Wind, Biomass, Hydro, Fuel Cells, Geothermal Heat Pumps

Applicable Sectors: Commercial, Residential

Amount: \$10,000

Max. Limit: \$10,000

Terms: 5 years

Date Enacted: 5/5/01

Effective Date: 7/1/01

Website: <http://www.deq.state.mt.us/energy/Renewable/altenergyloan.asp>

Authority 1: [MCA 75-25-101](#)

Summary:

The Alternative Energy Revolving Loan Program (AERLP) provides loans to individuals and small businesses for the purpose of building alternative energy systems for residences and small businesses to generate energy for their own use and for net metering. The program is administered by the Department of Environmental Quality, which is responsible for developing the rules.

The loan account moneys are deposited into the account from air quality penalties. Interest earned by the account and any interest that is generated from a loan repayment is deposited into the account and used to sustain the program.

Alternative energy systems include fuel cells that do not require hydrocarbon fuel, geothermal systems, low emission wood or biomass, wind, photovoltaics, geothermal, small hydropower plants under 1 megawatt, and other recognized non-fossil forms of energy generation.

The amount of a loan may not exceed \$10,000 and the loan must be repaid within 5 years.

Contact:

Mark Hines

Montana Department of Environmental Quality
Planning, Prevention and Assistance Division
P.O. Box 202901

1520 E. 6th Avenue

Helena, MT 59620-2901

Phone: (406) 444-6769

Fax: (406) 444-6836

E-Mail: mhines@state.mt.us

Web site: <http://www.deq.state.mt.us/ppa/index.asp>

MT-8 MONTANA

Incentive Type: Generation Disclosure

Eligible Technologies: Solar Thermal Electric, Photovoltaics, Wind, Biomass, Hydro, Geothermal Electric

Applicable Sectors: Utilities

Fuel Mix: Yes

Emissions: Yes

Std Format: Yes

Effective Date: (proposed)

Website: <http://www.psc.state.mt.us/gaselec/rulemaking.htm>

Authority 1: MCA 69-8-102 and 69-8-403, proposed

Summary:

Montana's 1997 restructuring law included requirements for the provision of information to consumers about electricity supply services. The Montana Public Service Commission proposed rules on November 8, 1999 calling for the disclosure of fuel mix and environmental impact information. These regulations have yet to be implemented.

The proposed environmental disclosure regulations would require retail electricity suppliers to disclose information on fuel mix and emissions in a standard format at least twice a year along with product offers and advertisements. Under the proposed rules, electricity providers that do not make claims about specific purchases may disclose fuel mix data for net system power for the previous calendar year. Suppliers that make a "claim of specific purchases" or make a "claim-based sale" must provide data on the projected fuel mix for the coming year or compare fuel mix data with net system power for the previous calendar year. Renewable resources can be disclosed as a single resource category. Retail suppliers are also required to disclose carbon dioxide, sulfur dioxide, and nitrogen oxides emissions as well as the amount of spent nuclear fuel generated compared to the regional average, as represented by net system power. Hydro resources must be presented as a percentage of non-low-impact hydro used. The promulgation of final rules may be delayed because the original timetable for retail access has been modified.

Contact:

Will Rosquist

Montana Public Service Commission
1701 Prospect Avenue

Vista Building

Helena, MT 59620-2601

Phone: (406) 444-6359

Fax: (406) 444-7618

E-Mail: wrosquist@mt.gov

Web site: <http://www.psc.state.mt.us/>

MT-9 MONTANA

Incentive Type: Mandatory Utility Green Power Option

Eligible Technologies: Solar Thermal Electric, Solar Thermal Process Heat, Photovoltaics, Wind, Biomass, Geothermal Electric

Applicable Sectors: Commercial, Residential

Authority 1: [MCA 69-8-210\(6\)](#)

Authority 2: [MCA 35-19-104](#)

Summary:

HB 474 requires regulated electric utilities in Montana to offer their customers an opportunity to purchase "a separately marketed product composed of power from renewable resources," defined as biomass, wind, solar, or geothermal resources.

The Montana Electric Buying Cooperative (MEBC) was established to supply Clean Power to residential and small business electricity

customers of the former Montana Power Company (now NorthWestern Energy). Members of the Coop purchase Green Tags from MBEC. The Green Tags are bought from the Bonneville Environmental Foundation and represent the market value of the environmental benefit that comes from Clean Power generation. The money from the sale of Green Tags goes towards renewable energy projects in Montana. Once renewable energy installations come on-line in Montana, power will be purchased from those installations from NorthWestern Energy.

Contact:

John Schneeberger

Montana Electricity Buying Cooperative

778 Hwy 93, North

Hamilton, MT 59840

Phone: (406) 961-3935

E-Mail: schnee@montana.com

MT-10 MONTANA

Incentive Type: Tax credit--Corporate

Eligible Technologies: AFVs, AV

Applicable Sectors: Businesses, Individuals

Authority 1: Montana Code Annotated (MCA) 15-30-164 and 15-31-137)

Summary:

An income tax credit is available to businesses or individuals for up to 50% of the equipment and labor costs for converting vehicles to operate on alternative fuels. The maximum amount of the credit is \$500 for the conversion of vehicles of 10,000 pounds (lbs.) or less Gross Vehicle Weight Rating (GVWR) and up to \$1,000 for vehicles over 10,000 lbs. GVWR. The credit must be applied in the year the conversion is made, and the seller of an alternative fuel may not receive a credit for converting their own vehicles to operate on the alternative fuel that they sell.

Contact:

Howard Haines

Montana Department of Environmental Quality

Phone: (406) 444-6773

Fax: (406) 444-6836

Email: hhaines@state.mt.us

MT-11 MONTANA

Incentive Type: Tax reduction—use tax

Eligible Technologies: AV (Biodiesel, Ethanol)

Applicable Sectors: Individual

Authority 1: MCA 15-70-204 and 15-70-321

Summary:

A consumer incentive for ethanol and biodiesel blends will be available for four years after an ethanol plant is constructed and begins operating in Montana. The incentive reduces the state road tax to the consumer by 15% as compared to the tax on gasoline.

Contact:

Howard Haines

Montana Department of Environmental Quality

Phone: (406) 444-6773

Fax: (406) 444-6836

Email: hhaines@state.mt.us

MT-12 MONTANA

Incentive Type: Outreach

Eligible Technologies: AV

Applicable Sectors: all

Authority 1: MCA 90-4-1011

Summary:

The state of Montana encourages the use of alternative fuels and fuel blends to the extent that doing so produces environmental and economic benefits to the citizens of Montana. The state legislature recommends several guidelines for the development of a state alternative fuels policy, including the following: 1) encourage the use of self-sufficient markets; 2) any state alternative fuels program should have

measurable benefits that are communicated to the public; 3) state and local governments should be encouraged to set an example with their vehicle fleets in the use of alternative fuels and fuel blends. The state also encourages production of alternative fuels and fuel blends.

Contact:

Howard Haines

Montana Department of Environmental Quality

Phone: (406) 444-6773

Fax: (406) 444-6836

Email: hhaines@state.mt.us

MT-13 MONTANA

Incentive Type: Outreach

Eligible Technologies: AV

Applicable Sectors: Federal government

Authority 1: Senate Joint Resolution 22, 2003

Summary:

The state of Montana resolves to urge Congress to support increased development of new sources of renewable energy, such as biofuels (including biodiesel and ethanol); to support the development and use of fuel efficient vehicles, and the development of new technologies such as fuel cells and other potential applications of emerging hydrogen technology.

Contact:

Howard Haines

Montana Department of Environmental Quality

Phone: (406) 444-6773

Fax: (406) 444-6836

Email: hhaines@state.mt.us

MT-14 MONTANA

Incentive Type: Outreach

Eligible Technologies: AV

Applicable Sectors: Transportation

Authority 1: House Joint Resolution 26, 2003, and the Montana Hydrogen Futures Project

Summary:

The Montana Hydrogen Energy Plan aims to develop the hydrogen economy in Montana and establish Montana as a key state in the hydrogen economy. The Montana Hydrogen Futures Project shall be established as the key economic development focus of the state, such that by the year 2020, 50% of all vehicles and equipment in Montana and 100% of all state-run vehicles will be powered by alternative fuels; all intercity bus systems will use hydrogen; distribution of synthetic fuels and hydrogen will be provided for the trucking industry; a school bus retrofit and hydrogen power program will be established; and incentives will be provided for conversion of internal combustion engines to hydrogen.

Contact:

Howard Haines

Montana Department of Environmental Quality

Phone: (406) 444-6773

Fax: (406) 444-6836

Email: hhaines@state.mt.us

MT-15 MONTANA

Incentive Type: Outreach

Eligible Technologies: AFVs, AV

Applicable Sectors: Commercial (fuel stations)

Authority 1: MCA 15-70-245 and 15-70-370

Summary:

Retail pumps that dispense ethanol or biodiesel blends must have a decal designed and produced by the state Department of Transportation. The department shall provide the decals, which must be affixed to both sides of the fuel pump and state that the price of the fuel reflects a 15% reduction in the amount of state taxes when compared to gasoline or special fuels. The penalty for each violation is \$100 for each fuel pump.

Contact:
Howard Haines
Montana Department of Environmental Quality
Phone: (406) 444-6773
Fax: (406) 444-6836
Email: hhaines@state.mt.us

NE-1 NEBRASKA

Incentive Type: Corporate Tax Credit
Eligible Technologies: Renewable Transportation Fuels
Applicable Sectors: Commercial, Industrial
Amount: 18 cents/gallon; 7.5 cents/gallon for expansions
Max. Limit: Varies; see below
Date Enacted: 1990
Effective Date: 1993
Expiration Date: Varies by provision
Authority 1: [R.R.S. Neb. § 66-1344](#)

Summary:

New ethanol facilities in Nebraska producing a minimum of 100,000 gallons annually, before denaturing, on or before June 30, 2004 are eligible to receive a tax credit of 18 cents per gallon for 96 consecutive months if they were not in production on or before September 1, 2001. Payments begin with the first calendar month for which the facility is eligible to receive such credit and end not later than June 30, 2012. Facilities are eligible to receive payments for 48 consecutive months until June 30, 2008 if the facility did not received credits prior to June 1, 1999.

Up to 15,625,000 gallons of ethanol produced annually at a facility and up to 125,000,000 gallons of ethanol produced at a facility by the end of the payment period are eligible for credits.

Facilities expanding production can receive a credit of 7.5 cents per gallon of ethanol, before denaturing, for new production for up to 36 consecutive months. New production means production which results from the expansion of an existing facility's capacity by at least two million gallons first placed into service after June 1, 1999. This credit must be earned on or before December 31, 2003.

Contact:
Todd Sneller
Nebraska Ethanol Board
P.O. Box 94922
Lincoln, NE 68509
Phone: (402) 471-2941
Fax: (402) 471-2470
E-Mail: sneller@nrdec.nrc.state.ne.us

NE-2 NEBRASKA

Incentive Type: State Loan Program
Eligible Technologies: Solar Water Heat, Active Solar Space Heat, Solar Thermal Electric, Photovoltaics, Wind, Biomass, Hydro, Renewable Transportation Fuels, Renewable Fuel Vehicles, Geothermal Electric, Waste
Applicable Sectors: Commercial, Residential, Local Government, Agricultural
Amount: 5% or less
Max. Limit: Varies
Date Enacted: 1/1/90
Website: <http://www.nol.org/home/NEO/loan/index.html>

Summary:

This program makes available low interest loans for residential and commercial energy efficiency improvements. The Nebraska Energy Office administers this program, which was created in 1990 using oil overcharge funds. To date, over 15,000 individual loans have been made totaling over \$100 million.

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, for example, the purchase of alternative fuel vehicles. Projects not listed as pre-qualified improvements may be eligible with the submission of a technical audit that verifies that the project will create net energy savings.

Much of this program's success is due to the leveraging of state funds through collaboration with individual banks, savings institutions, and credit unions. Those seeking a loan under this program first approach their own financial institution, which approves the project on financial terms before contacting the State Energy Office for its approval. The State Energy Office then buys half of the loan at 0% interest so that the total interest on the loan "from the borrower's perspective" will be half the market rate obtained through their private lending institution.

Of the over \$100 million lent out so far, \$51 million has been State Energy Office money.

Though they are eligible, loans for renewable energy projects have not previously been widely sought and only a handful of renewable energy projects have been funded to date. It is felt that the program has potential benefits for renewables in Nebraska as well as other states where this structure could be replicated.

Contact:

Jack Osterman

Nebraska Energy Office

P.O. Box 95085

1111 O Street, Suite 223

Lincoln, NE 68509-5085

Phone: (402) 471-2867

Fax: (402) 471-3064

E-Mail: osterman@mail.state.ne.us

Web site: <http://www.nol.org/home/NEO/>

NE-3 NEBRASKA

Incentive Type: Green Pricing Program

Eligible Technologies: Landfill Gas, Wind

Applicable Sectors: Commercial, Residential

Premium: Residential: \$4.50 - \$30.00/month; Commercial: \$0.03/kWh

Commitment: One year

Website: <http://www1.oppd.com/prodsvc/resprodsvc/greenpower.cfm>

Summary:

OPPD has entered the renewable energy market with a 660-kilowatt wind turbine generator, located at Valmont Industries Inc. in Valley, and a \$4 million landfill gas-to-energy plant, at the Douglas County Recycling and Disposal Facility near 216th Street and Highway 36. The power produced from these two energy sources, 27.1 million kilowatt-hours, is now available for purchase by OPPD customer-owners.

Residential participants may choose from four levels of participation. Supporters pay \$4.50/month, Promoters, \$7.50/month, Patrons, \$15.00/month, and Sponsors, \$30.00/month. Commercial customers may subscribe by paying about \$0.03/kWh.

Contact:

Tony Walde

Omaha Public Power District

444 S. 16 St. Mall

P.O. Box 3995

Omaha, NE 68102-2247

Phone: (877) 536-4131

Web site: <http://www1.oppd.com/index.htm>

NE-4 NEBRASKA

Incentive Type: Loans

Eligible Technologies: AFVs, AF refueling stations

Applicable Sectors: Businesses, Individuals

Summary:

The Nebraska Energy Office administers the Dollar and Energy Saving Loans Program. The Program makes low-cost loans available for a variety of alternative fuel projects, with the Nebraska Energy Office's participation. Those projects include the replacement of conventional vehicles with AFVs; the purchase of new AFVs; the conversion of conventional vehicles to operate on alternative fuels; and the construction or purchase of a refueling station or equipment. Dedicated AFVs are eligible, and loans may go towards part of the cost of dual-fuel vehicles. The maximum loan amount is \$150,000 per borrower. The interest rate is 5% or less and may be adjusted semi-annually.

Contact:

Jerry Loos

Nebraska Energy Office

P.O. Box 95085

1111 O Street, Suite 223

Lincoln, NE 68509-5085

Phone: (402) 471-3356

Fax: (402) 471-3064

E-Mail: jloos@mail.state.ne.us

Web site: <http://www.nol.org/home/NEO/>

NE-5 NEBRASKA

Incentive Type: Tax exemption—use tax

Eligible Technologies: AF (ethanol, biodiesel)

Applicable Sectors: Industrial (ethanol and Biodiesel producers)

Authority: Legislative Bill 983, 2004; and Nebraska Statutes 66-489 and 66-496)

Summary:

Motor fuels sold to an ethanol or biodiesel facility, and motor fuels manufactured at an ethanol or biodiesel facility are exempt from certain motor fuel tax laws enforced by the Motor Fuels Division of the Department of Revenue.

Contact:

Jerry Loos

Nebraska Energy Office

P.O. Box 95085

1111 O Street, Suite 223

Lincoln, NE 68509-5085

Phone: (402) 471-3356

Fax: (402) 471-3064

E-Mail: jloos@mail.state.ne.us

Web site: <http://www.nol.org/home/NEO/>

NV-1 NEVADA

Incentive Type: Property Tax Exemption

Eligible Technologies: Solar Water Heat, Active Solar Space Heat, Solar Thermal Electric, Solar Thermal Process Heat, Photovoltaics, Wind, Biomass, Waste

Applicable Sectors: Commercial, Industrial

Amount: 50%

Date Enacted: 1993

Website: <http://energy.state.nv.us/renewable/incentives.htm>

Authority 1: [NRS 361.0685](#)

Summary:

Enacted in 1993, but most recently revised by SB 227 on June 1, 2001, this statute allows a 50% property tax exemption for any business that:

- 1) uses a process where at least 50% of the material or product is recycled, or
- 2) includes a facility for the generation of electricity from recycled material, whose primary purpose is the conservation of energy or the substitution of other sources of energy for fossil sources of energy.

This includes businesses that have a biomass, solar, or wind facility with a generating capacity of at least 10 kW. The business must use renewable energy as its primary source of energy.

The exemption applies to 50% of the business property -- personal and real -- for up to ten years. Community investment and job creation requirements must be met. Note that this exemption does not apply to residential property.

Contact:

Susan Combs

Commission on Economic Development

108 E. Proctor St.

Carson City, NV 89701

Phone: (775) 687-4325

Fax: (775) 687-4450

E-Mail: scombs@bizopp.state.nv.us

Web site: <http://www.expand2nevada.com/newsite/#>

Diana Howard

Office of the Governor

Nevada State Office of Energy

727 Fairview Drive, Suite F

Carson City, NV 89701

Phone: (775) 687-5975

Fax: (775) 687-4909

E-Mail: dhoward@dbi.state.nv.us

Web site: <http://energy.state.nv.us>

NV-2 NEVADA

Incentive Type: Property Tax Exemption

Eligible Technologies: Passive Solar Space Heat, Solar Water Heat, Active Solar Space Heat, Photovoltaics, Wind, Hydro, Geothermal Electric, Geothermal Heat Pumps, MSW

Applicable Sectors: Commercial, Industrial, Residential

Amount: 100%

Max. Limit: None

Website: <http://energy.state.nv.us/renewable/incentives.htm>

Authority 1: [NRS 361.079](#)

Summary:

This statute states that any value added by a qualified renewable energy source shall be subtracted from the assessed value of any residential, commercial or industrial building for property tax purposes. Qualified equipment includes solar, wind, geothermal, solid waste, and hydro. This exemption applies for all years following installation.

Contact:

Diana Howard

Office of the Governor
Nevada State Office of Energy
727 Fairview Drive, Suite F
Carson City, NV 89701

Phone: (775) 687-5975

Fax: (775) 687-4909

E-Mail: dhoward@dbi.state.nv.us

Web site: <http://energy.state.nv.us>

NV-3 NEVADA

Incentive Type: Sales Tax Exemption

Eligible Technologies: Solar Thermal Electric, Photovoltaics, Wind, Biomass, Hydro, Geothermal Electric, Fuel Cells, Waste

Applicable Sectors: Commercial, Residential

Amount: Exempt from local sales taxes; only required to pay 2% state sales tax

Effective Date: 1/1/02

Expiration Date: 6/30/03

Website: <http://energy.state.nv.us/renewable/incentives.htm>

Authority 1: [NRS 374.307](#)

Summary:

The sales/use tax rate for any sales, storage, consumption or use of products or systems designed or adapted to use renewable energy to generate electricity and all of its integral components is 2% in all counties for those purchases made from January 1, 2002 through June 30, 2003. Sales, storage, consumption or use of such products or systems are exempt from any local taxes pursuant to chapters 374, 374A, 377, 377A or 377B of the Nevada Revised Statutes.

Renewable energy means a source of energy that occurs naturally or is regenerated naturally, including, without limitation biomass, fuel cells, geothermal energy, solar energy, waterpower and wind. The term does not include coal, natural gas, oil, propane or any other fossil fuel, or nuclear energy. Systems designed or adapted to use renewable energy to generate electricity means a system of related components from which at least 75 percent of the electricity generated is produced from one or more sources of renewable energy and that is designed to work as an integral package such that the system is not complete without one of its related components.

Contact:

Diana Howard

Office of the Governor
Nevada State Office of Energy
727 Fairview Drive, Suite F
Carson City, NV 89701

Phone: (775) 687-5975

Fax: (775) 687-4909

E-Mail: dhoward@dbi.state.nv.us

Web site: <http://energy.state.nv.us>

NV-4 NEVADA

Incentive Type: Green Pricing Program
Eligible Technologies: Photovoltaics, Wind, Geothermal Electric, Fuel Cells
Applicable Sectors: Commercial, Residential, Nonprofit, Schools
Premium: Specified whole dollar amounts
Co-funding: Corporate funding being sought through grant applications
Commitment: Minimum 6-month participant commitment
Date Enacted: 1998
Expiration Date: none
Website: <http://www.nevadapower.com/comenv/env/greenpower/>

Summary:

Since 2000, the Desert Research Institute's Research Foundation has operated the GreenPower program in conjunction with Nevada Power Company. The program allows the DRI Research Foundation to fund the construction of solar arrays throughout southern Nevada, specifically sites at K-12 schools. In addition, the Foundation will educate teachers, students, and the general population on the benefits of renewable resource development. Discussions to expand the program statewide and integrate wind turbines into the arrays are underway with Nevada Power's parent company, Sierra Pacific Resources.

Nevada Power supports the efforts of the program by collecting contributions for the GreenPower program through its customers' monthly utility bill. The DRI Research Foundation is a recognized 501-(c)-(3) organization so all contributions are tax deductible. Participants may contribute whole dollar amounts, which are added to their monthly bill, or a flat whole dollar amount. Supporters receive a total contribution acknowledgement letter at the end of each year for tax purposes.

By August, 2002, the Committee will have installed its first renewable design, including a 2.8 kW solar array and a 1 kW wind turbine at Hyde Park Middle School and Academy of Science & Mathematics in Las Vegas. Donations to the program are supporting the construction of this first array, which is expected to serve as a model for schools throughout the State.

Contact:

Hilary Crowley
Desert Research Institute
755 East Flamingo Road
Las Vegas, NV 89119
Phone: (702) 895-0409
E-Mail: hlewis@dri.edu
Web site: <http://www.dri.edu>

NV-5 NEVADA

Incentive Type: Generation Disclosure
Eligible Technologies: Solar Thermal Electric, Photovoltaics, Wind, Biomass, Hydro, Renewable Transportation Fuels, Geothermal Electric, Waste
Applicable Sectors: Utilities
Fuel Mix: Yes
Emissions: Yes
Std Format: Yes
Date Enacted: 6/5/01
Effective Date: 10/1/01
Expiration Date: None
Authority 1: [NRS Chapter 704.763, as amended by AB 197 \(2001\)](#)

Summary:

Beginning January 2002, each electric utility must disclose certain 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.

Contact:

Diana Howard
Office of the Governor
Nevada State Office of Energy
727 Fairview Drive, Suite F
Carson City, NV 89701
Phone: (775) 687-5975
Fax: (775) 687-4909
E-Mail: dhoward@dbi.state.nv.us
Web site: <http://energy.state.nv.us>

NV-6 NEVADA

Incentive Type: Net Metering Rules
Eligible Technologies: Solar Thermal Electric, Photovoltaics, Wind, Biomass, Geothermal Electric
Applicable Sectors: Commercial, Industrial, Residential
Limit on System Size: 10 kW
Limit on Overall Enrollment: None
Treatment of Net Excess: Granted to utility
Utilities Involved: All utilities
Date Enacted: 7/1/97
Expiration Date: none
Authority 1: [NRS 704.766-775](#)

Summary:

In 1997, Nevada enacted a law allowing customers generating up to 10 kW of solar or wind power to net meter. In 2001, AB 661 removed the limit on the amount of energy a utility can receive through net metering.

Customer generators are billed monthly except in situations in which the customer and the utility agree on annual billing. Net excess generation is credited to the utility and is considered renewable energy that the utility has generated to fulfill its renewable energy portfolio. Utilities are required to supply a two-way meter to measure flow in both directions, and utilities are prohibited from adding any additional charges to the bills of those customers participating in net metering.

Furthermore, utilities cannot place any additional standards or requirements on customer-generators beyond those requirements established by the National Electric Code (NEC), Underwriters Laboratories (UL), and the Institute of Electrical and Electronic Engineers (IEEE).

Contact:

Diana Howard
Office of the Governor
Nevada State Office of Energy
727 Fairview Drive, Suite F
Carson City, NV 89701
Phone: (775) 687-5975
Fax: (775) 687-4909
E-Mail: dhoward@dbi.state.nv.us
Web site: <http://energy.state.nv.us>
Dave McNeil
Nevada Department of Business and Industry
Nevada Energy Office
727 Fairview Drive, Suite F
Carson City, NV 89701
Phone: (775) 687-4909
Fax: (775) 687-4914
E-Mail: dmcneil@dbi.state.nv.us
Web site: <http://www.energy.state.nv.us>

NV-7 NEVADA

Incentive Type: Renewables Portfolio Standard
Eligible Technologies: Solar Thermal Electric, Photovoltaics, Wind, Biomass, Geothermal Electric
Applicable Sectors: Utilities
Standard: 5%
Technology Minimum: 5% solar
Credit Trading: 1/1/03
Date Enacted: 6/8/01
Effective Date: 1/1/03
Authority 1: [NRS 704.7801, as amended by SB 372 in 2001](#)

Summary:

As part of its 1997 restructuring legislation, the Nevada legislature established a renewable portfolio standard. Under the standard, the Utilities must derive a minimum percentage of the total electricity they sell from renewable energy resources. In 2001, the legislature revised the minimum amounts to increase by 2% every 2 years, starting with a 5% renewable energy requirement in 2003 and achieving a 15% requirement by 2013 and each year thereafter. Not less than 5% of the renewable energy must be generated from solar renewable energy systems.

% Renewables	Date
5%	01/01/2003
7%	01/01/2005
9%	01/01/2007

11%	01/01/2009
13%	01/01/2011
15%	01/01/2013

Beyond solar, qualifying renewable energy resources include wind, geothermal, and biomass that occurs naturally or that is regenerated.

Contact:

Diana Howard

Office of the Governor
Nevada State Office of Energy
727 Fairview Drive, Suite F
Carson City, NV 89701

Phone: (775) 687-5975

Fax: (775) 687-4909

E-Mail: dhoward@dbi.state.nv.us

Web site: <http://energy.state.nv.us>

NV-8 NEVADA

Incentive Type: Outreach

Eligible Technologies: AFVs, AF

Applicable Sectors: Transportation

Authority 1: Nevada Revised Statutes (NRS) 486A.200

Summary:

In conjunction with the Department of Business and Industry, the Department of Conservation and Natural Resources may develop and administer a program to provide incentives to encourage the use of clean-burning fuel in motor vehicles.

Contact:

Peter Konesky
Office of the Governor
Nevada State Office of Energy
727 Fairview Drive, Suite F
Carson City, NV 89701

Phone: (775) 687-8735

Fax: (775) 687-4909

E-Mail: pkonesky@dbi.state.nv.us

Web site: <http://energy.state.nv.us>

NV-9 NEVADA

Incentive Type: Tax reduction--fuels

Eligible Technologies: AF

Applicable Sectors: Transportation

Authority 1: NRS 366.190

Summary:

Clean-burning fuels have a reduced special fuels tax.

Contact:

Peter Konesky
Office of the Governor
Nevada State Office of Energy
727 Fairview Drive, Suite F
Carson City, NV 89701

Phone: (775) 687-8735

Fax: (775) 687-4909

E-Mail: pkonesky@dbi.state.nv.us

Web site: <http://energy.state.nv.us>

NV-10 NEVADA

Incentive Type: Mandates purchase--vehicles

Eligible Technologies: AFVs, AF

Applicable Sectors: State government, local government
Authority 1: Nevada Administrative Code 486A.160

Summary:

Fleets containing 10 or more vehicles that are owned, leased, or operated by the state, a state agency, or a political subdivision of the state in a county whose population is 100,000 or more are mandated to acquire AFVs or U.S. Environmental Protection Agency certified ultra low emission vehicles (ULEVs). Beginning in fiscal year 2000 and each year thereafter, 90% of new vehicles obtained by covered fleets must be either AFVs or certified ULEVs. A fleet may meet the acquisition requirements by converting existing or newly acquired vehicles to operate on alternative fuels. An AFV acquired in compliance with this mandate must operate solely on the alternative fuel except when operating in an area where the appropriate alternative fuel is unavailable. Fleets with buses and/or heavy-duty vehicles are included.

Contact:

Peter Konesky
Office of the Governor
Nevada State Office of Energy
727 Fairview Drive, Suite F
Carson City, NV 89701
Phone: (775) 687-8735
Fax: (775) 687-4909
E-Mail: pkonesky@dbi.state.nv.us
Web site: <http://energy.state.nv.us>

NV-11 NEVADA

Incentive Type: Mandate—emissions exemption
Eligible Technologies: AFVs
Applicable Sectors: Transportation
Authority 1:

Summary:

AFVs are exempt from emissions testing.

Contact:

Department of Motor Vehicles
<http://www.dmvnv.com/emission.htm>

NH-1 NEW HAMPSHIRE

Incentive Type: Property Tax Exemption
Eligible Technologies: Passive Solar Space Heat, Solar Water Heat, Active Solar Space Heat, Photovoltaics, Wind, Wood heating
Applicable Sectors: Residential
Amount: varies: local option
Max. Limit: varies: local option
Date Enacted: 1/1/76
Website: <http://www.nhecs.org/images/taxexemptions.pdf>
Authority 1: 5 NH RSA 72:61-72

Summary:

New Hampshire's local option property tax statute allows each city and town 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 may include solar (photovoltaics, solar space heating, solar water heating, passive solar), wind, and wood-fired central heating systems. Cities and towns must adopt the exemption provision separately for each energy source. According to the New Hampshire Department of Revenue Administration, as of 2001, there are more than 654 homeowners in the state receiving a total property tax exemption of more than \$2.4 million as a result of these laws.

Sixty-one New Hampshire cities and towns offer the property tax incentive for one or more of these energy sources. Fifty-nine of these communities offer the exemption for solar technologies, whereas 54 have adopted the provision for wind power and 20 have adopted the provision for wood-fired central heating. Visit the program Web site to see a list of cities and towns that offer the exemption.

Contact:

Joseph Broyles
New Hampshire Governor's Office of Energy and Community Services
57 Regional Drive, Suite 3
Concord, NH 03301-8519
Phone: (603) 271-2611
Fax: (603) 271-2615

E-Mail: jbroyles@gov.state.nh.us
Web site: <http://www.nhecs.org>

NJ-1 NEW JERSEY

Incentive Type: Sales Tax Exemption

Eligible Technologies: Passive Solar Space Heat, Solar Water Heat, Active Solar Space Heat, Solar Thermal Electric, Photovoltaics, Wind, Biomass, Hydro, Renewable Transportation Fuels, Water Pumping

Applicable Sectors: Commercial, Industrial, Residential, Utilities

Amount: All

Max. Limit: None

Date Enacted: 9/11/80

Effective Date: 9/11/80

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

Authority 1: [NJSA 54:32B-8.33](#) and [regulations: N.J.A.C. 14:25-1](#)

Summary:

New Jersey offers a full exemption from the state 6% sales tax for all solar and wind equipment. This exemption is available to all taxpayers. In addition, reference to New Jersey's technical sufficiency standards is necessary. These standards for solar equipment were established in order to certify eligible solar energy equipment for the state's sales and use tax exemptions. The statute defines all relevant solar energy equipment including equipment for passive solar design. Although the regulations defining eligible systems expired in 2000, the exemption still exists. New regulations are currently being proposed but are not expected to be promulgated until early 2003.

Contact:

Cameron Johnson

State of New Jersey Board of Public Utilities

Division of Energy

P.O. Box 350

Trenton, NJ 08625-0350

Phone: (609) 777-3316

Fax: (609) 777-3336

E-Mail: cameron.johnson@bpu.state.nj.us

Web site: <http://www.bpu.state.nj.us>

NJ-2 NEW JERSEY

Incentive Type: State Rebate Program

Eligible Technologies: Photovoltaics, Wind, Biomass, Fuel Cells

Applicable Sectors: Commercial, Residential

Rebate: \$0.15 - \$5/watt

Max. Limit: 30% - 60% of system costs

Date Enacted: 1999

Effective Date: 2001

Expiration Date: 2008

Website: http://www.njcleanenergy.com/html/3renewable/1_home.html

Summary:

New Jersey's 1999 electricity restructuring legislation provides for investments in energy efficiency and renewable energy through the "Societal Benefits Charge" collected from all electric public utility customers. In March 2001, the NJ Board of Public Utilities approved funding for renewable energy programs, including a customer-sited renewables rebate program administered by the state's utilities.

Solar electric systems of all sizes are currently eligible for the following incentives (up to 60% of eligible system costs):

Up to 10kW ----- \$5.00/Watt

10 - 100kW ----- \$4.00/Watt

100 kW - 500 kW ---- \$3.00/Watt

500 - 1000 kW ----- \$0.30/Watt

Incentives are paid incrementally based on the size of the system installed such that a large system would be eligible for:

\$5.00 per Watt for the first 10 kW of system size

\$4.00 per Watt for the next 90 kW of system size

\$3.00 per Watt for the next 400 kW of system size

\$0.30 per Watt for system capacity in excess of 500 kW, up to 1 MW

Large wind or biomass systems (greater than 10 kW) are currently eligible for lower incentive levels. Incentives will decrease over time as the total number of installed systems increases. See the New Jersey Clean Energy Program Web site shown above for all application materials, complete funding schedule, and current incentive levels.

Eligible technologies include fuel cells, photovoltaic, small wind, or sustainable biomass technologies. There no maximum installation size. However, if the installation size exceeds an applicant's needs, the applicant is not eligible for incentives under this program but can compete for financial incentives through the grid-supply or market development programs. In addition, systems must include at least a 5-year all-inclusive warranty.

[Contact your local utility](#) for more information.

Contact:

Mona Mosser

New Jersey Board of Public Utilities

Division of Energy

2 Gateway Center

Newark, NJ 07102

Phone: (973) 648-2891

Fax: (973) 648-2467

E-Mail: mosser@bpu.state.nj.us

Web site: <http://www.bpu.state.nj.us>

NJ-3 NEW JERSEY

Incentive Type: Outreach Program

Eligible Technologies: Passive Solar Space Heat, Solar Water Heat, Active Solar Space Heat, Photovoltaics, Wind, Biomass, Geothermal Heat Pumps, Building standards

Applicable Sectors: Residential

Website: <http://www.state.nj.us/dca/dhcr/njgreenhomes.htm>

Summary:

The mission of the Green Homes Office is to improve the environmental performance, energy efficiency, quality, and affordability of housing in New Jersey. Through advocacy, education, and technical assistance, this office aims to accelerate the use of innovative green building design and technologies -- including solar, wind, biomass and geothermal, raise building standards, and create a consumer demand for efficient and environmentally responsible, high-performance homes.

Contact:

Darren Port

New Jersey Department of Community Affairs

Division of Housing and Community Resources

101 South Broad Street

P.O. Box 806

Trenton, NJ 08625-0800

Phone: (609) 292-3931

Fax: (609) 292-9798

E-Mail: njgreenhomes@aol.com

Web site: <http://www.state.nj.us/dca/dhcr/njgreenhomes.htm>

NJ-4 NEW JERSEY

Incentive Type: Generation Disclosure

Eligible Technologies: Photovoltaics, Landfill Gas, Wind, Biomass, Hydro, Geothermal Electric, Fuel Cells, Waste, Wave, Tidal

Applicable Sectors: Utilities, all retail electric power suppliers

Fuel Mix: Yes

Emissions: Yes

Std Format: Yes

Date Enacted: 7/27/99

Effective Date: August 1999

Website: <http://www.bpu.state.nj.us/wwwroot/energy/energy.htm>

Authority 1: N.J.S.A. 48:3-49 et seq.

Summary:

As part of its 1999 electric utility restructuring legislation, 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 (Board) adopted interim environmental disclosure standards on July 26, 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.

The environmental information to be disclosed to the customer includes the following:

- 1) fuel mix, including categories for coal, gas, hydroelectric (large), nuclear, oil and renewable energy, or regional average default values as determined by the New Jersey Board of Public Utilities (the Board);
- 2) air emissions, in pounds/MWh, of sulfur dioxide, carbon dioxide, oxides of nitrogen; and
- 3) the electricity supplier's support of energy efficiency, as reflected in the number of discrete emission reduction credits.

The Board's disclosure standards also include provisions for third party certification and verification, as well as penalties for violations.

Contact:

Linda Nowicki

New Jersey Board of Public Utilities

44 South Clinton Avenue

Box 350

Trenton, NJ 08625-0350

Phone: (609) 777-3314

Fax: (609) 777-3336

E-Mail: nowicki@bpu.state.nj.us

Web site: <http://www.bpu.state.nj.us>

NJ-5 NEW JERSEY

Incentive Type: Public Benefits Fund

Eligible Technologies: Solar Water Heat, Active Solar Space Heat, Solar Thermal Electric, Photovoltaics, Wind, Biomass, Hydro, Renewable Transportation Fuels, Geothermal Electric, Fuel Cells, Waste

Applicable Sectors: Commercial, Industrial, Residential, Schools, Utilities

Types: energy efficiency, renewables, low-income

Total Fund: \$358 million for 1st three years

Date Enacted: 1999

Effective Date: 2001

Expiration Date: 2008

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

Authority 1: NJSA 48: 3-49 et.seq. "Electric Discount and Energy Competition Act"

Summary:

New Jersey's 1999 electricity restructuring legislation, the Electric Discount and Energy Competition Act (EDECA), provides for investments in energy efficiency and renewable energy over an eight-year period through the "Societal Benefits Charge" (SBC) collected from all electric public utility customers.

On March 1, 2001, The New Jersey Board of Public Utilities (Board) approved a proposal to fund new energy efficiency and renewable energy programs with \$358 million over the next three years. Funding for the programs will be \$115 million for 2001, \$119 million for 2002, and approximately \$124 million for 2003. Of this funding, 75% will go to the efficiency programs such as:

- Incentives for residents to purchase new energy efficient central air conditioners and electric heat pumps;
- Services and incentives for commercial, educational, governmental/institutional, industrial, and agricultural utility customers to utilize high efficiency equipment in new construction, renovations, additions, remodeling, equipment replacement and manufacturing process improvements.

The remaining 25% of the SBC funding supports Class I renewables. Class I renewables include solar, wind, fuel cells, geothermal technologies, wave or tidal action, methane gas from landfills, and sustainable biomass facilities. The Board will determine the fourth year's funding level and the funding for the four years thereafter at the end of the utilities' rate cap period in August 2003.

The State's utilities are jointly administering the customer-sited energy efficiency and renewable energy programs for a one-year period, after which, a consultant will assist the Board in identifying an independent statewide administrator (ISA). The ISA will administer these programs for the remainder of the eight-year period. The renewable energy programs that the Board approved provide rebates to customers who install clean technologies such as wind generators, fuel cells, and photovoltaic systems in their homes and businesses (see DSIRE summary of the New Jersey Clean Energy Program rebate).

Through October 31, 2002, projects supported (or incentives reserved) by the NJ Clean Energy Program are as follows:

PV (<10 kW): 55 projects (226 kW total)

PV (>10 kW) 16 projects (2,813 kW total)
Wind (<10 kW): 3 projects (13 kW total)
Wind (>10 kW): 1 project (2,625 kW)
Natural Gas Fuel Cell: 12 projects (2,850 kW total)
Sustainable Biomass: 3 projects (344 kW total)

In the first year (2001), the renewable energy portion of the \$115 million was split 60/40 between customer-sited and grid-supply renewable energy projects to allow more grid-supply projects to become market-ready. In 2002 and forward, these funds will be split on a 50/50 basis between customer sited and grid supply projects.

Contact:

Mona Mosser

New Jersey Board of Public Utilities
Division of Energy
2 Gateway Center
Newark, NJ 07102

Phone: (973) 648-2891

Fax: (973) 648-2467

E-Mail: mosser@bpu.state.nj.us

Web site: <http://www.bpu.state.nj.us>

NJ-6 NEW JERSEY

Incentive Type: Renewables Portfolio Standard

Eligible Technologies: Photovoltaics, Landfill Gas, Wind, Biomass, Hydro, Geothermal Electric, Fuel Cells, Waste, wave, tidal

Applicable Sectors: Utilities

Standard: 2.5% from Class I or II in 2000
under development

Date Enacted: 6/01

Effective Date: 9/01

Website: <http://www.bpu.state.nj.us/wwwroot/energy/energy.htm>

Authority 1: NJSA 48: 3-49 et.seq. "Electric Discount and Energy Competition Act"

Summary:

New Jersey's restructuring legislation requires all retail electric suppliers to provide 0.5% of their energy from Class I renewable resources by September 1, 2001, 1% by January 1, 2006 and an additional 0.5% per year until it reaches 4% by 2012. (The renewable portfolio standard (RPS) began at 2.5% in 2000, a requirement that could be met by Class I or Class II Renewables. Beginning in 2001, an additional 2.5% of retail electricity in the retail electricity portfolios must come from Class I or Class II, or any combination thereof.)

Class I renewables include wind, solar, fuel cells, ocean energy, landfill methane and biomass, if the biomass is "cultivated and harvested in a sustainable manner," and Class II renewables, include hydro and waste-to-energy facilities that meet the "highest environmental standards." The New Jersey Board of Public Utilities' interim draft rule for implementing the RPS also addresses reporting requirements, third-party certification, record keeping, and penalties for noncompliance.

Linda Nowicki

New Jersey Board of Public Utilities
44 South Clinton Avenue
Box 350
Trenton, NJ 08625-0350

Phone: (609) 777-3314

Fax: (609) 777-3336

E-Mail: nowicki@bpu.state.nj.us

Web site: <http://www.bpu.state.nj.us>

NJ-7 NEW JERSEY

Incentive Type: Rebates

Eligible Technologies: AFVs

Applicable Sectors: Local governments, schools (all), governmental authorities

Authority 1:

Summary:

New Jersey's AFV Rebate Program offers rebates to local government entities that convert vehicles to operate on alternative fuels or purchase original equipment manufacturer (OEM) AFVs. The rebate amounts, shown in the table below, can be used to cover vehicle conversion or the incremental cost of the OEM AFV, and vary according to the vehicle weight class and whether the vehicle is dedicated or bi-fuel. Hybrid electric vehicles (HEVs) also qualify for the rebates. Eligible entities include local governments, state colleges and

universities, school districts, and governmental authorities. A \$500,000 federal Congestion Mitigation and Air Quality Improvement grant funds this program; approximately \$200,000 in funding remains available.

Vehicle Weight	Rebate Amount (dedicated or hybrid)	Rebate Amount (bi-fuel)
Light-duty (<8,500 pounds (lbs.))	Up to \$4,000	Up to \$2,000
Medium-duty (8,500-14,000 lbs.)	Up to \$7,000	Up to \$4,000
Heavy-duty (>14,000 lbs.)	Up to \$12,000	Up to \$6,000

Contact:

Ellen Bourbon
Clean Cities Coordinator
North Jersey Clean Cities Coalition
Phone: (609) 984-3058
Fax: (609) 777-3336
Email ellen.bourbon@bpu.state.nj.us

NJ-8 NEW JERSEY

Incentive Type: Grants

Eligible Technologies: AF

Applicable Sectors: Local governments, schools (all), governmental authorities

Authority 1:

Summary:

The Local Government Alternative Fuel Infrastructure Program currently has funding available to reimburse eligible local governments, state colleges and universities, school districts, and governmental authorities for 50% of the cost of purchasing and installing refueling infrastructure for alternative fuels, up to \$50,000 per applicant. Eligible fuels include natural gas, propane, electricity, ethanol (E85) and hydrogen.

Contact:

Ellen Bourbon
Clean Cities Coordinator
North Jersey Clean Cities Coalition
Phone: (609) 984-3058
Fax: (609) 777-3336
Email ellen.bourbon@bpu.state.nj.us

NJ-9 NEW JERSEY

Incentive Type: Mandates purchases (AFVS, AF)

Eligible Technologies: AFVs, AF

Applicable Sectors: Transportation

Authority 1: New Jersey Statutes §27:1B-22

Summary:

Beginning July 1, 2007, all buses purchased by the New Jersey Transit Corporation shall be buses with improved pollution controls and that reduce particulate emissions or buses powered by fuel other than conventional diesel fuel. Qualifying vehicles include compressed natural gas (CNG) vehicles, HEVs, fuel cell vehicles, vehicles operating on ultra low sulfur fuel or biodiesel, or vehicles operating on any other bus fuel approved by the U.S. Environmental Protection Agency.

Contact:

Ellen Bourbon
Clean Cities Coordinator
North Jersey Clean Cities Coalition
Phone: (609) 984-3058
Fax: (609) 777-3336
Email ellen.bourbon@bpu.state.nj.us

NJ-10 NEW JERSEY

Incentive Type: Mandates—purchases (vehicles)

Eligible Technologies: AFVs

Applicable Sectors: State government

Authority 1: Executive Order 94, 1999

Summary:

New Jersey is committed to exceeding the Energy Policy Act's AFV acquisition mandates for state government fleets by 5% per year. In Model Year 2001 and thereafter, the vehicles acquired to fulfill this enhanced commitment must meet or exceed California Air Resources Board Ultra Low Emission Vehicle standards. An Advanced Technology Vehicle (ATV) Task Force was created in order to assist the Department of Treasury in coordinating AFV and ATV acquisition and placement, developing a refueling/recharging infrastructure to support AFV and ATV use by the state motor vehicle fleet, and creating an incentive program to defray the incremental costs of AFVs and ATVs for other public entities.

Contact:

Ellen Bourbon
Clean Cities Coordinator
North Jersey Clean Cities Coalition
Phone: (609) 984-3058
Fax: (609) 777-3336
Email ellen.bourbon@bpu.state.nj.us

NM-1 NEW MEXICO

Incentive Type: Mandatory Utility Green Power Option

Eligible Technologies: Photovoltaics, Landfill Gas, Wind, Biomass, Hydro, Geothermal Electric, Fuel Cells

Applicable Sectors: Utilities

Date Enacted: 12/17/02

Authority 1: [17.9.573.10 NMAC](#)

Summary:

On December 17, 2002, the New Mexico Public Regulation Commission (NMPRC) unanimously approved an expansive new renewable energy rule. The rule requires investor owned utilities and electric cooperatives to offer a voluntary renewable energy tariff (green pricing program) for those customers who want the option to purchase additional renewable energy. These utilities must also develop an educational program to communicate the benefits and availability of its voluntary renewable energy program. The renewable energy tariffs must be filed with the NMPRC by the end of August 2003.

The rule also requires public utility companies to produce 5% of all energy they generate for New Mexico customers from solar, wind, hydropower, biomass, or geothermal sources by 2006. Generation from renewables must increase by at least 1% per year until the renewable portfolio standard (RPS) of 10% is attained in the year 2011.

Renewable energy is defined as electrical energy generated by means of a low- or zero -emissions generation technology that has substantial long-term production potential and may include, without limitation, solar, wind, hydropower, geothermal, biomass, including but not limited to agriculture or animal waste, small diameter timber, salt cedar and other phreatophyte or woody vegetation removed from river basins or watersheds in New Mexico, landfill gas, anaerobically digested waste biomass or fuel cells that are not fossil fueled, but does not include fossil fuel or nuclear energy.

Contact:

John Curl
New Mexico Public Regulation Commission
224 East Palace Ave.
Marian Hall
Santa Fe, NM 87501
Phone: (505) 827-6960
E-Mail: john.curl@state.nm.us
Web site: <http://www.nmprc.state.nm.us/>

NM-2 NEW MEXICO

Incentive Type: Renewables Portfolio Standard

Eligible Technologies: Solar Thermal Electric, Photovoltaics, Landfill Gas, Wind, Biomass, Hydro, Geothermal Electric, Fuel Cells

Applicable Sectors: Utilities

Date Enacted: 12/17/02

Effective Date: 7/1/2003

Website: <http://www.nmprc.state.nm.us/utility.htm>

Authority 1: [NM PRC Case No. 3619](#)

Authority 2: [17.9.573 NMAC](#)

Summary:

On December 17, 2002, the New Mexico Public Regulation Commission unanimously approved an expansive new renewable energy rule requiring public utility companies to produce 5% of all energy they generate for New Mexico customers from solar, wind, hydropower,

biomass, or geothermal sources by 2006. Generation from renewables must increase by at least 1% per year until the portfolio standard standard (RPS) of 10% is attained in the year 2011.

Utilities document compliance with the RPS through the use of renewable energy certificates, which represent kilowatt hours of renewable energy produced. The various sources of renewable energy have been assigned different values for the purposes of issuing certificates and calculating the percentage of electricity generated by renewables:

- * One kilowatt-hour of electricity generated by wind or hydroelectric technologies is worth one kilowatt-hour toward compliance with the RPS;
- * One kilowatt-hour of biomass, geothermal, landfill gas, or fuel cell power is worth two kilowatt-hours toward the RPS; and
- * One kilowatt-hour of solar power is worth three kilowatt-hours toward the RPS.

The rule also requires investor owned utilities and electric cooperatives to offer a voluntary renewable energy tariff (green pricing program) for those customers who want the option to purchase additional renewable energy. These utilities must also develop an educational program to communicate the benefits and availability of its voluntary renewable energy program.

Contact:

John Curl

New Mexico Public Regulation Commission

224 East Palace Ave.

Marian Hall

Santa Fe, NM 87501

Phone: (505) 827-6960

E-Mail: john.curl@state.nm.us

Web site: <http://www.nmprc.state.nm.us/>

NM-3 NEW MEXICO

Incentive Type: Grants

Eligible Technologies: Fuel cells, hydrogen

Applicable Sectors: Local governments, schools (all), Indian tribes

Authority 1: House Bill 251, 2004

Summary:

The Advanced Energy Technologies Economic Development Act has been established to provide funding to stimulate the market for, and promote the statewide utilization of, advanced energy technologies; it also provides for a targeted program that advances the creation of a hydrogen and fuel cell industry cluster. The Clean Energy Grants Program provides grants for projects utilizing clean energy technologies and providing clean energy education, technical assistance, and training programs. Qualifying entities are municipalities and county governments, state agencies, state universities, public schools, post-secondary educational institutions, and Indian nations, tribes and pueblos. No single entity shall receive greater than \$100,000. The EMNRD will establish the application procedure and required qualifications of projects.

The Hydrogen and Fuel Cell Tech Technologies Development Program has been established to foster the development of hydrogen and fuel cell-related commercialization and economic development in the state. The program shall include the following activities:

- (1) Establishing a public-private partnership between the state, national laboratories, nonprofit organizations and the hydrogen and fuel cell technologies industry sector to provide guidance and support for hydrogen and fuel cell initiatives;
- (2) Supporting activities to adopt uniform hydrogen safety codes and standards and provide education and training to communicate these codes and standards to the appropriate fire and regulatory entities;
- (3) Developing demonstration projects by pursuing federal funds and other available funds to augment state resources, advancing public education about hydrogen and fuel cell technology and building the necessary infrastructure to support commercial use and adoption of hydrogen and fuel cell technologies; and
- (4) Coordinating and supporting research and education activities in hydrogen and fuel cells between state universities and federally funded research and development organizations in the state to promote closer cooperation and advance the state's overall capabilities and programs in hydrogen and fuel cell technologies.

Contact:

Richard Leonard

Energy, Mineral, and Natural Resources Department

Phone: (505) 476-3316

Fax: (505) 476-3322

Email: rleonard@state.nm.us

NM-4 NEW MEXICO

Incentive Type: Grants, Outreach

Eligible Technologies: AFVs

Applicable Sectors: State governments, local governments, schools (all), Indian tribes, non-profits

Authority 1:

Summary:

The Energy Conservation and Management Division of EMNRD provides funding on a competitive basis to eligible applicants that wish to purchase AFVs or conduct training or related activities in New Mexico. Eligible applicants must submit proposals within specified dates as determined by EMNRD. If a proposal is selected for funding, the applicant will be required to enter into a professional-service agreement or governmental-service agreement with EMNRD. Funds are available on an annual basis.

Contact:

Louise Martinez
Energy, Mineral, and Natural Resources Department
Phone: (505) 476-3315
Fax: (505) 476-3322
Email: lnmartinez@state.nm.us

NM-5 NEW MEXICO

Incentive Type: Outreach

Eligible Technologies: AFVs, AF, renewable energy

Applicable Sectors: State government, schools (all)

Authority 1: Senate Joint Memorial 89, 2003

Summary:

The legislature of New Mexico encourages the executive branch of the state government to pursue energy policies and goals to implement the use of renewable energy, energy efficiency, and alternative fuel technologies throughout state government and the state, including state universities and public schools. The state secretary of energy, minerals and natural resources, in cooperation with other state agencies, is requested to pursue measures to encourage the use of alternative fuel and hybrid electric vehicles throughout the state, including the development of a statewide alternative fuel refueling station infrastructure.

Contact:

Richard Leonard
Energy, Mineral, and Natural Resources Department
Phone: (505) 476-3316
Fax: (505) 476-3322
Email: rleonard@state.nm.us

NM-6 NEW MEXICO

Incentive Type: Mandates--Standards

Eligible Technologies: AFVs

Applicable Sectors: State government

Authority 1: NMSA 1978 13-1-188 and NMSA 1978 13-1B-2

Summary:

Effective July 1, 2002, state agencies can meet AFV acquisition requirements by purchasing foreign-made gas-electric hybrid vehicles until these vehicles are assembled in North America.

Contact:

Richard Leonard
Energy, Mineral, and Natural Resources Department
Phone: (505) 476-3316
Fax: (505) 476-3322
Email: rleonard@state.nm.us

NM-7 NEW MEXICO

Incentive Type: Mandate—Standard (Definition)

Eligible Technologies: AF

Applicable Sectors: Transportation

Authority 1: NMSA 1978 13-1B-2)

Summary:

Effective July 1, 2002, the definition of 'alternative fuel' extends to include a fuel mixture containing not less than 20% vegetable oil or a water-phased hydrocarbon fuel emulsion in an amount not less than 20% by volume.

Contact:

Richard Leonard

Energy, Mineral, and Natural Resources Department

Phone: (505) 476-3316

Fax: (505) 476-3322

Email: rleonard@state.nm.us

NM-8 NEW MEXICO

Incentive Type: Loans

Eligible Technologies: AFVs

Applicable Sectors: State government, Schools (colleges and universities)

Authority 1: NMSA 1978 13-1B

Summary:

The Alternative Fuel Acquisition Act of 1992 requires that 75% of state government and educational institution fleet vehicles acquired in fiscal year 2003 and thereafter, except authorized exemptions, be bi-fuel or dedicated AFVs or gas-electric hybrid vehicles. Agencies and departments of state government and educational institutions shall provide to the department by September 1, 2003 and by September 1, of each year thereafter the total number of vehicles acquired in the preceding fiscal year, the number of those vehicles that are capable of operating on alternative fuel or that are gas-electric hybrid vehicles and the make, model and fuel type of each of the alternative fuel or gas-electric hybrid vehicles. Certified law enforcement pursuit vehicles and emergency vehicles are exempt from this requirement. The Act authorized a \$5 million revolving loan fund for AFV acquisitions by state agencies, political subdivisions, and educational institutions. The maximum amount of a loan to acquire a vehicle shall not exceed the actual cost of acquiring the vehicle or \$3,000 whichever is less. Loans shall be made for a period of time not to exceed seven years with an annual interest rate of 5%. A loan shall be repaid in equal annual installments, with the first annual installment due within one year of the date on which the loan is issued.

Contact:

Richard Leonard

Energy, Mineral, and Natural Resources Department

Phone: (505) 476-3316

Fax: (505) 476-3322

Email: rleonard@state.nm.us

NM-9 NEW MEXICO

Incentive Type: Tax Imposition—Excise and Use (AF)

Eligible Technologies: AF

Applicable Sectors: Individuals, Businesses

Authority 1: NMSA 1978 7-16B

Summary:

The Alternative Fuel Tax Act of 1995 was established to encourage the use of alternative fuel for the propulsion of motor vehicles, thereby increasing the market for supplies of New Mexico natural gas and reducing harmful environmental emissions. The Act provides for fair taxation of alternative fuels. The excise tax imposed on alternative fuel distributed in New Mexico is \$0.12 per gallon. Alternative fuel purchased for distribution shall not be subject to the alternative fuel excise tax at the time of purchase or acquisition, but the tax shall be due on any alternative fuel at the time it is dispensed or delivered into the tank of a motor vehicle that is operated on the highways of the state. Owners of AFVs with a Gross Vehicle Weight (GVW) not exceeding 54,000 pounds (lbs.) may pay an annual tax in lieu of the per gallon tax, according to the schedule below. Alternative fuel distributed by or used, in accordance with the Act, for U.S. government, state government, or an Indian nation, tribe or pueblo purposes, is exempt from the excise tax. Alternative fuel distributors must be licensed by the state.

GVW	Annual Tax
0 to 6,000 lbs.	\$60
6,001 to 16,000 lbs.	\$100
16,001 to 26,000 lbs.	\$300
26,001 to 40,000 lbs.	\$700
40,001 to 54,000 lbs.	\$1,100

Contact:

Richard Leonard

Energy, Mineral, and Natural Resources Department

Phone: (505) 476-3316

Fax: (505) 476-3322

Email: rleonard@state.nm.us

NM-10 NEW MEXICO

Incentive Type: Outreach

Eligible Technologies: AFVs, AF

Applicable Sectors: State government

Authority 1: NMSA 1978 9-5A-8

Summary:

A 'state alternative fuel program manager' position was created in the energy conservation and management division of the energy, minerals and natural resources department. The state alternative fuel program manager's duties include promoting, coordinating and monitoring the implementation of state clean alternative fuel transportation programs, including a mass transit demonstration project and other demonstration projects that will place New Mexico on the leading edge of new clean fuel technologies; coordinating and directing the provisions of the Alternative Fuel Conversion Act; and mobilizing and coordinating necessary resources and expertise from government, education and the private sector to assist in clean alternative fuel transportation programs and projects.

Contact:

Richard Leonard

Energy, Mineral, and Natural Resources Department

Phone: (505) 476-3316

Fax: (505) 476-3322

Email: rleonard@state.nm.us

NY-1 NEW YORK

Incentive Type: Corporate Tax Credit

Eligible Technologies: Photovoltaics, Fuel Cells

Applicable Sectors: Commercial, Residential, Construction

Amount: Fuel cells \$1/w, PV \$3/w - DC capacity

Max. Limit: Fuel cells 30% capitalized costs; PV 100% building integrated, 25% non-integrated

Terms: Distributed over 5 years; transferable; indefinite carry forward

Date Enacted: 2000

Expiration Date: 2004

Website: <http://www.dec.state.ny.us/website/ppu/grnbldg/index.html>

Authority 1: [Laws of 2000, Ch. 63, Part II](#)

Summary:

In 2000, New York State passed an innovative Green Building Tax Credit for business and personal income taxpayers. Part II of Chapter 63 of the Laws of 2000 provides for tax credits to owners and tenants of eligible buildings and tenant spaces which meet certain "green" standards. These standards increase energy efficiency, improve indoor air quality, and reduce the environmental impacts of large commercial and residential buildings in New York State, among other benefits.

The total credit amount allocated by the legislature is \$25 million to be distributed between 2001 and 2009. Owners and tenants must work through an architect or engineer who will help obtain a credit certificate from the state for their project. The credits are distributed over a five year period with any unredeemed portion able to be carried forward indefinitely or transferred to a new owner or tenant. Initial credit certificates will be issued between the years 2000 and 2004.

Projects can qualify for credits under six different program components: 1) *Whole Building Credit* (owner or tenant) where base building and all tenant space are green; 2) *Base Building Credit* (owner) for non-dwelling spaces; 3) *Tenant Space Credit* (owner or tenant) where the base building must be green to qualify if the tenant space is under 10,000 sf.; 4) *Fuel Cell Credit* for systems fueled by a "qualifying alternate energy source"; 5) *Photovoltaic Module Credit*; and 6) *Green Refrigerant Credit* new air conditioning equipment using an EPA-approved non-ozone depleting refrigerant. The components 4, 5 and 6 have to be serving green spaces.

The fuel cell credit is for 30% of capitalized cost of each fuel cell (6% x 5 years) with a cap of \$1,000/kw x DC-rated capacity. The photovoltaic credit is for 100% of the incremental cost of "building-integrated" photovoltaic modules (20% x 5 years) or 25% of the incremental cost of non-building integrated photovoltaic modules (5% x 5 years) with a cap of \$3/w x DC-rated capacity. For the other components and tax forms, see the NY Division of Environmental Conservation Web site listed above.

Contact:

Craig Kneeland

New York State Energy Research and Development Authority

17 Columbia Circle

Albany, NY 12203-6399

Phone: (518) 862-1090

Fax: (518) 862-1091

E-Mail: cek@nyserda.org

Web site: <http://www.nyserda.org/green.html>

NY-2 NEW YORK

Incentive Type: Property Tax Exemption

Eligible Technologies: Solar Water Heat, Active Solar Space Heat, Solar Thermal Electric, Solar Thermal Process Heat, Photovoltaics, Wind, Biomass

Applicable Sectors: Commercial, Industrial, Residential, Farms

Terms: 15-year exemption

Date Enacted: 1977; amended 1990, 2002

Effective Date: before 7/1/88 or betw 1/1/91 & 1/1/06

Expiration Date: 2006

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

Authority 1: [NYS Real Property Tax Law Title 2, Sec. 487](#)

Authority 2: [S.B. 6592 of 2001](#)

Summary:

Section 487 of the New York State Real Property Tax Law provides a 15-year real property tax exemption for solar and wind energy systems constructed in New York State. On September 17, 2002, the property tax exemption was expanded (S.B 6592 of 2001) to include farm waste electric generating equipment, which is equipment that generates electric energy from biogas produced by the anaerobic digestion of agricultural waste, such as livestock manure, farming waste, and food processing wastes with a rated capacity of not more than 400 kW.

The exemption applies to systems which are (a) existing or constructed prior to July 1, 1988 or (b) constructed subsequent to January 1, 1991 and prior to January 1, 2006. The intent of the law is to encourage the installation of solar, wind and farm waste energy equipment systems and 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.

Definitions and guidelines for the eligibility for exemption of solar and wind energy equipment may be found at the Web site shown above. Such guidelines for farm waste energy equipment will be developed by the New York State Energy Research and Development Authority.

With respect to systems constructed after January 1, 1991, and before January 1, 2006, each county, city, town, village and school district (except the city school districts of New York, Buffalo, Rochester, Syracuse, and Yonkers) may choose whether to disallow the exemption. The option must be exercised by counties, cities, towns, and villages through adoption of a local law and by school districts by adoption of a resolution.

Contact:

Adele Ferranti

New York State Energy Research and Development Authority

17 Columbia Circle

Albany, NY 12203-6399

Phone: (518) 862-1090

Fax: (518) 862-1091

E-Mail: af1@nyserda.org

Web site: <http://www.nyserda.org>

NY-3 NEW YORK

Incentive Type: State Grant Program

Eligible Technologies: Solar Thermal Electric, Photovoltaics, Wind, Biomass, Hydro, Renewable Transportation Fuels

Applicable Sectors: Commercial, Industrial, Residential, Utilities

Amount: 50%

Max. Limit: \$200,000

Website: <http://www.nyserda.org>

Summary:

This collaborative research program is run by the New York State Energy Research and Development Authority (NYSERDA). The Authority typically makes solicitations for research projects on an annual basis with annual funds averaging \$2 million. Funds are available to support research projects, typically involving product development and commercialization activities, that target either commercial, industrial, residential and utilities sectors. The program funds up to 50% of a project's costs with expenditures running between \$10,000 and \$200,000 per project. Eligible technologies include solar thermal electric, photovoltaics, hydropower, alternative fuels, wind, and biomass. The largest recipients are biomass, photovoltaics, and wind. This program focuses on product and technology development as opposed to the installation of individual renewable energy systems.

Contact:

Jeff Peterson

New York State Energy Research and Development Authority
Energy Resources
17 Columbia Circle
Albany, NY 12203-6399
Phone: (518) 862-1090
Fax: (518) 862-1091
E-Mail: JMP@nyserda.org
Web site: <http://www.nyserda.org>

NY-4 NEW YORK

Incentive Type: Research & Outreach
Eligible Technologies: Passive Solar Space Heat, Solar Water Heat, Active Solar Space Heat, Solar Thermal Electric, Solar Thermal Process Heat, Photovoltaics, Wind, Biomass, Hydro, Renewable Transportation Fuels, Geothermal Electric, Waste
Applicable Sectors: Commercial, Industrial, Residential, General Public, Utilities
Funding: Electricity surcharge, state funds, royalties
Date Enacted: 1975
Website: <http://www.nyserda.org>
Authority 1: N/A

Summary:

The New York State Energy Research and Development Authority (NYSERDA) is a public-benefit corporation created in 1975 by the New York legislature in order to meet public needs that are not met by the private sector. NYSERDA is funded through a surcharge on intrastate gas and electric sales by the state's investor-owned utilities as well as funds from the New York Power Authority and royalties on projects.

NYSERDA supports research, development and commercialization activities in all areas of renewable energy technology and provides financial support to further the market penetration of renewable technology across the state and around the world. NYSERDA's R&D program goals are: (1) promote energy efficiency and the development of energy and environmental technologies to encourage economic growth in New York; (2) Expand the use of New York's indigenous and renewable energy resources; and (3) Reduce and mitigate adverse environmental effects associated with energy production and use.

Examples of renewable energy R&D work by NYSERDA include: development of photovoltaic products, fostering the development of indigenous woody biomass crops, and the development of a hybrid-electric vehicle. The majority of NYSERDA's research projects are contracted out.

In addition to its R&D program NYSERDA's activities include:

- providing energy efficiency services;
- issuing tax-exempt bonds for utilities and special energy projects;
- managing the Western New York Nuclear Service Center;
- addressing radioactive waste issues; and
- administering federal energy grant programs.

Contact:

Jeff Peterson
New York State Energy Research and Development Authority
Energy Resources
17 Columbia Circle
Albany, NY 12203-6399
Phone: (518) 862-1090
Fax: (518) 862-1091
E-Mail: JMP@nyserda.org
Web site: <http://www.nyserda.org>

NY-5 NEW YORK

Incentive Type: Green Power Purchasing/Aggregation
Eligible Technologies: Photovoltaics, Wind, Biomass, Geothermal Electric, Fuel Cells
Applicable Sectors: State Government
% Renewables: 10% by 2005; 20% by 2010
Date Enacted: 6/10/01
Effective Date: 6/10/01
Authority 1: Executive Order

Summary:

On June 10, 2001, New York's Governor Pataki announced an executive order requiring that state buildings get at least 10 percent of their electric power from renewable energy sources, such as wind, solar, biomass, geothermal or fuel cells by 2005, and 20 percent by 2010. The

order applies to the state's buildings and those of quasi-independent agencies like the State University of New York and the Metropolitan Transportation Authority. The order also requires the state to adhere to strict energy efficiency standards when it constructs buildings or significantly renovates existing ones.

NY-6 NEW YORK

Incentive Type: Net Metering Rules

Eligible Technologies: Photovoltaics, Biomass

Applicable Sectors: Residential, Farms

Limit on System Size: 10 kW (solar); 400 kW (farm waste electric generating equipment)

Limit on Overall Enrollment: 0.1% of 1996 demand per IOU (solar); 0.4% of demand per IOU (farm systems)

Treatment of Net Excess: Purchased at avoided cost

Utilities Involved: All utilities

Interconnection Stds. for Net Metering? Yes

Date Enacted: 8/2/97, amended 9/17/02

Expiration Date: None

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

Authority 1: [NY Public Service Law sec. 66-j \(1997 A.B. 8660, S.B. 5400\)](#)

Authority 2: [S.B. 6592 of 2001](#)

Summary:

In 1997, New York enacted a net metering law for residential photovoltaic systems of 10 kW or less. Utilities are obliged to accept customers into the net metering program on a first come, first serve basis until the capacity signed up for net metering equals one tenth of one (0.1%) percent of the utility's 1996 peak demand. Individual utilities, however, can choose to allow a greater capacity to enroll in net metering.

At the end of each month, net excess generation is credited toward the following month's bill. At the end of the annual billing cycle, if there is any net excess generation by the customer, consumers are paid the utility's avoided cost for that generation. The net metering law also includes an income tax credit allowing residential customers to claim a credit of twenty-five (25%) percent of the cost of a qualifying photovoltaic system.

On September 17, 2002 the net metering law was expanded (see S.B. 6592 above) to include qualified farms that generate electricity from biogas produced by the anaerobic digestion of agricultural waste, such as livestock manure, farming waste, and food processing wastes. Eligible systems must have a rated capacity of not more than 400 kW. The legislation was designed to make the installation and operation of anaerobic digesters more economic for New York farmers, while providing them with a tool to address environmental concerns and to reduce their energy costs.

The New York State Department of Public Service (DPS) has developed uniform interconnection rules for net metered systems. Systems must use type-tested inverters to be approved for interconnection. Visit the DPS web site (above) for more information, including the list of accepted (type-tested) inverters.

Contact:

Charles Puglisi

New York State Department of Public Service

Agency Building 3, Empire State Plaza

Albany, NY 12223

Phone: (518) 474-2530

Fax: (518) 473-2838

E-Mail: charles_puglisi@dps.state.ny.us

NY-7 NEW YORK

Incentive Type: Public Benefits Fund

Eligible Technologies: Passive Solar Space Heat, Solar Water Heat, Active Solar Space Heat, Solar Thermal Electric, Photovoltaics, Wind, Biomass, Hydro, Renewable Transportation Fuels, Geothermal Electric, Fuel Cells, Waste, Cogeneration

Applicable Sectors: Commercial, Industrial, Residential, General Public, Utilities

Date Enacted: 1996

Effective Date: 1998

Expiration Date: 2006

Website: <http://www.nyserda.org>

Authority 1: Opinion 96-12 of the Public Service Commission (PSC)

Summary:

New York's Public Benefit Fund was established in May 1996 by the NY Public Service Commission (PSC) in Opinion No. 96-12 and covers energy efficiency, research and development, low-income programs, and environmental disclosure. New York implemented electric utility restructuring in 1997 through regulatory orders by the PSC.

The initial three-year public benefit fund (7/1/98 - 6/30/01) totaled \$234.3 million: \$161.6 million for energy efficiency programs, \$40.4 million for R&D projects, \$29 million for assistance programs for low-income utility customers, and \$3 million for potential environmental disclosure activities.

In its order on January 26, 2001, the PSC extended the program for five years -- until June 30, 2006 -- and increased the funding from \$78 million annually to \$150 million annually. A major focus of the program will be on achieving peak load reductions over the next few summers. Energy efficiency programs will receive approximately \$438 million in additional funding; Low-income assistance programs, including weatherization, will receive approximately \$141 million in additional funding; and R&D, an additional \$208 million.

The fund was established for New York's six investor-owned utilities, with the New York State Energy Research and Development Authority (NYSERDA) serving as the primary fund administrator. NYSERDA is administering \$172 million of the current fund total by implementing a broad portfolio of programs -- the New York Energy Smart (sm) programs -- and the utilities are administering the other \$62 million. The January 26, 2001 Order expands the Statewide coverage of the New York Energy Smart (sm) program to include customers of the Rochester Gas and Electric Company service area.

The research and development programs include wind, photovoltaics, and biomass. Results so far have included the development of over 40 MW of new wind power, R&D in fuel cells and micro turbines, 10 new green building projects, and testing to overcome interconnection barriers.

On an annual basis, program funding equals about 0.6 mill/kWh. In addition, this amount does not include programs operated by the Long Island Power Authority (LIPA) and New York Power Authority (NYPA), which are not regulated by the PSC. LIPA has a current public benefits program of \$32 million per year, which is estimated to decrease to about \$12 million per year. NYPA has a \$200 million, multi-year energy efficiency program.

During the first three years of implementation, the New York Energy Smart Program produced annual bill savings of about \$121 million, reduced annual electricity consumption in the state by about 932 million kWh (enough electricity for about 155,000 households a year), achieved a statewide demand reduction of 452 MW, helped to create/sustain 2,300 jobs, and achieved emissions reductions roughly equal to the removal of 139,000 automobiles from the New York's roadways. In addition, the SBC funds will leverage \$341 million in co-funding from our private- and public-sector partners; raising the total investment in SBC activities for the first three years from \$172 million to \$513 million.

Contact:

Jeff Peterson

New York State Energy Research and Development Authority

Energy Resources

17 Columbia Circle

Albany, NY 12203-6399

Phone: (518) 862-1090

Fax: (518) 862-1091

E-Mail: JMP@nyserda.org

Web site: <http://www.nyserda.org>

NY-8 NEW YORK

Incentive Type: Tax Credits—Personal

Eligible Technologies: AFVs, AF

Applicable Sectors: Individual

Authority 1:

Summary:

New York's Alternative Fuel (Clean Fuel) Vehicle Tax Incentive Program offers tax credits for the purchase of new HEVs, EVs, AFVs, and the installation of clean fuel vehicle refueling property. Purchasers of qualified HEVs are eligible for a tax credit of \$2,000. To qualify, a vehicle must draw propulsion energy from both an internal combustion engine (or heat engine that uses combustible fuel) and an energy storage device; and must employ a regenerative braking system that recovers waste energy to charge that device, and, for model year 2004 and later, must meet or exceed the California LEV II emission standard. Purchasers of EVs are eligible for a tax credit of 50% of the incremental cost, up to \$5,000 per vehicle. Purchasers of AFVs are eligible for a tax credit worth 60% of the incremental cost of the vehicle. The maximum value of the incentive is \$5,000 for vehicles with less than 14,000 pounds (lbs.) gross vehicle weight rating (GVWR), and up to \$10,000 for vehicles over 14,000 lbs. GVWR. The tax credit for clean-fuel vehicle refueling property is equal to 50% of the cost of the property. This includes property for storing or dispensing a clean-burning fuel into the fuel tank of a motor vehicle propelled by that fuel, as well as property used for recharging electric vehicles.

Contact:

Patrick Bolton

New York State Energy Research and Development Authority

Energy Resources

17 Columbia Circle

Albany, NY 12203-6399
Phone: (518) 862-1090
Fax: (518) 862-1091
E-Mail: PPB@nyserda.org
Web site: <http://www.nyserda.org>

NY-9 NEW YORK

Incentive Type: Tax exemption—Sales (vehicles)
Eligible Technologies: AFVs
Applicable Sectors: Individual, Businesses
Authority 1:

Summary:

A sales tax exemption is also available for the incremental cost of alternative fuel vehicles and the cost of clean-fuel refueling property. For qualified hybrid electric vehicles, the sales tax exemption is equal to \$3,000 unless the vehicle manufacturer certifies a higher incremental cost.

Contact:

Patrick Bolton
New York State Energy Research and Development Authority
Energy Resources
17 Columbia Circle
Albany, NY 12203-6399
Phone: (518) 862-1090
Fax: (518) 862-1091
E-Mail: PPB@nyserda.org
Web site: <http://www.nyserda.org>

NY-10 NEW YORK

Incentive Type: Grants
Eligible Technologies: AFVs, AF
Applicable Sectors: Transportation
Authority 1:

Summary:

The New York State Clean Cities Challenge, administered by NYSERDA, awards funds to members of New York's Clean Cities Coalitions that acquire AFVs and/or refueling infrastructure. Funds are awarded on a competitive basis, and can be used to cost-share up to 75% of the proposed project, including the incremental cost of purchasing AFVs, the cost of installing refueling and recharging equipment and the incremental costs associated with bulk alternative fuel purchases.

Contact:

Patrick Bolton
New York State Energy Research and Development Authority
Energy Resources
17 Columbia Circle
Albany, NY 12203-6399
Phone: (518) 862-1090
Fax: (518) 862-1091
E-Mail: PPB@nyserda.org
Web site: <http://www.nyserda.org>

NY-11 NEW YORK

Incentive Type: Outreach
Eligible Technologies: AFVs
Applicable Sectors: Individuals, businesses, nonprofits
Authority 1:

Summary:

The New York State Clean Cities Sharing Network, which provides technical, policy, and program information on AFVs, is managed by NYSERDA. Membership is open to all organizations, businesses and individuals interested in AFVs. Members are notified about upcoming

funding opportunities and events. The Network publishes information on tax incentives, refueling stations, case studies, and contact information for the Clean Cities program and other industry leaders. The Network also organizes and sponsors technical workshops.

Contact:

Patrick Bolton
New York State Energy Research and Development Authority
Energy Resources
17 Columbia Circle
Albany, NY 12203-6399
Phone: (518) 862-1090
Fax: (518) 862-1091
E-Mail: PPB@nyserda.org
Web site: <http://www.nyserda.org>

NY-12 NEW YORK

Incentive Type: Grants

Eligible Technologies: AFVs, AF

Applicable Sectors: Industrial and Commercial

Authority 1:

Summary:

NYSERDA's Transportation Research Program sponsors a wide variety of product development efforts aimed at improving efficiency and increasing the use of alternative fuels. Program Opportunity Notices are issued periodically to solicit proposals for cost-share development efforts leading to the manufacture and sale of innovative products that provide energy, environmental and economic development benefits.

Contact:

Patrick Bolton
New York State Energy Research and Development Authority
Energy Resources
17 Columbia Circle
Albany, NY 12203-6399
Phone: (518) 862-1090
Fax: (518) 862-1091
E-Mail: PPB@nyserda.org
Web site: <http://www.nyserda.org>

NY-13 NEW YORK

Incentive Type: Mandates—Purchases (eqt)

Eligible Technologies: AFVs, AF

Applicable Sectors: State government

Authority 1: Executive Order No. 111

Summary:

State agencies and other affected entities must procure increasing percentages of AFVs as part of their annual vehicle acquisition plans; HEVs qualify under these requirements. By 2005, at least 50% of new light duty vehicles acquired by each agency and affected entity must be AFVs, and by 2010, 100% of all new light duty vehicles must be AFVs, with the exception of designated specialty, police, or emergency vehicles. State agencies and other affected entities that operate medium and heavy duty vehicles must implement strategies to reduce petroleum consumption and emissions by using alternative fuels and improving vehicle fleet fuel efficiency.

Contact:

Patrick Bolton
New York State Energy Research and Development Authority
Energy Resources
17 Columbia Circle
Albany, NY 12203-6399
Phone: (518) 862-1090
Fax: (518) 862-1091
E-Mail: PPB@nyserda.org
Web site: <http://www.nyserda.org>

NY-14 NEW YORK

Incentive Type: Mandate—Purchase (eqt)

Eligible Technologies: AFVs

Applicable Sectors: Local government

Authority 1: Administrative Code of the City of New York 24-163.1 and 24-163.2

Summary:

The New York City Council established a program in 1991 requiring the purchase and/or conversion of AFVs for city government use. The program requires 80% of the city's light duty, non-emergency fleet, and 20% of bus fleets operated in New York City to be AFVs.

Contact:

Patrick Bolton
New York State Energy Research and Development Authority
Energy Resources
17 Columbia Circle
Albany, NY 12203-6399
Phone: (518) 862-1090
Fax: (518) 862-1091
E-Mail: PPB@nyserda.org
Web site: <http://www.nyserda.org>

NY-15 NEW YORK

Incentive Type: Tax exemption—sales (AFVs)

Eligible Technologies: AFVs

Applicable Sectors: Individuals, businesses

Authority 1: New York Tax Law Article 28, Section 1115

Summary:

New York provides a partial sales and use tax exemption for the incremental cost of new AFVs and for vehicles that are converted to run on alternative fuels.

Contact:

Patrick Bolton
New York State Energy Research and Development Authority
Energy Resources
17 Columbia Circle
Albany, NY 12203-6399
Phone: (518) 862-1090
Fax: (518) 862-1091
E-Mail: PPB@nyserda.org
Web site: <http://www.nyserda.org>

NC-1 NORTH CAROLINA

Incentive Type: Corporate Tax Credit

Eligible Technologies: Passive Solar Space Heat, Solar Water Heat, Active Solar Space Heat, Solar Thermal Electric, Solar Thermal Process Heat, Photovoltaics, Wind, Biomass, Hydro, Renewable Transportation Fuels, Daylighting

Applicable Sectors: Commercial, Industrial, Residential

Amount: 35%

Max. Limit: \$250,000

Terms: distributed over 5 years

Date Enacted: 1977; revised 1994, 1999

Effective Date: 1/1/2000

Expiration Date: 1/1/2006

Website: <http://www.ncsc.ncsu.edu/tax/revisedtax.htm>

Authority 1: [NCGS 105-129.15,16A](#)

Summary:

North Carolina revised its renewable energy tax credits in 1999. The various older statutes were repealed and a unified statute that addresses nearly all renewables was enacted. The new statute provides for an expanded 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. The new tax credits became effective January 1, 2000.

The credit is subject to various ceilings depending on whether the renewable energy equipment serves nonresidential property or residential

property and, for residential property, the kind of renewable energy technology being used. Credit limits for the various technologies and sectors are as follows:

- Up to \$10,500 for residential photovoltaic or solar electric systems;
- Up to \$3,500 for residential passive and active solar space heating systems;
- Up to \$1,400 for solar water heating systems;
- Up to \$250,000 for all solar, wind, hydro and biomass applications on commercial and industrial facilities, including photovoltaic, daylighting, solar hot water, and space heating technologies.

Renewable energy equipment costs 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.

If the property serves a single-family dwelling, the credit is taken for the taxable year in which the property is placed in service. For all other property, the credit is taken in five equal installments beginning with the year the property is placed in service.

The credit can be taken against franchise tax, income tax or, if the taxpayer is an insurance company, against the gross premiums tax. The allowable credit cannot exceed 50% of the taxpayer's tax liability for the year reduced by the sum of all other credits. The unused portion of the credit may be carried over for the next five succeeding years.

Contact:

Bob McGuffey

North Carolina Solar Center

Box 7401

North Carolina State University

Raleigh, NC 27695-7401

Phone: (919) 515-3480

Fax: (919) 515-5778

E-Mail: bob_mcguffey@ncsu.edu

Web site: <http://www.ncsc.ncsu.edu>

NC-2 NORTH CAROLINA

Incentive Type: Industry Recruitment

Eligible Technologies: Solar Water Heat, Active Solar Space Heat, Solar Thermal Electric, Photovoltaics, Wind, Fuel Cells

Applicable Sectors: Industrial

Amount: 25% of construction

Max. Limit: no limit

Terms: up to 10 years

Date Enacted: 1/1/00

Effective Date: 1/1/00

Expiration Date: none

Website: <http://www.ncsc.ncsu.edu/tax/revisedtax.htm>

Authority 1: NCGS 105-130.28

Summary:

In addition to the 35% corporate tax credit for renewable energy installations, North Carolina offers a corporate income tax credit to manufacturers of renewable energy products and equipment. The credit is equal to 25% of the installation and equipment costs of construction with no maximum limit. However, the credit cannot exceed a taxpayer's tax liability in one year. If the credit does exceed the manufacturer's tax liability, the credit may be carried forward for up to ten years. This tax incentive can be used in conjunction with the federal corporate tax credit and accelerated depreciation allowances; however, any amount of the facility's costs provided by federal, state, or local grants cannot be included in the calculation of the allowable credit.

Effective for tax years beginning on or after January 1, 2000, the renewable energy facility credit is an expansion of the Photovoltaic Systems Manufacturer Incentive, a corporate tax credit for manufacturers of photovoltaic equipment enacted in 1991.

Contact:

Bob McGuffey

North Carolina Solar Center

Box 7401

North Carolina State University

Raleigh, NC 27695-7401

Phone: (919) 515-3480

Fax: (919) 515-5778

E-Mail: bob_mcguffey@ncsu.edu

Web site: <http://www.ncsc.ncsu.edu>

NC-3 NORTH CAROLINA

Incentive Type: Personal Tax Credit

Eligible Technologies: Passive Solar Space Heat, Solar Water Heat, Active Solar Space Heat, Solar Thermal Electric, Photovoltaics, Wind, Biomass, Hydro, Renewable Transportation Fuels

Applicable Sectors: Residential

Amount: 35%

Max. Limit: varies by technology

Terms: distributed over 5 years

Date Enacted: 1977; revised 1994, 1999

Effective Date: 1/1/2000

Expiration Date: 1/1/2006

Website: <http://www.ncsc.ncsu.edu/tax/revisedtax.htm>

Authority 1: [NCGS 105-129.15,16A](#)

Summary:

North Carolina revised its renewable energy tax credits in 1999. The various older statutes were repealed and a unified statute that addresses nearly all renewables was enacted. The new statute provides for an expanded 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. The new tax credits became effective January 1, 2000.

The credit is subject to various ceilings depending on whether the renewable energy equipment serves nonresidential property or residential property and, for residential property, the kind of renewable energy technology being used. Credit limits for the various technologies and sectors are as follows:

- Up to \$10,500 for residential photovoltaic or solar electric systems;
- Up to \$3,500 for residential passive and active solar space heating systems;
- Up to \$1,400 for solar water heating systems;
- Up to \$250,000 for all solar, wind, hydro and biomass applications on commercial and industrial facilities, including photovoltaic, daylighting, solar hot water, and space heating technologies.

Renewable energy equipment costs 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.

If the property serves a single-family dwelling, the credit is taken for the taxable year in which the property is placed in service. For all other property, the credit is taken in five equal installments beginning with the year the property is placed in service.

The credit can be taken against franchise tax, income tax or, if the taxpayer is an insurance company, against the gross premiums tax. The allowable credit cannot exceed 50% of the taxpayer's tax liability for the year reduced by the sum of all other credits. The unused portion of the credit may be carried over for the next five succeeding years.

Contact:

Bob McGuffey

North Carolina Solar Center

Box 7401

North Carolina State University

Raleigh, NC 27695-7401

Phone: (919) 515-3480

Fax: (919) 515-5778

E-Mail: bob_mcguffey@ncsu.edu

Web site: <http://www.ncsc.ncsu.edu>

NC-4 NORTH CAROLINA

Incentive Type: State Loan Program

Eligible Technologies: Solar Water Heat, Active Solar Space Heat, Solar Thermal Electric, Solar Thermal Process Heat, Photovoltaics, Wind, Biomass, small hydro (<20 MW), Solar

Applicable Sectors: Commercial, Industrial, Nonprofit, Schools, Local Government

Amount: varies

Max. Limit: \$500,000

Terms: 1% interest rate; 10-year maximum term

Date Enacted: 8/3/01

Effective Date: 8/02

Website: [http://www.energync.net/bro-4%20\(1\).pdf](http://www.energync.net/bro-4%20(1).pdf)

Authority 1: Session Law 2001-338 (HB 332)

Summary:

The Energy Improvement Loan Program (EILP) is available to North Carolina businesses, local governments and nonprofit organizations (including public schools) that demonstrate energy efficiency, use of renewable energy resources, energy cost savings or reduced energy demand.

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 hydro (less than 20 megawatts) and biomass. A rate of 3% is available for projects that demonstrate energy efficiency, energy cost-savings or reduced energy demand.

Organizations must meet the following criteria to qualify for EILP low-interest loans:

1. Facilities must be located in North Carolina.
2. Projects must demonstrate energy efficiency, use of renewable energy resources, or result in energy cost savings.
3. Projects can demonstrate reduced energy demand.
4. Projects must use existing, proven reliable, commercially available technologies.
5. Projects must meet federal and state air and water quality standards.
6. Each conservation measure must be able to recover capital costs within the loan's maximum term of 10 years through energy cost savings.

Contact:

Starlette Brown

North Carolina Department of Administration

Energy Office

1830 A Tillery Place

Raleigh, NC 27604

Phone: (919) 733-1897

Fax: (919) 733-2953

E-Mail: starlette.brown@ncmail.net

Web site: <http://www.energync.net>

NC-5 NORTH CAROLINA

Incentive Type: Outreach Program

Eligible Technologies: Passive Solar Space Heat, Solar Water Heat, Active Solar Space Heat, Solar Thermal Electric, Solar Thermal Process Heat, Photovoltaics, Renewable Transportation Fuels, Renewable Fuel Vehicles

Applicable Sectors: Commercial, Industrial, Residential, General Public, Schools, Construction

Format: Federal and state grants, corporations, and foundations

Effective Date: 1988

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

Summary:

Established in 1988, the North Carolina Solar Center at NC State University serves as a statewide clearinghouse for information, education, technical assistance, and applied research on solar energy technologies. The Center is sponsored by the Energy Office of the North Carolina Department of Administration and operated by the College of Engineering.

In addition to receiving support from the Energy Office for its state programs, the Center is involved in a number of national, international, state, and local programs that receive funding from federal sources, other state agencies, foundations, trade organizations, and corporations. Managing the National Database of State Incentives for Renewable Energy (DSIRE) and the DSIRE web site is a project of the Center's Policy Program.

The Center features a solar demonstration home which is used year-round for public education on the use of active and passive residential solar systems. Other public outreach programs and services include workshops for building professionals and contractors, design reviews for home builders and educational programs for local K-12 schools.

In addition to its outreach and education programs, the Center is home to research and testing projects on emerging solar technologies including concentrating solar thermal technologies, building integrated photovoltaics, and solar pasteurization.

Contact:

Carole Coble

NC Solar Center

NCSU Solar House

Box 7401

North Carolina State University
Raleigh, NC 27695-7401
Phone: (919) 515-3799
Fax: (919) 515-5778
E-Mail: carole_coble@ncsu.edu
Web site: <http://www.ncsc.ncsu.edu>

NC-6 NORTH CAROLINA

Incentive Type: Grants
Eligible Technologies: AFVs
Applicable Sectors: Individuals, Commercial, Industrial
Format: Federal and state grants, corporations, and foundations
Website: www.daq.state.nc.us/motor/ms_grants.

Summary:

Grants from the Department of Environment and Natural Resources Division of Air Quality are available for the incremental cost of purchasing Original Equipment Manufacturer alternative fuel vehicles, vehicle conversions, and constructing or implementing alternative fuel public refueling facilities. More than \$500,000 in funding is available.

Contact:

Cynthia Moseley
NC Solar Center
NCSU Solar House
Box 7401
North Carolina State University
Raleigh, NC 27695-7401
Phone: (919) 515-1896
Fax: (919) 515-5778
E-Mail: cynthia.moseley@ncmail.net

NC-7 NORTH CAROLINA

Incentive Type: Tax Credits
Eligible Technologies: AF
Applicable Sectors: private business
Authority: North Carolina General Statutes §105-129.15 and §105-129.16A

Summary:

Taxpayers who construct, purchase, or lease renewable energy property are eligible for a tax credit equal to 35% of the cost of the property. Renewable energy property includes: equipment that uses renewable biomass resources to produce ethanol, methanol, biodiesel, or methane produced via anaerobic biogas utilizing agricultural and animal waste or garbage; and related devices for converting, conditioning, and storing the liquid fuels and gas produced with biomass equipment. The credit must be taken in five equal installments beginning with the taxable year in which the property is placed in service. A ceiling of \$250,000 per installation applies to renewable energy property placed in service for any purpose other than residential. Property must be placed in service before January 1, 2006.

Contact:

Cynthia Moseley
NC Solar Center
NCSU Solar House
Box 7401
North Carolina State University
Raleigh, NC 27695-7401
Phone: (919) 515-1896
Fax: (919) 515-5778
E-Mail: cynthia.moseley@ncmail.net

NC-8 NORTH CAROLINA

Incentive Type: Tax Credit-facilities
Eligible Technologies: AFs (ethanol, biodiesel)
Applicable Sectors: Commercial (refueling facilities)
Authority: [House Bill](#) 1636, 2004

Summary:

A tax credit is available for qualified refueling facilities that dispense biodiesel, 100% ethanol or ethanol/gasoline mixtures consisting of at least 70% ethanol. The credit is equal to 15% of the cost to the taxpayer of constructing and installing the part of the dispensing facility, including pumps, storage tanks, and related equipment, that is directly and exclusively used for dispensing or storing the fuel. The credit must be taken in three equal annual installments beginning with the taxable year in which the facility is placed in service. Facilities must be placed in service before January 1, 2008.

Contact:

Cynthia Moseley

NC Solar Center

NCSU Solar House

Box 7401

North Carolina State University

Raleigh, NC 27695-7401

Phone: (919) 515-1896

Fax: (919) 515-5778

E-Mail: cynthia.moseley@ncmail.net

NC-9 NORTH CAROLINA

Incentive Type: Tax Credit--facilities

Eligible Technologies: AF

Applicable Sectors: Industrial (ethanol, biodiesel)

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

Authority: [House Bill](#) 1636, 2004

Summary:

A tax credit is available for the production or processing of biodiesel, 100% ethanol or ethanol/gasoline mixtures consisting of at least 70% ethanol. The credit is equal to 25% of the cost of constructing and equipping the facility. The credit must be taken in seven equal annual installments beginning with the taxable year in which the facility is placed in service. Facilities must be placed in service before January 1, 2008.

Contact:

Cynthia Moseley

NC Solar Center

NCSU Solar House

Box 7401

North Carolina State University

Raleigh, NC 27695-7401

Phone: (919) 515-1896

Fax: (919) 515-5778

E-Mail: cynthia.moseley@ncmail.net

NC-10 NORTH CAROLINA

Incentive Type: Mandates (AFV purchases)

Eligible Technologies: AFVs

Applicable Sectors: state government

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

Authority: [North Carolina General Statutes](#) §143-215.107C

Summary:

It shall be the goal of the State that on and after January 1, 2004 at least 75% of the new or replacement light duty cars and trucks (8,500 pounds or less Gross Vehicle Weight Rating) purchased by the State will be AFVs or low emission vehicles.

Contact:

Cynthia Moseley

NC Solar Center

NCSU Solar House

Box 7401

North Carolina State University

Raleigh, NC 27695-7401

Phone: (919) 515-1896

Fax: (919) 515-5778

E-Mail: cynthia.moseley@ncmail.net

NC-11 NORTH CAROLINA

Incentive Type: Tax exemption--sales

Eligible Technologies: AF

Applicable Sectors: all private sector

Authority: [North Carolina General Statutes](#) §105-164.13

Summary:

The retail sale, use, storage or consumption of alternative fuels is exempt from the state retail sales and use tax.

Contact:

Cynthia Moseley

NC Solar Center

NCSU Solar House

Box 7401

North Carolina State University

Raleigh, NC 27695-7401

Phone: (919) 515-1896

Fax: (919) 515-5778

E-Mail: cynthia.moseley@ncmail.net

ND-1 NORTH DAKOTA

Incentive Type: Production Incentive

Eligible Technologies: Renewable Transportation Fuels

Applicable Sectors: Commercial, Industrial

Amount: \$0.40 per gallon

Max. Limit: \$750,000

Date Enacted: 1995, amended 1999, 2001

Expiration Date: 12/31/09

Authority 1: [N.D. Cent. Code, § 4-14.1-07](#)

Summary:

North Dakota's ethanol production incentive program is administered by the Agricultural Product Utilization Division in the Department of Commerce. Enacted in 1995, the program will expire at the end of 2009. The program is funded by the legislature on a biennium cycle and funding for the July 1, 2001, to June 30, 2003, period provides for \$0.40 per gallon. The incentive amount for the period July 1, 2003, to June 30, 2005, will likely be a different amount.

Under the program, production incentives are available for no more than 14 years to ethanol plants beginning operation after June 30, 1995. For ethanol plants in operation before July 1, 1995, production incentives are available for not more than fourteen years of operation after June 30, 1995.

An ethanol plant in operation before July 1, 1995 with production capacity of fewer than 15 million gallons of ethanol may receive up to \$750,000 per fiscal year. An ethanol plant that was in operation before July 1, 1995, and which produced 15 million or more gallons in the previous fiscal year and an ethanol plant that begins operations after June 30, 1995, are each eligible to receive up to \$500,000 in production incentives per fiscal year.

Contact:

John Schneider

North Dakota Commerce Department

Agricultural Product Utilization Division

400 East Broadway, Suite 50

PO Box 2057

Bismarck, ND 58502-2057

Phone: (701) 328-5350

Fax: (701) 328-5320

E-Mail: jfschneider@state.nd.us

Web site: <http://www.ndcommerce.com/index.html>

ND-2 NORTH DAKOTA

Incentive Type: Net Metering Rules

Eligible Technologies: Solar Thermal Electric, Photovoltaics, Wind, Biomass, Hydro, Renewable Transportation Fuels, Geothermal Electric, Waste, Cogeneration

Applicable Sectors: Commercial, Industrial, Residential
Limit on System Size: 100 kW
Limit on Overall Enrollment: None
Treatment of Net Excess: Purchased at avoided cost
Utilities Involved: Investor-owned utilities only
Date Enacted: 1/1/91
Authority 1: [ND Administrative Code @ 69-09-07-09](#)

Summary:

Passed in 1991 by the North Dakota Public Utility Commission, this net metering ruling applies to both renewable energy generators and cogenerators up to 100 kW in capacity. Net metering is available to all customer classes and there is no statewide limit to the capacity signed up for net metering.

When customers have excess generation in a monthly billing period, utilities must purchase net excess generation at the avoided cost.

Contact:

Joe Murphy
Division of Community Services
400 East Broadway, Suite 50
PO Box 2057
Bismarck, ND 58502-2057
Phone: (701) 328-2697
Fax: (701) 328-2308
E-Mail: jmurphy@state.nd.us
Web site: <http://www.state.nd.us/dcs/Energy/default.html>

ND-3 NORTH DAKOTA

Incentive Type: Tax credit—corporate
Eligible Technologies: AF (Biodiesel)
Applicable Sectors: Industrial (Biodiesel producer)
Authority 1: [North Dakota Century Code 57-38-30.6](#)

Summary:

The state of North Dakota offers a five-year corporate income tax credit for biodiesel production equipment costs. The tax credit is worth up to 10% per year for up to five years, but may not exceed \$250,000. The tax credit is available to purchase equipment used to retrofit an existing facility or adapt a new facility for the purpose of producing or blending diesel fuel containing at least 2% biodiesel fuel by volume.

Contact:

Joe Murphy
North Dakota Department of Commerce
Division of Community Services
400 East Broadway, Suite 50
PO Box 2057
Bismarck, ND 58502-2057
Phone: (701) 328-2697
Fax: (701) 328-2308
E-Mail: jmurphy@state.nd.us
Web site: <http://www.state.nd.us/dcs/Energy/default.html>

ND-4 NORTH DAKOTA

Incentive Type: Grants—producer incentive
Eligible Technologies: AFVs, AF (ethanol)
Applicable Sectors: Industrial
Authority 1: [North Dakota Century Code 4-14.1-07, 4-14.1-08 and 4-14.1-09](#)

Summary:

The ethanol production incentive program provides funds for an incentive of \$0.40 per gallon for agriculturally derived fuel produced and sold in North Dakota. An ethanol plant with a production capacity of less than 15 million gallons is eligible for up to \$600,000 in production incentives per year and an ethanol plant with a production capacity of more than 15 million gallons may receive up to \$300,000 in production incentives per year. The total amount for any ethanol plant may not exceed \$10,000,000.

Contact:

Joe Murphy
North Dakota Department of Commerce

Division of Community Services
400 East Broadway, Suite 50
PO Box 2057
Bismarck, ND 58502-2057
Phone: (701) 328-2697
Fax: (701) 328-2308
E-Mail: jmurphy@state.nd.us
Web site: <http://www.state.nd.us/dcs/Energy/default.html>

ND-5 NORTH DAKOTA

Incentive Type: Tax reduction—excise tax (fuels)
Eligible Technologies: AF
Applicable Sectors: Individuals, businesses
Authority 1: [North Dakota Century Code](#) 57-43.2-02 and 57-43.2.03

Summary:

The state excise tax of \$0.21 per gallon imposed on all special fuels sold or used in the state is reduced by \$0.0105 per gallon on the sale or delivery of diesel fuel that contains at least 2% biodiesel fuel by weight. A special excise tax of 2% is imposed on the sale of all special fuels. This tax is reduced by 1.9% on all sales of diesel fuel containing 2% biodiesel by weight.

Contact:

Joe Murphy
North Dakota Department of Commerce
Division of Community Services
400 East Broadway, Suite 50
PO Box 2057
Bismarck, ND 58502-2057
Phone: (701) 328-2697
Fax: (701) 328-2308
E-Mail: jmurphy@state.nd.us
Web site: <http://www.state.nd.us/dcs/Energy/default.html>

OH-1 OHIO

Incentive Type: Tax Exemption—Equipment property, sales, use, and franchise taxes
Eligible Technologies: Solar Thermal Electric, Photovoltaics, Wind, Biomass, Renewable Transportation Fuels, Waste
Applicable Sectors: Commercial, Industrial
Amount: all
Max. Limit: none
Terms: all years upon certification
Date Enacted: 7/13/78
Website: http://www.odod.state.oh.us/cdd/oeec/c_i_cfe.htm
Authority 1: [ORC 5709.45--5709.53](#)

Summary:

This statute exempts certain equipment from property taxation, the state sales and use tax, as well as the state franchise tax where applicable. Originally enacted in 1978, this incentive has had some impact in the promotion of renewable energy in Ohio according to the Ohio Office of Energy Efficiency.

The code applies to tangible property used in energy conversion, thermal efficiency improvements and solid waste energy conversion. Generally, "conversion" refers to the replacement of fossil fuel sources of energy with alternative fuels or technologies; "thermal efficiency improvements" refers to the recovery of waste heat or steam produced in any commercial or industrial processes; and "solid waste conversion" refers to the use of waste to produce energy AND the utilization of such energy. Technologies included are solar thermal systems, photovoltaic systems, wind, biomass, and waste recovery systems.

Upon receipt of certification from the tax commissioner, such property is exempt from the sales and use taxes. Such equipment improvements also cannot be considered an improvement on land for purposes of property taxation and are not considered in the assessment of the state franchise tax.

Contact:

John Greenway
Ohio Department of Development
Office of Energy Efficiency
77 South High Street, 26th Floor
P.O. Box 1001

Columbus, OH 43215-6108
Phone: (614) 466-7406
Fax: (614) 466-1864
E-Mail: jgreenway@odod.state.oh.us

OH-2 OHIO

Incentive Type: Corporate Tax Credit
Eligible Technologies: Renewable Transportation Fuels
Applicable Sectors: Commercial, Industrial
Amount: 50% of sum invested
Max. Limit: \$5,000 per taxpayer per certified ethanol plant
Date Enacted: 3/21/02
Effective Date: tax year 2003
Expiration Date: tax year 2013
Website: <http://lsc.state.oh.us/analyses/fnla124.nsf/All%20Bills%20and%20Resolutions/51ca>
Authority I: Am. Sub. S.B. 144

Summary:

In April 2002, Ohio Governor Bob Taft signed into law SB 144, establishing the Ethanol Incentive Board and creating a tax credit against corporation franchise or income tax liability for investments in ethanol plants whose business plans have been approved by the Board. The law also promulgates that ethanol plants are air quality facilities eligible for Ohio Air Quality Development Authority financing. (However, the law declares that it is not an unfair or deceptive consumer sales practice to fail to disclose a blending of ethanol into gasoline.) In order to be eligible, facilities to be constructed and operated must be majority-owned by Ohio farmers prior to the first day the facility commences production.

Beginning in tax year 2003 and ending in tax year 2013, there is a nonrefundable tax credit for corporate taxpayers that invest in certified ethanol plants. The amount of the credit equals 50% of the amount the taxpayer invests in the plant, not to exceed \$5,000 per taxpayer per certified ethanol plant (regardless of the number of years in which the taxpayer makes investments). The corporate credit should be claimed in the tax year immediately following the calendar year in which the investment was made.

Any credit amount in excess of the tax due may be carried forward for three tax years, but the amount of the excess credit allowed in any such year must be deducted from the balance carried forward to the next year.

Contact:

Taxpayer Assistance
Ohio Department of Taxation
30 E. Broad Street, 22nd Floor
Columbus, OH 43215
Phone: (888) 405-4039
Fax: (614) 466-6401
Web site: <http://www.state.oh.us/tax/>

OH-3 OHIO

Incentive Type: Personal Tax Credit
Eligible Technologies: Renewable Transportation Fuels
Applicable Sectors: Residential
Amount: 50% of sum invested
Max. Limit: \$5,000 per taxpayer per certified ethanol plant
Date Enacted: 3/21/02
Effective Date: taxable year 2002
Expiration Date: taxable year 2012
Website: <http://lsc.state.oh.us/analyses/fnla124.nsf/All%20Bills%20and%20Resolutions/51ca>
Authority I: Am. Sub. S.B. 144

Summary:

In April 2002, Ohio Governor Bob Taft signed into law SB 144, establishing the Ethanol Incentive Board and creating a tax credit against corporation franchise or income tax liability for investments in ethanol plants whose business plans have been approved by the Board. The law also promulgates that ethanol plants are air quality facilities eligible for Ohio Air Quality Development Authority financing. (However, the law declares that it is not an unfair or deceptive consumer sales practice to fail to disclose a blending of ethanol into gasoline.) In order to be eligible, facilities to be constructed and operated must be majority-owned by Ohio farmers prior to the first day the facility commences production.

This nonrefundable tax credit for personal taxpayers who invest in a certified ethanol plant is available beginning in taxable year 2002 and ending in taxable year 2012. The credit against the personal income tax must be claimed for the taxable year during which the investment was made. The amount of the credit equals 50% of the amount the taxpayer invests in the plant, not to exceed \$5,000 per taxpayer per certified ethanol plant (regardless of the number of years in which the taxpayer makes investments).

Any credit amount in excess of the tax due may be carried forward for three tax years, but the amount of the excess credit allowed in any such year must be deducted from the balance carried forward to the next year.

Contact:

Individual Taxpayer Services

Ohio Department of Taxation

30 E. Broad Street, 22nd Floor

Columbus, OH 43215

Phone: (800) 282-1780

Web site: <http://www.state.oh.us/tax/>

OH-4 OHIO

Incentive Type: Property Tax Exemption

Eligible Technologies: Solar Thermal Electric, Photovoltaics, Wind, Biomass, Renewable Transportation Fuels, Waste

Applicable Sectors: Commercial, Industrial

Amount: all

Max. Limit: none

Terms: all years upon certification

Date Enacted: 7/13/78

Website: http://www.odod.state.oh.us/cdd/oeec/c_i_cfe.htm

Authority 1: [ORC 5709.45--5709.53](#)

Summary:

This statute exempts certain equipment from property taxation, the state sales and use tax, as well as the state franchise tax where applicable. Originally enacted in 1978, this incentive has had some impact in the promotion of renewable energy in Ohio according to the Ohio Office of Energy Efficiency.

The code applies to tangible property used in energy conversion, thermal efficiency improvements and solid waste energy conversion. Generally, "conversion" refers to the replacement of fossil fuel sources of energy with alternative fuels or technologies; "thermal efficiency improvements" refers to the recovery of waste heat or steam produced in any commercial or industrial processes; and "solid waste conversion" refers to the use of waste to produce energy AND the utilization of such energy. Technologies included are solar thermal systems, photovoltaic systems, wind, biomass, and waste recovery systems.

Upon receipt of certification from the tax commissioner, such property is exempt from the sales and use taxes. Such equipment improvements also cannot be considered an improvement on land for purposes of property taxation and are not considered in the assessment of the state franchise tax.

Contact:

John Greenway

Ohio Department of Development

Office of Energy Efficiency

77 South High Street, 26th Floor

P.O. Box 1001

Columbus, OH 43215-6108

Phone: (614) 466-7406

Fax: (614) 466-1864

E-Mail: jgreenway@odod.state.oh.us

OH-5 OHIO

Incentive Type: Sales Tax Exemption

Eligible Technologies: Solar Thermal Electric, Photovoltaics, Wind, Biomass, Renewable Transportation Fuels, Waste

Applicable Sectors: Commercial, Industrial

Amount: all

Max. Limit: none

Date Enacted: 7/13/78

Website: http://www.odod.state.oh.us/cdd/oeec/c_i_cfe.htm

Authority 1: [ORC 5709.45--5709.53](#)

Summary:

This statute exempts certain equipment from property taxation, the state sales and use tax, as well as the state franchise tax where applicable. Originally enacted in 1978, this incentive has had some impact in the promotion of renewable energy in Ohio according to the Ohio Office of Energy Efficiency.

The code applies to tangible property used in energy conversion, thermal efficiency improvements and solid waste energy conversion. Generally, "conversion" refers to the replacement of fossil fuel sources of energy with alternative fuels or technologies; "thermal efficiency improvements" refers to the recovery of waste heat or steam produced in any commercial or industrial processes; and "solid waste conversion" refers to the use of waste to produce energy AND the utilization of such energy. Technologies included are solar thermal systems, photovoltaic systems, wind, biomass, and waste recovery systems.

Upon receipt of certification from the tax commissioner, such property is exempt from the sales and use taxes. Such equipment improvements also cannot be considered an improvement on land for purposes of property taxation and are not considered in the assessment of the state franchise tax.

Contact:

John Greenway
Ohio Department of Development
Office of Energy Efficiency
77 South High Street, 26th Floor
P.O. Box 1001
Columbus, OH 43215-6108
Phone: (614) 466-7406
Fax: (614) 466-1864
E-Mail: jgreenway@odod.state.oh.us

OH-6 OHIO

Incentive Type: State Loan Program

Eligible Technologies: Solar Water Heat, Photovoltaics, Wind, Biomass, Hydro, Fuel Cells

Applicable Sectors: Commercial, Industrial, Residential, Nonprofit, Schools, Local Government

Amount: Varies

Max. Limit: \$25,000 for residents; \$500,000 for businesses

Terms: Rate buydown is available for 5 years; loan repayment terms vary by lending institution

Date Enacted: 1999

Effective Date: 2002

Website: http://www.odod.state.oh.us/cdd/oeef/elf_Renewable.htm

Authority 1: Ohio Revised Code, Sections 4928.61 - 4928.63

Summary:

The Renewable Energy Financial Assistance Program is one of four loan programs funded by the Energy Efficiency Revolving Loan Fund established by the Ohio General Assembly under the 1999 electric restructuring act (Senate Bill 3). The Fund was created to provide incentives for implementing energy efficiency and renewable energy projects.

The renewable energy loan program reduces the interest rate--by approximately half--on standard bank loans for those qualifying Ohio residents and businesses that borrow money to implement energy efficiency or renewable energy projects. Approximately 185 banks currently participate in the program. Although the interest rate buydown is available for five years, individual banks establish loan repayment terms on a case-by-case basis.

Qualifying projects must be located in the service territory of one of the five participating electric distribution companies to be eligible for Energy Loan Fund financing. The five companies are:

American Electric Power (Columbus and Southern Power and Ohio Power);
Cinergy (Cincinnati Gas and Electric);
Dayton Power and Light;
First Energy (Cleveland Electric Illuminating, Ohio Edison, Toledo Edison); and
Monongahela Power (Allegheny Power).

Eligible projects include but are not limited to the purchase and installation of:

Solar energy (photovoltaic cells)
Wind energy (wind turbines)
Bio-mass/bio-energy (from plants and trees or landfill methane)
Hydropower (from flowing water or existing dams) and
Fuel cells

For residential renewable energy projects, the minimum loan amount eligible for the subsidy is \$500; the maximum is \$25,000. For business and institutional renewable energy projects, the minimum loan amount eligible for the subsidy is \$5,000; the maximum is \$500,000.

Industrial facilities are eligible if they qualify as "small businesses," as defined by the Small Business Administration.

In the program's first year, one business took advantage of the renewable energy loan to install a \$20,000 photovoltaic system in addition to energy efficiency technologies. Over \$12 million has been committed to energy efficiency projects, primarily for the rental property sector.

An application and program details are available from the Web site shown above.

Contact:

Judy Jones

Ohio Department of Development
Office of Energy Efficiency
77 South High Street, 26th Floor
Columbus, OH 43215

Phone: (614) 466-8139

Fax: (614) 466-1864

E-Mail: jsjones@odod.state.oh.us

OH-7 OHIO

Incentive Type: Green Pricing Program

Eligible Technologies: Photovoltaics, Biomass, Hydro

Applicable Sectors: Commercial, Industrial, Residential, Local Government

Premium: 0.35¢/kWh to 1.35¢/kWh; or voluntary contribution

Commitment: None

Participants: 352

Effective Date: 1999

Website: <http://www.bgoohio.org/government/city/departments.html#utilityelectric>

Summary:

Ohio's first green pricing program is being offered to the 13,000+ customers of the Bowling Green Municipal Utility (BGMU). Based initially on hydro, the rate now includes other renewable energy resources.

Since August 2000, 3% (352) Bowling Green customers have opted to pay a monthly premium for green power at 1.35¢/kWh for 100% renewable electricity; 1.04¢/kWh for 75%; 0.69¢/kWh for 50%; and, 0.35¢/kWh for 25% or a "flat monthly contribution toward the development of local sustainable energy resources." The program is promoted through bill inserts, and participants receive a window cling to demonstrate their support for the program. In a survey conducted by the utility, about 500 of the city's customers expressed interest in participating in the program.

Power for the program is supplied from the newly constructed 42-MW, municipally-owned Belleville hydro plant of which Bowling Green owns a 6 MW share. The city will use the additional funds collected from customers to construct new solar or wind resources. Two 1-kW photovoltaic systems have been installed and connected to the distribution grid in Bowling Green. The systems are located at Kenwood Elementary School and Crim Elementary School.

BGMU has entered into a contract for the purchase of 3.8 MW of power generated from landfill gas in 2002, and a wind project is under study.

Contact:

Daryl Stockburger

City of Bowling Green Municipal Utilities
304 North Church Street
PO Box 388
Bowling Green, OH 43402

Phone: (419) 354-6246

Fax: (419) 353-4763

E-Mail: daryl.stockburger@bgoohio.org

Web site: <http://www.bgoohio.org/government/city/departments.html#utilityelectric>

OH-8 OHIO

Incentive Type: Net Metering Rules

Eligible Technologies: Photovoltaics, Wind, Hydro, Fuel Cells

Applicable Sectors: Commercial, Residential

Limit on System Size: 25 kW

Limit on Overall Enrollment: not specified

Treatment of Net Excess: not specified

Utilities Involved: Bowling Green Municipal Utilities

Summary:

Bowling Green Municipal Utility (BGMU) offers net metering. A standard interconnect permit is available for wind, solar, hydro, fuel cell installations and micro generators up to 25 kW. Larger installations have site-specific requirements.

Net excess generation is not mentioned in the one-page interconnection agreement. Generating facilities must comply with all IEEE, NEC, and UL standards, as well as local requirements.

Ohio's state-wide net metering rule applies only to investor-owned utilities and requires those utilities to offer a net metering option to customer-generators who own qualifying systems.

Contact:**Daryl Stockburger**

City of Bowling Green Municipal Utilities

304 North Church Street

PO Box 388

Bowling Green, OH 43402

Phone: (419) 354-6246

Fax: (419) 353-4763

E-Mail: daryl.stockburger@bgohio.org

Web site: <http://www.bgohio.org/government/city/departments.html#utilelectric>

OH-9 OHIO

Incentive Type: Net Metering Rules

Eligible Technologies: Solar Thermal Electric, Photovoltaics, Landfill Gas, Wind, Biomass, Hydro, Renewable Transportation Fuels, Fuel Cells, micro turbines

Applicable Sectors: Commercial, Industrial, Residential

Limit on System Size: no limit

Limit on Overall Enrollment: 1% of peak demand for each retail electric provider

Treatment of Net Excess: New rules pending. See summary for details.

Utilities Involved: Investor-owned utilities only

Date Enacted: 1999

Authority 1: [Ohio Revised Code 4928.67 \(SB 3\)](#)

Authority 2: [Case No. 01-0573](#)

Summary:

Enacted in 1999 by the State General Assembly as part of an electric utility restructuring bill, Ohio's net metering rule requires investor-owned utilities to offer a net metering option to customer-generators who own qualifying systems. Qualifying systems include wind, solar, biomass, landfill gas, hydropower, fuel cells and microturbines and must be intended primarily to offset part or all of the customer-generator's requirements for electricity. There is no cap on system size but the total installed capacity is limited to 0.1% of each utility's in state customer peak demand.

When the rule was enacted, the Public Utilities Commission of Ohio ordered utilities to purchase excess generation from their customers at a full retail rate. However, in June 2002, the Ohio Supreme Court ruled in favor of the utilities that this exchange was unreasonable and illegal, in Case No. 01-0573. While it is not yet decided how excess generation will be handled under this new ruling, it is likely that the utility will purchase excess generation from the customer at avoided cost, or that it will be credited to the following month for a period of up to three months.

Net metering system must meet safety standards of the National Electrical Code, the Institute of Electrical and Electronics Engineers, and Underwriters Laboratories. Utilities cannot require the customer-generator to comply with any further safety and performance standards.

Contact:**Kurt Waltzer**

Ohio Environmental Council

Columbus, OH

Phone: (614) 487-7506

E-Mail: kurt@theoec.org

OH-10 OHIO

Incentive Type: Public Benefits Fund

Eligible Technologies: Solar Water Heat, Active Solar Space Heat, Solar Thermal Electric, Photovoltaics, Wind, Biomass, Hydro, Renewable Transportation Fuels, Geothermal Electric, Fuel Cells, Waste

Applicable Sectors: Commercial, Industrial, Residential, Utilities

Types: Renewables, efficiency, low income assistance

Total Fund: \$100 million
Date Enacted: 1999
Effective Date: 2001
Expiration Date: 2011
Website: http://www.odod.state.oh.us/cdd/oeenergy_loan_fund.htm
Authority 1: Section 4928.61 et seq., Amended Substitute Senate Bill No. 3, 1999-2000

Summary:

Ohio's 1999 electric restructuring law created the Energy Efficiency Revolving Loan Fund and Universal Service Board which consolidate low-income assistance programs and create a weatherization program targeted at low-income housing. The Fund will collect \$100 million over 10 years to provide loans at below market rates or loan guarantees for energy efficiency improvements undertaken by residential, government, educational, small commercial, small industrial, or agricultural customers. Renewable energy projects are also eligible for loans through the fund. And, funds will be available for public education. The Office of Energy Efficiency (OEE), part of the Ohio Department of Development's Community Development Division, operates the Fund.

In addition to establishing funding levels, the restructuring legislation sets up a Public Benefits Advisory Board as a multi-stakeholder panel to assist the Department of Development in making policies for and administering the Universal Service Board and the Energy Efficiency Revolving Loan Fund. The Department of Development will also meet regularly with the state Public Utilities Commission in the development of spending programs.

The OEE has developed four loan programs for the Fund:

1. Business & Institutional Loans;
2. Double Saving Loans for Energy Home Improvements;
3. Rental Housing Linked Deposit Program
(open to developers of low-income rental housing tax credit projects as part of the Ohio Housing Finance Agency's "Housing Credit Allocation Plan"); and
4. Renewable Energy Financial Assistance Program (See DSIRE summary in Ohio's Financial Incentives category.)

In the program's first year, three Business and Institutional Loans were executed, with one project incorporating a photovoltaic system installation. In addition, about \$12 million in energy efficiency loans (~70 projects) were committed, primarily for the rental property sector.

Contact:

Judy Jones
Ohio Department of Development
Office of Energy Efficiency
77 South High Street, 26th Floor
Columbus, OH 43215
Phone: (614) 466-8139
Fax: (614) 466-1864
E-Mail: jsjones@odod.state.oh.us

OH-11 OHIO

Incentive Type: Mandate (Emission inspection exemptions)
Eligible Technologies: AFVs
Applicable Sectors: Private sector
Authority 1: [Ohio Revised Code](#) §3704.14

Summary:

Alternative fuel vehicles (AFVs) are exempt from certain motor vehicle inspection and maintenance programs.

Contact:

Sue Leitner
Tri-State Clean Fuels Network
Clean Cities Coordinator
(513) 946-7772
(513) 946-7778
sue.leitner@hamilton-co.org

OH-12 OHIO

Incentive Type: Mandate (Use exemptions)
Eligible Technologies: AFVs
Applicable Sectors: Private sector

Authority 1: [Ohio Revised Code](#) §3704.16)

Summary:

Vehicle emission control systems are not to be tampered with unless the action is for the purpose of converting a motor vehicle to use an alternative fuel and is in compliance with the standards adopted under the Clean Air Act Amendments.

Contact:

Sue Leitner
Tri-State Clean Fuels Network
Clean Cities Coordinator
(513) 946-7772
(513) 946-7778
sue.leitner@hamilton-co.org

OK-1 OKLAHOMA

Incentive Type: Corporate Tax Credit

Eligible Technologies: Renewable Fuel Vehicles

Applicable Sectors: Commercial, Industrial, Residential

Amount: 50% of the cost of the qualified clean-burning motor vehicle fuel property or qualified electric motor vehicle property for original owner; 10% of the cost of the motor vehicle or \$1,500 for subsequent owner

Terms: May carry credit forward for 3 years

Effective Date: 1/1/91

Expiration Date: 1/1/09

Website: <http://www.centraloklahomacleancities.org/frame.php3?page=events>

Authority 1: [68 Okl. St. § 2357.22](#)

Summary:

Oklahoma provides an income tax credit for 50% of the cost of converting a vehicle to run on an alternative fuel, or for 50% of the incremental cost of a new OEM AFV. The state also provides a tax credit for 10% of the total vehicle cost, up to \$1,500, when an AFV is resold, as long as a tax credit has not been previously taken on the vehicle.

Contact:

Gordon Gore

Oklahoma Department of Commerce
Community Affairs and Development
P.O. Box 26980
Oklahoma City, OK 73126-0980
Phone: (405) 815-6552
Fax: (405) 841-9377

E-Mail: gordon_gore@odoc.state.ok.us

Web site: <http://www.odoc.state.ok.us/Menu4.nsf/CommServFrame2>

OK-2 OKLAHOMA

Incentive Type: Personal Tax Credit

Eligible Technologies: Renewable Fuel Vehicles

Applicable Sectors: Commercial, Industrial, Residential

Amount: 50% of the cost of the qualified clean-burning motor vehicle fuel property or qualified electric motor vehicle property for original owner; 10% of the cost of the motor vehicle or \$1,500 for subsequent owner.

Terms: May carry credit forward for 3 years

Effective Date: 1/1/91

Expiration Date: 1/1/09

Website: <http://www.centraloklahomacleancities.org/frame.php3?page=events>

Authority 1: [68 Okl. St. § 2357.22](#)

Summary:

Oklahoma provides an income tax credit for 50% of the cost of converting a vehicle to run on an alternative fuel, or for 50% of the incremental cost of a new OEM AFV. The state also provides a tax credit for 10% of the total vehicle cost, up to \$1,500, when an AFV is resold, as long as a tax credit has not been previously taken on the vehicle.

Contact:

Gordon Gore

Oklahoma Department of Commerce
Community Affairs and Development
P.O. Box 26980

Oklahoma City, OK 73126-0980
Phone: (405) 815-6552
Fax: (405) 841-9377
E-Mail: gordon_gore@odoc.state.ok.us
Web site: <http://www.odoc.state.ok.us/Menu4.nsf/CommServFrame2>

OK-3 OKLAHOMA

Incentive Type: State Loan Program
Eligible Technologies: Renewable Fuel Vehicles
Applicable Sectors: Schools, Local Government, State Government
Amount: 0% interest loans
Max. Limit: Up to \$5,000 per converted or new vehicle and up to \$100,000 for refueling infrastructure
Terms: Maximum seven-year loan period
Effective Date: 1991
Website: http://www.dcs.state.ok.us/OKDCS.NSF/htmlmedia/alternative_fuels.html

Summary:

Oklahoma has an Alternative Fuels Loan program to help convert public fleets to operate on alternative fuels. This program provides 0% interest loans for converting vehicles to run on an alternative fuel, for the construction of refueling infrastructure, and for the incremental cost associated with the purchase of an OEM AFV. The program provides up to \$5,000 per converted or new vehicle and up to \$100,000 for refueling infrastructure. Repayment is made from fuel savings during a maximum seven-year period. Eligible applicants include state and county agencies and divisions, municipalities, school districts, mass transit authorities, and public trust authorities.

Contact:

Brandy Winget
Oklahoma Department of Central Services
2401 N. Lincoln, Suite 112
P. O. Box 53422
Oklahoma City, OK 73152-3422
Phone: (405) 521-2206
Fax: (405) 522-2230
E-Mail: brandy_winget@dcs.state.ok.us
Web site: <http://www.dcs.state.ok.us/OKDCS.NSF>

OK-4 OKLAHOMA

Incentive Type: State Loan Program
Eligible Technologies: Renewable Fuel Vehicles
Applicable Sectors: Commercial, Industrial
Amount: 3% interest loans
Terms: Maximum three-year loan period
Website: <http://www.centraloklahomacleancities.org/frame.php3?page=events>

Summary:

Oklahoma has a loan program with a 3% interest rate for the cost of converting private fleets to operate on alternative fuels and for the incremental cost of purchasing an OEM AFV. The repayment of the loan is made from fuel savings during a maximum three-year period.

Contact:

Gordon Gore
Oklahoma Department of Commerce
Community Affairs and Development
P.O. Box 26980
Oklahoma City, OK 73126-0980
Phone: (405) 815-6552
Fax: (405) 841-9377
E-Mail: gordon_gore@odoc.state.ok.us
Web site: <http://www.odoc.state.ok.us/Menu4.nsf/CommServFrame2>

OK-5 OKLAHOMA

Incentive Type: Net Metering Rules
Eligible Technologies: Solar Thermal Electric, Photovoltaics, Wind, Biomass, Hydro, Renewable Transportation Fuels, Geothermal Electric, Waste, Cogeneration

Applicable Sectors: Commercial, Industrial, Residential
Limit on System Size: 100 kW
Limit on Overall Enrollment: None
Treatment of Net Excess: Granted to utility; some utilities will purchase at avoided cost
Utilities Involved: All utilities
Date Enacted: 1988
Expiration Date: none
Authority 1: Oklahoma Corporate Commission Order 326195

Summary:

Net metering has been available in Oklahoma since 1988 under Oklahoma Corporate Commission Order 326195. This ruling requires investor owned utilities and rural cooperatives under the Commission's jurisdiction to file net metering tariffs for customer-owned renewable energy and cogeneration facilities at 100 kW or less in capacity. The program is available to all customer classes and there is no statewide limit to the amount of net metering capacity.

Utilities are not allowed to impose extra charges for customers signed up for net metering, but utilities are also not required to purchase net excess generation from customers. The ruling, however, does allow customers to request that utilities purchase the net generation. In this case, the utility purchases the generation at the utility's avoided cost. Although all renewable energy sources are eligible, only wind generating systems have used net metering in Oklahoma to date. In most cases, customer generation does not exceed demand.

Contact:

Gordon Gore
Oklahoma Department of Commerce
Community Affairs and Development
P.O. Box 26980
Oklahoma City, OK 73126-0980
Phone: (405) 815-6552
Fax: (405) 841-9377
E-Mail: gordon_gore@odoc.state.ok.us
Web site: <http://www.odoc.state.ok.us/Menu4.nsf/CommServFrame2>

OK-6 OKLAHOMA

Incentive Type: Tax Credit—personal, corporate
Eligible Technologies: AFVs, AF
Applicable Sectors: Individuals, businesses
Authority: [Oklahoma Statutes](#) §68-2357.22)

Summary:

Prior to January 1, 2009, Oklahoma provides a one-time income tax credit for 50% of the cost of converting a vehicle to operate on an alternative fuel, or for 50% of the incremental cost of a new OEM AFV up to \$2,000. The state also provides a tax credit for 10% of the total vehicle cost, up to \$1,500, when an AFV is resold, as long as a tax credit has not been previously taken on the vehicle. Additionally, the state provides a tax credit for up to 50% of the cost of installing refueling infrastructure for AFVs. These tax credits may be carried forward for up to three-years. The alternative fuels eligible for the credit include compressed natural gas (CNG), liquefied natural gas (LNG), liquefied petroleum gas (LPG), ethanol, methanol, and electricity. This tax credit extends to low-speed electric vehicles as defined by NHTSA in 49 C.F.R. 571.500 and to forklifts and other similar self-propelled vehicles.

Contact:

Brandy Winget
Oklahoma Department of Central Services
2401 N. Lincoln, Suite 112
P. O. Box 53422
Oklahoma City, OK 73152-3422
Phone: (405) 521-2206
Fax: (405) 522-2230
E-Mail: brandy_winget@dcs.state.ok.us
Web site: <http://www.dcs.state.ok.us/OKDCS.NSF>

OK-7 OKLAHOMA

Incentive Type: Loan—Equipment (AFV)
Eligible Technologies: AFVs
Applicable Sectors: Local government, School (K-12), Governmental authorities
Authority:

Summary:

Oklahoma has an Alternative Fuels Loan program to help convert public fleets to operate on alternative fuels. This program provides 0% interest loans for converting vehicles to operate on an alternative fuel, for the construction of refueling infrastructure, and for the incremental cost associated with the purchase of an OEM AFV. The program provides up to \$5,000 per converted or new vehicle and up to \$100,000 for refueling infrastructure. Repayment is made from fuel savings during a maximum seven-year period. If the alternative fuels price does not remain below the price of the conventional fuel that was replaced, repayment is suspended. Eligible applicants include state and county agencies and divisions, municipalities, school districts, mass transit authorities, and public trust authorities.

Contact:

Brandy Winget

Oklahoma Department of Central Services

2401 N. Lincoln, Suite 112

P. O. Box 53422

Oklahoma City, OK 73152-3422

Phone: (405) 521-2206

Fax: (405) 522-2230

E-Mail: brandy_winget@dcs.state.ok.us

Web site: <http://www.dcs.state.ok.us/OKDCS.NSF>

OK-8 OKLAHOMA

Incentive Type: Loan—Equipment (AFV)

Eligible Technologies: AFVs

Applicable Sectors: Individuals businesses

Authority:

Summary:

Oklahoma also has a private loan program with a 3% interest rate for the cost of converting private fleets to operate on alternative fuels and for the incremental cost of purchasing an OEM AFV. The repayment of the loan is made from fuel savings during a maximum three-year period.

Contact:

Gordon Gore

Oklahoma Department of Commerce

Phone: (405) 815-5365

Email: Gordon_gore@odoc.state.ok.us

OK-9 OKLAHOMA

Incentive Type: Mandated Outreach (fuel cells)

Eligible Technologies: AF

Applicable Sectors: State government

Authority: [House Bill](#) 2351, 2004

Summary:

Pending the availability of supporting federal funds, a Fuel Cell Initiative Task Force, will serve between April 2004 and February 2005 to study and make recommendations regarding the state of the fuel cell industry, programs to accelerate the commercial availability of fuel cells, and related economic incentives. The Task Force will make a report to the Governor and Legislature by January 1, 2005.

Contact:

Brandy Winget

Oklahoma Department of Central Services

2401 N. Lincoln, Suite 112

P. O. Box 53422

Oklahoma City, OK 73152-3422

Phone: (405) 521-2206

Fax: (405) 522-2230

E-Mail: brandy_winget@dcs.state.ok.us

Web site: <http://www.dcs.state.ok.us/OKDCS.NSF>

OK-10 OKLAHOMA

Incentive Type: Mandate—Equipment, fuel

Eligible Technologies: AFVs, AF

Applicable Sectors: State government

Authority: [Oklahoma Statutes](#) §74-130.3

Summary:

Under the Alternative Fuels Conversion Act, all school and government vehicles may be converted to operate on an alternative fuel, and all school districts should consider only purchasing school vehicles which have the capability to operate on an alternative fuel. The Act also requires all school and government vehicles capable of operating on an alternative fuel to use the fuel whenever a refueling station is in operation within a five-mile radius of the respective department or district and the price of the alternative fuel is cost competitive. If school and government vehicles must be refueled outside the five-mile radius and no refueling station is reasonably available, the school and government vehicles are exempt from this requirement.

Contact:

Brandy Winget

Oklahoma Department of Central Services

2401 N. Lincoln, Suite 112

P. O. Box 53422

Oklahoma City, OK 73152-3422

Phone: (405) 521-2206

Fax: (405) 522-2230

E-Mail: brandy_winget@dcs.state.ok.us

Web site: <http://www.dcs.state.ok.us/OKDCS.NSF>

OK-11 OKLAHOMA

Incentive Type: Mandate--Outreach

Eligible Technologies: AFVs, AF

Applicable Sectors: State government

Authority: [Executive Order](#) 2001-22

Summary:

Oklahoma's Bioenergy Initiative encourages Oklahoma to establish bioenergy production programs to improve energy security, create opportunities for economic development within the state, and reduce greenhouse gas emissions. Oklahoma shall develop and pursue bioenergy alternatives for cleaner energy sources, drawing on its vast supplies of crop residues, grasses, trees, animal waste, and other biomass resources.

Contact:

Brandy Winget

Oklahoma Department of Central Services

2401 N. Lincoln, Suite 112

P. O. Box 53422

Oklahoma City, OK 73152-3422

Phone: (405) 521-2206

Fax: (405) 522-2230

E-Mail: brandy_winget@dcs.state.ok.us

Web site: <http://www.dcs.state.ok.us/OKDCS.NSF>

OK-12 OKLAHOMA

Incentive Type: Outreach

Eligible Technologies: AFVs, AF

Applicable Sectors: Industrial, state government, schools (universities), non-profits

Authority: [Oklahoma Statutes](#) §2-1950.1 and §2-1950.2

Summary:

The Oklahoma Ethanol Development Study Act and the Oklahoma Ethanol Development Advisory Committee were created in May 2001 to serve until June 2006 to encourage the processing, market development, promotion, distribution and research of products derived from grain, ethanol, or ethanol components, co-products or by-products, in part to provide efficient and less-polluting energy sources which will make Oklahoma less energy dependent and reduce atmospheric carbon monoxide levels.

Contact:

Brandy Winget

Oklahoma Department of Central Services

2401 N. Lincoln, Suite 112

P. O. Box 53422

Oklahoma City, OK 73152-3422

Phone: (405) 521-2206

Fax: (405) 522-2230

E-Mail: brandy_winget@dcs.state.ok.us
Web site: <http://www.dcs.state.ok.us/OKDCS.NSF>

OK-13 OKLAHOMA

Incentive Type: Tax exemption—excise tax
Eligible Technologies: AFVs, AF
Applicable Sectors: Individuals, businesses
Authority: [Oklahoma Statutes](#) §68-723

Summary:

In lieu of the motor fuel excise tax, Oklahoma levies an annual flat fee on motor vehicles including passenger automobiles, pickup trucks, vans and heavy-duty vehicles using LPG, CNG, LNG, methanol, or blends of 85% methanol and 15% gasoline (M85). Light-duty CNG and LNG vehicles are taxed at a rate of \$100 per vehicle per year. Light-duty LPG vehicles are taxed at a rate of \$50 per year. All AFVs weighing more than one ton are taxed at the rate of \$150 per year.

Contact:

Brandy Winget
Oklahoma Department of Central Services
2401 N. Lincoln, Suite 112
P. O. Box 53422
Oklahoma City, OK 73152-3422
Phone: (405) 521-2206
Fax: (405) 522-2230
E-Mail: brandy_winget@dcs.state.ok.us
Web site: <http://www.dcs.state.ok.us/OKDCS.NSF>

OK-14 OKLAHOMA

Incentive Type: Mandate—technician certification
Eligible Technologies: AFVs
Applicable Sectors: Individuals, businesses
Authority: [Oklahoma Statutes](#) §74-130.11 - §74-130.24

Summary:

The Alternative Fuels Technician Certification Act regulates the training, testing, and certification of technicians who install, modify, repair, or renovate equipment used in the fueling of AFVs and the conversion of any engines to alternative fueled engines. This includes OEM manufactured engines dedicated to operate on an alternative fuel. Electric vehicles (EVs), electric charging stations, and EV technicians must also comply with the rules and regulations of this Act.

Contact:

Brandy Winget
Oklahoma Department of Central Services
2401 N. Lincoln, Suite 112
P. O. Box 53422
Oklahoma City, OK 73152-3422
Phone: (405) 521-2206
Fax: (405) 522-2230
E-Mail: brandy_winget@dcs.state.ok.us
Web site: <http://www.dcs.state.ok.us/OKDCS.NSF>

OK-15 OKLAHOMA

Incentive Type: Mandate—regulation exemption
Eligible Technologies: AFVs
Applicable Sectors: Individuals, businesses
Authority: [Oklahoma Statutes](#) §74-130.8

Summary:

The price and sale of natural gas, methanol, and electricity utilized as a transportation fuel in a motor vehicle is exempt from regulation within the state of Oklahoma.

Contact:

Brandy Winget

Oklahoma Department of Central Services
2401 N. Lincoln, Suite 112
P. O. Box 53422
Oklahoma City, OK 73152-3422
Phone: (405) 521-2206
Fax: (405) 522-2230
E-Mail: brandy_winget@dcs.state.ok.us
Web site: <http://www.dcs.state.ok.us/OKDCS.NSF>

OR-1 OREGON

Incentive Type: Corporate Tax Credit

Eligible Technologies: Passive Solar Space Heat, Solar Water Heat, Active Solar Space Heat, Solar Thermal Electric, Photovoltaics, Wind, Biomass, Hydro, Renewable Transportation Fuels, Geothermal Electric, Geothermal Heat Pumps, Waste, Recycling

Applicable Sectors: Commercial, Industrial, Transportation, Utilities

Amount: 35% of project costs

Max. Limit: \$10,000,000 per project

Terms: min 1 year payback

Date Enacted: 1/1/80

Expiration Date: None

Website: <http://www.energy.state.or.us/bus/tax/taxcdt.htm>

Authority 1: [OAR 330-090-0105 to 330-090-0150](#)

Summary:

Oregon's Business Energy Tax Credit is for investments in energy conservation, recycling, renewable energy resources, or less-polluting transportation fuels. Any Oregon business may qualify. As examples, projects may be in manufacturing plants, stores, offices, apartment buildings, farms, and transportation.

The 35-percent tax credit is taken over five years: 10 percent the first and second years and 5 percent for each year thereafter. Any unused credit can be carried forward up to eight years.

Under the pass-through option, a project owner may transfer a tax credit to a pass-through partner in return for a lump-sum cash payment (the net present value of the tax credit) upon completion of the project. The Pass-through Option allows non-profit organizations, schools, governmental agencies, tribes, other public entities and businesses with and without tax liability to use the Business Energy Tax Credit by transferring their tax credit for an eligible project to a partner with a tax liability.

Lighting projects must improve energy efficiency by at least 25 percent to qualify. All rental-property weatherization projects qualify for the tax credit if recommended by a utility or state energy auditor. Other conservation projects must reduce energy use by at least 10 percent. For new construction, measures are eligible if they reduce energy use by at least 10 percent, compared to a similar building that meets the minimum requirements of the state energy code.

Projects that use solar, wind, hydro, geothermal or biomass 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.

Projects that develop new markets for recycled materials or recycle materials not required by law are eligible for the tax credit. Projects that reduce employee commuting (or work-related travel) and investments in alternative fuels may qualify. To date, more than 4,800 energy tax credits have been awarded to Oregon businesses. Altogether, those investments save or generate energy worth some \$90 million a year.

Contact:

Suzanne Dillard

Oregon Office of Energy

625 Marion Street, N.E.

Salem, OR 97301-3737

Phone: (503) 373-7565

Fax: (503) 373-7806

E-Mail: Suzanne.C.Dillard@state.or.us

Web site: <http://www.energy.state.or.us>

OR-2 OREGON

Incentive Type: Personal Tax Credit

Eligible Technologies: Passive Solar Space Heat, Solar Water Heat, Active Solar Space Heat, Photovoltaics, Wind, Renewable Fuel Vehicles, Fuel Cells, Geothermal Heat Pumps, Renewable Vehicle Charging and Refueling

Applicable Sectors: Residential

Amount: Varies by technology

Max. Limit: \$1,500
Date Enacted: 1977
Effective Date: 1/1/78
Expiration Date: None
Website: <http://www.energy.state.or.us/res/tax/taxcdt.htm>
Authority 1: [OAR 330-070-0010 to 330-070-0097 \(for ORS 469.160-469.180\)](#)

Summary:

Homeowners and renters who pay Oregon income taxes are eligible for the Residential Energy Tax Credit if they purchase premium-efficiency appliances, heating and cooling systems, duct systems, closed-loop geothermal space or water heating systems, solar water and space heating systems, photovoltaics, wind, fuel cells, and alternative fuel vehicles and charging or fueling systems. This tax credit was enacted by the legislature in 1977 and became effective beginning with tax year 1978.

Only appliances recognized as premium efficiency by the Oregon Office of Energy are eligible for the tax credit. The Oregon Office of Energy keeps a list of qualifying appliances. The tax credit is the *lessor* of: 1) the amount listed for qualifying models, or 2) 25 percent of the net cost of the appliance.

Performance-tested duct systems qualify for a tax credit of 25 percent of the cost of the work, not to exceed \$250. The testing must be performed by a contractor certified by the Oregon Office of Energy.

Qualifying air-source heat pump systems are eligible for a tax credit of \$300 or \$500. Qualifying condensing furnaces and boilers are eligible for tax credits of \$225 or \$350. If the heat pumps and furnaces are connected to a performance-tested duct system, they are eligible for an additional \$150 tax credit.

Photovoltaic systems are eligible for \$3 per peak watt, up to \$1,500. Closed-loop geothermal systems for space or water heating, solar space and water heating systems, wind systems, and fuel cells are eligible for a credit of 60 cents per kWh saved during the first year, up to \$1,500. Spa and pool heating systems are eligible for a tax credit of 15 cents per kWh saved, up to 50 percent of the cost, with a maximum tax credit of \$1,500.

Vehicles that run on alternative type of fuels qualify for a tax credit. Examples are electricity, natural gas, methanol, propane and hydrogen. Vehicles must be registered in the state of Oregon to operate on public roadways. An additional tax credit is available for installing a home charging or fueling system. The tax credit is 25 percent of the cost of the vehicle or device, not to exceed \$750. The tax credit may be claimed for a vehicle and a charging or fueling system, for a total of \$1,500.

Contact:

Suzanne Dillard
Oregon Office of Energy
625 Marion Street, N.E.
Salem, OR 97301-3737
Phone: (503) 373-7565
Fax: (503) 373-7806
E-Mail: Suzanne.C.Dillard@state.or.us
Web site: <http://www.energy.state.or.us>

OR-3 OREGON

Incentive Type: Property Tax Exemption

Eligible Technologies: Passive Solar Space Heat, Solar Water Heat, Active Solar Space Heat, Solar Thermal Electric, Solar Thermal Process Heat, Photovoltaics, Wind, Hydro, Geothermal Electric, Fuel Cells, Geothermal Heat Pumps, Methane Gas

Applicable Sectors: Commercial, Industrial, Residential

Amount: 100%

Max. Limit: N/A

Terms: N/A

Date Enacted: 1/1/76

Expiration Date: 2012

Website: <http://www.energy.state.or.us/renew/Solar/Support.htm>

Authority 1: [OAR 150-307.175](#)

Summary:

Oregon's property tax exemption states that the added value to any property from the installation of a qualifying renewable energy system not be included in the assessment of the property's value for property tax purposes. Qualifying renewables include solar, geothermal, wind, water, fuel cell or methane gas systems for the purpose of heating, cooling or generating electricity. This exemption is intended for end users and does not apply to property owned by anyone directly or indirectly involved in the energy industry.

Contact:

Information Specialist - Office of Energy
Oregon Office of Energy
625 Marion Street, N.E.

Salem, OR 97301-3737
Phone: (503) 378-4040
Fax: (503) 373-7806
E-Mail: energy.in.internet@state.or.us
Web site: <http://www.energy.state.or.us>

OR-4 OREGON

Incentive Type: State Grant Program
Eligible Technologies: Photovoltaics, Landfill Gas, Wind, Biomass, Hydro, Geothermal Electric, Digester Gas, Waste
Applicable Sectors: Commercial, Industrial, Residential, General Public, Nonprofit, Schools, Local Government, State Government
Amount: \$1.5 million for overall program in 2002
Date Enacted: 2002
Effective Date: 2002
Website: http://www.energytrust.org/programs/documents/Unsolicitd_Propsl_App.doc

Summary:

The Energy Trust of Oregon is accepting applications for unsolicited new renewable energy resource projects funded by the state's public benefits fund. The Energy Trust plans to award up to a total of \$1.5 million in 2002 to support unsolicited renewable energy projects in the areas of small wind, solar photovoltaics, biomass and geothermal.

The Energy Trust of Oregon (Energy Trust) is a nonprofit organization created to invest public purpose funding for energy efficiency and renewable energy in Oregon over the next 10 years. This mandate emerged from energy reform legislation (Senate Bill 1149) passed in 1999, which included a 3% system-benefits charge to apply to Portland General Electric and Pacific Power ratepayers in the state.

Subsequent action by the Oregon Public Utilities Commission (OPUC) encouraged the creation of a new, nonprofit organization (the Energy Trust) to administer the energy efficiency and renewable energy portions of these funds. With an annual budget of approximately \$45-50 million (about \$10 million of which is dedicated to renewable energy), the Energy Trust of Oregon is expected to have a sizable impact on the energy future of the state. The Energy Trust has a contractual relationship with the OPUC to implement programs consistent with SB 1149, and funding for program work began in March 2002.

Contact:

Peter West
The Energy Trust of Oregon
733 SW Oak Street, Suite 200
Portland, OR 97205
Phone: (503) 493-8888
Fax: (503) 546-6862
E-Mail: info@energytrust.org
Web site: <http://www.energytrust.org>

OR-5 OREGON

Incentive Type: State Loan Program
Eligible Technologies: Passive Solar Space Heat, Solar Water Heat, Active Solar Space Heat, Solar Thermal Electric, Photovoltaics, Wind, Biomass, Hydro, Renewable Transportation Fuels, Geothermal Electric, Waste, Cogeneration, Waste Heat Recovery
Applicable Sectors: Commercial, Industrial, Residential, Nonprofit, Schools, Local Government, State Government
Amount: Typically \$20,000 - \$20 million
Max. Limit: None
Terms: Repayment to match term of bonds
Date Enacted: 5/20/80
Effective Date: 5/20/80
Website: <http://www.energy.state.or.us/loan/selphme.htm>
Authority 1: [OAR 330-110-0005 to 330-110-0055](#)

Summary:

The Oregon Small Scale Energy Loan Program (SELP) is administered by the Oregon Office of Energy and was created in 1981 after voters approved an amendment to the Oregon Constitution in 1980 authorizing the sale of bonds to finance small scale, local energy projects. The funding source is unlike most other state renewable energy loan programs, which are funded by revolving funds. The sale of bonds is made on a periodic basis and, occasionally, to accommodate a particularly large loan request.

Loans are available to individuals, businesses, schools, cities, counties, special districts, state and federal agencies, public corporations, cooperatives, tribes, and non-profits. Though there is no legal maximum loan, the largest single loan has been \$16.8 million. Loan terms vary. Generally, they are set to match the term of the bonds that funded the loans, but loan terms may not exceed project life. Businesses which qualify for SELP often qualify for the Business Energy Tax Credit (BETC).

Contact:
Dave Stevens
Oregon Office of Energy
Small Scale Energy Loan Program
625 Marion Street, N.E.
Salem, OR 97301-3737
Phone: (503) 378-4040
Fax: (503) 373-7806
E-Mail: david.p.stevens@state.or.us

OR-6 OREGON

Incentive Type: Utility Loan Program
Eligible Technologies: Photovoltaics, Fuel Cells, Geothermal Heat Pumps, Biodiesel, Solar
Applicable Sectors: Commercial, Industrial, General Public, Nonprofit, Schools, Local Government
Terms: 6% interest
Date Enacted: 1992
Effective Date: 1993
Website: <http://www.eweb.org/energy/energysmart/index.html>

Summary:

The Eugene Water & Electric Board (EWEB) offers financial incentives to commercial customers, schools and local governments as part of the Energy Smart Services program. The financial incentives are in the form of a low interest loan and a 15 cent per kWh cash rebate to customers who install and utilize renewable energy as an alternate source of power in the workplace.

The cash rebate is calculated at the end of the first year by an EWEB engineer. At which time, the customer will be reimbursed 15 cents per the number of saved kWh over the course of the year.

A low interest loan from EWEB is available to finance the installation cost of the renewable energy project. The loan is provided at an interest rate of 6% and can be repaid over a period of up to 5 years.

Contact:
Reid Hart
Eugene Water & Electric Board
P.O. Box 10148
Eugene, OR 97440-2148
Phone: (541) 484-1125
Fax: (541) 334-4614
E-Mail: reid.hart@eweb.eugene.or.us
Web site: <http://www.eweb.org>

OR-7 OREGON

Incentive Type: Utility Rebate Program
Eligible Technologies: Photovoltaics, Fuel Cells, Geothermal Heat Pumps, Biodiesel, Solar
Applicable Sectors: Commercial, Industrial, General Public, Nonprofit, Schools, Local Government
Rebate: \$0.15 per kWh on energy saved during first year
Date Enacted: 1992
Effective Date: 1993
Website: <http://www.eweb.org/energy/energysmart/index.html>

Summary:

The Eugene Water & Electric Board (EWEB) offers financial incentives to commercial customers, schools and local governments as part of the Energy Smart Services program. The financial incentives are in the form of a low interest loan and a 15 cent per kWh cash rebate to customers who install and utilize renewable energy as an alternate source of power in the workplace.

The cash rebate is calculated at the end of the first year by an EWEB engineer. At which time, the customer will be reimbursed 15 cents per the number of saved kWh over the course of the year.

A low interest loan from EWEB is available to finance the installation cost of the renewable energy project. The loan is provided at an interest rate of 6% and can be repaid over a period of up to 5 years.

Contact:
Reid Hart
Eugene Water & Electric Board
P.O. Box 10148

Eugene, OR 97440-2148
Phone: (541) 484-1125
Fax: (541) 334-4614
E-Mail: reid.hart@eweb.eugene.or.us
Web site: <http://www.eweb.org>

OR-8 OREGON

Incentive Type: Green Pricing Program
Eligible Technologies: Landfill Gas
Applicable Sectors: Commercial, Residential
Premium: \$1.80/100-kWh block
Commitment: One year
Participants: 686 (as of July, 2002)
Effective Date: 1999
Website: http://www.cec-co.com/prodserv/energy_services/green_power/green_power.html

Summary:

Central Electric is part owner of a clean, non-polluting electricity generating plant in the Willamette Valley that creates power by burning methane gas from a nearby landfill. Pacific Northwest Generating Cooperative, of which Central Electric is a member utility, owns and operates the Coffin-Butte landfill gas generation facility, which became operational in 1995.

Participants can purchase as much or as little as they would like, sold in 100 kilowatt-hour blocks. The price will be 1.8 cents per kilowatt-hour more than the regular rate. Participants are asked to make a minimum purchase of one block/month for 12 months.

Contact:

Jim Crowell
Central Electric Cooperative
2098 N. Hwy. 97
Redmond, OR 97756
Phone: (541) 548-2144
E-Mail: jcrowell@cec-co.com
Web site: <http://www.cec-co.com>

OR-9 OREGON

Incentive Type: Green Pricing Program
Eligible Technologies: Landfill Gas
Applicable Sectors: Commercial, Residential
Premium: \$2.00/100-kWh block; Contributions
Commitment: None at this time
Participants: 121
Effective Date: 1998
Website: <http://www.douglaselectric.com/dec/grnpwr.htm>

Summary:

Members of Douglas Electric, in conjunction with the Pacific Northwest Generating Cooperative, can support the production of green energy recovered from the Coffin-Butte Resource Project in Corvallis, Oregon, which collects energy from an adjacent landfill gas facility and converts it into electricity. Each 100 kWh block can be purchased at \$2.00/ block. At request, Douglas Electric will direct an additional dollar amount, selected by you, to be added to your bill to fund the production of Green Power from Coffin Butte.

The program began in April of 1998. To date, there are 121 participants and a total of 7,196 blocks have been sold. Participants in the program will receive a "Green Card" which offers a 5% discount on energy saving products purchased from the utility's Smart Source Product Center.

Contact:

Todd Munsey
Douglas Electric Cooperative
1981 NE Stephens
P.O. Box 1327
Roseburg, OR 97470
Phone: (541) 673-6616
E-Mail: tmunsey@rosenet.net
Web site: <http://www.douglaselectric.com>

OR-10 OREGON

Incentive Type: Construction/Design Standard

Eligible Technologies: Passive Solar Space Heat, Solar Water Heat, Active Solar Space Heat, Solar Thermal Electric, Solar Thermal Process Heat, Photovoltaics, Wind, Biomass, Hydro, Geothermal Electric, Geothermal Heat Pumps, Biogas

Applicable Sectors: Commercial, Residential, Construction, Institutional, (not City of Portland owned facilities)

Sectors: All facilities built or funded by the City of Portland

Req. or Eval: Required

Green Bldg. Prog.: Yes

Effective Date: 7/02

Website: http://www.green-rated.org/g_rated/grated.html

Authority 1: [Green Building Policy](#)

Summary:

The City of Portland Supplement to Leadership in Energy and Environmental Design (LEED) 2.0 Green Building Rating System™ was developed by the City of Portland in 2002 to identify both local and state codes that go beyond LEED requirements and additional green building strategies that are regionally significant. It is designed to encourage both public and private sector commercial and mixed-use projects in Portland and Oregon to meet LEED certification. Portland LEED is the first local adaptation of LEED accepted by the USGBC in the US. A working group of public and private sector stakeholders, facilitated by the City's Office of Sustainable Development, developed the Portland Supplement in 2000-01. In 2001, the City adopted a Green Building Policy requiring new construction and major renovations of all city facilities meet the Certified level of LEED. While the Policy targets all new construction and major retrofits of city owned facilities, the City recognizes that LEED 2.0 is not appropriate for every building type and programming need. Therefore the Policy was designed to include a variety of tools targeted at specific building types including tenant improvements (T/I) and operations and maintenance practices when they become available. In addition, a list of exempted building types is currently being developed for city-owned buildings that aren't appropriate for LEED 2.0 certification (small out buildings, sheds, pump stations, etc.).

Under LEED, projects are to be assessed for renewable energy potential including solar, wind, geothermal, biomass, hydro, and biogas strategies.

In 2001, the Portland Development Commission adopted a similar policy requiring LEED certification for all publicly financed (over \$200,000 in PDC financing) private sector projects larger than 10,000 S.F. Both policies are helping move environmental building practices and LEED certification forward in the Portland market. In addition, the Oregon Office of Energy recently expanded the state Business Energy Tax Credit (BETC) to include LEED Silver and higher rated buildings, providing a powerful incentive to developers and building owners to design and build to the LEED standard. The Portland Supplement to LEED helps meet local environmental objectives and streamlines regulatory requirements providing a powerful tool for increased market penetration of high performance, healthy commercial and mixed use buildings throughout Portland.

[The City of Portland Supplement to Leadership in Energy and Environmental Design \(LEED\) 2.0 Green Building Rating System™](#) is a 52-page guidebook.

The City's Office of Sustainable Development has also developed [Creating a High Performance Workplace - A Green T/I Manual](#).

Contact:

Rob Bennett

Portland Office of Sustainable Development

721 NW 9th Ave, Suite 350

Portland, OR 97209

Phone: (503) 823-7082

Fax: (503) 823-5311

E-Mail: bennett@ci.portland.or.us

Web site: <http://www.sustainableportland.org/>

OR-11 OREGON

Incentive Type: Green Power Purchasing/Aggregation

Eligible Technologies: Photovoltaics, Wind, Biomass, Geothermal Electric

Applicable Sectors: General Public, Local Government

Website: http://www.sustainableportland.org/energy_gov_challenge.html

Summary:

The City of Portland is actively investigating ways to increase the amount of green or renewable energy purchased for City operations. The City's long-term objective is to eventually produce or purchase all their power needs through new renewables. Meanwhile, the City is hopeful that as early as 2003 as much as 10% of their electric load will be supplied by new renewables.

The City will be generating some of its own green power once four 30-kW biogas-powered microturbines at the main wastewater treatment plant (next to the biogas-powered fuel cell) become operational. In early 2003, a 10 kW wind turbine will be installed on City property near the Portland International Airport.

Just before Earth Day 2000, the City entered into agreements with both Portland General Electric and Pacific Power to purchase renewable energy through green pricing programs. The City committed to buy \$30,000 worth of renewable energy (over 600,000 kWh/year). These purchases were made by the City's Office of Transportation, Water Bureau, and Bureau of Environmental Services. In addition, the Energy Office is promoting green power purchases to other City bureaus, local businesses, and other institutions in order to promote the further development of wind, solar, and geothermal power.

In 1995, prior to deregulation of the electric market in Oregon, the City of Portland signed an innovative five-year contract with Portland General Electric (PGE) that allowed direct purchase of renewable resources. The contract allowed the City to take advantage of wholesale rates for a 10 MW minimum purchase and to designate 5% of that purchase to be from wind power. The result was a substantial cut in costs for 95% of the purchase, and a City-paid premium for the 5% of renewables. The overall result was a net savings of \$300,000 per year. Portland returned a portion of the savings to ratepayers and used the remainder to fund new renewable energy projects.

Contact:

Curt Nichols

Portland Office of Sustainable Development

Energy Division

721 NW 9th Ave, Suite 350

Portland, OR 97209

Phone: (503) 823-7418

Fax: (503) 823-5311

E-Mail: curt@ci.portland.or.us

Web site: <http://www.sustainableportland.org/>

OR-12 OREGON

Incentive Type: Net Metering Rules

Eligible Technologies: Solar Thermal Electric, Photovoltaics, Wind, Hydro, Fuel Cells

Applicable Sectors: Commercial, Industrial, Residential

Limit on System Size: 25 kW

Limit on Overall Enrollment: 0.5% of utility historic single hour peak load.

Treatment of Net Excess: Purchased at avoided cost or credited to following month

Utilities Involved: All utilities

Interconnection Stds. for Net Metering? Yes

Date Enacted: 9/1/1999

Authority 1: [OR Revised Statutes 757.300 \(HB 3219 of 1999\)](#)

Summary:

Oregon's net metering law, passed July 1999, allows net metering for customers with solar, wind, or hydropower systems up to 25 kW. All customer classes are eligible but enrollment is limited to a total installed capacity of 0.5% of the utility's historical single-hour peak load. Above this installed capacity, net metering eligibility can be limited by regulatory authority.

Net excess generation is either purchased at avoided cost or credited to the customers next monthly bill. At the end of an annual period, any unused credit is granted to the electric utility. This credit is then either granted to customers enrolled in the utility's low-income assistance programs, credited to the generating customer, or "dedicated to other use."

Net metering will be accomplished using a standard electro-mechanical meter. Utilities cannot place any additional standards or requirements on customer-generators beyond those requirements established by the National Electric Code, National Electrical Safety Code, Institute of Electrical and Electronic Engineers, and Underwriters Laboratories.

Contact:

Phil Carver

Oregon Office of Energy

625 Marion Street, N.E.

Suite 1

Salem, OR 97301-3742

Phone: (503) 378-6874

Fax: (503) 373-7806

E-Mail: philip.h.carver@state.or.us

Web site: <http://www.energy.state.or.us/>

OR-13 OREGON

Incentive Type: Public Benefits Fund

Eligible Technologies: Solar Water Heat, Active Solar Space Heat, Solar Thermal Electric, Photovoltaics, Wind, Biomass, Hydro, Renewable Transportation Fuels, Geothermal Electric

Applicable Sectors: Commercial, Industrial, Residential, Utilities

Types: renewables, efficiency, low income, schools

Total Fund: \$8.7 million for renewables/year

Charge: 3%

Date Enacted: 1999

Effective Date: 3/1/02

Website: <http://www.energytrust.org>

Authority 1: Section 3, Senate Bill 1149, 1999 Regular Session

Summary:

Oregon's 1999 utility restructuring legislation included a 3% public benefits charge to be paid by certain electricity users. The charge is expected to generate up to \$60 million per year over the next 10 years for renewable resources, energy conservation and market transformation, low income weatherization programs, and school energy programs. An additional \$10 million was also authorized for assistance to low-income customers.

The final version of the bill allocates the funds collected by the 3% public benefits surcharge in specific amounts. After 10% of the total funds are distributed to Education Service Districts for school energy efficiency and renewable resource activities, the balance is allocated as follows: (1) Energy Conservation and Market Transformation, 63%; (2) New Renewable Energy, 19%; (3) low-income weatherization, 13%; and (4) Housing and Community Services grants, 5%. Total annual funding for renewables is expected to be \$8.7 million.

Electric customers with loads greater than 1 MW may receive credits against the 3% charge for qualifying expenditures not to exceed 68% for new energy conservation expenditures and 19% for new renewable energy expenditures. These credits will be regulated by the Oregon Office of Energy and verified by a certified public accounting firm.

The Energy Trust of Oregon (Energy Trust) is a nonprofit organization created to invest public purpose funding for energy efficiency and renewable energy in Oregon over the next 10 years. This mandate emerged from energy reform legislation (Senate Bill 1149) passed in 1999, which included a 3% system-benefits charge to apply to Portland General Electric and Pacific Power ratepayers in the state.

Subsequent action by the Oregon Public Utilities Commission (OPUC) encouraged the creation of a new, nonprofit organization (the Energy Trust) to administer the energy efficiency and renewable energy portions of these funds. With an annual budget of approximately \$45-50 million (about \$10 million of which is dedicated to renewable energy), the Energy Trust of Oregon is expected to have a sizable impact on the energy future of the state. The Energy Trust has a contractual relationship with the OPUC to implement programs consistent with SB 1149, and funding for program work began in March 2002.

Oregon's residential customers must be offered a "portfolio" of options by October 1, 2001, including green, market-based, and cost-of-service rates. The green rate "must reflect significant new renewable energy resources." By January 1, 2003, the Oregon PUC is to analyze and make recommendations to the state legislature as to whether residential customers would also benefit from direct access.

Oregon's legislation does not apply to Idaho Power customers in Oregon unless they grow to exceed 25,000 or meet certain conditions. Municipal utilities and electric cooperatives may decide whether and under what terms and conditions they will offer their customers direct access or portfolio options; however, once a consumer-owned utility offers direct access, it must start the collection of a public benefits fund from eligible customers.

At least 80% of the energy conservation expenditures are to be concentrated in the service territory of the utility where the funds were collected. Low-income assistance will be funded by a separate charge set by the Oregon PUC that is expected to make available about \$10 million annually once direct access begins (i.e. \$5 million annually until that date).

Contact:

Christopher Dymond

Oregon Office of Energy

625 Marion Street, NE

Salem, OR 97301

Phone: (503) 378-8325

Fax: (503) 373-7806

E-Mail: christopher.s.dymond@state.or.us

Web site: <http://www.energy.state.or.us>

Peter West

The Energy Trust of Oregon

733 SW Oak Street, Suite 200

Portland, OR 97205

Phone: (503) 493-8888

Fax: (503) 546-6862

E-Mail: info@energytrust.org

Web site: <http://www.energytrust.org>

OR-14 OREGON

Incentive Type: Tax Credit—AFV (purchase or conversion)

Eligible Technologies: AFVs, AF
Applicable Sectors: Businesses
Authority 1:

Summary:

A Business Energy Tax Credit (BETC) is available for the incremental cost of purchasing hybrid electric vehicles (HEVs) and bi-fuel vehicles, the cost of converting vehicles to operate on an alternative fuel, and the cost of constructing alternative fuel refueling stations. The tax credit is 35% of the incremental cost of the system or equipment and is taken over five years. For more information, please contact

Contact:

Justin Klure
Oregon Department of Energy
(503) 373-1581
Email justin.klure@state.or.us
Web site www.energy.state.or.us.

OR-15 OREGON

Incentive Type: Tax credit—AFV (purchase, conversion)

Eligible Technologies: AFVs, AF

Applicable Sectors: Individuals

Authority 1:

Summary:

A Residential Tax Credit (RETC) of up to \$1,500 is available for the incremental cost of a HEV or bi-fuel vehicle. A credit is also available for the purchase of an OEM alternative fuel vehicle, and the cost of converting vehicles to operate on an alternative fuel.

Contact:

Deby Davis
Oregon Department of Energy
(503) 378-4040 ext. 291
Email deby.s.davis@state.or.us
Web site at www.energy.state.or.us.

OR-16 OREGON

Incentive Type: Mandate—purchase AFVs

Eligible Technologies: AFVs

Applicable Sectors: State government

Authority 1: [Oregon Revised Statutes](#) 283.327 and [ORS](#) 267.030

Summary:

State law requires that the state agencies and transit districts purchase AFVs to the maximum extent possible, except when it is not economically or logistically possible to purchase or refuel an AFV.

Contact:

Christopher Dymond
Oregon Office of Energy
625 Marion Street, NE
Salem, OR 97301
Phone: (503) 378-8325
Fax: (503) 373-7806
E-Mail: christopher.s.dymond@state.or.us
Web site: <http://www.energy.state.or.us>

Peter West

The Energy Trust of Oregon
733 SW Oak Street, Suite 200
Portland, OR 97205
Phone: (503) 493-8888
Fax: (503) 546-6862
E-Mail: info@energytrust.org
Web site: <http://www.energytrust.org>

PA-1 PENNSYLVANIA

Incentive Type: Local Grant Program

Eligible Technologies: Passive Solar Space Heat, Solar Water Heat, Active Solar Space Heat, Solar Thermal Electric, Solar Thermal Process Heat, Photovoltaics, Landfill Gas, Wind, Biomass, Hydro, Renewable Transportation Fuels, Renewable Fuel Vehicles, Geothermal Electric, Fuel Cells, Geothermal Heat Pumps, Waste, Cogeneration, Solar

Applicable Sectors: Commercial, Industrial, Residential, General Public, Nonprofit, Schools, Local Government, Transportation, Construction, State Government, (PECO svc. territory customers only)

Amount: \$25,000 average

Date Enacted: 12/99

Effective Date: 12/99

Website: http://www.trfund.com/sdf/sdf_grants.htm

Summary:

Four types of grants are available:

1) Sustainable Energy Business Planning Grants are available to businesses located in the PECO Energy Service territory that design, manufacture, sell, install, operate or service renewable energy or energy efficiency products, technologies or services. The Sustainable Energy Business Planning Grants are available for business planning.

2) Sustainable Energy Business Start-Up Grants are available to businesses located in the PECO Energy territory that design, manufacture, sell, install, operate or service renewable energy or energy efficiency products, technologies or services. These grants are available for:

- a) product/technology prototypes
- b) product/technology demonstrations
- c) measurement and metering costs
- d) marketing efforts
- e) other business expansion/start-up costs

3) Green Building Design Grants are available to architectural firms, engineering firms, building developers and building owners that are committed to designing and building green buildings in the PECO Energy service territory. These grants are available to fund building energy simulation modeling using DOE2, PowerDOE and similar computer simulation software.

4) The Sustainable Development Fund reserves the right to accept other grant proposals for work of compelling interest and value that strongly advances the Fund's mission of promoting renewable energy, energy conservation and sustainable energy businesses.

As stated in the SDF's annual program plan, the sustainable energy grants are expected to average approximately \$25,000 each over the course of the annual budget period. Grant funds are available for up to 75% of the cost of the work, with a minimum of 25% of the project costs being provided by the applicant. The average grant amount and the percentage of matching share are suggested values that may be modified by the SDF in special instances. For business planning grants, an additional guideline is that no more than 50% of the grant award may go to cover the costs of the applicant's staff.

Contact:

Roger Clark

Sustainable Development Fund

Solar PV Grant Program

7217 Oak Avenue

Melrose Park, PA 19027-3222

Phone: (215) 925-1130

E-Mail: clarkr@trfund.com

Web site: <http://www.trfund.com/>

PA-2 PENNSYLVANIA

Incentive Type: Local Grant Program

Eligible Technologies: Solar Water Heat, Active Solar Space Heat, Photovoltaics, Landfill Gas, Wind, Biomass, Hydro, Fuel Cells, Solar

Applicable Sectors: Commercial, Industrial, Nonprofit, Local Government, Utilities, State Government, (PP&L Service Territory only)

Amount: Generally \$10,000 - \$25,000

Max. Limit: \$25,000

Effective Date: 2000

Website: <http://www.sustainableenergyfund.org>

Summary:

The Sustainable Energy Fund of Central Eastern Pennsylvania (SEF) disburses a limited number of grants to organizations seeking funding for projects consistent with the Fund's mission. SEF's mission is "to promote, research and invest in clean and renewable energy technologies, energy conservation, energy efficiency and sustainable energy enterprises that provide opportunities and benefits for PPL ratepayers." Grants range from \$10,000 to \$25,000. However, research projects are not eligible for grant financing. There are no deadlines for submitting proposals; they can be submitted at any time. The fund also offers loans and other financing tools.

The SEF was founded in November 1999 as a result of the Pennsylvania Public Utility Commission electric utility restructuring proceedings. The SEF was a key component of the joint settlement with PPL, Inc. (now PPL Electric Utilities Corporation) and the PUC. The initial SEF funding of approximately \$20.5 million will be generated over six years through a rate surcharge on PPL ratepayers. See DSIRE's summary of Pennsylvania's Public Benefits Funds.

The SEF is one of five Sustainable Energy Funds serving Pennsylvania. The others are:

[Berks Community Foundation](#)

(GPU - eastern PA)

[Community Foundation of the Alleghenies](#)

(GPU - western PA)

[Sustainable Development Fund](#)

(serving the PECO area)

[West Penn Power SEF](#)

Contact:

Tom Tuffey

Sustainable Energy Fund of Central Eastern PA

609 Hamilton Street

Allentown, PA 18101

Phone: (610) 740-3182

Fax: (610) 740-9511

E-Mail: ppltsef@aol.com

PA-3 PENNSYLVANIA

Incentive Type: Local Grant Program

Eligible Technologies: Passive Solar Space Heat, Solar Water Heat, Active Solar Space Heat, Solar Thermal Electric, Solar Thermal Process Heat, Photovoltaics, Landfill Gas, Wind, Biomass, Hydro, Renewable Transportation Fuels, Renewable Fuel Vehicles, Fuel Cells, Waste, Solar

Applicable Sectors: Nonprofit, Schools, (West Penn service territory only)

Max. Limit: \$25,000

Date Enacted: 5/21/99

Effective Date: 5/01

Website: <http://www.wppsef.org/grants.shtml>

Summary:

The West Penn Power Sustainable Energy Fund promotes the use of renewable energy and clean energy among commercial, industrial, institutional and residential customers in the West Penn market region. Eligible projects include energy produced from solar, wind, low-impact hydro, and sustainable biomass such as closed-loop biomass and biomass gasification. Clean energy refers to advanced technologies (such as fuel cells) which use fossil fuels but have significantly lower emissions and waste than current commercialized technologies and fuels derived from waste.

Grants are available to non-profit companies and community-based organizations. Many of these grants will be leveraged with other grants from foundations and other funding agencies, and will lead to additional financing requests involving other WPPSEF products. Some of the potential uses of WPPSEF grants may include:

1. Demonstration projects and technologies incorporating renewable or energy efficiency products and services.
2. Engaging national programs. WPPSEF grants should be highly leveraged whenever possible.
3. Consumer education on renewable energy and energy conservation and efficiency.
4. Policy development. Specific policy research and initiatives that open markets for companies that become WPPSEF financing prospects could be supported.

Contact:

Joel Morrison

The Energy Institute

Penn. State University

C-211 CUL

University Park, PA 16802-2323

Phone: (814) 865-4802

Fax: (814) 863-7432

E-Mail: jlm9@psu.edu

PA-4 PENNSYLVANIA

Incentive Type: Local Loan Program

Eligible Technologies: Passive Solar Space Heat, Solar Water Heat, Active Solar Space Heat, Photovoltaics, Landfill Gas, Wind, Biomass, Hydro, Fuel Cells, Solar

Applicable Sectors: Commercial, in PP&L Service Territory

Amount: varies

Max. Limit: none

Effective Date: 2000

Summary:

Low-interest commercial loans are available to finance the start-up and expansion of manufacturers, distributors and installers of advanced clean energy technologies, including:

1. Distributed generation technologies (off-grid photovoltaic generators, micro turbines, etc.)
2. Quality and assured power (back-up energy systems for critical systems, fuel cell applications)
3. Energy storage systems

Loans typically range from \$25,000 to \$250,000.

Contact:

Tom Tuffey

Sustainable Energy Fund of Central Eastern PA

609 Hamilton Street

Allentown, PA 18101

Phone: (610) 740-3182

Fax: (610) 740-9511

E-Mail: ppltsef@aol.com

PA-5 PENNSYLVANIA

Incentive Type: Local Loan Program

Eligible Technologies: Passive Solar Space Heat, Solar Water Heat, Active Solar Space Heat, Solar Thermal Electric, Solar Thermal Process Heat, Photovoltaics, Landfill Gas, Wind, Biomass, Hydro, Fuel Cells, Waste, Cogeneration, Solar

Applicable Sectors: Commercial, Industrial, Residential, Nonprofit, Schools, GPU service territory

Amount: varies according to project

Max. Limit: \$1,000,000

Terms: vary according to project

Date Enacted: 2000

Effective Date: 2000

Summary:

The GPU Energy Sustainable Energy Fund arose indirectly from Pennsylvania's 1996 restructuring legislation. The Fund provides loans to promote the development and implementation of sustainable energy systems and technologies in Pennsylvania. All renewable energy technologies are eligible for these loans.

Contact:

Rick Mappin

Berks County Community Foundation

501 Washington Street, P.O. Box 212

Reading, PA 19603-0212

Phone: (610) 685-2227

Fax: (610) 685-2240

E-Mail: richardm@bccf.org

Web site: <http://www.bccf.org>

PA-6 PENNSYLVANIA

Incentive Type: Local Loan Program

Eligible Technologies: Passive Solar Space Heat, Solar Water Heat, Active Solar Space Heat, Solar Thermal Electric, Solar Thermal Process Heat, Photovoltaics, Landfill Gas, Wind, Biomass, Hydro, Renewable Transportation Fuels, Renewable Fuel Vehicles, Fuel Cells, Waste, Solar

Applicable Sectors: Commercial, Industrial, Residential, General Public, Nonprofit, Schools, Local Government, Transportation, Construction, Utilities, State Government, (West Penn service territory only)

Amount: varies according to project

Max. Limit: \$1,000,000

Terms: vary according to project

Date Enacted: 5/21/99

Effective Date: 5/01

Website: <http://www.wppsef.org/loans.shtml>

Summary:

The West Penn Power Sustainable Energy Fund promotes the use of renewable energy and clean energy among commercial, industrial, institutional and residential customers in the West Penn market region. Eligible projects include energy produced from solar, wind, low-impact hydro, and sustainable biomass such as closed-loop biomass and biomass gasification. Clean energy refers to advanced technologies (such as fuel cells) which use fossil fuels but have significantly lower emissions and waste than current commercialized technologies and fuels derived from waste.

Commercial loans are available to manufacturers, distributors, retailers and service companies involved in renewable and advanced clean energy technologies, as well as energy efficiency and conservation products and services to end-user companies and community-based organizations. WPPSEF intends to initiate loan programs in conjunction with other agencies and intermediaries to ensure an adequate flow of financing proposals for consideration.

WPPSEF will seek out proposals that may not be currently bankable but are acceptable credit risks. For small business lending, the ability to repay a business loan is based primarily on operating cash flow. Also, commercial lending is based on the management experience, ability and character of the management team. WPPSEF will offer term loans to finance energy-efficient equipment, construction, and provide working capital financing as part of a larger request. WPPSEF would charge a below market rate of interest, and secure the loans with available collateral.

Contact:

Joel Morrison

The Energy Institute

Penn. State University

C-211 CUL

University Park, PA 16802-2323

Phone: (814) 865-4802

Fax: (814) 863-7432

E-Mail: jlm9@psu.edu

PA-7 PENNSYLVANIA

Incentive Type: State Grant Program

Eligible Technologies: Renewable Transportation Fuels, Refueling/recharging facility

Applicable Sectors: Commercial, Industrial, Residential, General Public, Nonprofit

Amount: 20% of eligible costs

Max. Limit: Up to 15% of total fund

Date Enacted: 1/1/92

Website: <http://www.dep.state.pa.us/dep/deputate/airwaste/aq/afv/afvafig1.htm>

Summary:

The Pennsylvania Department of Environmental Protection administers this program which provides financial assistance and information on alternative fuels and vehicles. The Alternative Fuels Incentive Grant Fund (AFIG) was created in 1992 and is maintained by \$3.4 to \$4 million annually from a tax on the state's utilities. Eligible applicants for incentive grants are school districts, municipal authorities, political subdivisions, nonprofit entities and corporations or partnerships, and Pennsylvania residents. Eligible alternative motor fuels and fuel systems are compressed and liquefied natural gas, ethanol (E85), methanol (M85), hydrogen, hythane, electricity, fuels from biological materials or coal, and other fuels considered eligible under the Energy Policy Act of 1992.

The grant will pay 20% of eligible project costs for the following types of projects:

1. Purchasing alternative fuel vehicles, including hybrid electric vehicles.
2. Converting or repowering existing vehicles to operate on an alternative fuel.
3. Purchasing and installing alternative fuel refueling facilities.
4. Purchasing and installing recharging facilities.
5. Developing and evaluating innovative alternative fuel vehicles and developing refueling or recharging facilities.

Contact:

Karen Miller

Pennsylvania Department of Environmental Protection

Bureau of Air Quality

P.O. Box 8468

Rachel Carson State Office Building
Harrisburg, PA 17105-8468
Phone: (717) 772-3359
Fax: (717) 772-2303
E-Mail: karemill@state.pa.us
Web site: <http://www.dep.state.pa.us/dep/deputate/airwaste/aq/default.htm>

PA-8 PENNSYLVANIA

Incentive Type: Generation Disclosure
Eligible Technologies: Solar Thermal Electric, Photovoltaics, Wind, Biomass, Hydro, Renewable Transportation Fuels, Geothermal Electric, Waste, Cogeneration
Applicable Sectors: General Public, Utilities
Fuel Mix: Yes
Emissions: No
Std Format: No
Date Enacted: 1997
Effective Date: 1998
Expiration Date: none
Website: <http://www.oqa.state.pa.us>
Authority 1: [1997 House Bill 1509](#)
Authority 2: [52 PA Code § 54.6](#)

Summary:

In April 1998, the Pennsylvania Public Utility Commission (PUC) issued final rules requiring retail electricity suppliers to "respond to reasonable requests made by consumers for information concerning generation energy sources." Suppliers must respond to these requests "by informing consumers that this information is included in the annual licensing report and that this report exists at the Commission." Suppliers must also respond in a similar manner to requests for information pertaining to energy efficiency. Suppliers must verify fuel mix data through an independent auditor and submit this information in an annual report to the Commission. Suppliers that market electricity as "having special characteristics" (such as being green or environmentally friendly) must substantiate these claims.

Contact:

Dan Griffiths
Pennsylvania Office of Consumer Advocate
555 Walnut Street
Forum Place, 5th floor
Harrisburg, PA 17101-1923
Phone: (717) 783-5048
Fax: (717) 783-7152
E-Mail: dgriffiths@paoca.org

PA-9 PENNSYLVANIA

Incentive Type: Net Metering Rules
Eligible Technologies: Solar Thermal Electric, Photovoltaics, Wind, Biomass, Hydro, Renewable Fuel Vehicles
Applicable Sectors: Commercial, Industrial, Residential
Limit on System Size: Varies by utility
Limit on Overall Enrollment: Varies by utility
Treatment of Net Excess: Granted to utility in most cases
Utilities Involved: All utilities
Interconnection Stds. for Net Metering? Varies by utility
Date Enacted: 1998
Authority 1: [52 Pennsylvania Code 57.34](#)

Summary:

Pennsylvania's Public Utility Code states that qualifying facilities of less than 50 kW may opt for net energy billing. Each utility is required to file its policy for net billing with the Public Utilities Commission (PUC). Individual utility tariff filings and operating procedures vary by utility. In some cases the maximum system size eligible for net metering is less than 50 kW. For example, West Penn Power Company's Net Energy Metering Rider applies to systems that do not exceed 10 kW while PECO Energy Company offers net metering for systems up to 40 kW.

Links to tariffs of individual utilities are available on the [PUC's Web site](#).

Contact:

Calvin Birge
Pennsylvania Public Utility Commission

P.O. Box 3265
Harrisburg, PA 17105-3265
Phone: (717) 783-7349
Fax: (717) 787-5813
E-Mail: BIRGE@puc.state.pa.us

PA-10 PENNSYLVANIA

Incentive Type: Renewables Portfolio Standard
Eligible Technologies: Solar Thermal Electric, Photovoltaics, Wind, Biomass, Geothermal Electric, Waste
Applicable Sectors: Utilities
Date Enacted: 2000

Summary:

Pennsylvania's December 1996 electricity restructuring law did not establish a renewable portfolio standard. But, as with the state's public benefits funds for renewables, an RPS was subsequently established through individual utility restructuring settlements.

Contact:

Dan Griffiths
Pennsylvania Office of Consumer Advocate
555 Walnut Street
Forum Place, 5th floor
Harrisburg, PA 17101-1923
Phone: (717) 783-5048
Fax: (717) 783-7152
E-Mail: dgriffiths@paoca.org

PA-11 PENNSYLVANIA

Incentive Type: Grant—AFVs, AF Refueling stations
Eligible Technologies: AFVs, AF facilities
Applicable Sectors: Individuals, businesses
Authority: [Pennsylvania Code](#) Chapter 311

Summary:

The Alternative Fuels Incentive Grant (AFIG) Program, implemented by the Pennsylvania Department of Environmental Protection (DEP) Bureau of Energy, Innovations, and Technology Development, provides financial assistance for, and information about, alternative fuels and alternative fuel vehicles (AFVs). The AFIG Program was established in 1992 to reduce Pennsylvania's dependence on imported oil and improve air quality through the use of alternative fuels. Eligible applicants are essentially any entity incorporated or registered in Pennsylvania, and Pennsylvania residents. Eligible alternative motor fuels and fuel systems are compressed natural gas (CNG), liquefied natural gas (LNG), liquid propane gas (LPG), ethanol (E85), methanol (M85), hydrogen, hythane, electricity, coal-derived liquid fuels, fuels derived from biological materials, and fuels determined by the Secretary of the U.S. Department of Energy as meeting the requirements of Section 301 of the Energy Policy Act of 1992. Qualified projects will receive funding for 20% of eligible project costs. The following projects are eligible for funding: purchasing AFVs, including hybrid electric vehicles; converting or re-powering existing vehicles to operate on an alternative fuel; purchasing and installing alternative fuel refueling or recharging facilities; and developing and evaluating innovative AFVs and refueling or recharging facilities. No more than 10% of the funds may go to any one applicant each funding cycle, and no more than 15% may go to any one county. Applications must be submitted during an open opportunity AND prior to incurring any costs.

Contact:

Cleo Arp
DEP
(717) 772-8912
Email carp@state.pa.us
Web site www.dep.state.pa.us/dep/deputate/pollprev/AFIG/afvafig1.htm

PA-12 PENNSYLVANIA

Incentive Type: Rebates—AFVs, AV
Eligible Technologies: AFVs, AF
Applicable Sectors: Individuals, businesses
Authority:

Summary:

The Greater Philadelphia Clean Cities Program (GPCCP) has Congestion Mitigation Air Quality (CMAQ) funding available for AFV rebates. The Clean Fueled Fleets Grant is designed to offer up to 72% of the incremental cost of purchasing AFVs. Up to \$4,000 is available for light duty AFVs, up to \$7,000 is available for medium duty AFVs, and up to \$10,000 is available for heavy duty AFVs. Additionally, some of GPCCP's rebates also cover the costs of installing and purchasing AFV refueling stations. To qualify for these rebates, applicants must become members of the GPCCP and complete and sign an application, agreeing to certain terms and conditions, such as monitoring fuel use.

Contact:

Nathalie Shapiro
(215) 413-2122 or (800) 223-5783
Email coordinator@phillycleancities.org
Web site www.phillycleancities.org/rebates.htm.

PA-13 PENNSYLVANIA

Incentive Type: Mandate—AF permit

Eligible Technologies: AF

Applicable Sectors: Individuals, businesses

Authority: [Pennsylvania Consolidated Statutes](#), Title 75, Section 9003

Summary:

No person may act as an alternative fuels distributor unless the person holds a valid alternative fuels permit.

Contact:

Mack Godfrey
Pittsburgh Region Clean Cities Coalition
Clean Cities Co-Coordinator
(724) 416-6324
mgodfre@nisource.com

PA-14 PENNSYLVANIA

Incentive Type: Tax—AFV (highway use)

Eligible Technologies: AFVs

Applicable Sectors: Individuals, businesses

Authority: [Pennsylvania Consolidated Statutes](#), Title 75, Section 9004

Summary:

A tax is imposed on alternative fuels used to propel vehicles of any kind on public highways. The rate of tax is determined on a gasoline gallon equivalent basis.

Contact:

Mack Godfrey
Pittsburgh Region Clean Cities Coalition
Clean Cities Co-Coordinator
(724) 416-6324
mgodfre@nisource.com

RH-1A RHODE ISLAND

Incentive Type: Production Incentive

Eligible Technologies: Photovoltaics, Landfill Gas, Wind, Biomass, Hydro, Fuel Cells

Applicable Sectors: Commercial, Utilities, Industrial, Institutional

Amount: varies

Max. Limit: 3 cents/kWh over 5 years

Date Enacted: 1996

Effective Date: 2001

Website: <http://www.narragansett.com/bus/programs/programs/renew/index.htm>

Authority 1: Rhode Island Utility Restructuring Act of 1996

Summary:

The Rhode Island Renewable Energy Collaborative (the Collaborative) has at least \$1.25 million available to support eligible new renewables projects located in New England which serve Rhode Island customers. Eligible technologies include wind, existing small-scale hydropower (< 100 MW), solar, and sustainably-managed biomass (which includes landfill methane and digester gas), as well as fuel cells

using renewable or non-renewable fuels. Facilities may either be customer-sited or bulk power supply projects.

Though the Collaborative will consider other proposals, the preferred method of distributing funds will be in the form of a production incentive for a specified amount per kWh produced and delivered to RI customers. The Narragansett Electric Company may distribute funds on behalf of the Collaborative over several years to projects approved during 2001, but envisions limiting a cents/kWh production incentive to a term not to exceed 5 years and with a cap of funding at 3 cents/kWh. The RFP is available at the program web site shown above.

Other Collaborative programs include:

(1) Small Customer Incentives Program: The Collaborative is offering financial incentives to eligible green power marketers who sign up residential and small business customers in the state. Marketers will be eligible to receive up to \$125 for each of the first 5,000 residential customers and \$75 for each customer thereafter. With respect to small business customers, marketers will be eligible to receive up to \$250 for each of the first 1,000 businesses and \$125 for each business thereafter. Funds will be available on a first come basis. This program is currently funded at a level of \$1.75 million.

(2) The Large Customer Incentives Program: The Collaborative has \$500,000 to encourage green power purchases by large electricity customers, including commercial, industrial or institutional customers. The Collaborative is seeking proposals from either large purchasers or registered retail electricity suppliers that sell to large customers. Funds can be used for rebates or purchase incentives.

Contact:

Kate Ringe-Welch

Rhode Island Renewable Energy Collaborative

280 Melrose Street

Providence, RI 02901

Phone: (401) 748-7348

E-Mail: Renewables.Collaborative@us.ngrid.com

RH-1B RHODE ISLAND

Incentive Type: Outreach

Eligible Technologies: Photovoltaics, Landfill Gas, Wind, Biomass, Hydro, Fuel Cells

Applicable Sectors: Non-profits, State Government, Local Government, Commercial, Industrial

Amount: varies

Max. Limit: 3 cents/kWh over 5 years

Date Enacted: 1996

Effective Date: 2001

Website: <http://www.narragansett.com/bus/programs/programs/renew/index.htm>

Authority 1: Rhode Island Utility Restructuring Act of 1996

Summary:

The Rhode Island Renewable Energy Collaborative (the Collaborative) has at least \$1.25 million available to support eligible new renewables projects located in New England which serve Rhode Island customers. Eligible technologies include wind, existing small-scale hydropower (< 100 MW), solar, and sustainably-managed biomass (which includes landfill methane and digester gas), as well as fuel cells using renewable or non-renewable fuels. Facilities may either be customer-sited or bulk power supply projects.

Though the Collaborative will consider other proposals, the preferred method of distributing funds will be in the form of a production incentive for a specified amount per kWh produced and delivered to RI customers. The Narragansett Electric Company may distribute funds on behalf of the Collaborative over several years to projects approved during 2001, but envisions limiting a cents/kWh production incentive to a term not to exceed 5 years and with a cap of funding at 3 cents/kWh. The RFP is available at the program web site shown above.

Other Collaborative programs include:

Customer Education and Market Building Program: The Collaborative has \$350,000 in funds available to support the development of sustainable demand for green power among large and small customers in the state. Funds will be disbursed in a competitive manner to non-profit organizations, government entities, public relations firms, businesses or other organizations for creating and distributing green power educational materials, promoting green power purchases in a targeted manner, and establishing buying groups for the purchase of green power. Responses to the RFP were accepted through February 1, 2002. Contact the RI Renewable Energy Collaborative for the current status of this program.

Contact:

Kate Ringe-Welch

Rhode Island Renewable Energy Collaborative

280 Melrose Street

Providence, RI 02901

Phone: (401) 748-7348

E-Mail: Renewables.Collaborative@us.ngrid.com

RH-2 RHODE ISLAND

Incentive Type: State Rebate Program

Eligible Technologies: Photovoltaics, Landfill Gas, Wind, Biomass, Hydro, Geothermal Electric, Fuel Cells

Applicable Sectors: Commercial

Rebate: \$125/resid. - first 5,000; \$75/resid. thereafter; \$250/business - first 1,000; then \$175/business

Date Enacted: 1996

Effective Date: 9/2001

Expiration Date: 12/2002

Website: <http://www.narragansett.com/bus/programs/programs/renew/index.htm>

Authority 1: Rhode Island Utility Restructuring Act of 1996

Summary:

The Rhode Island Renewable Energy Collaborative (the Collaborative) is offering financial incentives to eligible green power marketers who sign up residential and small business customers in the state. Customers who qualify for the program are those currently served by Narragansett Electric or Pascoag Utility District. Marketers will be eligible to receive up to \$125 for each of the first 5,000 residential customers and \$75 for each customer thereafter. With respect to small business customers, marketers will be eligible to receive up to \$250 for each of the first 1,000 businesses and \$125 for each business thereafter. Funds will be available on a first come basis.

Green power products eligible for this incentive are those that are (a) Green-e certified, or (b) that obtain a minimum portion of their supply from qualifying "new" renewables projects in New England. Certificate-only products, also known as renewable energy credits, tradable renewable energy certificates, or tags, are also eligible if they meet certain requirements.

This incentive program is currently funded at a level of \$1.75 million derived from the state's public benefits fund (See DSIRE summary). The Collaborative is a multi-stakeholder group established by the Rhode Island Public Utilities Commission (RIPUC) to identify, develop, and implement renewable energy programs funded by the public benefits fund.

With the incentive structure specified, the Collaborative can support the enrollment of up to 20,000 green power customers. Should the program prove successful, the Collaborative will consider extending the program beyond 2002, supplementing the budget, or both, subject to RIPUC authorization.

Suppliers interested in registering for this program should write or e-mail Ms. Ringe-Welch (see below).

Other Collaborative programs:

(1) Customer Education, Aggregation and Marketing: The Collaborative has \$350,000 in funds available to support the development of sustainable demand for green power among large and small customers in the state. Funds will be disbursed in a competitive manner to non-profit organizations, government entities, public relations firms, businesses or other organizations for creating and distributing green power educational materials, promoting green power purchases in a targeted manner, and establishing buying groups for the purchase of green power. Responses to the RFP were accepted until February 1, 2002.

(2) The Large Customer Incentives Program: The Collaborative has \$500,000 to encourage green power purchases by large electricity customers, including commercial, industrial or institutional customers. The Collaborative is seeking proposals from either large purchasers or registered retail electricity suppliers that sell to large customers. Funds can be used for rebates or purchase incentives. Deadline 5/31/02.

(3) Renewable Supply Open RFP: At least \$1.25 million is available for new renewable energy projects located in New England that meet eligibility criteria and that serve Rhode Island customers directly through competitive retail electricity supply or via "certificate-only" contract. Deadline 5/31/02. See DSIRE summary.

Contact:

Kate Ringe-Welch

Rhode Island Renewable Energy Collaborative

280 Melrose Street

Providence, RI 02901

Phone: (401) 748-7348

E-Mail: Renewables.Collaborative@us.ngrid.com

RH-3 RHODE ISLAND

Incentive Type: Net Metering Rules

Eligible Technologies: Solar Thermal Electric, Photovoltaics, Wind, Biomass, Hydro, Renewable Transportation Fuels, Geothermal Electric, Waste, Cogeneration

Applicable Sectors: Commercial, Industrial, Residential

Limit on System Size: 15 kW or 25 kW

Limit on Overall Enrollment: 1 MW

Treatment of Net Excess: Purchased at avoided cost

Date Enacted: 1/1/85

Expiration Date: none

Authority 1: Supplementary Decision and Order, Docket No. 2710

Summary:

Created in 1985 by the Rhode Island Public Utility Commission, Rhode Island's net metering ruling applies to renewable energy generating facilities and cogeneration facilities. The ruling was originally created to encourage small wind generation facilities, but all renewables are eligible. Net excess generation is purchased at the utility's avoided cost.

Contact:

Doug Hartley

Rhode Island Public Utilities Commission

Division of Public Utilities and Carriers

100 Orange Street

Providence, RI 02903

Phone: (401) 941-8827

Fax: (401) 277-6805

E-Mail: Dhartley@gwia.ripuc.org

Web site: <http://www.ripuc.state.ri.us/>

RH-4 RHODE ISLAND

Incentive Type: Public Benefits Fund

Eligible Technologies: Passive Solar Space Heat, Solar Water Heat, Active Solar Space Heat, Solar Thermal Electric, Solar Thermal Process Heat, Photovoltaics, Wind, Biomass, Hydro, Renewable Transportation Fuels, Fuel Cells

Applicable Sectors: Commercial, Industrial, Residential, General Public, Utilities

Types: DSM and renewable energy

Total Fund: ~ \$85 million over five years (~\$3 million/yr. for renewables)

Charge: 2.3 mills/kWh (\$0.3 millskWh beginning 1/1/03)

Date Enacted: 8/7/96

Expiration Date: 2006 review of program

Authority 1: Section 39-2-1.2(b), Chapter 316, 96-H 8124B, the Electricity Restructuring Act of 1996
(<http://www.ripuc.state.ri.us/energy/gab.html>)

Summary:

Rhode Island's August 1996 restructuring legislation established the nation's first public benefits fund to support the development of renewable energy and demand side management programs. The charge was initially set at 2.3 mills (\$0.0023) per kWh for five years. In July 2001, funding was extended for an additional five years at the same 2.3 mills/kWh rate.

The annual budget for renewable energy programs is roughly \$3 million, with qualifying renewables including wind, small scale hydropower plants (<100 MW) that do not require the construction of new dams, solar energy, and biomass. Fuel cells are included under demand-side management programs. A utility-based collaborative is working with the Public Utility Commission to administer renewables and efficiency funds. Beyond utilities and the Rhode Island Public Utilities Commission, members of the collaborative include the Division of Public Utilities and Carriers, Office of Attorney General, Rhode Island State Energy Office, Conservation Law Foundation, and the Energy Council of Rhode Island. A wide variety of projects have been supported through these funds, including:

- Wind resource assessment;
- Residential and commercial PV \$3.00/Watt buy-down;
- Landfill gas electric generation project;
- PV Outdoor Lighting demonstration projects; and
- Large and small scale fuel cell projects;
- Program development studies, including in-depth study of market development in the photovoltaic industry (1997-98).

In addition to funds for renewables and energy efficiency, funds are collected for subsidized rates for low-income assistance. This program's funding level is \$2.4 million per year.

Residents of Block Island do not participate and are therefore ineligible for these funds.

Note that on January 1, 2003, the Rhode Island State Energy Office will take over the administration of the renewable energy funds collected from Rhode Island ratepayers. Starting on that date, \$0.3 mills per kWh will be collected on all kWh sales in Rhode Island (excluding Block Island) and used to fund renewable energy activities. The fund will be called the Rhode Island Renewable Energy Fund. For more information about the Rhode Island State Energy Office's efforts please call Janice McClanaghan at (401) 222-3370.

Contact:

Al Contente

Rhode Island Public Utilities Commission

89 Jefferson Blvd.

Warwick, RI 02888

Phone: (401) 941-4500

Fax: (401) 222-2883
E-Mail: al.contente@ripuc.state.ri.us
Web site: <http://www.ripuc.state.ri.us>

RH-5 RHODE ISLAND

Incentive Type: Loan—purchase (AFVs)
Eligible Technologies: AFVs
Applicable Sectors: State agencies, municipal governments
Authority 1:

Summary:

The Rhode Island State Energy Office offers loans of up to five years, with minimal administrative fees, to state agencies and municipal governments to cover the incremental cost of purchasing original equipment manufactured (OEM) alternative fuel vehicles (AFVs).

Contact:

Janice McClanaghan
Rhode Island State Energy Office
Chief of Energy and Community Services
(401) 222-3370
(401) 222-1260
janicem@gw.doa.state.ri.us

RH-6 RHODE ISLAND

Incentive Type: Tax Credit—purchase (AFVs), construction (production AF)
Eligible Technologies: AFVs, AF
Applicable Sectors: Individuals, businesses
Authority 1: [R.I.C.](#) §44-39.2-2

Summary:

The Alternative Fueled Vehicle and Filling Station Tax Credit entitles taxpayers to a tax credit equal to 50% of the capital, labor, and equipment costs incurred for the construction of, or improvement to, any alternative fuel refueling or recharging station providing domestically produced alternative fuel. Taxpayers are also entitled to a tax credit equal to 50% of the incremental cost incurred for the purchase of an AFV or the capital, labor, and equipment cost of converting a motor vehicle to run on an alternative fuel. Taxpayers may carry forward any unused credits or any unused portion of the credit for up to five years. This incentive is valid for income years commencing on or after January 1, 1998, and prior to January 1, 2008.

Contact:

Janice McClanaghan
Rhode Island State Energy Office
Chief of Energy and Community Services
(401) 222-3370
(401) 222-1260
janicem@gw.doa.state.ri.us

RH-7 RHODE ISLAND

Incentive Type: Tax deduction—AF
Eligible Technologies: AF
Applicable Sectors: Corporations
Authority 1: [R.I.C.](#) §44-13-5

Summary:

Corporations that sell alternative fuels are allowed a deduction from the gross earnings from sales reported in the corporations' tax returns. The deduction shall be the total of gross earnings from the sale of alternative fuels when used as separately metered motor fuels that powers motor vehicles. This incentive is valid from January 1, 1998, to December 31, 2007.

Contact:

Janice McClanaghan
Rhode Island State Energy Office
Chief of Energy and Community Services
(401) 222-3370
(401) 222-1260

RH-8 RHODE ISLAND

Incentive Type: Tax exemption—AFV
Eligible Technologies: AFV
Applicable Sectors: Individuals, corporations
Authority 1: [House Bill](#) 8085, 2004

Summary:
Organically produced biodiesel fuels are exempt from motor fuel tax.

Contact:
Janice McClanaghan
Rhode Island State Energy Office
Chief of Energy and Community Services
(401) 222-3370
(401) 222-1260
janicem@gw.doa.state.ri.us

SC-1 SOUTH CAROLINA

Incentive Type: Green Pricing Program
Eligible Technologies: Landfill Gas
Applicable Sectors: Commercial, Industrial, Residential
Premium: \$3.00/100-kWh block; \$6.00/200 kWh block
Commitment: None
Participants: 1135 - 1000 residential; 135 green power partners (commercial)
Capacity Installed/Planned: 2.2 MW turbines installed; install another 1.1 MW turbine by the end of the year; site can accommodate 4 turbines
Effective Date: 2001
Website: <http://www.santeecooper.com/GreenPower/index.html>

Summary:
Myrtle Beach became the first city in South Carolina to purchase green power from its municipal facilities by subscribing to Santee Cooper's GreenPower program. Now, it is one of six Green Power Cities along with Conway, North Myrtle Beach, Monks Corner, St. Steven and Loris, SC. Santee Cooper launched the Green Power Program in response to increased customer interest in renewable energy and concern for the environment. The renewable energy source is methane gas produced at the Horry County Solid Waste Authority Landfill. The generators are located on a non-active part of the landfill. The methane gas from the decomposing garbage currently powers two 1,400-horsepower engines that turn 2 turbines that produce 2.2 megawatts of electricity. Plans are in place to add one more turbine to produce an additional 1.1 MW of electricity before the end of the year. The site can support a total of 4 turbines.

Customers of Santee Cooper, residential and commercial, may purchase the green power in 100-kWh blocks sold at \$3.00 each. Customers may designate how many blocks they would like with no limit and with no minimum commitment period. All proceeds from the program will be used to develop new renewable energy projects.

Contact:
Willard Strong
Santee Cooper
1 Riverwood Drive
Moncks Corner, SC 29461
Phone: (843) 761-8000
E-Mail: rwstrong@santeecooper.com
Web site: <http://www.santeecooper.com>

SC-2 SOUTH CAROLINA

Incentive Type: Green Power Purchasing/Aggregation
Eligible Technologies: Landfill Gas
Applicable Sectors: Local government
% Renewables: 2% - 5% (372,000 kWh)
Effective Date: 4/02
Expiration Date: 4/03

Summary:

Myrtle Beach became the first city in South Carolina to purchase green power for its municipal facilities by subscribing to Santee Cooper's GreenPower program. Under the one-year agreement, Myrtle Beach will purchase 372,000 kWh of green power, which represents between 2% and 5% of the city's total annual energy use, at an extra cost of \$10,800, or 2.9¢/kWh.

Myrtle Beach joins nearly 50 local businesses that are participating in the utility's green pricing program, which is supplied with electricity generated from a local landfill methane facility. Under the program, residential customers can purchase 100-kWh blocks of green power for an extra \$3.00 per month. The price for businesses is based on their overall power consumption. All proceeds from the program will be used to develop new renewable energy projects.

Contact:**Thomas Leath**

City of Myrtle Beach

P.O. Box 2468

Myrtle Beach, SC 29578

Phone: (843) 918-1002

E-Mail: tleath@cityofmyrtlebeach.com

Web site: <http://www.cityofmyrtlebeach.com/index.html>

SC-3 SOUTH CAROLINA

Incentive Type: Mandate

Eligible Technologies: AF

Applicable Sectors: state government

Authority: [Executive Order](#) 2001-35

Summary:

Whenever practical and economically feasible, all state agencies operating AFVs are required to use alternative fuels in those vehicles. Private businesses are encouraged to increase the use of alternative fuels in the state.

Contact:

Chantal Fryer

South Carolina State Energy Office

Program Coordinator

(803) 737-8030

(803) 737-9846

cfryer@gs.sc.gov

SD-1 SOUTH DAKOTA

Incentive Type: Production Incentive

Eligible Technologies: Renewable Transportation Fuels

Applicable Sectors: Commercial, Industrial

Amount: \$0.20/gallon

Max. Limit: \$1,000,000 annually; \$10,000,000

Effective Date: 2/28/02 & 7/1/02

Expiration Date: 12/31/06

Website: http://www.state.sd.us/Revenue/MotorVehicle/motorfuelmanual.htm#Ethanol_Producers

Authority 1: [§ 10-47B-162](#)

Summary:

Licensed ethanol producers may receive a production incentive payment (based on available funding) of 20 cents per gallon for ethyl alcohol that is fully distilled and produced in South Dakota. To be eligible for this payment, the ethyl alcohol must be 99 percent pure, derived from cereal grains, and denatured and subsequently blended with gasoline.

Annual production incentive payments for any facility may not exceed \$1 million. No facility may receive any production incentive payments in an amount greater than \$10 million dollars.

Contact:**Public Information**

Governor's Office of Economic Development

711 East Wells Avenue

Pierre, SD 57501-3369

Phone: (605) 773-5032

Fax: (605) 773-3256

E-Mail: goedininfo@state.sd.us

Web site: <http://www.sdgreatprofits.com>
Information Specialist - Revenue
Department of Revenue
Motor Fuel and Prorate Division
445 East Capitol Avenue
Pierre, SD 57501-3100
Phone: (605) 773-3311
E-Mail: motorv@state.sd.us
Web site: <http://www.state.sd.us/revenue/revenue.html>

SD-2 SOUTH DAKOTA

Incentive Type: Property Tax Exemption
Eligible Technologies: Passive Solar Space Heat, Solar Water Heat, Active Solar Space Heat, Photovoltaics, Wind, Biomass, Renewable Transportation Fuels, Geothermal Electric
Applicable Sectors: Commercial, Residential
Amount: 50% commercial; 100% residential
Max. Limit: None
Terms: For 3 years
Authority 1: [SD Codified Laws 10-6-35.20](#)

Summary:

This statute exempts from local property taxes renewable energy systems on residential and commercial property. The exemption applies to the entire assessed value of residential systems and 50% of the installed cost of commercial systems, and it may be taken for three years after installation. This exemption is not allowed for systems which produce energy for resale.

Contact:

Public Information
Governor's Office of Economic Development
711 East Wells Avenue
Pierre, SD 57501-3369
Phone: (605) 773-5032
Fax: (605) 773-3256
E-Mail: goedinfo@state.sd.us
Web site: <http://www.sdgreatprofits.com>

SD-3 SOUTH DAKOTA

Incentive Type: Tax Imposition—Excise (AF)
Eligible Technologies: AF
Applicable Sectors: Individuals, corporations
Authority 1: South Dakota Statutes §10-47B-3 through §10-47B-10 and Senate Bill 31, 2004

Summary:

Biodiesel and biodiesel blends are defined as 'special fuels' and are taxed at the special fuel excise tax rate of \$0.22, which is equivalent to the regular motor fuel excise tax rate.

Contact:

Public Information
Governor's Office of Economic Development
711 East Wells Avenue
Pierre, SD 57501-3369
Phone: (605) 773-5032
Fax: (605) 773-3256
E-Mail: goedinfo@state.sd.us
Web site: <http://www.sdgreatprofits.com>

SD-4 SOUTH DAKOTA

Incentive Type: Tax credit—AF (excise)
Eligible Technologies: AF
Applicable Sectors: Individuals, corporations
Authority 1: South Dakota Statutes §10-47B-4 and §10-47B-136

Summary:

E85 and M85 are taxed at a rate of \$0.10 per gallon. A tax report credit for gasoline blended with ethyl or methyl alcohol to create E85 or M85 is available to licensed blenders. The tax report credit is granted on a per gallon basis, in the amount that the rate for motor fuel exceeds the rate for E85 or M85. The credit shall be used to offset any tax liability resulting from the blending of previously untaxed ethyl or methyl alcohol.

Contact:**Public Information**

Governor's Office of Economic Development

711 East Wells Avenue

Pierre, SD 57501-3369

Phone: (605) 773-5032

Fax: (605) 773-3256

E-Mail: goedinfo@state.sd.us

Web site: <http://www.sdgreatprofits.com>

SD-5 SOUTH DAKOTA

Incentive Type: Production incentive—AF

Eligible Technologies: AF

Applicable Sectors: Individuals, corporations

Authority 1: South Dakota Statutes §10-47B-162

Summary:

A production incentive payment of \$0.20 per gallon is available to ethanol producers for ethyl alcohol that is fully distilled and produced in South Dakota. To be eligible for this payment, the ethyl alcohol shall be denatured and subsequently blended with gasoline to create an ethanol blend. The cumulative annual production incentive payments made may not exceed \$4 million for fiscal year 2003, \$5 million for fiscal year 2004, \$6 million for fiscal year 2005, and \$7 million thereafter.

Contact:**Public Information**

Governor's Office of Economic Development

711 East Wells Avenue

Pierre, SD 57501-3369

Phone: (605) 773-5032

Fax: (605) 773-3256

E-Mail: goedinfo@state.sd.us

Web site: <http://www.sdgreatprofits.com>

TN-1 TENNESSEE

Incentive Type: State Loan Program

Eligible Technologies: Solar Water Heat, Active Solar Space Heat, Solar Thermal Electric, Photovoltaics, Wind, Biomass, Hydro, Renewable Transportation Fuels, Geothermal Electric, Waste

Applicable Sectors: Commercial, Industrial

Amount: varies

Max. Limit: \$100,000

Terms: up to 7 years

Date Enacted: 4/1/88

Website: http://www.state.tn.us/ecd/energy_loans.htm

Authority 1: N/A

Summary:

Created in 1988, this loan program is administered by the Energy Division within the Tennessee Department of Economic and Community Development. Loans are available up to \$100,000, with terms up to 7 years. Loans cannot be used for new construction or business startup. All renewable energy technologies are eligible under the program's guidelines. Nearly \$7.8 million has been lent out to date, but few of the loans were for renewable energy projects.

Contact:**Clinton Berry, III**

Tennessee Department of Economic & Community Development

Energy Division

312 Eighth Avenue North- 9th Floor

Nashville, TN 37243

Phone: (615) 253-1943

Fax: (615) 741-5070

E-Mail: cberry@mail.state.tn.us

TN-2 TENNESSEE

Incentive Type: Green Pricing Program

Eligible Technologies: Photovoltaics, Landfill Gas, Wind

Applicable Sectors: Commercial, Residential

Premium: \$4/month/block; 150-kWh block

Co-funding: TVA

Commitment: Monthly

Participants: 4,708 Residential; 214 Non-Residential

Date Enacted: 4/22/00

Website: <http://www.greenpowerswitch.com>

Summary:

Currently nineteen distributors of Tennessee Valley Authority (TVA) power offer their customers the choice of participating in a green pricing market program. The program, named Green Power Switch, allows customers to voluntarily pay a premium for renewable energy generated by solar, wind, and methane gas resources produced at TVA generating locations.

Customers can participate in Green Power Switch by paying \$4/month for each 150-kWh block they wish to purchase (one block is about 12% of a typical household's monthly use). Business customers participate in the program based on the size of their kWh load. As of December 31, 2001, 4,708 residential and 214 business customers are participating in the program, for a total of 13,611 blocks purchased.

The money collected from Green Power Switch is used to construct, maintain, and operate renewable electric generating facilities owned by TVA. TVA has built the first commercial wind-powered turbines in the southeastern US on Buffalo Mountain in Anderson County, Tennessee. TVA is also in the process of developing another 20 MW wind generating site to be operational in 2003. TVA operates solar generating sites throughout the valley along with, a landfill gas site in Murfreesboro, Tennessee and a methane waste water generating site in Memphis, Tennessee.

TVA, the local public power companies, and the environmental community worked together to create the Green Power Switch Program. Approximately 40 new local power distributors in the Valley have expressed interest in joining the program in 2002. TVA is planning to make the program available to their entire seven-state area by 2005.

Alabama

-Huntsville Utilities

Kentucky

-Bowling Green Municipal Utilities

Mississippi

-North East Mississippi Electric Power Association

-City of Oxford Electric Department

Tennessee

-Appalachian Electric Cooperative

-Bristol Tennessee Electric System

-EPB (Chattanooga)

-Erwin Utilities

-Gibson Electric Membership Corporation

-Johnson City Power Board

-Knoxville Utilities Board

-Lenoir City Utilities Board

-Morristown Power System

-Mountain Electric Cooperative

-Nashville Electric Service

-Newport Utilities

-Oak Ridge Electric Department

-Powell Valley Electric Cooperative

-Sevier County Electric System

Contact:

Gary Harris

Tennessee Valley Authority

Green Power Switch

P.O. Box 292409, HRT-11D

Nashville, TN 37229-2409

Phone: (615) 232-6124

Fax: (615) 232-6038

E-Mail: ghharris@tva.gov
Web site: <http://www.greenpowerswitch.com>

TN-3 TENNESSEE

Incentive Type: Green Power Purchasing/Aggregation
Eligible Technologies: Landfill Gas, Wind, Solar
Applicable Sectors: State Government
Effective Date: 4/25/02
Website: <http://www.state.tn.us/governor/apr2002/greenpower.htm>

Summary:

Tennessee Governor Don Sundquist inaugurated the state's new energy policy in April 2002 by announcing that all state buildings in Nashville, including the governor's mansion, will obtain a portion of their electricity from renewable energy sources. The state's green power purchase amounts to 720,000 kWh per year, for which it will pay an additional \$19,000 annually. The purchase is through the Tennessee Valley Authority's (TVA) Green Power Switch Program, which provides energy from wind, solar, and landfill gas.

Contact:

Clinton Berry, III
Tennessee Department of Economic & Community Development
Energy Division
312 Eighth Avenue North- 9th Floor
Nashville, TN 37243
Phone: (615) 253-1943
Fax: (615) 741-5070
E-Mail: cberry@mail.state.tn.us

TX-1 TEXAS

Incentive Type: Corporate Tax Deduction
Eligible Technologies: Passive Solar Space Heat, Solar Water Heat, Active Solar Space Heat, Photovoltaics, Wind, Biomass
Applicable Sectors: Commercial
Amount: 100% from capital or 10% from profit
Max. Limit: none
Terms: N/A
Authority 1: [Texas Statutes and Codes 2F@171.107](#)

Summary:

The franchise tax is Texas's equivalent to a corporate tax; their primary elements are the same. This statute allows a corporation to deduct the cost of a solar energy device in one of two ways: (1) the total cost of the system may be deducted from the company's taxable capital; or, (2) 10% of the system's cost may be deducted from the company's income. Both taxable capital and a company's income are taxed under the franchise tax. Texas also offers a franchise tax exemption for manufacturers of photovoltaic systems.

Contact:

Pam Groce
State Energy Conservation Office
111 East 17th Street, Room 1114
Austin, TX 78774
Phone: (512) 463-1889
Fax: (512) 475-2569
E-Mail: pam.groce@cpa.state.tx.us
Web site: <http://www.seco.cpa.state.tx.us>

TX-2 TEXAS

Incentive Type: Green Pricing Program
Eligible Technologies: Photovoltaics, Landfill Gas, Wind
Applicable Sectors: Commercial, Residential
Premium: 2.85 cents/kWh
Commitment: 10 years
Participants: 6,500 residential; 125 small businesses; 29 large companies
Effective Date: 2000
Website: <http://www.austinenenergy.com/greenchoice/>

Summary:

Austin Energy kicked off its GreenChoice program in 2000. The program aims to provide 5% of electricity from renewable resources by 2005. Under the GreenChoice program, residential and business customers opt to have the standard (fossil) fuel charge on their electric bill replaced entirely by the GreenChoice power charge of 2.85 cents per kWh. This charge will remain fixed for 10 years. If the current standard fuel charge of 2.68 cents per kilowatt-hour (kWh) rises in the future due to the increase of fossil fuel prices, the GreenChoice power charge will remain fixed for 10 years. Currently, a residential customer using the Austin average of 1,000 kilowatt-hours of electricity monthly will therefore pay an additional green power charge of about \$1.70 per month for their electricity as a GreenChoice member.

The program includes 61 wind turbines on King Mountain in West Texas, operating since the summer of 2001; electricity from the Tessman Landfill Biogas Project near San Antonio; and energy from a small hydroelectric facility in Cuero, on the Guadalupe River.

In 2002, 110 MW of wind generated electricity, enough to power 28,000 homes annually, was being purchased by Austin Energy for the program. The utility continues to seek additional renewable energy supplies to expand the program. In total, over 6,650 customers have signed up for the service. Unlike with many other utility green pricing programs, business customers have committed to purchase a majority of the available power -- nearly 85% -- with one company alone committing to 60% of the initial green power pool.

In 1999, the Austin City Council adopted a resolution calling for 5% of Austin's electricity to come from renewable sources by 2005 -- the GreenChoice program will raise the amount of renewable energy in the city's portfolio from 0.5% to about 2.5%. Austin Energy is committing to \$7.8 million in spending in each of the next 10 years to build its green power program.

Austin Energy orchestrated an aggressive advertising and grassroots marketing campaign that included billboards, brochures mailed to 30,000 members of Austin's environmental community, and GreenChoice booths staffed at community events and outside major businesses to sign up customers. Austin's environmental community has pledged to work diligently to ensure the program is a success.

Contact:**Mark Kapner**

Austin Energy
721 Barton Springs Road
Austin, TX 78704

Phone: (512) 322-6123

Web site: <http://www.austinenenergy.com>

TX-3 TEXAS

Incentive Type: Outreach Program

Eligible Technologies: Passive Solar Space Heat, Solar Water Heat, Active Solar Space Heat, Solar Thermal Electric, Solar Thermal Process Heat, Photovoltaics, Landfill Gas, Wind, Biomass, Hydro, Renewable Transportation Fuels, Renewable Fuel Vehicles, Geothermal Electric, Fuel Cells, Geothermal Heat Pumps, Waste, Cogeneration

Applicable Sectors: Commercial, Industrial, Residential, General Public, Nonprofit, Schools, Local Government, Transportation, Utilities, State Government

Format: Factsheets, lesson plans for teachers, workshops, demonstration projects

Funding: Oil overcharge funds

Goal: Encourages and enables Texans to use more renewable energy in their daily lives.

Website: <http://www.infinitepower.org>

Summary:

The Infinite Power of Texas is an education program funded by the Texas State Energy Conservation Office's Renewable Energy Demonstration Program (REDP). The REDP is designed to accelerate the acceptance of renewable energy resources and technologies in Texas by increasing public awareness, demonstrating new technologies and by developing the infrastructure required to escalate their use in existing state programs. Over the past several years, the REDP has funded solar, wind and biomass demonstration projects throughout Texas, and has cosponsored conferences, workshops and other educational efforts, yielding a positive impact on Texans' familiarity with renewable energy. The REDP strives to harmonize program goals with national goals in renewable energy and sustainability issues. The campaign is managed by Conservation Services Group, a national leader in implementing energy efficiency and renewable energy programs.

The Infinite Power of Texas renewable energy education campaign was funded 100% with oil overcharge funds from the Exxon settlement as provided by the Texas State Energy Conservation Office and the U.S. Department of Energy.

Information available from the Web site includes: downloadable renewable energy factsheets; lesson plans for elementary school (grade 4), middle school (grade 6), and high school (grade 9); energy production and consumption calculators; answers to frequently asked questions; and Ask An Energy Expert.

Contact:**Pam Groce**

State Energy Conservation Office
111 East 17th Street, Room 1114
Austin, TX 78774

Phone: (512) 463-1889
Fax: (512) 475-2569
E-Mail: pam.groce@cpa.state.tx.us
Web site: <http://www.seco.cpa.state.tx.us>

TX-4 TEXAS

Incentive Type: Generation Disclosure

Eligible Technologies: Solar Thermal Electric, Photovoltaics, Landfill Gas, Wind, Biomass, Hydro, All electric power generating techs including RE

Applicable Sectors: Commercial, Industrial, Residential, Electric Utilities

Fuel Mix: Yes

Emissions: Yes

Std Format: Yes

Date Enacted: 12/7/00

Effective Date: 1/1/02

Website: <http://www.puc.state.tx.us/rules/subrules/electric/25.475/25.475ei.cfm>

Authority 1: [TAC Section 25.475, PUC Substantive Rule Section 25.475](#)

Summary:

There are certain requirements for printed advertisements, Web advertisements, direct marketing materials, billing statements, terms of service documents, and "Your Rights as a Customer" disclosure information distributed by retail electric providers (REPs) and aggregators. Under these requirements, materials: (1) must be provided in a readable format, written in clear, plain, easily understood language; (2) must not be fraudulent, unfair, misleading, deceptive, or anti-competitive as prohibited by federal and state law; and (3) upon receipt of a license or certificate from the commission, shall include the REPs certified name or the aggregators registered name, the number of the license, plan name, and name of the product offered.

The following disclosure information must be contained on an Electricity Facts label: (1) pricing; (2) contract terms (minimum contract term and early termination penalties, if any); (3) fuel mix (table showing percentages of net system power generated by coal and lignite, natural gas, nuclear, renewable energy [comprising biomass power, hydro power, solar power, and wind power], and other sources); and (4) air emissions and waste (bar chart showing the amounts of carbon dioxide, nitrogen oxide, sulfur dioxide, particulate emissions, and nuclear waste attributable to the aggregate known sources of electricity).

Contact:

John McElroy, Jr.

Office of Public Utility Counsel

1701 N. Congress Avenue, Suite 9-180

Austin, TX 78701

Phone: (512) 936-7518

Fax: (512) 936-7520

E-Mail: mcelroy@opc.state.tx.us

TX-5 TEXAS

Incentive Type: Net Metering Rules

Eligible Technologies: Photovoltaics, Landfill Gas, Wind, Biomass, Hydro, Geothermal Electric, Waves, Tides

Applicable Sectors: Commercial, Residential

Limit on System Size: 25 kW

Limit on Overall Enrollment: None

Treatment of Net Excess: Purchased at avoided cost

Effective Date: 2002

Website: http://www.citypublicservice.com/for_business/products/distributed_generation.asp

Authority 1: [Rider E5 - Customer-Owned Distributed Generation Renewable Energy Service Application](#)

Summary:

CPS' distributed generation rate allows customers who produce energy at their home or business to receive credit for any excess electricity they put back into the CPS power grid. To qualify, CPS electric customers must own and operate on-site DG facilities and produce up to 25 kilowatts (kw) or 25 kilovolt amperes (kva) to be compensated for the excess electricity they generate.

The electrical generation equipment must be powered by renewable energy sources:

- The sun (directly or indirectly)
- Moving water (waves, tides or hydroelectric facilities)
- Wind
- Geothermal sources
- Biomass and/or biomass-based waste products (including landfill gas)

If the customer uses more energy than their DG system produces, the additional electricity consumed is billed at regular CPS rates. If the customer uses less energy than the DG system produces, the excess energy flows back into the CPS grid, causing the customer's meter to turn backwards. The credit appears on the following month's bill. The credits are based on CPS' estimated avoided energy costs, or costs CPS does not have to incur to generate energy at a power plant. These costs will be updated on a yearly basis.

Customers are responsible for:

- The costs of interconnection with CPS and system protection facilities. CPS must make sure energy flowing from DG customers' equipment is compatible with the electric system.
- The costs of any additional equipment such as a distribution transformer, service line and/or meter facilities required for the interconnection with CPS.

Customers interested in taking advantage of the DG rate must fill out an application. The new rate requires a written one-year contract that is extended automatically from year to year, unless terminated by either party. CPS personnel will ensure that the required DG safety devices are operating properly. These devices provide safety to CPS personnel who are performing maintenance on distribution facilities. All customer equipment -- up to the service point -- will be inspected by the City of San Antonio to ensure compliance with City of San Antonio codes.

Contact:

Karma Nilsson

City Public Service

7000 San Pedro

San Antonio, TX 78216-6208

Phone: (512) 353-2815

Fax: (210) 353-3555

E-Mail: knilsson@cps-satx.com

Web site: <http://www.citypublicservice.com>

TX-6 TEXAS

Incentive Type: Net Metering Rules

Eligible Technologies: Photovoltaics, Landfill Gas, Wind, Biomass, Hydro, Geothermal Electric, Tidal, Wave

Applicable Sectors: Commercial, Industrial, Residential

Limit on System Size: 50 kW

Limit on Overall Enrollment: None

Treatment of Net Excess: Purchased at avoided cost

Utilities Involved: Investor-owned utilities and rural electric cooperatives

Date Enacted: 9/23/85

Expiration Date: None

Authority 1: [PUC Substantive Rule § 25.242\(h\)\(4\)](#)

Summary:

Texas' net metering rule (i.e., Arrangements Between Qualifying Facilities and Electric Utilities § 25.242(h)(4)) was established by the Public Utility Commission of Texas to promote small wind power and photovoltaic generation in the state. The order requires investor-owned utilities and rural electric cooperatives to offer a net metering option to qualified facilities of 50 kW or less that use renewable resources. For these customers, the utility must install a single meter that can read electric flow in both directions. There is no statewide limit on the number of customers or total capacity under the net metering program.

Net consumption is billed at the applicable tariff and excess generation by the customers during a billing cycle is purchased by utilities at the avoided cost (fuel cost only, no capacity component).

Distributed generators (the generator and any associated interface equipment) operating in parallel with the distribution utility also are required to operate and maintain equipment such that there is no adverse effect on other customers, or on the utility's ability to maintain voltage and frequency in compliance with PUC Substantive Rule 25.51 relating to power quality. All renewable energy equipment must comply with the Public Utility Commission of Texas rules for safe interconnection of distributed generation systems (Substantive Rule 25.211 and 25.212). The rules establish standards for any equipment involved in distributed generation (interconnection with electric utility systems). Rules 25.211 and 25.212 became effective December 21, 1999.

On July 9, 2001, rulemaking Project 24365 (Rulemaking Concerning Arrangements Between Qualifying Facilities And Electric Utilities) was established to amend Substantive Rule § 25.242 and any additional sections and/or new rules, as necessary, to address issues relating to the arrangements between qualifying facilities and electric utilities as a result of the restructured Texas electric market.

Contact:

John McElroy, Jr.

Office of Public Utility Counsel

1701 N. Congress Avenue, Suite 9-180

Austin, TX 78701

Phone: (512) 936-7518

Fax: (512) 936-7520

E-Mail: mcelroy@opc.state.tx.us

TX-7 TEXAS

Incentive Type: Renewables Portfolio Standard

Eligible Technologies: Solar Thermal Electric, Photovoltaics, Landfill Gas, Wind, Biomass, Hydro, Geothermal Electric, Wave, Tidal

Applicable Sectors: Electric Utilities

Standard: 400 MW

Credit Trading: 1/1/02

Date Enacted: 1999

Effective Date: 1/1/02

Website: <http://www.puc.state.tx.us/rules/rulemake/20944/20944.cfm>

Authority 1: [Section 39.904 of Texas Utilities Code](#); [PUCT Substantive Rule 25.173](#)

Summary:

On December 16, 1999, the Public Utility Commission of Texas issued the Renewable Energy Mandate Rule. This standard establishes the state's renewable portfolio standard, a renewable energy credits trading program (trading program), and defines the renewable energy purchase requirements for competitive retailers in Texas. The standard calls for 2,000 MW of new renewables to be installed in Texas by 2009, which is in addition to the 880 MW of existing renewables generation. The rule also: (1) implements the statutory mandate in PURA §39.904 to promote the development of renewable energy technologies; (2) encourages the construction and operation of new renewable energy projects at Texas sites having the greatest potential for development; (3) reduces air pollution in Texas from fossil fuel electric generation; (4) responds to customer preferences for more "clean" energy from renewable resources; (5) increases the amount of renewable energy available in Texas; and (6) ensures that customers have access to energy from renewable energy resources pursuant to PURA §39.101(b)(3).

The goal will be met according to the following schedule:

MW New Renewables	Date
400 MW	01/01/2002
400 MW	01/01/2003
850 MW	01/01/2004
850 MW	01/01/2005
1,400 MW	01/01/2006
1,400 MW	01/01/2007
2,000 MW	01/01/2008
2,000 MW	01/01/2009 - 2019

Qualifying renewable energy sources include solar, wind, geothermal, hydroelectric, wave or tidal energy, or biomass or biomass-based waste products, including landfill gas. Qualifying systems are those installed after September of 1999. The RPS applies to all retail energy providers including municipal and cooperative utilities.

The Public Utility Commission of Texas is establishing a Renewable Energy Credits Trading Program to start July 1, 2001 and continue through 2019. A Renewable Energy Credit (REC) represents one megawatt hour (MWh) of qualified renewable energy that is generated and metered in Texas. A Capacity Conversion Factor (CCF) will be used to convert MW goals into MWh requirements for each retailer in the competitive market. The CCF will be administratively set and equal to 35% for the first two compliance years, thereafter based on the actual performance of the resources in the credits trading program.

Each retailer in Texas will be allocated a share of the mandate based on that retailer's pro rata share of statewide retail energy sales. The program administrator will maintain a REC account for program participants to track the production, sale, transfer, purchase, and retirement of RECs. Credits can be banked for 3 years, and all renewable additions have a minimum of 10 years of credits to recover over-market costs. A penalty system has been established for providers that do not meet the RPS requirements. The penalty is the lesser of \$50 per MWh or 200% of the average cost of credits traded during the year.

The Public Utility Commission of Texas' (PUC) Goal for Renewable Energy (§ 25.173) implements the legislative goal for renewable energy development in the state of Texas as set forth in Senate Bill 7 (SB 7), Act of May 21, 1999, 76th Legislature, Regular Session, chapter 405, 1999 Texas Session Law Service 2543, 2561 (Vernon) (to be codified as an amendment to the Public Utility Regulatory Act (PURA), Texas Utilities Code Annotated §39.904).

Contact:

John McElroy, Jr.

Office of Public Utility Counsel

1701 N. Congress Avenue, Suite 9-180

Austin, TX 78701

Phone: (512) 936-7518

Fax: (512) 936-7520

E-Mail: mcelroy@opc.state.tx.us

TX-8 TEXAS

Incentive Type: State Construction Policy

Eligible Technologies: Passive Solar Space Heat, Solar Water Heat, Active Solar Space Heat, Solar Thermal Electric, Solar Thermal Process Heat, Photovoltaics, Fuel Cells

Applicable Sectors: Construction, State Government

Sectors: Office Buildings

Date Enacted: 5/5/95

Expiration Date: None

Authority 1: Texas Government Code § 2166.403 (Alternative Energy), Texas Government Code § 2166.401 (Evaluation of Energy Alternatives)

Summary:

Texas state law requires state government departments to compare the cost of providing energy to new state government office buildings from alternative energy sources. According to the statute, "alternative energy" means a renewable energy resource and includes solar energy, biomass energy, and wind energy. If the use of alternative energy devices for a particular function (including space heating and cooling, water heating, electrical loads, and interior lighting) is economically feasible, then the use of alternative energy devices must be included in construction plans.

Contact:

John McElroy, Jr.

Office of Public Utility Counsel

1701 N. Congress Avenue, Suite 9-180

Austin, TX 78701

Phone: (512) 936-7518

Fax: (512) 936-7520

E-Mail: mcelroy@opc.state.tx.us

TX-9 TEXAS

Incentive Type: Grant

Eligible Technologies: AFVs, AF

Applicable Sectors: Schools

Authority 1:

Summary:

The Adopt-A-School Bus Program, a cooperative partnership between the U.S. Environmental Protection Agency (EPA), state agencies, local elected officials, and corporate sponsors, was established as a nonprofit grant program to aid local school districts replacing their aging, diesel school bus fleets with new clean fuel buses. In an effort to ensure the longevity of the new buses, a portion of all grant money awarded is earmarked for fleet infrastructure and maintenance. There are currently Adopt-A-School Bus Programs operating in four cities. For more information, please visit the Web sites for Dallas-Fort Worth (www.adopt-a-schoolbus.org), Austin/Central Texas (www.cleanairforce.org), Houston (www.educationfoundation.info/adopt.htm), and San Antonio/Alamo Area (www.aacog.dst.tx.us/schoolbus).

Contact:

John McElroy, Jr.

Office of Public Utility Counsel

1701 N. Congress Avenue, Suite 9-180

Austin, TX 78701

Phone: (512) 936-7518

Fax: (512) 936-7520

E-Mail: mcelroy@opc.state.tx.us

TX-10 TEXAS

Incentive Type: Grant—Clean air projects

Eligible Technologies: AFVs

Applicable Sectors: Individuals, Corporations

Authority 1:

Summary:

TERP provides grants for various types of clean air projects in 41 counties to improve air quality in the state's non-attainment areas. Grants are available for new or converted on-road and off-road AFVs and engines.

Contact:

Steve Dayton
(512) 239-6824
Email terps@tceq.state.tx.us
Web site www.terpgrants.org.

TX-11 TEXAS

Incentive Type: Grant—technology demonstration projects
Eligible Technologies: AFVs, AF
Applicable Sectors: Individuals
Authority 1: [Texas Statutes](#), Health & Safety Code, Chapter 386

Summary:

TERP provides grants for alternative fuel and advanced technology demonstration and infrastructure projects under the New Technology Research and Development (NTRD) Program.

Contact:

Morris Brown
(512) 239-1438
Email terps@tceq.state.tx.us
Web site www.terpgrants.org.

TX-12 TEXAS

Incentive Type: Grant—production
Eligible Technologies: AFVs
Applicable Sectors: Industrial (ethanol and biodiesel producers)
Authority 1: [Texas Statutes](#), Agriculture Code, Chapter 16

Summary:

The Texas Economic Development and Tourism Office administers a grant program for ethanol and biodiesel fuel producers. In order to be eligible for a grant, ethanol and biodiesel fuel producers are required to register with the state and contribute \$0.032 per gallon, up to 18 million gallons per producer, to a fund. Additionally, the state contributes \$0.168 per gallon produced to the fund. A producer is then entitled to receive a grant of \$0.20 per gallon from the fund, up until the 10th anniversary of the date production from the plant began. For each fiscal year a fuel producer may not receive a grant for more than 18 million gallons of fuel ethanol or biodiesel produced at any one registered plant, regardless of total gallons produced. This incentive expires August 31, 2005.

Contact:

John McElroy, Jr.
Office of Public Utility Counsel
1701 N. Congress Avenue, Suite 9-180
Austin, TX 78701
Phone: (512) 936-7518
Fax: (512) 936-7520
E-Mail: mcelroy@opc.state.tx.us

TX-13 TEXAS

Incentive Type: Grant—Outreach
Eligible Technologies: AF
Applicable Sectors: School districts
Authority 1:

Summary:

The Texas General Land Office (GLO) makes low-cost natural gas available to school districts for use in AFVs. The GLO has also established an alternative fuels program to aggressively promote the use of alternative energy sources, especially for those fuels abundant in Texas. The GLO alternative fuels program serves as a liaison between government and industry, and has been instrumental in the conversion of public and private fleets to operate on alternative fuels, as well as in the opening refueling stations across the state.

Contact:

Soll Sussman
(512) 463-5039
Email soll.sussman@glo.state.tx.us

TX-14 TEXAS

Incentive Type: Outreach

Eligible Technologies: AFVs

Applicable Sectors: Public and private entities

Authority 1:

Summary:

The Texas State Energy Conservation Office (SECO) researches and assists public and private entities in securing grants to encourage the use of alternative fuels, including conversion of state and local government fleets to compressed natural gas (CNG) and liquefied petroleum gas (LPG). SECO also currently administers existing projects for the Texas Alternative Fuels Council.

Contact:

Mary-Jo Rowan

(512) 463-2637

Email at mary-jo.rowan@cpa.state.tx.us

Web site www.seco.cpa.state.tx.us.

TX-15 TEXAS

Incentive Type: Outreach

Eligible Technologies: AF

Applicable Sectors: State government

Authority 1: [Executive Order](#) RP 29, 2003

Summary:

The Texas Energy Planning Council, facilitated by the RRC, was created in November 2003 to advise the Governor on a balanced plan to provide the energy needed to fuel Texas' future economic growth and prosperity. The final report, which will be submitted to the Governor by December 31, 2004, will identify gaps between the state's energy supply and energy demand and recommend plans to close or minimize these gaps. The Council will explore ways to diversify future energy supplies via liquefied natural gas, nuclear, and clean coal technology as well as through renewable energy sources such as wind power, biomass, and fuel cells.

Contact:

Council Web site www.rrc.state.tx.us/tepc

TX-16 TEXAS

Incentive Type: Outreach

Eligible Technologies: AF

Applicable Sectors: Non-profits

Authority 1: [Texas Statutes](#) §2305.035

Summary:

The Texas Alternative Fuels Program initiatives include providing administrative support for the Texas Alternative Fuels Council and the Clean Cities program, financial assistance in developing a secondary school course curriculum in energy basics and alternative fuels, and funding for developing a training and certification program to educate mechanics on the technical aspects of alternative fuel vehicles.

Contact:

Mary-Jo Rowan

(512) 463-2637

Email mary-jo.rowan@cpa.state.tx.us

Web site www.seco.cpa.state.tx.us/alt.html.

TX-17 TEXAS

Incentive Type: Tax exemption—Excise

Eligible Technologies: AF

Applicable Sectors: Individuals, corporations

Authority 1: [Texas Statutes](#), Tax Code, §162.001 and §162.204

Summary:

Biodiesel or ethanol blended with taxable diesel, that is identified when sold or used as a biodiesel or ethanol fuel blend, is exempt from the diesel fuel tax.

Contact:**John McElroy, Jr.**

Office of Public Utility Counsel

1701 N. Congress Avenue, Suite 9-180

Austin, TX 78701

Phone: (512) 936-7518**Fax:** (512) 936-7520**E-Mail:** mcelroy@opc.state.tx.us

TX-18 TEXAS**Incentive Type:** Mandate**Eligible Technologies:** AFVs, AF**Applicable Sectors:** State and local government**Authority 1:** [Texas Statutes](#) §382.131 to §382.142**Summary:**

Under the Texas Clean Fuel Fleet Program, clean-fuel vehicle acquisition requirements apply to certain mass transit, local government, and private fleets located in the state's non-attainment areas. Affected fleets are required to ensure that a certain percentage of their fleet vehicles are certified to meet the EPA's LEV standards. Fleets may use any vehicle/fuel combination that is certified by EPA standards. Beginning September 1, 2002, local governments with fleets of more than 15 vehicles and private fleets with more than 25 vehicles located in non-attainment areas are required to ensure that 70% of light-duty vehicle purchases and 50% of heavy-duty vehicle purchases meet LEV standards. Mass transit authorities are required to convert 50% of their total fleet to run on alternative fuels. Vehicles weighing over 26,000 lbs. are exempt. For more information about the Texas Clean Fleet Program, please contact the Texas Commission on Environmental Quality at (512) 239-1459.

Contact:**John McElroy, Jr.**

Office of Public Utility Counsel

1701 N. Congress Avenue, Suite 9-180

Austin, TX 78701

Phone: (512) 936-7518**Fax:** (512) 936-7520**E-Mail:** mcelroy@opc.state.tx.us

TX-19 TEXAS**Incentive Type:** Outreach**Eligible Technologies:** AFVs, AF**Applicable Sectors:** State and local government**Authority 1:****Summary:**

The North Central Texas Council of Governments (NCTCOG) operates the Clean Vehicle Loaner Program. Through the Clean Vehicle Loaner Program, NCTCOG will obtain advanced technology and alternative fuel vehicles that will be loaned out to local public fleets for a test period of several weeks. The test period will allow time to assess the compatibility of clean vehicles with the fleet's needs. This program will be able to provide a quick, simple, and low-cost method for local organizations to have "hands-on experience" with clean vehicle technologies..

Contact:

Mindy Mize

(817) 608-2346

Email mmize@nctcog.orgWeb site www.cleancities.dfwinfo.com/loaner

TX-20 TEXAS**Incentive Type:** Grant—AFV's**Eligible Technologies:** AFVs, AF**Applicable Sectors:** Government and private entities**Authority 1:****Summary:**

Congestion Mitigation and Air Quality (CMAQ) Program Grants are available through the Houston-Galveston Area Council, through the Houston-Galveston Clean Cities Coalition, for 75% of the incremental cost for new OEM clean fuel vehicle purchases, and clean fuel vehicle conversions/repowers. For program guidance information and an application, please visit www.houston-cleancities.org. This grant is for government and private entities in the eight county Houston-Galveston non-attainment area.

Contact:

Jason Salinas
(713) 993-4559
Email jason.salinas@h-gac.com.

UT-1 UTAH

Incentive Type: Corporate Tax Credit

Eligible Technologies: Passive Solar Space Heat, Solar Water Heat, Active Solar Space Heat, Solar Thermal Electric, Photovoltaics, Wind, Biomass, Hydro

Applicable Sectors: Commercial, Industrial, Residential

Amount: 10%

Max. Limit: \$50,000

Effective Date: 1/1/01

Expiration Date: 12/31/06

Website: <http://www.nr.utah.gov/energy/credits.htm>

Authority 1: Utah Code Annotated 59-10-134

Summary:

This corporate income tax credit for renewable energy systems applies to 10% of the cost of installation of a system up to \$50,000. Eligible technologies include active and passive solar systems, photovoltaics, biomass, hydropower, and wind. For residential buildings owned by the business, the credit is 25% of the cost of installation of a system up to a maximum credit of \$2,000 per system. This tax credit expires on December 31, 2006.

Contact:

Lora Rees
Utah Department of Natural Resources
Office of Energy and Resource Planning
1594 W. North Temple
Suite 3610
Salt Lake City, UT 84114-6480
Phone: (801) 538-5428
Fax: (801) 521-0657
E-Mail: lrees.ueo@state.ut.us
Web site: <http://www.nr.utah.gov/energy/home.htm>

UT-2 UTAH

Incentive Type: Net Metering Rules

Eligible Technologies: Solar Thermal Electric, Photovoltaics, Wind, Hydro, Fuel Cells

Applicable Sectors: Commercial, Industrial, Residential

Limit on System Size: 25kW

Limit on Overall Enrollment: 0.1 % of 2001 peak demand

Treatment of Net Excess: Credited to the following month, then granted to the utility at end of annual period with no compensation

Utilities Involved: All utilities

Interconnection Stds. for Net Metering? Yes

Date Enacted: 3/15/02

Authority 1: [Utah Code 54-15-101 to 54-15-106 \(HB 7 of 2002\)](#)

Summary:

A net metering measure, HB 7 passed both chambers in Utah Legislature on March 14, 2002 and was signed into law by Governor Mike Levitt on March 15, 2002. This law requires utilities to make a net metering program available to customers with fuel cells, solar, wind or small hydropower facilities with a generating capacity of up to 25 kilowatts. Total participation in the program is capped at 0.1 percent of the cumulative generating capacity of the electrical corporation's peak demand during 2001.

Utilities are required to give the customer a credit for electricity generated that exceeds the amount supplied. If net metering results in excess customer-generated electricity during the billing period, the utility must credit the customer for the excess customer-generated electricity at a value that is at least avoided cost. All credits that the customer does not use during the calendar year expire at the end of the calendar year.

The act prohibits the electrical corporation from imposing additional charges or fees to customers participating in a net metering program unless authorized by the Utilities Commission.

Contact:

Christine Watson

Utah Department of Natural Resources
Office of Energy and Resource Planning
1594 W. North Temple
Suite 3610

Salt Lake City, UT 84114-6480

Phone: (801) 538-4792

Fax: (801) 521-0657

E-Mail: christinewatson@utah.gov cwatson.ueo@state.ut.us

Web site: <http://www.nr.utah.gov/energy/home.htm>

David Lochtefeld

Utah Department of Natural Resources
Office of Energy and Resource Planning
1594 W. North Temple, #3710
P.O. Box 145610

Salt Lake City, UT 84114-5610

Phone: (801) 538-5443

Fax: (801) 521-0657

E-Mail: dlochtef.ueo@state.ut.us

Web site: <http://www.energy.utah.gov>

UT-3 UTAH

Incentive Type: Mandate—Use Exemption

Eligible Technologies: AFVs, AF

Applicable Sectors: Individuals

Authority 1: Utah Code 41-1a-1211, 41-6-53.5, and 63-55-241

Summary:

Vehicles with clean fuel group license plates are authorized to travel in HOV lanes regardless of the number of occupants. The clean fuel plate may be purchased for \$10 from any Motor Vehicle Division office by presenting a clean special fuel certificate. This incentive expires December 31, 2005.

Contact:

Utah State Tax Commission's Motor Vehicle Division

(800) DMV-UTAH or (801) 297-7780

Web site dmv.utah.gov/licensespecialplates.html.

UT-4 UTAH

Incentive Type: Grant

Eligible Technologies: AFVs, AF

Applicable Sectors: Individuals, businesses, local government, state government

Authority 1: Utah Code 63-34-202 to 63-34-204

Summary:

The Utah Clean Fuels Grant and Loan Program provides grants worth up to 50% of the cost of converting a vehicle to run on a clean fuel (\$2,500 maximum) and/or up to 50% of the incremental cost of purchasing an OEM vehicle (\$3,000 maximum) minus the amount of any tax credit claimed under Utah Code 59-7-605 or 59-10-127. Through the Clean Fuels Grant and Loan Program, the Utah Energy Office is also authorized to provide loans for the cost of converting a vehicle to operate on a clean fuel, for the purchase of OEM vehicles, and for the purchase of refueling equipment for public/private sector business and government vehicles. However, the Loan program has been put on hold. Bi-fuel vehicles must operate on the clean fuel at least 70% of vehicle miles traveled beginning at the time of conversion or purchase of the vehicle.

Contact:

Bernell Loveridge

Utah Energy Office

Alternative Fuels and Transportation Program Manager

(801) 538-5413 or (800) 662-3633

(801) 538-4795

bernellloveridge@utah.gov

UT-5 UTAH

Incentive Type: Tax Credit—purchase (AFV), conversion (AFV)

Eligible Technologies: AFVs, AF

Applicable Sectors: Individuals, businesses

Authority 1: Utah Code 59-7-605 and 59-10-127

Summary:

The state provides an income tax credit for 50% of the incremental cost (\$3,000 maximum) of a clean-fuel vehicle built by an OEM and/or an income tax credit for 50% of the cost (\$2,500 maximum) of the after-market conversion of vehicles purchased after January 1, 2001 and registered in Utah. If not previously used, the tax credit on used vehicles may be claimed. Tax credits are available for businesses and individuals and may be carried forward up to five years. Tax credits are not available for electric hybrids, except the Honda Civic hybrid. Documentation must be provided as described in the Utah state tax form TC-40V.

Contact:

Ran Macdonald
Utah Division of Air Quality
(801) 536-4071
Email at rmacdonald@utah.gov.

VT-1 VERMONT

Incentive Type: Property Tax Exemption

Eligible Technologies: Solar Water Heat, Active Solar Space Heat, Solar Thermal Electric, Photovoltaics, Wind, Hydro, Renewable Transportation Fuels

Applicable Sectors: Commercial, Industrial, Residential

Authority 1: [32 V.S.A. Sec. 3845](#)

Summary:

The state of Vermont allows municipalities the option of offering property tax exemptions for certain renewable energy systems. Such systems include, "but not be limited to grist mills, windmills, facilities for the collection of solar energy or the conversion of organic matter to methane, and all component parts thereof including land upon which the facility is located, not to exceed one-half acre." Adoption of this exemption varies from one municipality to another, but typically the exemption applies to the total value of the qualifying renewable energy system and can be applied to residential, commercial, and industrial real and personal property.

Contact:

Andrew Perchlik
Renewable Energy Vermont
PO Box 1036
Montpelier, VT 05601
Phone: (802) 229-0099
E-Mail: perchlik@REVermont.org
Web site: <http://www.revermont.org/>

VT-2 VERMONT

Incentive Type: Sales Tax Exemption

Eligible Technologies: Solar Water Heat, Photovoltaics, Wind, Fuel Cells, Anaerobic digestion

Applicable Sectors: Commercial, Residential, Agricultural

Amount: 100% of sales tax for purchase

Date Enacted: 1999, amended 2002

Website: <http://www.state.vt.us/psd/ee/ee20.htm>

Authority 1: [32 V.S.A. Sec. 9741 as amended by Sec. 6 of S. 138 of 2002](#)

Summary:

Vermont's 5% sales tax exemption for renewable energy systems, passed as part of bill H. 0548, titled, THE MISCELLANEOUS TAX REDUCTION ACT OF 1999, originally applied only to net metered systems. With the 2002 amendments (S. 138), the exemption now applies to net metered systems as well as to home and business renewable energy systems not connected to the grid. In addition, solar hot water systems are now eligible for the exemption.

Like Vermont's net metering law, the sales tax exemption for electricity generating technologies applies to systems no greater than 15 kilowatts of capacity for PV, wind, fuel cells fueled by renewable sources, and anaerobic digesters. However, the system size limit for farm systems is 150 kW. (See Vermont's net metering summary.)

Contact:**Andrew Perchlik**

Renewable Energy Vermont

PO Box 1036

Montpelier, VT 05601

Phone: (802) 229-0099**E-Mail:** perchlik@REVermont.org**Web site:** <http://www.revermont.org/>

VT-3 VERMONT**Incentive Type:** Net Metering Rules**Eligible Technologies:** Photovoltaics, Wind, Biomass, Fuel Cells**Applicable Sectors:** Commercial, Residential, Agricultural**Limit on System Size:** 150 kW for farm systems; 15 kW for others**Limit on Overall Enrollment:** 1% of 1996 peak demand or peak demand during most recent calendar yr., whichever is less.**Treatment of Net Excess:** Credited to the following month, then granted to the utility at end of annual period with no compensation**Utilities Involved:** All utilities**Interconnection Stds. for Net Metering?** Yes**Date Enacted:** 1998, amended 1999, 2002**Effective Date:** 1998**Website:** <http://www.state.vt.us/psd/ee/ee20.htm>**Authority 1:** [SB 138 of 2002 \(amends Sec. 5, 30 V.S.A. Sub. Sec 219a\)](#)**Summary:**

Vermont's net metering legislation was passed in 1998 (H.605) and was subsequently amended in 1999 (H.705) and 2002 (S.138). Any electrical utility customer in Vermont can net meter once they have obtained a Certificate of Public Good from the Public Service Board. Vermont's net metering law caps the size of net metering generators at 15 kilowatts AC capacity for certain renewable forms of energy generation, such as photovoltaic panels, wind turbines, and fuel cells (when fueled by renewable sources). Excess generation during a billing period will be credited to the next billing period until the end of the calendar year. At the beginning of the next calendar year, any remaining credited will be granted to the utility without compensation to the customer.

In addition, a new class of net metering system, the farm system, was established. Farmers who generate electricity from anaerobic digestion of agricultural products, byproducts, or from photovoltaics, wind, or fuel cells, can net meter systems of up to 150 kilowatts. This 150 kilowatt limit offers an opportunity to farms to economically generate their own power and reduce demand from utilities. The 2002 amendments allow "group net metering," such that farm systems may credit on-site generation against all meters designated to the farm system. Accumulated credits from net excess generation must be used within 12 months or will revert to the electric company without compensation to the farm system.

The Public Service Board may also allow net metering for up to 10 systems per year for non-farm systems greater than 15 kilowatts but less than 150 kilowatts of capacity. The total generating capacity under net metering for each electric utility company is limited to 1% of the company's peak demand during 1996 or the peak demand during the most recent full calendar year, whichever is less. However, an electric company and a farm system may jointly petition the Public Service Board to exceed the enrollment cap.

A net metering PV system must conform to all applicable electrical safety, power quality, and interconnection requirements established by the National Electrical Code, the Institute of Electrical and Electronic Engineers, and Underwriters Laboratories. Electric companies cannot charge customers any additional standby, capacity, interconnection, or other fee or charge, although they may charge "reasonable" fees for interconnection, establishment, special meter reading, and accounting for farm system net metering arrangements. Other costs may apply to farm systems as well.

As of February 2002, 55 net metering systems had been granted Certificates of Public Good. Approximately 40 of these are solar; the remainder are wind. Altogether, these systems total about 170 kW.

Contact:**David Grover**

State of Vermont Department of Public Service

Energy Efficiency Division

112 State Street

Drawer 20

Montpelier, VT 05620-2601

Phone: (802) 828-4072**Fax:** (802) 828-2342**E-Mail:** grover@psd.state.vt.us**Web site:** <http://www.state.vt.us/psd/ee/ee14.htm>

VT-4 VERMONT

Incentive Type: Tax Credit—Corporate Income
Eligible Technologies: AFVs
Applicable Sectors: Businesses
Authority 1: [Vermont Statutes](#) Title 32, Chapter 151 §5930k

Summary:

Businesses in Vermont that are involved exclusively in design, development, and manufacture of electric vehicles (EVs), alternative fuel vehicles (AFVs), or hybrid vehicles (HEVs) are eligible for up to three of the following income tax credits:

- A percentage of increased payroll costs;
- 10% of qualified research and development expenditures;
- A credit against export taxes;
- 5% to 10% of total investments in plants or facilities and machinery and equipment (small business investment tax credit);
- Up to 6% of investments in machinery and equipment (\$100,000 per year maximum);
- Up to 6% of investments for renovation of existing facilities to provide cable, fiber or telecommunications access;
- 20% of qualified training, education and workforce development expenditures; sales and use tax exemption for approved personal computers and software.

Certain limits and restrictions apply.

Contact:

David Grover
State of Vermont Department of Public Service
Energy Efficiency Division
112 State Street
Drawer 20
Montpelier, VT 05620-2601
Phone: (802) 828-4072
Fax: (802) 828-2342
E-Mail: grover@psd.state.vt.us
Web site: <http://www.state.vt.us/psd/ee/ee14.htm>

VT-5 VERMONT

Incentive Type: Mandated—Purchase AFVs
Eligible Technologies: AFVs, AF
Applicable Sectors: State government
Authority 1: Executive Order 14-03, 2003

Summary:

A Climate Neutral Working Group (Working Group) was established in an effort to reduce greenhouse gas emissions from state government operations. As part of this effort all state government agencies, offices, and departments are directed to purchase the most fuel efficient vehicles available in each vehicle class according to specifications set by the Working Group. The Working Group is directed to consider vehicles that meet high fuel economy standards and provide lower total overall emissions of greenhouse gases, criteria pollutants and hazardous air contaminants. This directive expires on July 1, 2020.

Contact:

David Grover
State of Vermont Department of Public Service
Energy Efficiency Division
112 State Street
Drawer 20
Montpelier, VT 05620-2601
Phone: (802) 828-4072
Fax: (802) 828-2342
E-Mail: grover@psd.state.vt.us
Web site: <http://www.state.vt.us/psd/ee/ee14.htm>

VT-6 VERMONT

Incentive Type: Mandate—Eqt Purchase
Eligible Technologies: AFVs, AF
Applicable Sectors: State government
Authority 1: [Vermont Statutes](#) Title 29, Chapter 49 §903g

Summary:

The commissioner of buildings and general services shall consider AFVs when purchasing vehicles for state use, when the alternative fuel is suitable for the vehicle's operation, is available in the region where the vehicle will be used, and is competitively priced with traditional fuels.

Contact:**David Grover**

State of Vermont Department of Public Service
Energy Efficiency Division
112 State Street
Drawer 20
Montpelier, VT 05620-2601

Phone: (802) 828-4072

Fax: (802) 828-2342

E-Mail: grover@psd.state.vt.us

Web site: <http://www.state.vt.us/psd/ee/ee14.htm>

VT-7 VERMONT

Incentive Type: Mandated—Govt Planning

Eligible Technologies: AFVs, AF

Applicable Sectors: State government

Authority 1: [Vermont Statutes](#), Title 3, Chapter 45, §2291

Summary:

The Secretary of Administration shall develop and oversee the implementation of a state agency energy plan for state government. The plan shall be adopted by April 1, 1993, modified as necessary, and readopted by the Secretary on or before April 1, of each fifth year subsequent to 1995. The plan shall devise a strategy to reduce vehicle fuel consumption, and include steps to encourage more efficient trip planning, to reduce the average fuel consumption of the agency fleet. The plan shall recommend revisions to, or expansion of, existing state lending and development programs that would create incentives for the development of clean fuels, energy conservation, and alternative energy industries.

Contact:**David Grover**

State of Vermont Department of Public Service
Energy Efficiency Division
112 State Street
Drawer 20
Montpelier, VT 05620-2601

Phone: (802) 828-4072

Fax: (802) 828-2342

E-Mail: grover@psd.state.vt.us

Web site: <http://www.state.vt.us/psd/ee/ee14.htm>

VA-1 VIRGINIA

Incentive Type: State Loan Program

Eligible Technologies: Passive Solar Space Heat, Solar Water Heat, Active Solar Space Heat, Solar Thermal Electric, Photovoltaics, Wind, Biomass, Hydro, Geothermal Electric, Waste

Applicable Sectors: Residential

Amount: 100% of equity

Max. Limit: \$25,000

Terms: up to 20 years

Website: <http://www.vhda.com>

Authority 1: [Code of Virginia 36-55.31:1](#)

Summary:

This home improvement loan program, which was created under HUD Title 1 in 1978, is administered by the Virginia Housing Development Authority. The program makes low interest loans available for low and moderate income homeowners for repairs to existing homes that reduce energy consumption or reduce dependence on conventional energy sources. All renewable energy technologies are eligible. The interest rate is 6.75%, and in addition there is an annual Federal Housing Association insurance charge of 1% of the loan amount. Loan amounts range from \$1,000 to \$25,000 for terms from six months up to twenty years. (A lien on the property is required for all loan amounts.) Homeowners can borrow up to 100% of the equity in their home. About one hundred loans per year are made.

Contact:**Julia Perkinson**

Virginia Housing Development Authority
601 S. Belvidere Street
Richmond, VA 23220-6500
Phone: (804) 782-1986
Fax: (804) 783-6737
E-Mail: julia.perkinson@vhda.com
Web site: www.vhda.com

VA-2 VIRGINIA

Incentive Type: Tax credit
Eligible Technologies: AFVs, Alternative Fuel Refueling Stations
Applicable Sectors: Existing residential
Authority: Virginia Code Sec. 58.1-438.

Summary:

The Commonwealth of Virginia provides individuals, private entities, and corporations a state tax credit in an amount equal to 10% of the amount allowed as a **federal tax deduction** for clean-fuel vehicles and related refueling property (under Section 179A of the Internal Revenue Code). The tax credit was amended in 1994 to specify that it is for the purchase of clean-fuel vehicles that are principally garaged in Virginia and for certain refueling property placed in service in Virginia.

Contact:

Mr. John W. Warren, Director
Virginia Department of Mines, Minerals and Energy
Energy Division
Ninth Street Office Building, 8th Floor
202 North 9th Street
Richmond, Virginia 23219
Phone (804) 692-3216
Fax (804) 692-3238
Email john.warren@dmme.virginia.gov

VA-3 VIRGINIA

Incentive Type: Use exemption
Eligible Technologies: AFVs
Applicable Sectors: Residential
Authority: Virginia Code §33.1-46.2 and §46.2-749.3

Summary:

AFVs displaying the Virginia 'Clean Special Fuels' license plate can use the Virginia HOV lanes, regardless of the number of occupants, until July 1, 2006. Dedicated AFVs and the Toyota Prius, and Honda Insight and Civic hybrid electric vehicles qualify.
www.dmv.state.va.us/webdoc/citizen/vehicles/cleanspecialfuel.asp.

Contact:

Mr. John W. Warren, Director
Virginia Department of Mines, Minerals and Energy
Energy Division
Ninth Street Office Building, 8th Floor
202 North 9th Street
Richmond, Virginia 23219
Phone (804) 692-3216
Fax (804) 692-3238
Email john.warren@dmme.virginia.gov

VA-4 VIRGINIA

Incentive Type: Loans—AFV conversions; Loans—AF facilities
Eligible Technologies: AFVs, Alternative Fuel Refueling Stations
Applicable Sectors: Schools
Authority: Virginia Code §22.1-146

Summary:

The Virginia Board of Education may use funds from the state Literary Fund to grant loans to school boards that convert school buses to operate on alternative fuels or construct alternative fuel refueling stations.

Contact:

Mr. John W. Warren, Director
Virginia Department of Mines, Minerals and Energy
Energy Division
Ninth Street Office Building, 8th Floor
202 North 9th Street
Richmond, Virginia 23219
Phone (804) 692-3216
Fax (804) 692-3238
Email john.warren@dmme.virginia.gov

VA-5 VIRGINIA

Incentive Type: Tax credit--Corporate

Eligible Technologies: AF

Applicable Sectors: industrial, commercial (jobs related to AFs)

Authority: Virginia Code Sec. 58.1-439.1.

Summary:

There is a job-creation tax credit worth \$700 per full-time employee for businesses involved with alternative fuels. The credit is allowed in the taxable year in which the job is created and in each of the two succeeding years in which the job is continued. Qualifying businesses include AFV component manufacturers and vehicle conversion companies. This credit is effective for taxable years beginning on or after January 1, 1996, through December 31, 2006.

Contact:

Mr. John W. Warren, Director
Virginia Department of Mines, Minerals and Energy
Energy Division
Ninth Street Office Building, 8th Floor
202 North 9th Street
Richmond, Virginia 23219
Phone (804) 692-3216
Fax (804) 692-3238
Email john.warren@dmme.virginia.gov

VA-6 VIRGINIA

Incentive Type: Tax credit

Eligible Technologies: AFVs, Alternative Fuel Refueling Stations

Applicable Sectors: Individuals, Businesses

Authority: Virginia Code Sec. 58.1-438.

Summary:

The Commonwealth of Virginia provides individuals, private entities, and corporations a state tax credit in an amount equal to 10% of the amount allowed as a **federal tax deduction** for clean-fuel vehicles and related refueling property (under Section 179A of the Internal Revenue Code). The tax credit was amended in 1994 to specify that it is for the purchase of clean-fuel vehicles that are principally garaged in Virginia and for certain refueling property placed in service in Virginia.

Contact:

Mr. John W. Warren, Director
Virginia Department of Mines, Minerals and Energy
Energy Division
Ninth Street Office Building, 8th Floor
202 North 9th Street
Richmond, Virginia 23219
Phone (804) 692-3216
Fax (804) 692-3238
Email john.warren@dmme.virginia.gov

VA-7 VIRGINIA

Incentive Type: Tax reductions--personal
Eligible Technologies: AFVs
Applicable Sectors: Individuals
Authority: Virginia Code Sec. 58.1-3506.

Summary:

Local governments have the option of reducing personal property taxes for AFVs.

Contact:

Mr. John W. Warren, Director
Virginia Department of Mines, Minerals and Energy
Energy Division
Ninth Street Office Building, 8th Floor
202 North 9th Street
Richmond, Virginia 23219
Phone (804) 692-3216
Fax (804) 692-3238
Email john.warren@dmme.virginia.gov

VA-8 VIRGINIA

Incentive Type: Mandates—excise tax (fuel) and license (AFV)
Eligible Technologies: AFVs, AF
Applicable Sectors: Schools
Authority: Virginia Code Sec. 58.1-2249

Summary:

A tax of \$0.16 per gallon is imposed on liquid alternative fuel used in AFVs. Alternatively, an annual license tax of \$50.00 per vehicle is imposed on AFVs that are fueled from a private source.

Contact:

Mr. John W. Warren, Director
Virginia Department of Mines, Minerals and Energy
Energy Division
Ninth Street Office Building, 8th Floor
202 North 9th Street
Richmond, Virginia 23219
Phone (804) 692-3216
Fax (804) 692-3238
Email john.warren@dmme.virginia.gov

VA-9 VIRGINIA

Incentive Type: Mandate--license
Eligible Technologies: AFVs, Alternative Fuel Refueling Stations, AF
Applicable Sectors: Individuals, commercial, industrial
Authority: Virginia Code Sec. 58.1-2244.

Summary:

The following people must obtain a license must be obtained from the Virginia Department of Motor Vehicles: a provider of an alternative fuel; a bulk user of an alternative fuel; a retailer of an alternative fuel, and; any person who fuels their AFV from a private source that does not pay the special fuels tax described above.

Contact:

Mr. John W. Warren, Director
Virginia Department of Mines, Minerals and Energy
Energy Division
Ninth Street Office Building, 8th Floor
202 North 9th Street
Richmond, Virginia 23219
Phone (804) 692-3216
Fax (804) 692-3238
Email john.warren@dmme.virginia.gov

VA-10 VIRGINIA

Incentive Type: Voluntary—Outreach
Eligible Technologies: AFVs, AF
Applicable Sectors: Schools (K-12)
Authority: Virginia Code §46.2-1089.1

Summary:

The Virginia Board of Education may provide by regulation for the display of appropriate signs or other markings on school buses using alternative fuels. Such signs or markings shall conspicuously identify the vehicle as an AFV and indicate the type of alternative fuel used.

Contact:

Mr. John W. Warren, Director
Virginia Department of Mines, Minerals and Energy
Energy Division
Ninth Street Office Building, 8th Floor
202 North 9th Street
Richmond, Virginia 23219
Phone (804) 692-3216
Fax (804) 692-3238
Email john.warren@dmme.virginia.gov

WA-1 WASHINGTON

Incentive Type: Tax Exemption—corporate excise tax
Eligible Technologies: Solar Water Heat, Active Solar Space Heat, Solar Thermal Electric, Photovoltaics, Wind, Biomass, Hydro, Renewable Transportation Fuels, Geothermal Electric, Waste
Applicable Sectors: Commercial, Industrial
Amount: 100%
Max. Limit: none
Terms: N/A
Date Enacted: 1/1/96
Expiration Date: 1/1/2004
Authority 1: [RCW 82.63](#)

Summary:

This statute exempts qualifying high technology manufacturers from the state corporate excise tax. Their definition of high technology includes the development of alternative energy resources. The exemption is 100% with no limit. This exemption sunsets in the year 2004.

Contact:

Michael McSorley
Cooperative Extension Energy Program
Washington State University
925 Plum Street
Olympia, WA 98504-3165
Phone: (360) 956-2008
Fax: (360) 236-2008
E-Mail: mcsorley@energy.wsu.edu
Web site: <http://www.energy.wsu.edu/>

WA-2 WASHINGTON

Incentive Type: Production Incentive
Eligible Technologies: Photovoltaics, Wind, small hydro, biofuels
Applicable Sectors: all Chelan County PUD customers
Amount: varies
Max. Limit: \$1.50/kWh
Website: <http://www.chelanpud.org/Snap/producers.htm>

Summary:

SNAP stands for Sustainable Natural Alternative Power. Customers are encouraged to become SNAP Producers by connecting alternative power generators such as solar panels and wind turbines to the District's electrical distribution system. SNAP is unique in that 100 percent of the power comes from local producers.

The amount paid by Chelan County PUD to SNAP Producers will depend on the total amount contributed by SNAP Purchasers and the total amount generated by all SNAP Producers. The greater the amount contributed by SNAP Purchasers, the greater the amount that will be

distributed among participating SNAP Producers. The maximum payment is \$1.50 per kilowatt-hour.

The maximum SNAP generation project that may be interconnected with the distribution system is 25 kilowatts. SNAP is not for customers who want to install renewable energy sources for back-up power generation at their home or business. Customers who want this should request information about the District's Net Metering program.

Contact:

Jim White

Chelan County Public Utility District
327 N. Wenatchee Ave., PO Box 1231
Wenatchee, WA 98807

Phone: (509) 667-4216

Fax: (509) 664-2889

E-Mail: JamesA@chelanpud.org

Web site: <http://www.chelanpud.org/>

WA-3 WASHINGTON

Incentive Type: Sales Tax Exemption

Eligible Technologies: Photovoltaics, Landfill Gas, Wind, Fuel Cells

Applicable Sectors: Commercial, Industrial, Residential, General Public, Nonprofit, Utilities

Amount: 100%

Max. Limit: None

Terms: Systems > 200 watts

Date Enacted: 5/8/2001

Effective Date: 7/1/2001

Expiration Date: 6/30/2009

Website: http://www.leg.wa.gov/pub/billinfo/2001-02/House/1850-1874/1859_sl_05102001.txt

Authority 1: H.B. 1859; RCW 82.08.02567 and 82.12.02567

Summary:

On May 8, 2001, the Governor of Washington signed legislation, H.B. 1859, expanding the sales and use tax exemption for solar, wind, and landfill gas electric generating facilities to include fuel cells. In addition, the exemption now applies to smaller systems -- those that have a generating capacity of at least 200 watts, instead of the previous requirement of at least 200kW. This tax exemption takes effect July 1, 2001.

Contact:

Mike Nelson

Washington State University
Extension Energy Program
925 Plum SE, Building 4
Olympia, WA 98504-3165

Phone: (206) 285-1061

Fax: (360) 956-2030

E-Mail: miknel@westernsun.org

Web site: <http://www.energy.wsu.edu/>

WA-4 WASHINGTON

Incentive Type: Green Pricing Program

Eligible Technologies: Landfill Gas, Wind

Applicable Sectors: Commercial, Industrial, Residential

Premium: Voluntary contributions average \$3/month for residential, \$10/month for commercial

Commitment: None

Participants: 466 residential, 22 commercial

Effective Date: 1999

Website: http://www.bentonpud.org/main/green_power.htm

Summary:

At the close of 1999, Benton County Public Utility District (PUD), which serves about 37,000 customers in Benton County, launched a green investment program. PUD's Green Power program gives customers the opportunity to support power purchases from a Klickitat PUD's new 1-MW Roosevelt Regional Landfill Gas Facility. Benton pays about 3.5¢/kWh for the landfill power, approximately 1¢/kWh more than it pays for its other power sources. The utility needs \$100,000 in annual green power revenues to cover the higher costs of the landfill-gas purchase and will rate-base any shortfall. Customers decide the additional amount they want to pay. To date, about 365 customers are contributing an average of \$3.00 per month. Benton PUD plans to purchase 1 aMW from the Nine Canyon Wind Project in Eastern Washington.

Contact:**Nikki Johns**

Benton PUD

2721 W. 10th Ave.

PO Box 6270

Kennewick, WA 99336

Phone: (509) 582-1270**Fax:** (509) 582-1296**E-Mail:** johnsn@bentonpud.org**Web site:** <http://www.bentonpud.org>

WA-5 WASHINGTON**Incentive Type:** Green Pricing Program**Eligible Technologies:** Photovoltaics, Landfill Gas, Wind, Biomass, Geothermal Electric**Applicable Sectors:** all Seattle City Light customers**Premium:** Varies**Commitment:** Monthly**Participants:** Over 2,700 participants as of June 2002**Effective Date:** 2002**Website:** <http://www.cityofseattle.net/light/green/greenpower/>**Summary:**

Seattle City Light customers can choose to purchase green power voluntarily based on the following premium options:

Residential customers: \$3, \$7 or \$10 per month.

Small general service customers: \$8, \$12 or \$16 per month

Medium general service customers: \$15, \$20 or \$30 per month

Large general service customers: \$30, \$40 or \$50 per month

High-demand general service customers: \$50, \$100 or \$150 per month

Seattle City Light is currently in the process of determining the quantity of kilowatt-hours of electricity associated with these premiums.

The additional premium will appear as a line item on electric bills. Customers can support Seattle Green Power with an individual check for any amount and at any time.

Approximately 40% of the money collected will be invested in local demonstration projects in public buildings. For example, SCL has contracted to install solar panels on local schools and community centers. The remaining 60% of the money will be invested in other renewable resources such as wind, geothermal and landfill gas.

Contact:**Jack Brautigam**

Seattle City Light

Energy Management Services Division

700 Fifth Ave., Suite 3300

Seattle, WA 98104-5031

Phone: (206) 684-3954**E-Mail:** jack.brautigam@ci.seattle.wa.us**Web site:** <http://www.cityofseattle.net/light/>

WA-6 WASHINGTON**Incentive Type:** Outreach Program**Eligible Technologies:** Daylighting and Renewables**Applicable Sectors:** Local Government**Format:** 9-month training program**Participants:** architects, engineers, developers, construction managers, resource conservation specialists**Website:** http://www.cityofseattle.net/light/conservation/sustainability/cv5_scc.htm**Summary:**

The City of Seattle municipal utility, City Light Department (SCL) co-sponsors the Sustainable Building Advisor Certificate Program, which will commence its fourth year of instruction in October 2002. This course is a nine-month, specialized training program, designed to enable graduates to advise employers or clients on strategies and tools for implementing sustainable building. The program is intended for Architects, Engineers, Developers, Construction Managers, and Resource Conservation Specialists. SCL posts recent Sustainable Building Case Studies on its Web site.

In addition to daylighting, other renewable technologies may be incorporated into the curriculum beginning in October 2002.

Contact:

Peter Dobrovolny

Seattle City Light

Energy Management Services Division

700 Fifth Ave., Suite 3300

Seattle, WA 98104-5031

Phone: (206) 615-1094

Fax: (206) 287-5049

E-Mail: peter.dobrovolny@ci.seattle.wa.us

Web site: <http://www.cityofseattle.net/light/>

WA-7 WASHINGTON

Incentive Type: Research & Outreach

Eligible Technologies: Solar Thermal Electric, Solar Thermal Process Heat, Photovoltaics, Wind, Biomass, Renewable Transportation Fuels

Applicable Sectors: General Public, Utilities

Funding: Mandated utility contributions, university funding

Date Enacted: 7/1/96

Website: <http://www.energy.wsu.edu/>

Summary:

The Washington State University (WSU) Cooperative Extension Service's Energy Program was established July 1, 1996, to provide energy programs and services within the transportation, residential, commercial, and industrial sectors. When the Washington State Energy Office was dissolved in 1996, WSU's Cooperative Extension Service took over the bulk of the Office's activities. The Program's mission is to supply energy information and solutions for business, government, and individuals to improve personal and global environmental quality and economic well-being.

The renewables program assists clients in finding solutions to energy problems that utilize renewable energy. Services include: technical assistance, education, workshops, field assistance and user-centered solutions. The Program's "Clearinghouse" offers a renewable energy hotline to answer consumer and industry questions.

The Energy Program is financed through federal funding and contributions from the Bonneville Power Administration (BPA). With the advent of restructuring, BPA funding will likely be reduced. It is anticipated that this funding source will be replaced by project specific funding from the Northwest Energy Efficiency Alliance, a group of public and private utilities, public agencies, and public interest groups. Other sources of funding include the Western Area Power Administration and other grant making organizations.

Contact:

Michael McSorley

Cooperative Extension Energy Program

Washington State University

925 Plum Street

Olympia, WA 98504-3165

Phone: (360) 956-2008

Fax: (360) 236-2008

E-Mail: mcsorleym@energy.wsu.edu

Web site: <http://www.energy.wsu.edu/>

WA-8 WASHINGTON

Incentive Type: Generation Disclosure

Eligible Technologies: Solar Thermal Electric, Photovoltaics, Wind, Biomass, Hydro, Geothermal Electric, Waste

Applicable Sectors: Utilities

Fuel Mix: Yes

Emissions: No

Std Format: Yes

Date Enacted: 3/30/00

Effective Date: 5/01

Website: <http://www.energy.cted.wa.gov/FuelMixDisclosure.htm>

Authority 1: [EHB 2565 in 2000](#)

Authority 2: [Revised Code of Washington 19.29a, Consumers of Electricity](#)

Summary:

Washington is one of several states that requires disclosure even though its electricity market has not been restructured. Beginning in May 2001, retail electricity suppliers in Washington must provide a disclosure label in a standard format to their retail customers at least semiannually. The disclosure label must be provided to new customers at the time service is established. Existing customers should receive the disclosure label as a bill insert or mailed publication. Small utilities and mutual light and power companies must provide the disclosure label annually unless they market a "specific electric product new to that utility."

Disclosure of fuel mix information must be in a two-column, tabular format showing the percentages of each category of fuel used, including categories for coal, hydroelectric, natural gas, nuclear, and other generation identified by percentage and adding up to 100%.

Contact:

Liz Klumpp

Washington State Department of Community, Trade and Economic Development

Energy Policy Division

925 Plum Street SE, Bldg. 4

Olympia, WA 98504-3172

Phone: (360) 956-2071

Fax: (360) 956-2180

E-Mail: ElizabethK@ep.cted.wa.gov

Web site: <http://www.energy.cted.wa.gov>

WA-9 WASHINGTON

Incentive Type: Mandatory Utility Green Power Option

Eligible Technologies: Solar Thermal Electric, Solar Thermal Process Heat, Photovoltaics, Landfill Gas, Wind, Biomass, Hydro, Geothermal Electric, Waste, Wave, Tidal

Applicable Sectors: Utilities

Date Enacted: 2001

Effective Date: 1/1/02

Authority 1: [RCW 19.29A.090](#)

Summary:

On May 8, 2001, the Governor of Washington signed EHB 2247, which requires investor and publicly owned utilities to offer customers the option to purchase power generated from renewable sources - defined as produced by wind, solar, geothermal, landfill gas, wave or tidal action, wastewater treatment gas, some biomass and "qualified hydropower" that is fish-friendly.

Beginning January 1, 2002, each electric utility in Washington must provide (four times a year) a voluntary option to its electricity customers to purchase renewable energy resources. The details of each utility's options must be approved and annual reports submitted from October 1, 2002 to October 1, 2012. A report summarizing the utility reports will be provided each year to the legislature.

The Washington Utilities and Transportation Commission oversees the investor-owned utilities. For information on the green power offerings of a particular utility, contact the utility directly.

Contact:

Graciela Etchart

Washington Utilities and Transportation Commission

1300 South Evergreen Park Drive, S.W.

P.O. Box 47250

Olympia, WA 98504-7250

Phone: (360) 664-1310

Fax: (360) 753-2629

E-Mail: getchart@wutc.wa.gov

Web site: <http://www.wutc.wa.gov/>

WA-10 WASHINGTON

Incentive Type: Net Metering Rules

Eligible Technologies: Solar Thermal Electric, Photovoltaics, Wind, Hydro, Fuel Cells

Applicable Sectors: Commercial, Industrial, Residential

Limit on System Size: 25 kW

Limit on Overall Enrollment: 1% of 1996 peak

Treatment of Net Excess: Purchased by the utility at year-end for 50% of the retail rate

Interconnection Stds. for Net Metering? Yes

Effective Date: 2002

Website: http://www.ghpud.org/Alternative_Energy/Net_Metering/net_metering.html

Summary:

Grays Harbor PUD passed a formal Net Metering policy early in 2002. It differs slightly from what is required by Washington State law in that the PUD reimburses customers for Net Excess Generation at the end of each year, at the rate of 50% of the retail rate. State law allows utilities to require that customers grant this excess generation to the utility without reimbursement. Grays Harbor PUD has voluntarily gone beyond the state requirement in order to further encourage customers to install renewable generation.

The Washington State Legislature passed its Net Metering Law in 1998. This law requires that:

- Generating facilities must be small - 25 kilowatts or less.
- Facilities must run on solar, wind and/or hydropower, or a fuel cell.
- The system operates in parallel with the electric utility's transmission and distribution facilities.

If you have questions about the PUD's Net Metering Policy, please call the Energy/Conservation Services Department at 360-538-6383.

Contact:

Doug Smith

Grays Harbor PUD

2720 Sumner Avenue

Aberdeen, WA 98520

Phone: (360) 538-6508

Fax: (360) 538-6389

E-Mail: dsmith@ghpud.org

Web site: <http://www.ghpud.org>

WA-11 WASHINGTON

Incentive Type: Net Metering Rules

Eligible Technologies: Solar Thermal Electric, Photovoltaics, Wind, Hydro, Fuel Cells

Applicable Sectors: Commercial, Industrial, Residential

Limit on System Size: 25 kW

Limit on Overall Enrollment: 1% of 1996 peak

Treatment of Net Excess: Credited to the following month, then granted to the utility at end of annual period with no compensation

Utilities Involved: All utilities

Interconnection Stds. for Net Metering? Yes

Date Enacted: 1998

Authority 1: [RCW 80.60: WA Legislature HB 2773](#)

Summary:

Washington's net metering law, enacted March 1998, allows net metering for customers with solar, wind, and hydropower systems of 25 kW or less that are intended primarily to offset part or all of the customer's requirements for electricity. Then in 2000, EH 2334, added fuel cells as another type of eligible system. All customer classes are eligible for enrollment. Enrollment is limited to a statewide installed generating capacity of 0.1% of the utility's 1996 peak demand.

Net excess generation is credited to the customer's next monthly bill. At the beginning of each calendar year, any remaining unused kilowatt-hour credit accumulated during the previous year must be granted to the utility, without any compensation to the customer.

Systems shall meet all of the requirements established by the National Electric Code, National Electrical Safety Code, Institute of Electrical and Electronic Engineers (IEEE) and Underwriters Laboratories.

Contact:

Mike Nelson

Washington State University

Extension Energy Program

925 Plum SE, Building 4

Olympia, WA 98504-3165

Phone: (206) 285-1061

Fax: (360) 956-2030

E-Mail: miknel@westernsun.org

Web site: <http://www.energy.wsu.edu/>

Graciela Etchart

Washington Utilities and Transportation Commission

1300 South Evergreen Park Drive, S.W.

P.O. Box 47250

Olympia, WA 98504-7250

Phone: (360) 664-1310

Fax: (360) 753-2629

E-Mail: getchart@wutc.wa.gov

Web site: <http://www.wutc.wa.gov/>

WA-12 WASHINGTON

Incentive Type: Tax deferment—manufacturing (AF)

Eligible Technologies: AF (biodiesel, ethanol)

Applicable Sectors: Industrial

Authority 1: Revised Code of Washington (RCW) 82.04.260, 82.08, 82.12, 82.14, 82.29A.135, 82.32, and 84.36

Summary:

Until July 1, 2009, investments in buildings, equipment and labor for the purpose of manufacturing biodiesel, biodiesel feedstock or alcohol fuel are eligible for the deferral of state and local sales and use taxes. To be eligible, projects must be located in a designated community empowerment zone, a county containing a community empowerment zone (and must meet employment requirements), a county with fewer than 100 persons per square mile, or a county that has a population of less than 225,000 and has an area greater than 225 square miles. Qualifying buildings, equipment and land used in the manufacturing of alcohol fuel, biodiesel, or biodiesel feedstocks are also exempt from state and local property and leasehold taxes for a period of 6 years. Additionally, a reduced Business & Occupation tax rate of .138% applies to persons engaged in manufacturing of alcohol fuel, biodiesel fuel, or biodiesel feedstock. The typical rate for manufacturing businesses is .484%.

Contact:

Mike Nelson

Washington State University

Extension Energy Program

925 Plum SE, Building 4

Olympia, WA 98504-3165

Phone: (206) 285-1061

Fax: (360) 956-2030

E-Mail: miknel@westernsun.org

Web site: <http://www.energy.wsu.edu/>

Graciela Etchart

Washington Utilities and Transportation Commission

1300 South Evergreen Park Drive, S.W.

P.O. Box 47250

Olympia, WA 98504-7250

Phone: (360) 664-1310

Fax: (360) 753-2629

E-Mail: getchart@wutc.wa.gov

Web site: <http://www.wutc.wa.gov/>

WA-13 WASHINGTON

Incentive Type: Tax deduction—corporate (fuel), tax exemption—sales (equipment)

Eligible Technologies: AF (biodiesel, ethanol), AFVs

Applicable Sectors: Individuals, corporations

Authority 1: RCW 82.04, 82.08 and 82.12

Summary:

Beginning July 1, 2003, a tax deduction is available for the sale or distribution of biodiesel or alcohol fuel (comprised of at least 85% alcohol fuel by volume). Additionally, fuel delivery vehicles and machinery, equipment, and related services that are used for the retail sale of a biodiesel or alcohol fuel are exempt from state retail fuel sales and use taxes.

Contact:

Mike Nelson

Washington State University

Extension Energy Program

925 Plum SE, Building 4

Olympia, WA 98504-3165

Phone: (206) 285-1061

Fax: (360) 956-2030

E-Mail: miknel@westernsun.org

Web site: <http://www.energy.wsu.edu/>

Graciela Etchart

Washington Utilities and Transportation Commission

1300 South Evergreen Park Drive, S.W.

P.O. Box 47250

Olympia, WA 98504-7250

Phone: (360) 664-1310

Fax: (360) 753-2629
E-Mail: getchart@wutc.wa.gov
Web site: <http://www.wutc.wa.gov/>

WA-14 WASHINGTON

Incentive Type: Outreach
Eligible Technologies: AF, AFVs
Applicable Sectors: Schools (K-12), city and state government
Authority 1: RCW 28A.160.804

Summary:

Two school districts are to be selected to participate in a pilot project on the use of biodiesel with ultra low sulfur diesel in school buses. The pilot project will begin in September of 2003. During the 2003 school year, at least one of the participating school districts will fuel at least 10 buses or 25% of its school bus fleet with ultra low sulfur diesel. During the 2004 school year, at least seven or 70% of those buses will be fueled with a blend of 80% ultra low sulfur diesel and 20% biodiesel (B20). One of the participating school districts may use B20 throughout the project. Emissions testing will take place at specified intervals throughout the project. The Superintendent of Public Instruction shall submit a report of findings, including issues related to the maintenance of the vehicles, to the legislature by September 1, 2005.

Contact:

Mike Nelson
Washington State University
Extension Energy Program
925 Plum SE, Building 4
Olympia, WA 98504-3165
Phone: (206) 285-1061
Fax: (360) 956-2030
E-Mail: miknel@westernsun.org
Web site: <http://www.energy.wsu.edu/>

Graciela Etchart

Washington Utilities and Transportation Commission
1300 South Evergreen Park Drive, S.W.
P.O. Box 47250
Olympia, WA 98504-7250
Phone: (360) 664-1310
Fax: (360) 753-2629
E-Mail: getchart@wutc.wa.gov
Web site: <http://www.wutc.wa.gov/>

WA-15 WASHINGTON

Incentive Type: Grant—Outreach
Eligible Technologies: AFVs, AF (equipment and facilities)
Applicable Sectors: Local government, commercial, schools
Authority 1: RCW 70.94.960

Summary:

Matching grant allowances were established under the Washington Clean Air Act of 1991 to assist in the purchase and operation of clean fuel public transit vehicles, to establish programs at vocational-technical institutes to certify clean-fuel vehicle mechanics, and to further the establishment of clean fuel refueling infrastructure. However, no funds have been appropriated for these programs.

Contact:

Mike Nelson
Washington State University
Extension Energy Program
925 Plum SE, Building 4
Olympia, WA 98504-3165
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Fax: (360) 956-2030
E-Mail: miknel@westernsun.org
Web site: <http://www.energy.wsu.edu/>

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WA-16 WASHINGTON

Incentive Type: Mandate—Standards
Eligible Technologies: AF
Applicable Sectors: State Government, corporations
Authority 1: Washington Administrative Code 173-360

Summary:

Underground Storage Tank regulations apply to biodiesel blends but not to 100 percent biodiesel (B100). An owner changing the use of an underground storage tank from storage of diesel to storage of B100 must communicate the change to the Washington State Department of Ecology and have a site assessment performed by a certified site assessor.

Contact:

Web site www.ecy.wa.gov/pubs/0309103.pdf.

WA-17 WASHINGTON

Incentive Type: Grants—Eq
Eligible Technologies: AFVs, AF
Applicable Sectors: Non-Profits (Air pollution control authorities), schools (K-12)
Authority 1: Senate Bill 6072, 2003 and RCW 70.94.017

Summary:

Until July 1, 2008, 85% of the money from the segregated subaccount of the state treasury's air pollution control account shall be distributed to air pollution control authorities. Eighty-five percent of the money received by an air pollution control authority or the state Department of Licensing must be used to retrofit school buses with exhaust emission control devices or to provide funding for refueling infrastructure necessary to allow school bus fleets to use alternative, cleaner fuels.

Contact:

Mike Nelson
Washington State University
Extension Energy Program
925 Plum SE, Building 4
Olympia, WA 98504-3165
Phone: (206) 285-1061
Fax: (360) 956-2030
E-Mail: miknel@westernsun.org
Web site: <http://www.energy.wsu.edu/>

Graciela Etchart

Washington Utilities and Transportation Commission
1300 South Evergreen Park Drive, S.W.
P.O. Box 47250
Olympia, WA 98504-7250
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Web site: <http://www.wutc.wa.gov/>

WA-18 WASHINGTON

Incentive Type: Mandate—use requirement
Eligible Technologies: AFVs, AF
Applicable Sectors: State government
Authority 1: HB 1242, 2003

Summary: All state agencies are encouraged to use a fuel blend of 20% biodiesel and 80% petroleum diesel (B20) for use in diesel-powered vehicles. Effective June 1, 2006, for state agencies complying with the ultra low sulfur diesel mandate of the U.S. Environmental Protection Agency, at least 2% biodiesel shall be used as an additive to ultra low sulfur diesel for lubricity, provided that this is warranted and that performance and cost are comparable with other available lubricity additives.

Contact:

Mike Nelson

Washington State University
Extension Energy Program
925 Plum SE, Building 4
Olympia, WA 98504-3165

Phone: (206) 285-1061

Fax: (360) 956-2030

E-Mail: miknel@westernsun.org

Web site: <http://www.energy.wsu.edu/>

Graciela Etchart

Washington Utilities and Transportation Commission
1300 South Evergreen Park Drive, S.W.
P.O. Box 47250

Olympia, WA 98504-7250

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E-Mail: getchart@wutc.wa.gov

Web site: <http://www.wutc.wa.gov/>

WA-19 WASHINGTON

Incentive Type: Outreach

Eligible Technologies: AFVs, AF

Applicable Sectors: State agencies

Authority 1: Executive Order 02-03

Summary:

As part of Washington's commitment to the mutually compatible goals of economic vitality, a healthy environment and strong communities, each Washington state agency is encouraged to establish sustainability objectives and prepare a biennial Sustainability Plan to modify its practices regarding resource consumption; vehicle use; purchase of goods and services; and facility construction, operation and maintenance. Plans should be guided by long-term goals including a shift to clean energy for vehicles.

Contact:

Mike Nelson

Washington State University
Extension Energy Program
925 Plum SE, Building 4
Olympia, WA 98504-3165

Phone: (206) 285-1061

Fax: (360) 956-2030

E-Mail: miknel@westernsun.org

Web site: <http://www.energy.wsu.edu/>

Graciela Etchart

Washington Utilities and Transportation Commission
1300 South Evergreen Park Drive, S.W.
P.O. Box 47250

Olympia, WA 98504-7250

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Fax: (360) 753-2629

E-Mail: getchart@wutc.wa.gov

Web site: <http://www.wutc.wa.gov/>

WA-20 WASHINGTON

Incentive Type: Mandate

Eligible Technologies: AFVs, AF

Applicable Sectors: State agencies

Authority 1: RCW 43.19.637

Summary:

At least 30% of all new vehicles purchased through a state contract must be clean-fuel vehicles; this percentage shall increase at the rate of 5% each year. It is preferred that dedicated clean-fuel vehicles be purchased; in the event that dedicated clean-fuel vehicles are not available or would not meet operation requirements, conventionally powered vehicles may be converted to clean fuel or dual fuel use.

Contact:

Mike Nelson

Washington State University

Extension Energy Program

925 Plum SE, Building 4

Olympia, WA 98504-3165

Phone: (206) 285-1061

Fax: (360) 956-2030

E-Mail: miknel@westernsun.org

Web site: <http://www.energy.wsu.edu/>

Graciela Etchart

Washington Utilities and Transportation Commission

1300 South Evergreen Park Drive, S.W.

P.O. Box 47250

Olympia, WA 98504-7250

Phone: (360) 664-1310

Fax: (360) 753-2629

E-Mail: getchart@wutc.wa.gov

Web site: <http://www.wutc.wa.gov/>

WA-21 WASHINGTON

Incentive Type: Mandate—labeling

Eligible Technologies: AFVs

Applicable Sectors: all

Authority 1: RCW 46.37.467

Summary:

Every automobile, truck, motorcycle, motor home, or off-road vehicle that is fueled by an alternative fuel source shall bear a reflective placard issued by the National Fire Protection Association indicating that the vehicle is so fueled.

Contact:

Mike Nelson

Washington State University

Extension Energy Program

925 Plum SE, Building 4

Olympia, WA 98504-3165

Phone: (206) 285-1061

Fax: (360) 956-2030

E-Mail: miknel@westernsun.org

Web site: <http://www.energy.wsu.edu/>

Graciela Etchart

Washington Utilities and Transportation Commission

1300 South Evergreen Park Drive, S.W.

P.O. Box 47250

Olympia, WA 98504-7250

Phone: (360) 664-1310

Fax: (360) 753-2629

E-Mail: getchart@wutc.wa.gov

Web site: <http://www.wutc.wa.gov/>

WA-22 WASHINGTON

Incentive Type: Voluntary—AF and AFV use

Eligible Technologies: AFVs. AF

Applicable Sectors: Local government

Authority 1:

Summary:

The 'Clean Green Fleet Action Plan,' aims to increase the use of alternative fuels, reduce fleet [conventional] fuel use, reduce vehicle emissions, and improve the fuel efficiency of the City's fleet. The City's long-term intent is to have a fleet that is 100% clean and green, using clean fuels and vehicles that are the most fuel efficient, low emission vehicles available to meet the needs of City operations. The following are some of the specific measures called for in the plan:

- Beginning in 2003, ensure at least 50% of new compact cars purchased each year are either alternative fuels or achieve at least 45 miles per gallon;
- By 2005, reduce annual fleet fuel use by 5% compared to 1999;
- By the end of 2003, use a fuel blend of 20% biodiesel with 80% ultra-low sulfur diesel in the 902 diesel vehicles (on-road and off-road);
- By the end of 2004, complete the emission control retrofit project to install emissions control equipment on 400 existing heavy-duty diesel trucks.

Contact:**Mike Nelson**

Washington State University
Extension Energy Program
925 Plum SE, Building 4
Olympia, WA 98504-3165

Phone: (206) 285-1061

Fax: (360) 956-2030

E-Mail: miknel@westernsun.org

Web site: <http://www.energy.wsu.edu/>

Graciela Etchart

Washington Utilities and Transportation Commission
1300 South Evergreen Park Drive, S.W.
P.O. Box 47250

Olympia, WA 98504-7250

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Fax: (360) 753-2629

E-Mail: getchart@wutc.wa.gov

Web site: <http://www.wutc.wa.gov/>

WV-1 WEST VIRGINIA

Incentive Type: Tax credit-Corporate & personal

Eligible Technologies: AFVs, AF

Applicable Sectors: businesses, individuals

Authority 1: [West Virginia Code](#) § 11-6D

Summary:

The state of West Virginia offers a tax credit for the incremental cost of purchasing an OEM AFV, or for the cost of converting a vehicle to operate on an alternative fuel. The tax credit became effective on July 1, 1997, for either personal or corporate income tax. The maximum credit depends on the vehicle type and Gross Vehicle Weight Rating (GVWR), as shown below, and cannot exceed the incremental or conversion cost. Eligible alternative fuels include CNG, liquefied natural gas, liquefied petroleum gas, blends of 85% or more of methanol and ethanol, other alcohols, alcohol-derived liquids, and electricity. The credit is taken in three equal increments over three years and expires June 30, 2006.

GVWR/Vehicle Type**Non-Electric****Vehicle Tax Credit****Electric Vehicle****Tax Credit**

10,000 pounds (lbs.) or less

\$3,750

\$4,125

10,000 to 26,000 lbs.

\$9,250

\$10,175

Trucks or vans over 26,000 lbs.

\$50,000

\$55,000

Buses seating over 20 adults

\$50,000

\$55,000

Contact:**Mr. John F. Herholdt**

Energy Efficiency Program
West Virginia Development Office
Building 6, room 645
State Capitol Complex
Charleston, West Virginia 25305-0311
Phone (304) 558-0350
Fax (304) 558-0362
Email jherholdt@wvdo.org

WV-2 WEST VIRGINIA**Incentive Type:** State Grant Program**Eligible Technologies:** AFVs**Applicable Sectors:** Local governments**Authority 1:** N/Awww.wvdo.org/community/cleanstate.html.**Summary:**

The West Virginia Clean State Program is a grant program that assists local governments in converting and purchasing AFVs. Each governmental entity may receive up to \$20,000 to convert fleet vehicles or to pay for the incremental cost associated with the purchase of an AFV. For the purpose of this grant program, AFVs are defined as dual-fuel or dedicated CNG or OEM electric vehicles. For the purpose of acquiring special OEM electric vehicles, such as neighborhood electric vehicles, the grantee can request up to 50% of the purchase price not to exceed \$20,000 per governmental entity. Grants must be matched by the local government by at least 50% in the form of cash. Grant monies are provided for approved projects on a reimbursement basis only. Eligible applicants are limited to county governments, incorporated municipalities, transit authorities, and school boards.

Contact:**Mr. John F. Herholdt**

Energy Efficiency Program
West Virginia Development Office
Building 6, room 645
State Capitol Complex
Charleston, West Virginia 25305-0311
Phone (304) 558-0350
Fax (304) 558-0362
Email jherholdt@wvdo.org

WV-3 WEST VIRGINIA**Incentive Type:** Mandates—prohibition of alt fuel development**Eligible Technologies:** AFs**Applicable Sectors:** all government**Authority 1:** [West Virginia Code](#) § 8-27A-3 and § 11-13D-3d**Summary:**

Incentives or subsidies from political subdivisions for the production of alternative fuels are prohibited by law, with exceptions for certain coal-based liquid fuels.

Contact:**Mr. John F. Herholdt**

Energy Efficiency Program
West Virginia Development Office
Building 6, room 645
State Capitol Complex
Charleston, West Virginia 25305-0311
Phone (304) 558-0350
Fax (304) 558-0362
Email jherholdt@wvdo.org

WV-4 WEST VIRGINIA**Incentive Type:** Mandates—(eqt purchases)

Eligible Technologies: AFVs
Applicable Sectors: all government
Authority 1: [West Virginia Code](#) § 5A-2A-2

Summary:

The Secretary of Administration was given the authority to require state, county and municipal government fleets to purchase AFVs on the following schedule: 20% of new vehicle acquisitions in fiscal year 1995, increasing to 50% in 1997, and 75% in 1998 and each year thereafter.

Contact:

Mr. John F. Herholdt
Energy Efficiency Program
West Virginia Development Office
Building 6, room 645
State Capitol Complex
Charleston, West Virginia 25305-0311
Phone (304) 558-0350
Fax (304) 558-0362
Email jherholdt@wvdo.org

WI-1 WISCONSIN

Incentive Type: State Grant Program

Eligible Technologies: Renewable Transportation Fuels

Applicable Sectors: Commercial, Nonprofit, Local Government, Utilities, State Government

Amount: up to 50%

Max. Limit: \$15,000

Terms: performance based

Date Enacted: 1/1/91

Authority 1: N/A

Summary:

The Wisconsin Energy Bureau in Madison administers this program, which offers grants for feasibility studies regarding the production of renewable-energy-derived transportation fuels. The fund was created in 1991 using petroleum violation escrow. These grants are available to businesses, municipalities, and non-profit organizations.

Contact:

Alex De Pillis
Wisconsin Department of Administration
Division of Energy
P.O. Box 7868
Madison, WI 53707-7868
Phone: (608) 266-1067
Fax: (608) 267-6931
E-Mail: alex.depilllis@doa.state.wi.us
Web site: <http://www.doa.state.wi.us/energy/index.asp>

WI-2 WISCONSIN

Incentive Type: State Grant Program

Eligible Technologies: Passive Solar Space Heat, Solar Water Heat, Active Solar Space Heat, Photovoltaics, Wind, Biomass, Hydro, Geothermal Heat Pumps

Applicable Sectors: Commercial, Residential, Nonprofit, Schools, Local Government, State Government

Amount: Varies by grant

Max. Limit: \$50,000

Effective Date: March 2002

Website: <http://www.weccusa.org/renewables/financing.html>

Summary:

Several grants for renewable energy projects are available from Wisconsin Focus on Energy, a public-private partnership that provides energy efficiency and renewable energy information and services to the state's energy utility customers. Maximum grant awards are \$50,000, covering up to 50% of project cost.

Business & Marketing Grant

Business & Marketing Grants provide financial support for developing business skills and marketing materials for organizations and businesses that provide renewable energy services. Grants will be awarded to assist renewable energy businesses and organizations in

developing business plans, gaining market recognition, better understanding their market, training employees, gaining certification, and other related activities. Up to 50% of project costs, with a maximum grant of \$20,000, will be funded.

Individuals, businesses, organizations, institutions or divisions of state, municipal, or tribal government are eligible if they are located in the service territory of a participating electric provider. Business & Marketing Grants are for entities that provide services related to renewable energy. Collaborations or partnerships with non-eligible entities are allowed, but the grant must be paid to an eligible entity.

Demonstration Grant

Demonstration Grants provide financial support for activities that inform the public about how renewable energy systems work. Demonstration Grants provide support for highly visible applications of renewable energy that are open to the public. Examples of projects include the development of displays, brochures, or kiosks that explain how a particular renewable energy system works, or how the system is meeting the energy needs of a particular building or process. Up to 50% of project cost, with a maximum grant of \$20,000, will be funded. Individuals, businesses, organizations, institutions or divisions of state, municipal, or tribal government are eligible if they are located in the service territory of a participating electric provider. The renewable energy system can be off-grid. Collaborations or partnerships with non-eligible entities are allowed, but the grant must be paid to an eligible entity.

Equipment Grant for Nonprofit Organizations

Equipment Grants for Nonprofit Organizations provide financial support for purchasing renewable energy equipment. Equipment Grants must be used to support the purchase of renewable energy systems that will be displayed to the public. Equipment Grants must be accompanied with a proposal for a Demonstration Grant. Equipment Grants will not support the activities associated with demonstrating the renewable energy system to the public, or the costs of product research and development. Demonstration activities must be supported by a Demonstration Grant. Up to 50% of project costs, with a maximum grant of \$50,000, will be funded. Eligible entities must be nonprofit organizations, as determined by the organization's tax status with the federal government. Collaborations or partnerships with non-eligible entities are allowed, but the grant must be paid to an eligible entity. Participating electric providers cannot be the majority owner of the renewable energy system.

Feasibility Study Grant (formerly the Technical Feasibility Study Grant)

Feasibility Study Grants provide financial support for assessing the feasibility of using complex, customer-sited renewable energy systems. Feasibility Study Grants are intended to increase the ability of businesses or organizations to make informed decisions about using renewable energy systems by understanding and solving technical uncertainties. Up to 50% of project cost will be funded, with a maximum grant of \$20,000. Individuals, businesses, organizations, institutions or divisions of state, municipal, or tribal government are eligible if they are located in the service territory of a participating electric provider. Collaborations or partnerships with non-eligible entities are allowed, but the grant must be paid to an eligible entity.

Library Grant

This grant is used to purchase library materials related to renewable energy. Grants are awarded to public libraries in proportion to the size of community. Public libraries are eligible if they are located in the service territory of a participating electric provider. Collaborations or partnerships with non-eligible entities are allowed, but the grant must be paid to an eligible entity.

Research & Development Grant

These grants support research and development of renewable energy applications that benefit Wisconsin. Up to 50% of project costs will be funded, with a maximum grant of \$50,000. Eligible participants include individuals, businesses, institutions, nonprofit organizations and state, tribal and municipal governments. Proposals may involve collaborations or partnerships between producers, industry, academics and other organizations—including those from other states. All projects must provide energy, environmental, or economic benefits to Wisconsin.

Wisconsin Environmental Education Board Grant

These grants support renewable energy education projects in K-12 schools. Individuals, businesses, organizations, institutions or divisions of state, municipal, or tribal government are eligible if they are located in the service territory of a participating electric provider.

Contact:

Niels Wolter

WisconSUN

7507 Hubbard Ave.

Suite 200

Middleton, WI 53562

Phone: (608) 831-1127

Fax: (608) 836-1290

E-Mail: Wolter@MSBnrg.com

Web site: <http://www.wisconsun.org>

WI-3 WISCONSIN

Incentive Type: State Rebate Program

Eligible Technologies: Solar Water Heat, Active Solar Space Heat, Photovoltaics, Wind, Biomass, Hydro, Geothermal Heat Pumps

Applicable Sectors: Commercial, Industrial, Residential, Nonprofit, Schools, Local Government, State Government

Rebate: \$200 - \$50,000

Max. Limit: \$50,000 or 50%

Terms: Payments based on estimated annual energy production

Effective Date: March 2002

Website: <http://www.weccusa.org/renewables/financing.html>

Summary:

The Cash-Back Reward program is based on the estimated annual energy production of electric and residential non-electric renewable energy systems. Eligible renewable energy projects must be customer-sited and located in the territory of a utility participating in the Wisconsin Focus on Energy Renewable Energy Program (see Web site above). All customers are eligible to receive rewards for installing PV, wind, solar hot water, or hydroelectric systems. Only commercial, industrial, and agricultural customers are eligible to receive awards for biomass, geothermal heat pumps, or solar space heat systems.

Approximately \$500,000 is available for cash-back rewards. Rewards range from \$200 to \$50,000. Rewards will cover no more than 50% of the project's installed cost (although bioenergy systems that generate electricity and utilize thermal energy can receive up to \$100,000). The reward amount is calculated based on a technology- and system-specific formula. For example, for PV systems, the reward is equal to \$2 for each kWh generated during an average year of operation. Wind energy system payments are based on the size of the turbine installed and the estimated generation during an average year of operation. For example, a turbine rated at 10 kW would receive \$0.45 per kWh generated in an average year. Funds are distributed after the renewable energy system is installed.

Participants in the Residential Low-Interest Rate Loan program are not eligible for the Cash-Back Reward program.

Applications are available on the program Web site listed above.

Contact:

Niels Wolter

WisconSUN

7507 Hubbard Ave.

Suite 200

Middleton, WI 53562

Phone: (608) 831-1127

Fax: (608) 836-1290

E-Mail: Wolter@MSBnrg.com

Web site: <http://www.wisconsun.org>

Beth Shippert

Wisconsin Energy Conservation Corporation

211 S. Paterson St.

3rd Floor

Madison, WI 53703

Phone: (608) 249-9322

Fax: (608) 249-0339

E-Mail: beths@weccusa.org

Web site: <http://www.weccusa.org>

WI-4 WISCONSIN

Incentive Type: Green Pricing Program

Eligible Technologies: Wind, Biomass

Applicable Sectors: Alliant Energy customers

Premium: varies depending on customer choice

Commitment: none

Website: <http://www.alliantenergy.com/hplinks/secondnature.php>

Summary:

Second Nature is a voluntary program that allows Alliant Energy electric customers to elect to purchase electricity generated from renewable resources. Alliant Energy offers three pricing options under the Second Nature program. Customers may purchase 25% renewable power for an added charge of \$0.005/kWh, 50% renewable power for an added charge of \$0.01/kWh, or 100% renewable power for an added charge of \$0.02/kWh.

Contact:

Customer Service - Alliant

Alliant Energy

222 West Washington Avenue

P.O. Box 192

Madison, WI 53701-0192

Phone: (800) 255-4268

Fax: (608) 758-1459

E-Mail: customercare@alliant-energy.com

Web site: <http://www.alliantenergy.com>

WI-5 WISCONSIN

Incentive Type: Green Pricing Program
Eligible Technologies: Landfill Gas, Wind, Hydro
Applicable Sectors: Commercial, Industrial, Residential
Premium: 0.51 cents, 1.02 cents or 2.04 cents per kWh
Co-funding: none
Commitment: none
Participants: 12,500
Date Enacted: 1996
Expiration Date: none
Website: http://www.we-energies.com/house/electric_services/energy_for_tomorrow/

Summary:

We Energies' Energy for Tomorrow renewable energy program allows residential and commercial customers to choose one of three levels of renewable fuel mix to supply their energy needs. The program currently uses small hydropower, landfill gas, and wind. 34,000 MWh of renewable energy is supplied to this program each year. Customers can choose from fuel mixes of 25%, 50% or 100% renewables and pay a premium of 0.51 cents, 1.02 cents or 2.04 cents per kWh for each specific level. We Energies uses bill inserts, public presentations, direct mail, telesales and general advertising to market their program. Over 12,500 customers have participated in the program.

Contact:

Gary Evans
We Energies
231 West Michigan Street
Milwaukee, WI 53201
Phone: (414) 221-3553
E-Mail: gary.evans@we-energies.com
Web site: <http://www.we-energies.com>

WI-6 WISCONSIN

Incentive Type: Green Pricing Program
Eligible Technologies: Wind, Hydro, Waste
Applicable Sectors: Commercial, Industrial, Residential, Nonprofit, Schools, Local Government, State Government
Premium: \$3.00/150-kWh block
Commitment: Monthly
Participants: 2,351 blocks sold as of 9/1/02
Capacity Installed/Planned: 5 MW
Effective Date: 12/01
Website: <http://www.wppisys.org/newsroom/frontpagenews.asp?ID=73>

Summary:

Wisconsin Public Power, Inc.'s Renewable Energy Program allows retail customers of a participating WPPI member the option to purchase electricity generated by renewable energy resources. WPPI offers 150-kWh "green power" blocks for \$3.00 per block above the cost of conventional electricity. Customers may purchase a minimum of one block of renewable energy per month, and up to a maximum equaling 100% of their monthly energy requirements to the nearest whole block. Businesses have the option of purchasing blocks of renewable energy, or they can buy a predetermined percentage of their electricity (either 5% or 20%) from renewable sources.

The renewable energy is generated at the following facilities:

1. Hatfield Powerhouse, a low-impact hydroelectric facility located at the base of Lake Arbutus near Black River Falls, Wisconsin.
2. Hadley Wind Farm, a small wind energy project located in southwest Minnesota consisting of three 660-kW turbines.
3. One WPPI-owned microturbine project fueled by digester gas produced in the breakdown of wastewater.
4. A small engine-generator set producing energy fueled by digester gas.

For more information about the Renewable Energy Program, please contact WPPI Manager of Customer Programs Jake Oelke at 608.834.4500.

Contact:

Jake Oelke
Wisconsin Public Power, Inc.
1425 Corporate Center Drive
Sun Prairie, WI 53390-9109
Phone: (608) 837-2653

Fax: (608) 837-0274
E-Mail: joelke@wppisys.org
Web site: <http://www.wppisys.org/>

WI-7 WISCONSIN

Incentive Type: Green Pricing Program
Eligible Technologies: Landfill Gas, Wind, Biomass
Applicable Sectors: WI Public Service Corp. Customers
Premium: varies depending on customer choice
Commitment: none
Effective Date: 4/02
Website: <http://www.wisconsinpublicservice.com>

Summary:

NatureWise is a blend of energy from wind and biomass. The wind energy comes from Public Service's two wind turbines in Glenmore, south of Green Bay. The biomass energy will come from two sources: dairy farm waste (from Wholesome Dairy in Hilbert, WI) and three landfills (located in Brown County and Whitelaw, WI). The biomass projects are currently under development and are slated to begin producing electricity later in 2002. As demand increases for renewable energy, Public Service will add more renewable electricity to the NatureWise mix of resources.

NatureWise offers "blocks" of renewable electricity. Each block is 100 kilowatt-hours, for which customers pay an extra charge of \$2.65 per block on their monthly bills.

Contact:

Customer Service - WI Public Service
Wisconsin Public Service
700 N Adams St.
P. O. Box 19002
Green Bay, WI 54307-9002
Phone: (920) 433-5518
Fax: (920) 433-1527
E-Mail: customerservice@wpsr.com
Web site: <http://www.wisconsinpublicservice.com>

WI-8 WISCONSIN

Incentive Type: Net Metering Rules
Eligible Technologies: Solar Thermal Electric, Photovoltaics, Wind, Biomass, Hydro, Renewable Transportation Fuels, Geothermal Electric, Waste, Cogeneration
Applicable Sectors: Commercial, Industrial, Residential
Limit on System Size: 20 kW
Limit on Overall Enrollment: None
Treatment of Net Excess: Retail rate for renewables, avoided cost for non-renewables
Utilities Involved: Investor-owned utilities only
Date Enacted: 1/1/93
Expiration Date: none
Authority 1: Rate Schedules; PSC of Wisconsin Order 6690-UR-107

Summary:

Net metering for customer-owned systems up to 20 kW was originally authorized by the Public Service Commission of Wisconsin through its January 1, 1993 ruling. Net metering is available only to customers of investor-owned utilities. All technologies--not just renewables and cogeneration units--are eligible. There is no limit on how much energy a utility can receive through net metering.

If a customer-generator operates a renewable energy facility, then the utility pays the retail rate for net excess generation; for non-renewable generation sources, the utility pays their avoided cost for net excess generation. Wisconsin Electric, one of the state's electric utilities, has reported that they have roughly 70 customers with eligible generating facilities.

Contact:

Paul Helgeson
Public Service Commission of Wisconsin
610 North Whitney Way
P.O. Box 7854
Madison, WI 53707-7854
Phone: (608) 266-3905
Fax: (608) 266-3957

E-Mail: paul.helgeson@psc.state.wi.us
Web site: <http://psc.wi.gov/>

WI-9 WISCONSIN

Incentive Type: Public Benefits Fund

Eligible Technologies: Passive Solar Space Heat, Solar Water Heat, Active Solar Space Heat, Solar Thermal Electric, Photovoltaics, Wind, Biomass, Hydro, Geothermal Electric, Waste

Applicable Sectors: Commercial, Industrial, Residential, General Public, Utilities

Types: All Renewables

Date Enacted: 10/27/99

Website: <http://www.doa.state.wi.us/depb/boe/>

Authority 1: [WI Stats 16.957 \(1999 WI Act 9\)](#)

Summary:

With its October 1999 "Reliability 2000" law, Wisconsin became the second state to establish a public benefit fund without deregulating its electric utility industry. The only other state to create an explicit public benefit fund in advance of restructuring is Vermont (Vermont's Fund only covers efficiency programs and therefore is not listed in DSIRE. For information on Vermont's Energy Efficiency Utility, go to [efficiencyvermont](#)). The Wisconsin public benefits fund provides funds for the state to award grants for (1) low income programs and (2) energy efficiency and renewable energy services. Total funding for Funds are administered by the Department of Administration (DOA), with most coordination to be carried out by the Division of Housing.

Annual funding for energy programs is roughly \$84 million with at least 4.5% or \$3.8 million going toward renewables projects. Wisconsin's Public Benefit fund receives funding from three sources: (1) new wires charges from investor-owned utilities, municipalities, and cooperatives; (2) continued collection of funds for public benefits set at the expenditure rate in 1998; and (3) federal funds for low income and weatherization. Customers in Wisconsin are also able to voluntarily contribute to the fund (or particular areas within the fund) through their utility bills. Funds will be collected through 2005 with continued funding for efficiency and renewables to be evaluated each subsequent year.

In November of 2000 the DOA began competitive solicitations for administrators of chunks of the funds. Criteria that have been established for the grants include: targeting energy conservation services that are the least competitive in the market; promoting environmental protection, electric system reliability, and rural economic development; encouraging customer owned renewables; and promoting customer education about renewables. The DOA's activities with regard to the fund are overseen by the Council on Public Benefits which is made up of eleven members appointed by the governor and the legislature.

The Reliability 2000 law also creates a renewables portfolio standard, requiring electricity providers to generate some of their electricity from renewable energy, starting at 0.5 percent by the end of 2001 and increasing to 2.2 percent by the end of 2011.

Contact:

Alex De Pillis

Wisconsin Department of Administration

Division of Energy

P.O. Box 7868

Madison, WI 53707-7868

Phone: (608) 266-1067

Fax: (608) 267-6931

E-Mail: alex.depilllis@doa.state.wi.us

Web site: <http://www.doa.state.wi.us/energy/index.asp>

WI-10 WISCONSIN

Incentive Type: Renewables Portfolio Standard

Eligible Technologies: Solar Thermal Electric, Photovoltaics, Wind, Biomass, Hydro, Geothermal Electric, Fuel Cells, Tidal or wave action

Applicable Sectors: Utilities

Technology Minimum: 0.5%

Credit Trading: 12/01

Date Enacted: 4/28/1998 (Act 204); 10/27/1999(Act 9)

Effective Date: 2001

Expiration Date: 12/31/2010

Authority 1: [Wis. Stat. § 196.378](#)

Summary:

The Wisconsin renewable portfolio standard (RPS) became effective October 27, 1999, making Wisconsin the first state to have a RPS in advance of retail competition. The schedule of the percentages required and compliance dates are as follows:

% Renewables Date
0.5% 12/31/2001
0.85% 12/31/2003
1.2% 12/31/2005
1.55% 12/31/2007
1.9% 12/31/2009
2.2% 12/31/2010

Qualifying renewables include fuel cells that use a renewable fuel, tidal or wave action, solar thermal electric or photovoltaic energy, wind power, the usage of geothermal technology to generate electricity, biomass, and hydro power (less than 60 MW).

A credit trading program has been established such that electric service providers may sell to other electric providers renewable credits for any renewable energy in excess of the percentage specified for a given year. Credits can also be used in subsequent years. The credit trading is administered by the Wisconsin Public Service Commission; the rules are stated in PSC's administrative code, Chapter 118 (see www.legis.state.wi.us/rsp/code/psc/psc.html). Violation of the RPS or misleading certification of renewable resources can lead to penalties up to \$500,000.

Contact:

Paul Helgeson
Public Service Commission of Wisconsin
610 North Whitney Way
P.O. Box 7854
Madison, WI 53707-7854
Phone: (608) 266-3905
Fax: (608) 266-3957
E-Mail: paul.helgeson@psc.state.wi.us
Web site: <http://psc.wi.gov/>

WI-11 WISCONSIN

Incentive Type: Tax deduction—AFV
Eligible Technologies: AFVs
Applicable Sectors: Individuals, corporations
Authority 1

Summary:

The Wisconsin Department of Revenue offers a state alternative fuel vehicle (AFV) tax deduction identical to the federal AFV tax deduction. Taxpayers who placed AFVs into service in 2002 and 2003 are entitled to the full deduction. The deduction is reduced by 25% for vehicles placed in service in 2004, by 50% for vehicles in 2005 and by 75% for vehicles in 2006. No deduction is available for clean fuel vehicles placed in service in 2007. The full deduction is \$50,000 for any truck or van with a gross vehicle weight rating (GVWR) of at least 26,000 pounds (lbs.) or a bus with seating capacity of at least 20 adults. The deduction is \$5,000 for a truck or van with a GVWR greater than 10,000 lbs. and \$2,000 for vehicles under 10,000 lbs.

Contact:

Paul Helgeson
Public Service Commission of Wisconsin
610 North Whitney Way
P.O. Box 7854
Madison, WI 53707-7854
Phone: (608) 266-3905
Fax: (608) 266-3957
E-Mail: paul.helgeson@psc.state.wi.us
Web site: <http://psc.wi.gov/>

WI-12 WISCONSIN

Incentive Type: Tax Imposition—Excise (AF)
Eligible Technologies: AFVs, AF
Applicable Sectors: Individuals, businesses
Authority 1: [Wisconsin Statutes](#) 78.40

Summary:

A state excise tax, based on the standard number of British thermal units per gallon generated by each alternative fuel, is imposed on the use of alternative fuels. No tax is imposed on alternative fuels used by vehicles for urban mass transportation of passengers.

Contact:
Paul Helgeson
Public Service Commission of Wisconsin
610 North Whitney Way
P.O. Box 7854
Madison, WI 53707-7854
Phone: (608) 266-3905
Fax: (608) 266-3957
E-Mail: paul.helgeson@psc.state.wi.us
Web site: <http://psc.wi.gov/>

WI-13 WISCONSIN

Incentive Type: Tax exemption—Excise, license, privilege, occupational taxes (AF)
Eligible Technologies: AFVs, AF
Applicable Sectors: Local government
Authority 1: [Wisconsin Statutes](#) 78.82

Summary:

No county, city, village, town, or other political subdivision shall levy or collect any excise, license, privilege, or occupational tax upon motor vehicle fuel or alternative fuels or upon the buying, selling, handling, or consuming of motor vehicle fuel or alternative fuels.

Contact:
Paul Helgeson
Public Service Commission of Wisconsin
610 North Whitney Way
P.O. Box 7854
Madison, WI 53707-7854
Phone: (608) 266-3905
Fax: (608) 266-3957
E-Mail: paul.helgeson@psc.state.wi.us
Web site: <http://psc.wi.gov/>

WI-14 WISCONSIN

Incentive Type: Mandate—regulation (AF)
Eligible Technologies: AF
Applicable Sectors: Individuals, commercial
Authority 1: [Wisconsin Statutes](#) 78.47

Summary:

No person may act as an alternative fuels dealer unless the person holds a valid alternative fuels license and certificate. Except for alternative fuels delivered by an alternative fuels dealer into a fuel supply tank of any motor vehicle in the state, no person may use alternative fuels in Wisconsin unless the person holds a valid alternative fuels license issued by the DOA or unless the alternative fuel has been delivered by an authorized supplier.

Contact:
Paul Helgeson
Public Service Commission of Wisconsin
610 North Whitney Way
P.O. Box 7854
Madison, WI 53707-7854
Phone: (608) 266-3905
Fax: (608) 266-3957
E-Mail: paul.helgeson@psc.state.wi.us
Web site: <http://psc.wi.gov/>

WY-1 WYOMING

Incentive Type: Corporate Tax Credit
Eligible Technologies: Renewable Transportation Fuels
Applicable Sectors: Ethanol Producer
Amount: \$0.40 per gallon
Max. Limit: \$2,000,000/year

Terms: Purchase at least \$1,000,000 of Wyoming origin grain stocks during the year the tax credits were earned

Expiration Date: 7/1/03

Authority 1: [39-17-109\(d\) Credits](#)

Summary:

Any person who has a tax liability for the sale of ethanol-based motor fuel or gasoline sold for the purpose of blending into an ethanol-based motor fuel may redeem a credit of \$0.40 per gallon, valid with the Wyoming Department of Transportation (DOT) until July 1, 2003. To be eligible to receive this credit an ethanol producer shall purchase at least \$1,000,000 of Wyoming origin grain stocks during the year the tax credits were earned. The total credits redeemed shall not exceed \$2,000,000 per year. A report shall be submitted regarding the economic benefits of the ethanol credit program no later than January 1, 2002. The credits used cannot exceed an existing tax liability and no more than \$2,000,000.00 in credits can be used per year.

Contact:

Sharon Gostovich

Wyoming Department of Transportation

5300 Bishop Blvd.

Cheyenne, WY 82009-3340

Phone: (307) 777-4774

E-Mail: Sharon.Gostovich@dot.state.wy.us

Web site: <http://wydotweb.state.wy.us/>

WY-2 WYOMING

Incentive Type: Mandate

Eligible Technologies: AF

Applicable Sectors: Individuals, corporations

Authority 1: W.S. 39-17-106

Summary:

Anyone who imports, exports, or supplies ethanol in the state must obtain an annual license from the Department of Transportation. The fee for each license is \$25.

Contact:

Sharon Gostovich

Wyoming Department of Transportation

5300 Bishop Blvd.

Cheyenne, WY 82009-3340

Phone: (307) 777-4774

E-Mail: Sharon.Gostovich@dot.state.wy.us

Web site: <http://wydotweb.state.wy.us/>

PR-1 PUERTO RICO

Incentive Type: Sales Tax Exemption

Eligible Technologies: Solar Water Heat, Active Solar Space Heat, Solar Thermal Process Heat, Photovoltaics, Wind, Biomass, Hydro, Geothermal Heat Pumps

Applicable Sectors: Farmers

Amount: 100%

Terms: Equipment must be used in the operation and development of the business

Authority 1: [Title 13 L.P.R.A., Section 9030](#)

Summary:

Individuals who operate a farming business are exempt from paying excise tax on "equipment, devices, or objects whose operation depends exclusively on solar, wind, hydraulic or any type of energy, excluding energy produced by petroleum or its derivatives." An individual who wishes to take advantage of the exemption must comply with documentation requirements certifying that he/she is a "bona fide farmer."

Contact:

Dr. Javier A. Quintana Mendez

Department of Natural & Environmental Resources

Energy Affairs Administration

P.O. Box 9066600

Puerta de Tierra Station

San Juan, PR 00906-6600

Phone: (787) 724-8774

Fax: (787) 721-3089

E-Mail: quintanaj@caribe.net

PR-2 PUERTO RICO

Incentive Type: Sales Tax Exemption

Eligible Technologies: Renewable Fuel Vehicles

Applicable Sectors: General Public, Transportation

Amount: 100%

Authority 1: [Title 13 L.P.R.A., Section 9048](#)

Summary:

Vehicles propelled by electric, solar or hydrogen energy that are introduced or manufactured in Puerto Rico are exempt from the payment of excise taxes.

Contact:

Dr. Javier A. Quintana Mendez

Department of Natural & Environmental Resources

Energy Affairs Administration

P.O. Box 9066600

Puerta de Tierra Station

San Juan, PR 00906-6600

Phone: (787) 724-8774

Fax: (787) 721-3089

E-Mail: quintanaj@caribe.net

APPENDIX B

Table 2A. A master state-by-state listing of all 492 state policies and incentives in a condensed, outline form

Table 2A. Summary Listing of Biomass-related State Policies and Incentives

	<i>State</i>	<i>Incentive type</i>	<i>Incentive type</i>	<i>Incentive for</i>	<i>Eligibility for incentive</i>
code		See Table 3		See Table 4	See Table 5
AL1	Alabama	Grants—Interest subsidies on loans	Interest subsidy on commercial loans for equipment	Biomass facilities/systems/fuel storage, AF	Commercial, Industrial, Schools, Agricultural
AL2	Alabama	Tax deduction—Personal	Income tax deduction for conversion to wood	Wood burning heaters	Individuals
AL3	Alabama	Voluntary—Green power	Huntsville Utilities-TVA Green Power Switch	Landfill gas	Commercial, Residential
AK1	Alaska	Tax exemption—Sales (fuel)	Sales Tax Exemption	Ethanol, Biomass	Transportation
AK2	Alaska	Loans—Equipment	Loans	AF, MSW, Biomass	Utilities, local governments, nonprofits, private businesses (independent power producers)
AZ1	Arizona	Tax deduction—Personal	Income tax deduction to converting wood fireplace to a qualifying wood stove	Biomass, Wood stoves	Individuals
AZ2	Arizona	Voluntary—Green power	Tucson Electric Power (TEP) GreenWatts Program	Landfill gas	Commercial, Residential
AZ3	Arizona	Voluntary—Green power	Salt River Project (SRP) EarthWise Energy Program	Landfill gas	Commercial, Residential
AZ4	Arizona	Mandated—Net metering	Arizona Public Service (10 kW) and Tucson Electric Power Company (100 kW) net metering	Biomass	Commercial, Industrial, Residential, Nonprofit
AZ5	Arizona	Mandated—RPS	Renewables Portfolio Standard (1.1% renewables by 2012)	Biomass	Utilities
AZ6	Arizona	Mandated—emissions testing requirement	Requires emissions testing of AFVs	AFVs except electric, solar and hydrogen	all
AZ7	Arizona	Mandated—licensing	AFV license plates	AFVs	all
AZ8	Arizona	Mandated—licensing exemption	Exempts AFV licensing requirements for AFVs used for law enforcement and federal government	AFVs	State government, federal government
AZ9	Arizona	Mandated—use exemption	Parking exemptions for parking AFVs	AFVs	Individuals, businesses
AZ10	Arizona	Mandated—tax reduction	License tax lowered for AFVs	AFVs	All private sector
AZ11	Arizona	Mandated—purchases (AFVs) Mandated—purchases (AF)	Local Gov't purchase of AF and AFVs	AFVs, AF	Local governments
AZ12	Arizona	Mandated—Standards	Distributors of Biodiesel must meet ASTM Standards for Biodiesel	AF (Biodiesel)	Commercial (Biodiesel distributors)
AZ13	Arizona	Mandated—Outreach	Outreach—public information on AFVs	AFVs	Commercial (Motor vehicle dealers)
AR1	Arkansas	Tax credit—Corporate	Corporate Tax Credit	AF	Industrial (Biofuel producers)
AR2	Arkansas	Tax credit—Corporate -	Corporate income tax credit	Fuel cells, Microturbines, Stirling engines	Industrial
AR3	Arkansas	Mandated—Net metering	Net metering, 25 kW for residential and 100 kW for commercial	Biomass, Fuel cells, Microturbines using renewable fuels	Commercial, Residential
AR4	Arkansas (Dept of Economic	Rebate—AFVs	Rebate on vehicle conversion, rebate on incremental cost of AFV	AFV, methanol, ethanol (AF)	Local governments, private individuals

	Development)				
AR5	Arkansas	Grants—Production incentives	Fuel production grants (\$0.10/gallon)	AF (biodiesel)	Industrial (biodiesel producers)
AR6	Arkansas (Alternative Fuels Commission)	Tax credit—Corporate	Income tax credit for facilities and equipment used in wholesale or retail distribution	AF	Commercial (biodiesel wholesale and retail distributors)
CA1	California	Grants—Business development	Energy Technology Export services	Biomass, AF, waste	Commercial, Industrial
CA2	California	Grants—R&D	Energy Innovations Small Grants (EISG) Program	Biomass, AF, Fuel cells	Commercial, Industrial, Nonprofit, Individuals, Academia
CA3	California	Loans—Equipment	Low interest loans	Landfill gas, Biomass, Fuel cells, Cogeneration, Biogas	Industrial
CA4	California	Loans—Equipment	Public Leadership Solutions for Energy (PULSE) fund—Low interest loans	Landfill gas, Fuel cells, Biogas	Schools, Local Government, State Government
CA5	California	Rebates—Equipment	rebates for the purchase of renewable energy generating systems (photovoltaics, small wind turbines, fuel cells using renewable fuels, and solar thermal systems)	Fuel cells	Commercial, Industrial, Residential, Agricultural
CA6	California	Rebates—Equipment	California Public Utilities Commission Self-Generation Incentive Program	Microturbines, small gas turbines, fuel cells, and internal combustion engines	Commercial, Residential
CA7	California	Voluntary—Green power	Burbank Water and Power Clean Green Support plan	Biomass	Residential
CA8	California	Voluntary—Green power	City of Palo Alto Utilities Future Green Program	Biomass, waste	Commercial, Industrial, Residential
CA9	California	Voluntary—Green power	Los Angeles Department of Water and Power (LADWP), Green Power for a Green LA	Biomass	Commercial, Industrial, Residential, General Public
CA10	California	Voluntary—Green power	Roseville Electric Green Energy program	Biomass	Commercial, Residential
CA11	California	Voluntary—Green power	Sacramento Municipal Utility District (SMUD) Greenergy program	Biomass, landfill gas	Residential
CA12	California	Grants—R&D Grants—Outreach	Research & Outreach program	Landfill gas, Biomass, AF, AFVs, Fuel cells, Waste, Cogeneration	Commercial, Industrial, Residential, General Public
CA13A	California	Mandated—Generation disclosure	Mandated disclosure of energy resource mix used in generation	Biomass, AF	Utilities
CA13B	California	Voluntary—Green Power Labeling	Voluntary certification and verification program for renewable energy content of at least 50%.	Biopower	Utilities (independent power producers)
CA14	California	Mandated—Net metering	Investor-owned electric utilities allow net metering for all customer classes for systems up to 1,000 kW (1 MW). Municipal utilities are allowed to permit either net-metering or co-metering. The Los Angeles Department of Water and Power is exempt	Biogas	Commercial, Industrial, Residential
CA1	California	Grants—Equipment	Public Benefits Fund	Biomass, MSW	Utilities

5A		Rebates—Equipment			
CA1 5B	California	Rebates—green power purchases	Public Benefits Fund	Biomass, MSW	Utilities
CA1 6	California	Mandated—RPS	Utilities to purchase 20 percent of their electricity from renewable sources by 2017	Landfill gas, Biomass, Digester gas, waste	Utilities
CA1 7	California	Grants—AFV, AF, AF facilities	Lower-Emission School Bus Program	AFV, AF, AF refueling facilities	Schools (K-12)
CA1 8	California	Grants—AFVs	South Coast AQMD	AFVs	All
CA1 9	California	Grants—AFVs	Bay Area AQMD (BAAQMD) Vehicle Incentive Program (VIP)	AFVs	Local/state government
CA2 0	California	Grants—AFVs	Bay Area AQMD (BAAQMD) Transportation Fund for Clean Air	AFVs	Local and state government
CA2 1	California	Grants—AFVs	Sacramento AQMD's Heavy-Duty Low-Emission Vehicle Incentive Program	AFVs	Businesses, local government
CA2 2	California	Grants—AFVs, AF facilities	Ventura County APCD Clean Air Fund	AFVs, AF, AF facilities	Individuals, businesses
CO1	Colorado	Tax Credit—personal	Personal Tax Credit for the incremental cost of purchasing an AFV or for the conversion of a vehicle to operate on an AF	AFV	Individual
CO2	Colorado	Tax Credit—personal	Income Tax Credit for the construction, reconstruction or acquisition of an AFV refueling facility	AF (refueling stations)	Commercial, residential, transportation
CO3	Colorado	Rebate—AFVs	For the purchase of an AFV or for the conversion of a vehicle to operate on AFs	AFVs	State government, local government, non-profits
CO4	Colorado	Mandated—purchase (AF)	By 2010 at least 10% of all state-owned bi-fuel vehicles to be fueled with AF	AF	State government
CO5	Colorado	Mandated—use exemption	HOV use exemption	AFVs	Individuals
CO6	Colorado	Tax exemption—sales (AFV)	Exemption applies to vehicles, power sources, or parts for vehicles over 10,000 lbs. GVWR	AFVs	Businesses, individuals
CO7	Colorado	Mandated—use exemptions	GVWR limits for AFVs are 1000 lbs. greater than corresponding conventional vehicles when the AFVs are operated on a highway that is not on the interstate system.	AFVs	Businesses, residential
CO8	Colorado	Mandated—definitions	The term 'gasoline gallon equivalent' is defined	AF	Transportation
CT1	Connecticut	Tax exemption—Property	Property Tax Exemption for certain renewable energy systems	Fuel cells, Landfill gas, Sustainable Biomass, cogeneration	Commercial, Industrial, Residential
CT2	Connecticut	Grants—R&D	Grants for commercial and demonstration projects by CT Clean Energy Fund (CCEF)	Fuel cells	Commercial, Industrial, Nonprofit, Schools, Local Government
CT3	Connecticut	Loans—Equipment	Loans for alternative energy heating systems	Biomass	Residential (Multifamily, 1-4 units)
CT4	Connecticut	Mandated—Net metering	Net metering 100 kW for renewable energy systems	Landfill gas, biomass, fuel cells	Residential (includes 2-4 multifamily units)
CT5	Connecticut	Grants—R&D Grants—Equity investments	Public Benefits Fund Grants for research, development, manufacture, commercialization, deployment and installation of renewable	Biomass, AF, Fuel cells, waste	Commercial, Industrial, Residential

			energy technologies		
CT6	Connecticut	Mandated—RPS	Renewables Portfolio Standard; 6% by 7/1/2009	Landfill gas, Biomass, Fuel cells, waste	Utilities
CT7	Connecticut	Mandated—Purchases (AFVs)	Mandated—equipment purchases	AFVs	State Government
CT8	Connecticut	Mandated—Standards	CT Commissioner of Environmental Protection must adopt the light-duty motor vehicle emission standards of California	AFVs, AF	Transportation
CT9	Connecticut	Mandated—AFV use	Requires taxicabs to be AFVs	AFVs	Transportation
CT10	Connecticut	Mandated—emission reduction credits	State mobile emission reduction credits program must allow credit for emission reductions achieved by vehicle conversions	AFVs	Transportation
CT11	Connecticut	Loans—working capital	Fund offers loans for working or development capital to businesses that convert gas and diesel-powered vehicles to run on alternative fuels	AFVs	Businesses
DL1	Delaware	Mandated—Generation disclosure	Energy suppliers offering green power products are required to accurately label their fuel mix in marketing materials and product offers	Biomass, landfill gas	Utilities
DL2	Delaware	Mandated—net metering	Net metering limited to 25 kW maximum	Biomass	Commercial, Residential
DL3	Delaware	Rebates—AF Outreach	Delaware Soybean Board	AF (Biodiesel)	All
DL4	Delaware	Mandated—Government planning	Delaware Energy Task Force	All	All
DL5	Delaware	Tax exemption—sales (AFs)	Waiver of AF taxes in official vehicles	AF	Commercial, residential
DC1	District of Columbia	Grants—AFVs	Flexible incentives to cover the incremental cost of clean-fuel vehicles that reduce emissions of nitrogen oxides (NOx).	AFV's	Businesses, local government
DC2	District of Columbia	Use exemptions—AFVs	Exempt time-of-day and day-of-week HOV restrictions and commercial vehicle bans	AFV's	Businesses and local governments
DC3	District of Columbia	Mandated—AFV purchases	Requires a percentage of vehicle purchases to be clean fuel vehicles	AFVs	Businesses, local governments (fleet operators)
FL1	Florida	Voluntary—Green power	Gainesville Regional Utilities and the Alachua County Public Works Department	Landfill gas	Commercial, Industrial, Residential
FL2	Florida	Voluntary—Green power	City of Tallahassee Electric Utility	Biomass	Commercial, Industrial, Residential, Nonprofit
FL3	Florida	Voluntary—Green power	Tampa Electric Smart Source	Biomass	Commercial, Residential
FL4	Florida	Mandated—Solid Waste Reduction Credits	Waste reduction credits for using yard clippings, clean wood waste, or paper waste as feedstocks for the production of clean-burning fuels such as ethanol	AF	Local governments (county)
FL5	Florida	Mandated—Use Tax (AF)	A person operating an AFV must purchase an annual decal from the Florida Department of Motor Vehicles	AF	Individuals
FL6	Florida	Mandated—Licensing	A wholesale distributor of an AF must first obtain a license	AF	Commercial
GA1	Georgia	Tax credit—corporate	Credit against the tax imposed for the purchase or lease of a low-emission vehicle	AFV	Commercial

GA2	Georgia	Tax credit—Personal income	Credit against the tax imposed for the purchase or lease of a low-emission vehicle	AFV	Individual
GA3	Georgia	Voluntary—Green power	Green Power EMC	Landfill gas, Biomass	Commercial, Industrial, Residential, Nonprofit, Schools, Local Government, State Government
GA4	Georgia	Mandated—Net metering	10 kW for residential applications and 100 kW for commercial applications	Fuel cells	Commercial, Industrial, Residential
GA5	Georgia	Grants—AFVs	grants to provide incentives for fleets to purchase AFVs	AFV	Businesses, local governments, and governmental authorities (within Atlanta Metro area)
GA6	Georgia	Mandated—Use exemption	AFVs with AFV license plates are allowed to use HOV lanes	AFV	all
GA7	Georgia	Mandated—excise tax imposition	Tax on distributors who sell or use AFs	AF	Commercial (AF distributors)
HI1	Hawaii	Tax credit—Corporate	Ethanol investment tax credit roughly equal to thirty cents per gallon	AF (ethanol)	Industrial
HI2	Hawaii	Tax credit—Corporate	100% tax credit on an equity investment in a qualified high tech business	Landfill gas, Biomass, AF, Fuel cells	Industrial
HI3	Hawaii	Tax exemption—Sales (fuel)	Alcohol fuels exempt from the 4% state excise tax on retail sales	(Ethanol) AF	General Public, Transportation
HI4	Hawaii	Tax Reduction—Sales (fuel)	Because alternative fuels have less energy per gallon, the effective tax rates were higher for alternative fuels	AF	General public
HI5	Hawaii	Mandated—Net metering	Net metering 10 kW maximum	Biomass	Commercial, Residential
HI6	Hawaii	Mandated—RPS	Renewables Portfolio Standard; 9% by 2010	Landfill gas, Biomass, Fuel cells, Cogeneration, waste	Utilities
HI7	Hawaii	Tax credit—Corporate	For high technology business investment	All	Business
HI8	Hawaii	Tax deductions—Corporate	Tax deductions for the installation of clean-fuel refueling property	AF	Transportation
HI9	Hawaii	Tax exemption—excise (fuel)	State excise tax on retail sales (exempts alcohol fuels)	AF (ethanol)	Individual, businesses
HI10	Hawaii	Tax Imposition—Excise (AF)	License tax of \$0.01 for each gallon of alternative fuel sold or used by the distributor	AF	Commercial (fuel distributors)
ID1	Idaho	Tax exemption—Excise tax (fuel)	An exemption of up to 10% off the state excise tax on fuels	(Ethanol, Biodiesel) AF	Commercial
ID2	Idaho	Loans—Equipment	Low interest loan program for biomass projects	Biomass	Commercial, Industrial, Residential
ID3	Idaho	Mandated—Net metering	Idaho Power and Avista Power, 25 kW	Biomass, Fuel cells	Commercial, Residential
ID4	Idaho	Tax deduction—sales (fuel)	Tax deduction for AF use	AF (Ethanol, biodiesel)	Individuals, businesses
ID5	Idaho	Mandated—definition (fuel)	Biodiesel definition	AF (biodiesel)	Transportation
IL1	Illinois	Tax Reduction—Sales (fuel)	State sales tax on ethanol is reduced to 70% of the state sales tax	Ethanol (AF)	Commercial, Residential, Nonprofit, Schools, Local Government, Utilities, State Government
IL2	Illinois	Grants—Equipment	Grants for renewable energy projects up to 100 percent of capital cost	Biofuels, Landfill and digester gases, biomass, biogas	Commercial, Industrial
IL3	Illinois	Grants—R&D Grants—Outreach	Grants to develop renewable energy resources	Biomass, Fuel cells	Nonprofit, Schools, Local Government, State Government
IL4	Illinois	Grants—Equipment	grants (for large systems) and rebates (for small systems)	Biomass and Fuel cells	Commercial, Industrial, Residential, Nonprofit, Schools, Local Government, State Government

		Rebates—Equipment			
IL5	Illinois	Rebates—AF	AF rebates	(Ethanol, Biodiesel) AF	Commercial, Industrial, Residential, Nonprofit, Schools, Local Government, Utilities, State Government
IL6	Illinois	Rebates—AFVs	Rebates on purchase of AFVs	AFV	Commercial, Industrial, Residential, Nonprofit, Schools, Local Government, Utilities, Transportation, Construction, State Government
IL7	Illinois	Rebates—AFVs	Rebates on conversions to AFV	AFV	Commercial, Industrial, Residential, Nonprofit, Schools, Local Government, Transportation, Construction, Utilities, State Government
IL8	Illinois	Mandated—Generation disclosure	Mandated Generation Disclosure (fuel mixes and emissions)	Landfill gas, Biomass, waste	Utilities
IL9	Illinois	Mandated—Green power purchases	Mandated purchase of Green Power, 5% by 2010 and 15% by 2020	Biomass except wood waste and MSW	State Government
IL10	Illinois	Grants—R&D Rebates—Equipment Loans—Equipment	Public Benefits Fund Established the Renewable Energy Resources Trust Fund and the Illinois Clean Energy Community Trust (CECT).	Biomass	Commercial, Industrial, Residential, General Public, Utilities
IL11	Illinois	Mandated—RPS	Renewable Portfolio Standard, 5% by 2010 and 15% by 2020	Biomass	Utilities
IL12	Illinois	Grants—equipment	Illinois Clean School Bus Program provides funding to assist schools/school districts to reduce emissions from diesel-powered school buses through emission control retrofits and implementation of AFs	AF	Schools
IL13	Illinois	Tax exemption—sales (fuel) Tax exemption—use (fuel)	Sales and use taxes do not apply to ethanol-blended fuels (containing between 70% and 90% ethanol) sold between July 1, 2003 and December 31, 2013.	AF (ethanol)	Individuals, businesses
IL14	Illinois	Tax exemption—sales (fuel) Tax exemption—use (fuel)	Sales and use taxes apply to 80% of the proceeds from the sale of biodiesel-blended fuels (containing between 1% and 10% biodiesel) made between July 1, 2003 and December 31, 2013	AF (biodiesel)	Individuals, businesses
IL15	Illinois	Rebates—equipment	Rebates for 80% of the incremental cost of purchasing an AFV or converting a vehicle to operate on an alternative fuel	AFVs	Individuals, businesses, local government, non-profits
IL16	Illinois	Outreach	Launches Illinois Green Fuels and Illinois Green Dealers programs	AFVs	Commercial (car dealers)
IL17	Illinois	Grants—R&D	R&D grants for new and innovative technologies to help reduce ethanol production costs, and to develop new value-added products.	AF (ethanol)	All
IL18	Illinois	Outreach	Creating an industry around future developments in the field of hydrogen and fuel cell technology	AFVs, AF	Transportation
IL19	Illinois	Outreach	To create a database of registered flexible fuel	AFVs	Transportation

			vehicles and make available to the public		
IL20	Illinois	Mandated—licensing	\$20 per vehicle annual user fee is imposed on fleets with 10 or more vehicles in defined areas	AFVs	Transportation
IL21	Illinois	Mandated—purchase requirements (vehicles)	State agencies must give preference to vehicle supply bidders who will fulfill their contracts through the use of vehicles powered by ethanol or biodiesel produced from Illinois crops	AFVs	State government
IL22	Illinois	Mandated—Government planning	Research and promote the cost effective use of alternative fuels in state owned motor vehicles	AFVs, AF	State government
IL23	Illinois	Outreach	To continue the Illinois Ethanol Research Advisory Board's responsibility of managing and operating the National Corn-to-Ethanol Research Pilot Plant	AF (ethanol)	Transportation
IN1	Indiana	Grants—AFVs Grants—AFs	To purchase AFV or purchase AFs	AF, AFVs, Fuel cells	Commercial, Nonprofit, Local Government
IN2	Indiana	Grants—Equipment Grants—R&D	Grants to install and study renewable energy systems	Biomass, AF, waste	Commercial, Nonprofit, Schools, Local Government
IN3	Indiana	Grants—Equipment Grants—R&D	Grants to install and study alternatives to central generation	Landfill gas, Biomass, Fuel cells, Cogeneration	Commercial, Industrial, Schools, Local Government, State Government
IN4	Indiana	Grants—R&D	Small-scale grants for projects that demonstrate applications of renewable energy technologies	Biomass, waste	Commercial, General Public, Nonprofit
IN5	Indiana	Grants—R&D Grants—Equipment	Grants to assist with research, development and production of biomass energy systems	Biomass, AF	Industrial, General Public, Utilities
IN6	Indiana	Voluntary—Green power	Indianapolis Power & Light Green Power Option	Landfill gas	Commercial, Industrial, Residential
IN7	Indiana	Voluntary—Green power	Southeast Indiana REMC EnviroWatts program	Landfill gas, Biomass	Commercial, Industrial, Residential, Nonprofit, Schools, Local Government
IN8	Indiana	Voluntary—Green power	Wabash Valley Power Association	Landfill gas	Commercial, Residential
IN9	Indiana	Mandated—Net metering	Investor-owned utilities only, net metering limited to 1,000 kWh per month	Biomass, AF, Cogeneration, waste	Commercial, Industrial, Residential
IN10	Indiana	Grants—Equipment	AF transportation grants program-purchase of AFVs	AFVs, AF, AF refueling station	Businesses, non-profit institutions and units of local government (including public school systems)
IN11	Indiana	Tax credit—corporate	Tax credit for biodiesel	AF (Biodiesel)	Industrial (biodiesel producer)
IN12	Indiana	Tax credit—corporate	Tax credit for blended biodiesel	AF (biodiesel)	Industrial (biodiesel producer/blenders)
IN13	Indiana	Tax credit—corporate	Corporate tax credit	AF (biodiesel)	Commercial (fuel distributors)
IN14	Indiana	Mandated—certification (facility)	Designates an area as a certified technology park if it has industry related to AFVs	AFVs	Commercial, industrial

IN1 5	Indiana	Mandated—price reduction (fuel)	Entitles state to a price preference of 10% for the purchase of AFs	AF (biodiesel)	State government, local government, schools, institutions
IN1 6	Indiana	Mandated—labeling (vehicles)	Vehicle decals must be purchased annually for select AFVs	AFVs	Transportation
IA1	Iowa	Tax credit—Corporate	Gives a tax credit to retail service stations for sale of ethanol blends	Ethanol (AF)	Commercial (Retail service stations)
IA2	Iowa	Tax exemption—Property	Exempts from the state property tax personal property, real property, and improvements to real property used to collect and convert methane gas to energy	Landfill gas, Digester gas	Commercial, Industrial, Residential
IA3	Iowa	Tax exemption—Sales (fuel)	Refunds the "difference between taxes paid on the motor fuel purchased to produce ethanol blended gasoline and the tax due on the ethanol blended gasoline."	Ethanol (AF)	Transportation
IA4	Iowa	Grants—R&D	Grants for energy research	Biomass, AF, waste	Commercial, Industrial, Residential, Transportation, Agricultural
IA5	Iowa	Loans—Equipment	Low interest loans to build renewable energy production facilities	Biomass	Commercial, Industrial, Residential
IA6	Iowa	Loans—Equipment	Low interest loans for energy management programs	Biomass, AF	Nonprofit, Local Government, State Government, Hospitals, Schools (Private Colleges)
IA7	Iowa	Grants—Business development Loans—Business development	20% grants; 80% low interest loan for value-added start up businesses	Biomass, AF	Commercial, Industrial
IA8	Iowa	Voluntary—Green power	Alliant Energy Second Nature Program	Biomass	All
IA9	Iowa	Mandated—Green power options	Requires all electric utilities operating in the state, including those not rate regulated by the Iowa Utilities Board (IUB), to offer green power options to their customers	Biomass, waste	Utilities
IA1 0	Iowa	Mandated—Net metering	Net metering (size limit not specified)	Biomass, waste	Commercial, Industrial, Residential, Utilities (Rate-Regulated)
IA1 1	Iowa	Mandated—Renewables set aside	Requires investor-owned utilities to purchase a combined total of 105 average MW of their generation from renewable and small hydropower sources	Biomass, waste	Utilities (investor-owned)
IA1 2	Iowa	Grants—outreach Grants—R&D	Grants to encourage the use of alternative fuels	AF, AFVs	Schools, industrial
IA1 3	Iowa	Tax credit—Corporate	Tax credit-retail service stations	AF (ethanol)	Commercial (fueling stations)
IA1 4	Iowa	Tax exemption—sales (fuel)	Blenders of conventional motor fuel with ethanol may file for a refund for the difference between sales taxes paid on the motor fuel purchased to produce ethanol-blended gasoline and the tax due on the ethanol-blended gasoline	AF (ethanol)	Industrial, commercial
IA1 5	Iowa	Grants—AFs	Grants for the purchase of biodiesel fuel for use in IDOT vehicles	(Biodiesel) AF	State government
IA1 6	Iowa	Mandated—purchases (equipment)	At least 10% of certain light-duty vehicles purchased by institutions under the control of	AFVs	Institutional

			the state must be capable of using AFs		
IA1 7	Iowa	Mandated—labeling (vehicles)	Requires registration of vehicles converted to AFs and sticker display	AFVs	Individuals
IA1 8	Iowa	Mandated—labeling	Mandated labeling of AF pumps	AF	Commercial (fueling stations)
KS- 1	Kansas	Tax credit—Corporate	Allows taxpayers that purchase qualified alternative-fueled vehicles or alternative-fuel fueling stations to receive a credit on their state income taxes.	AFVs, Refueling stations	Commercial, Industrial, Residential
KS- 2	Kansas	Tax credit—Personal income	Allows taxpayers that purchase qualified alternative-fueled vehicles or alternative-fuel fueling stations to receive a credit on their state income taxes.	AFVs, Refueling stations	Commercial, Industrial, Residential
KS- 3	Kansas	Grants—Production incentive (ethanol)	Production incentive of \$0.05 to \$0.075/gallon	Ethanol (AF)	Commercial, Industrial
KS- 4	Kansas	Tax exemption—Property	Exempts renewable energy equipment from property taxes	Renewable energy equipment, landfill gas, biomass	Commercial, Industrial, Residential, Utilities
KS- 5	Kansas	Grants—R&D Grants—Business development	Grants to accelerate the deployment of renewable energy technologies and to facilitate the commercialization of emerging and underutilized renewable energy technologies	Landfill gas, Biomass, AF, AFVs, Fuel cells, Cogeneration, waste	Commercial, Industrial, Nonprofit, Schools, Local Government, Transportation, Construction, Utilities, State Government
KS- 6	Kansas	Tax credit—personal	Income tax credit equal to 50% of the incremental or conversion cost of qualified AFVs	AFVs	Individual
KS- 7	Kansas	Outreach	Resolution that encourages federal energy legislation that promotes the use of ethanol and biodiesel fuel	AF (biodiesel, ethanol)	Federal government
KS- 8	Kansas	Mandated—purchases (AFVs)	Mandates use of biodiesel in state fleets	AF, AFVs	State government
KS- 9	Kansas	Mandated—purchases (AFVs)	75% of new light-duty motor vehicles acquired by the state fleet and its agencies, which are used within a metropolitan area are required to be AFVs.	AFVs	State government
KS- 10	Kansas	Loans—AF facilities	AF loan program established to encourage the use of alternative fuels by government	AF, AFVs	State government, local government
KY- 1	Kentucky	Voluntary—Green power	Bowling Green Municipal Utilities-TVA Green Power Switch	Landfill gas	Commercial, Residential
KY- 2	Kentucky	Voluntary—Green power	Owen Electric Cooperative EnviroWatts program	Landfill gas	Commercial, Industrial, Nonprofit, Schools, Local Government, Transportation, Utilities, State Government, Residential (Utility Service Area)
KY- 3	Kentucky	Rebates—AFVs	Rebates for OEM AFVs	AFVs	Non-profits or individuals
LA- 1	Louisiana	Tax credit—corporate Tax credit—personal	Income tax credit for converting a vehicle to operate on an alternative fuel; incremental cost of purchasing an OEM AFV; cost of constructing an alternative fuel refueling station	AFVs, AF refueling stations	Individuals, businesses

ME-1	Maine	Mandated—Net metering	Net metering; limited to 100 kW	Biomass, AF, Cogeneration, Fuel cells, MSW	Commercial, Industrial, Residential
ME-2	Maine	Grants—Equipment	Public Benefits Fund directed the Maine Public Utilities Commission to develop a voluntary program allowing consumers to contribute to a renewable energy program.	Biomass, AF, Fuel cells, waste	Utilities
ME-3	Maine	Mandated—RPS	Renewable Portfolio Standard, 30% from renewable generation facilities of 100 MW or less	Biomass, AF, Fuel cells, waste	Utilities
ME-4	Maine	Tax credit—Corporate	Tax credit of \$0.05 per gallon for the production of biofuels for use in motor vehicles or otherwise substitute for liquid fuels	AF	Industrial (fuel producers)
ME-5	Maine	Tax exemption—sales (vehicles)	Sales tax exemption-AFVs	AF	Transportation
ME-6	Maine	Tax credit—corporate	Tax credit for construction of or improvements to any refueling or charging station for the purpose of providing clean fuels	AF	Commercial (refueling stations)
ME-7	Maine	Mandated—purchases (AFVs)	To promote the procurement of dedicated AFVs and supporting refueling infrastructures	AFVs	State government
ME-8	Maine	Outreach	Mandates a study to stimulate an increase in use of AFs and AFVs as well as stimulate the use and production of biofuels	AFVs, AF	State government
ME-9	Maine	Grants—Equipment, facilities Loans—Equipment, facilities	Established Sustainable Energy Trust Fund to support sustainable energy projects	All	Renewable energy
ME-10	Maine	Mandated—standards (emissions)	Sets vehicle exhaust emissions requirements	AFVs	Transportation
ME-11	Maine	Tax credit—corporate	Tax credit for the construction, installation or improvements to any alternative fuel refueling or charging station	AF	Commercial (refueling stations)
ME-12	Maine	Loans—AFVs, AF facilities	Loans that may be used to finance all or part of any clean-fuel vehicle projects	AFVs, AF	Transportation
ME-13	Maine	Grants—equipment Loans—equipment	The Agriculturally Derived Fuel Fund to provide direct loans and subsidies to a business or cooperative for the design and construction of a facility to produce agriculturally derived fuel	AFVs, AF	Transportation
ME-14	Maine	Tax Imposition—Use (AF)	Sets state highway tax for each special fuel used in transportation based on each fuel's energy content relative to gasoline	AF	Transportation
ME-15	Maine	Outreach	Allows insurers to credit or refund any portion of the premium charges for an insurance policy for a clean-fuel vehicle	AFVs	Commercial (insurance)
MD-1	Maryland	Tax credit—Corporate Tax exemptions—Sales	Provides sales tax exemptions or income tax credits when purchasing certain renewable resource energy systems.	Landfill gas, Biomass	Commercial, Industrial
MD-2	Maryland	Tax credit—Corporate	Credits apply to fuel cells and only be claimed for alternate energy sources if they serve a	Fuel cells	Commercial, Industrial, Residential (Multi-Unit)

			green whole building, a green base building, or green tenant space		
MD-3	Maryland	Tax credit—personal Tax exemptions—Sales	Provides sales tax exemptions or income tax credits when purchasing certain renewable resource energy systems.	Landfill Gas, Biomass	Commercial, Residential
MD-4	Maryland	Tax credit—Personal income	Credits apply to fuel cells and only be claimed for alternate energy sources if they serve a green whole building, a green base building, or green tenant space	Fuel cells	Commercial, Industrial, Residential (Multi-Unit)
MD-5	Maryland	Tax exemption—Sales (equipment)	Provides for a sales tax exemption for fuel cells	Fuel cells	Commercial
MD-6	Maryland	Tax exemption—Sales (fuel)	Exempts from the state sales tax all wood or "refuse-derived" fuel used for heating purposes	Biomass, MSW (as RDF)	Residential
MD-7	Maryland	Mandated—Generation disclosure	Requires the disclosure of fuel mixes and emissions by all retail suppliers of electricity in the state	Biomass	Utilities
MD-8	Maryland	Mandated—Green power purchases	Green power Mandated for state facilities	Landfill gas, Biomass, waste	State Government
MD-9	Maryland	Rebates—AFVs	To help offset the purchase of alternative fuel shuttles and school buses	AFVs	State government, local government
MD-10	Maryland	Grants—AFVs	Grants to cover the incremental cost of dedicated CNG and other clean-fuel vehicles that reduce emissions of nitrogen oxides (Nox)	AFVs	Local government, businesses
MD-11	Maryland	Mandated—AFV purchases	Mandates to offer more flexibility in purchasing low emission vehicles and AFVs.	AFVs	State government
MA-1	Massachusetts	Tax deductions—Corporate	corporate income tax deductions for any income received from the sale of or royalty income from a patent	Biomass, AF, waste	Commercial, Industrial, Residential
MA-2	Massachusetts	Tax deductions—Personal	personal income tax deductions for any income received from the sale of or royalty income from a patent	Biomass, AF, waste	Commercial, Industrial, Residential
MA-3	Massachusetts	Grants—Planning	Grants to fund the planning and construction of renewable technologies in Green Buildings	Fuel cells	Commercial, Nonprofit, Local Government, State Government
MA-4	Massachusetts	Grants—Outreach Grants—Planning Grants—Equipment	Grants for feasibility studies, design, construction, and ongoing green education activities	Fuel cells	Schools
MA-5	Massachusetts	Mandated—Generation disclosure	Mandates the disclosure of fuel mixes and emissions to end-use customers	Biomass, AF, Cogeneration, waste	Utilities
MA-6	Massachusetts	Mandated—Net metering	Net metering, 60 kW maximum	Biomass, Fuel cells, Cogeneration, waste	Commercial, Industrial, Residential
MA-7	Massachusetts	Grants—Equipment	Public Benefits Fund for renewables	Biomass, AF, Fuel cells	Commercial, Industrial, Residential, General Public, Utilities
MA-8	Massachusetts	Mandated—RPS	Renewables Portfolio Standard, 4.0% by 2009	Landfill gas, Biomass, Fuel cells	Utilities
MA-	Massachusetts	Mandated—AFVs purchase	Purchases-AFVs	AFVs	State government

9	s				
MI-1	Michigan	Tax credit—Corporate	Eligibility limited to certified companies that locate in the NextEnergy Zone and develop alternative energy technologies	AF, AFVs, Fuel cells, Cogeneration, Microturbines	Commercial, Industrial
MI-2	Michigan	Tax exemption—Property	Property Tax Exemption Michigan's NextEnergy Zone and engaged in the research, development, or production of alternative energy sources	AF, AFVs, Fuel cells, Cogeneration, Microturbines	Commercial, Industrial
MI-3	Michigan	Tax exemption—Property	Property Tax Exemption for those in Michigan's NextEnergy Zone and engaged in the research, development, or production of alternative energy sources	AF, AFVs, Fuel cells, Cogeneration, Microturbines	Commercial, Industrial
MI-4	Michigan	Grants—Equipment	Grants for green commuting projects	AFVs	Nonprofit, Local Government
MI-5	Michigan	Voluntary—Green power	Lansing Board of Water and Light	Biomass	Commercial, Residential
MI-6	Michigan	Mandated—Generation disclosure	Utilities must provide consumers information about the environmental characteristics of electricity products, including the average fuel mix and the average emissions	Biomass, Fuel cells, waste	Utilities
MI-7	Michigan	Tax exemptions—property	Certain property tax exemptions apply to industrial property which is used for the creation or synthesis of biodiesel fuel.	AFVs, AF	Industrial
MI-8	Michigan	Outreach (voluntary emissions trading)	Statewide emissions trading program	AFVs, AF	Transportation
MI-9	Michigan	Grants—equipment	NextEnergy offers grants for companies that develop or utilize alternative energy applications.	All	Businesses
MN-1	Minnesota	Grants—Production incentive	Anhydrous alcohol, \$0.20/gallon, wet alcohol will receive at least \$0.11/gallon plus \$0.015/kWh of electricity generated using closed-loop biomass for cogeneration at an ethanol plant located in the state	Biomass, AF (Ethanol)	Industrial
MN-2	Minnesota	Grants—production incentive	\$0.15/kWh payment for electricity generated from anaerobic manure methane digesters.	Anaerobic manure digester	Commercial, Residential, Nonprofit, Local Government (Tribal Council)
MN-3	Minnesota	Mandated—Green power option	Requires MN electric utilities to give customers the option to purchase power from renewable sources or a renewable fuel	Landfill gas, Biomass, Fuel cells	Utilities
MN-4	Minnesota	Mandated—Net metering	Net metering, 40 kW maximum, utilities must purchase net excess generation at the average retail rate	Biomass, Cogeneration, waste	Commercial, Industrial, Residential
MN-5	Minnesota	Grants—R&D Grants—Equipment	Public Benefits Fund (Xcel Energy created the Renewable Development Fund)	Biomass, Fuel cells	Commercial, Industrial, Nonprofit, Schools, Local Government, State Government
MN-6	Minnesota	Mandated—RPS	0.5% from biomass by 2010, 1% by 2015	Biomass	Utilities
MN-	Minnesota	Mandated—Renewables set aside	Required Xcel Energy to build or contract for	Biomass	Utility (Excel Energy)

7			125 MW biopower by 12/31/01		
MN-8	Minnesota	Grants—production incentive	\$0.20 per gallon of ethanol produced	AF (ethanol)	Industrial (producer)
MN-9	Minnesota	Mandated—AF	Requires all diesel fuel sold or offered for sale in the state for use in IC engines to contain at least 2% vol biodiesel	AF (biodiesel)	Transportation
MN-10	Minnesota	Outreach	Establishes task force to promote and educate potential biodiesel developers, marketers, consumers and manufacturers	AF (biodiesel)	Individuals, industrial, commercial
MN-11	Minnesota	Mandated—AF use	Requires use of clean fuels in motor vehicles owned or leased by the state and requires state agencies to purchase AFVs	AFVs, AF	State government
MN-12	Minnesota	Tax Imposition—Excise (AF)	Sets E85 excise tax of \$0.142/gallon, M85 blends taxed at \$0.114/gallon	AF (ethanol)	Commercial
MS-1	Mississippi	Loans—Equipment	low-interest loans for a wide variety of renewable energy projects	Biomass, biomass facilities, AF, waste	Commercial, Industrial
MS-2	Mississippi	Voluntary—Green power	TVA Green Power Switch -North East Mississippi Electric Power Association -City of Oxford Electric Department	Landfill gas	Commercial, Residential
MS-3	Mississippi	Grants—equipment	grants to encourage economic development Projects must be related to the construction, renovation, or expansion of a new or expanded industry	Biomass facilities/systems	Commercial, industrial
MS-4	Mississippi	Grants—Production incentive	\$0.20 per gallon for ethanol production	Ethanol	Industry (ethanol producers)
MS-5	Mississippi	Mandated—AFV purchase	Mandated AFV leases or purchases	AFVs	Schools (state universities)
MO-1	Missouri	Tax credit—Corporate	Provides corporations processing MO forestry industry residues into fuels an income tax credit of \$5.00/ton of processed material	Wood energy, biomass	Commercial, Industrial
MO-2	Missouri	Loans—Equipment	Low interest loans for renewable energy projects	Biomass facilities	Schools (K-12), Local Government, Institutional
MO-3	Missouri	Grants—Production incentive	\$0.20/gallon for first 12.5 million gallons and \$0.05 for second 12.5 million gallons	AF (Ethanol)	Industry (ethanol producers)
MO-4	Missouri	Grants—Production incentive	\$0.30 per gallon for first 15 million gallons produced	AF (Biodiesel)	Industry (biodiesel producers)
MO-5	Missouri	Voluntary—AF purchases	grants to cover the incremental cost of biodiesel	AF (biodiesel)	Schools (K-12)
MO-6	Missouri	Grants—AFs	Revolving Fund uses the money generated by the sale of EPAct credits to cover the incremental cost of purchasing biodiesel	AFVs	State government
MO-7	Missouri	Mandated—AF use	Mandated to use biodiesel	Biodiesel (AF)	State governments
MO-8	Missouri	Mandated—emission inspection exemptions	Exemption from state emissions inspection	AF	Private sector
MO-	Missouri	Mandated—AF use	motor fuel tax exemption for passenger motor	AF	State governments

9			vehicles, certain buses or commercial motor vehicles		
MO-10	Missouri	Mandated—AFV purchases Mandated—AF use	Mandated for AFV purchases	AFVs, AF	State governments
MO-11	Missouri	Loans—AFV, AF facilities	Loans for purchase of new AFVs, conversion of gasoline motor vehicles to operate on alternative fuels, or construction of alternative fuel refueling stations	AFVs, AF	Local governments
MO-12	Missouri	Outreach	Established Missouri Ethanol and Other Renewable Fuel Sources Commission to promote production and use of ethanol and other renewable fuel sources	AF	All
MT-1	Montana	Tax credit—Corporate	For alternative energy generating equipment or a business facility for which the alternative energy generating equipment supplies	Landfill gas, Biomass, Fuel cells	Commercial, Industrial
MT-2	Montana	Tax credit—Corporate Tax credit—Personal	Broadens the previous tax credit, which only applied to wind systems, to now apply to alternative energy systems	Landfill gas, Biomass, Fuel cells	Commercial, Industrial, individuals
MT-3	Montana	Tax credit—Personal	Broadens the previous tax credit, which only applied to wind systems, to now apply to alternative energy systems	Landfill gas, Biomass, Fuel cells	Commercial, Industrial, individuals
MT-4	Montana	Tax credit—Personal	For an energy system using a recognized non-fossil form of energy on a personal residence	Biomass, Fuel cells, Low-emission wood stoves	Residential
MT-5	Montana	Tax exemption—Property	Exempts from property taxation the value added by a qualified renewable energy source	Biomass, waste	Commercial, Residential
MT-6	Montana	Grants—Equipment	Grants from North Western Energy for renewable energy projects (Systems Benefit Program)	Biomass	Commercial, Industrial, Residential, General Public
MT-7	Montana	Loans—Equipment	Alternative Energy Revolving Loan Program (AERLP)-loans to individuals and small businesses	Landfill gas, Biomass, Fuel Cells	Commercial, Residential
MT-8	Montana	Mandated—Generation disclosure	Requires retail electricity suppliers to disclose information on fuel mix and emissions	Biomass	Utilities
MT-9	Montana	Mandated—Green power purchases	Mandatory Utility Green Power Option (Green tags) for consumers	Biomass	Commercial, Residential
MT-10	Montana	Tax credit—corporate	Income tax credit for converting vehicles to operate on alternative fuels	AFVs, AV	Businesses, individuals
MT-11	Montana	Tax reduction—use tax	Consumer incentive for ethanol and biodiesel blends	AF (biodiesel, ethanol)	Individual
MT-12	Montana	Outreach	For the development of a state alternative fuels policy	AFV	All
MT-13	Montana	Outreach	increased development of new sources of renewable energy, fuel efficient vehicles, new technologies	AFV	Federal government
MT-14	Montana	Outreach	To develop the hydrogen economy in Montana	AFV	Transportation
MT-	Montana	Outreach	Retail pumps that dispense ethanol or biodiesel	AFVs, AF	Commercial (fuel stations)

15			blends must have a decal		
NE-1	Nebraska	Tax credit—Corporate	Corporate Tax Credit for new or expanding ethanol production facilities	(Ethanol) AF	Commercial, Industrial
NE-2	Nebraska	Loans—Equipment	Low interest loans for renewable energy projects	Biomass, AF, AFVs, waste	Commercial, Residential, Local Government, Agricultural
NE-3	Nebraska	Voluntary—Green power	Omaha Public Power District	Landfill gas	Commercial, Residential
NE-4	Nebraska	Loans—AFV purchases Loans—AF facilities	Dollar and Energy Saving Loans Program, makes low-cost loans available for a variety of alternative fuel projects	AFVs, AF Refueling Stations	Businesses, individuals
NE-5	Nebraska	Tax exemption—use tax	Exempts biodiesel or ethanol from use taxes under certain conditions	AF (ethanol, biodiesel)	Industrial (ethanol and biodiesel producers)
NV-1	Nevada	Tax exemption—Property	exemption applies to 50% of the business property -- personal and real -- for up to ten years	Biomass, waste	Commercial, Industrial
NV-2	Nevada	Tax exemption—Property	Subtracts any value added by a qualified renewable energy source from the assessed value of any residential, commercial or industrial building for property tax purposes	MSW	Commercial, Industrial, Residential
NV-3	Nevada	Tax exemption—Sales (equipment)	Sets the sales/use tax rate for any sales, storage, consumption or use of products or systems designed or adapted to use renewable energy to generate electricity	Biomass, fuel cells, waste	Commercial, Residential
NV-4	Nevada	Voluntary—Green power	Nevada Power Company GreenPower program	Fuel cells	Commercial, Residential, Nonprofit, Schools
NV-5	Nevada	Mandated—Generation disclosure	Mandated reporting average mix of fuel sources used to create electricity and average emissions,	Biomass, AF, MSW	Utilities
NV-6	Nevada	Mandated—Net metering	Net metering, 10 kW limit	Biomass	Commercial, Industrial, Residential
NV-7	Nevada	Mandated—RPS	Renewables Portfolio Standard, 15% by 01/01/2013 for all renewables	Biomass	Utilities
NV-8	Nevada	Outreach	Encourages the NV Department of Conservation and Natural Resources to provide incentives for AFVs	AFVs, AF	Transportation
NV-9	Nevada	Tax reduction—fuels	Excise fuels tax reduction	AF	Transportation
NV-10	Nevada	Mandated—AFV purchases	Requires certain government fleets to purchase AFVs	AFVs, AF	State government, local government
NV-11	Nevada	Mandated—emission inspection exemptions	Exempts AFVs from emissions testing	AFVs	Transportation
NH-1	New Hampshire	Tax exemption—Property	Provides exemption on residential property taxes on the assessed value of a renewable energy system used on the property	Wood heating	Residential
NJ-1	New Jersey	Tax exemption—Sales (equipment)	Provides full exemption from the state 6% sales tax	Biomass, AF	Commercial, Industrial, Residential, Utilities
NJ-2	New Jersey	Rebates—Equipment	Provides rebates on installation of biomass	Biomass, Fuel Cells	Commercial, Residential

			systems (Funded by Societal Benefits Charge)		
NJ-3	New Jersey	Outreach	advocacy, education, and technical assistance through Green Homes Office	Biomass	Residential
NJ-4	New Jersey	Mandated—Generation disclosure	Requires disclosure of fuel mix and emissions	Landfill Gas, Biomass, Fuel Cells, MSW	Utilities (all retail electric power suppliers)
NJ-5	New Jersey	Grants—Equipment	Establishes Societal Benefits Charge/ Public Benefits Fund	Biomass, AF, Fuel Cells, MSW, LFG	Commercial, Industrial, Residential, Schools, Utilities
NJ-6	New Jersey	Mandated—RPS	Renewables Portfolio Standard; 4% renewables by 2012	Landfill Gas, Biomass, Fuel Cells, MSW	Utilities
NJ-7	New Jersey	Rebates—AFVs	Provides rebates to local government entities that convert vehicles to operate on AFs or purchase OEM AFVs	AFVs	Local governments, schools (all), governmental authorities
NJ-8	New Jersey	Grants—AF facilities	Provides funds to reimburse eligible entities for purchasing and installing AF refueling infrastructure	AF	Local governments, schools (all), governmental authorities
NJ-9	New Jersey	Mandated—AFV purchases Mandated—AF use	Requires New Jersey Transit Corporation to purchase low emission vehicles	AFVs, AF	Transportation
NJ-10	New Jersey	Mandated—AFV purchases	Funds for AFV and AF purchases and AF refueling stations	AFVs	State government
NM-1	New Mexico	Mandated—Green power option	Requires utilities to offer a Green Power Option	Landfill Gas, Biomass, Fuel Cells	Utilities
NM-2	New Mexico	Mandated—RPS	Renewables Portfolio Standard, 5% from renewables by 2006	Landfill Gas, Biomass, Fuel Cells	Utilities (including electric cooperatives)
NM-3	New Mexico	Grants—equipment	Grants for projects using clean energy technologies	Fuel cells, hydrogen	Local governments, schools (all), tribes
NM-4	New Mexico	Grants—AFVs Outreach	Grants to purchase AFVs or conduct training or related activities	AFVs	State government, local government, schools, non-profit
NM-5	New Mexico	Outreach	Encourages state government to pursue the use of AF and AFVs in the state	AFVs, AF	State government, schools
NM-6	New Mexico	Mandated—standards	Allows the purchase of foreign made AFVs	AFVs	State government
NM-7	New Mexico	Mandated—definition	Definition of AF	AF	Transportation
NM-8	New Mexico	Loans—AFVs	For acquisition of AFVs	AFVs	State government, schools (colleges and universities)
NM-9	New Mexico	Tax Imposition—Excise and Use (AF)	Excise tax on alternative fuel	AF	Individuals, businesses
NM-10	New Mexico	Outreach	State alternative fuel program manager position	AFVs, AF	State government
NY-1	New York	Tax credit—Corporate	Provides tax credits to owners and tenants of eligible buildings and tenant spaces which meet certain standards	Fuel cells	Commercial, Residential, Construction
NY-2	New York	Tax exemption—Property	Provides property Tax Exemption	Biomass	Commercial, Industrial, Residential, Farms
NY-3	New York	Grants—R&D	NYSERDA grants for research	Biomass, AF	Commercial, Industrial, Residential, Utilities

NY-4	New York	Grants—R&D	NYSERDA supports research, development and commercialization activities	AF, MSW, biomass	Commercial, Industrial, Residential, General Public, Utilities
NY-5	New York	Mandated—Green power purchases	Green Power Purchasing/Aggregation	Biomass, fuel cells	State Government
NY-6	New York	Mandated—Net metering	Net metering; up to 400 kW	Biomass	Residential, Farms
NY-7	New York	Grants—Equipment	Public Benefits Fund for R&D	Biomass, AF, Fuel Cells, MSW Cogeneration	Commercial, Industrial, Residential, General Public, Utilities
NY-8	New York	Tax credit—personal	New York's Alternative Fuel (Clean Fuel) Vehicle Tax Incentive Program	AFVs, AF	Individual
NY-9	New York	Tax exemption—sales (vehicles)	Provides sales tax exemption for the incremental cost of AFVs and AF stations	AFVs	Individual, businesses
NY-10	New York	Grants—AFVs Grants—AFs Grants—AF conversions	The New York State Clean Cities Challenge	AFVs, AF	Transportation
NY-11	New York	Outreach	Information on tax incentives, refueling stations, case studies, and contact information	AFVs	Individuals, businesses, nonprofits
NY-12	New York	Grants—R&D	Product development efforts aimed at improving efficiency and increasing the use of alternative fuels	AFVs, AF	Industrial and commercial
NY-13	New York	Mandated—purchases (equipment)	Mandated to purchase AFVs	AFVs, AF	State government
NY-14	New York	Mandated—purchase (equipment)	Mandated to purchase AFVs	AFVs	Local government
NY-15	New York	Tax exemption—sales (AFVs)	Sales tax exemption for AFVs	AFVs	Individuals, businesses
NC-1	North Carolina	Tax credits—Corporate	Corporate Tax credits for renewable energy property	Biomass, AF, Biomass facilities (property constructed, purchased or leased)	Commercial, Industrial, residential
NC-2	North Carolina	Tax credits—Corporate	Provides a corporate income tax credit to manufacturers of renewable energy products and equipment.	Fuel cells	Industrial
NC-3	North Carolina	Tax credits—Personal income	Personal Tax credits for renewable energy property constructed, purchased or leased	Biomass, AF	Individual (residential)
NC-4	North Carolina	Loans—Equipment	Low interest loans	Biomass facilities	Commercial, Industrial, Nonprofit, Schools, Local Government
NC-5	North Carolina	Outreach	NC Solar Energy Center, clearinghouse for information, education, technical assistance, and applied research	AF, AFVs	Commercial, Industrial, Residential, General Public, Schools, Construction
NC-6	North Carolina	Grants—equipment	Grants for purchase of OEM AFVs; vehicle conversions, and constructing or implementing alternative fuel public refueling facilities	AFV	Individuals, commercial, industry
NC-7	North Carolina	Tax credits—Corporate	Tax credits for construction, purchasing, or leasing renewable energy property	AF	Private businesses
NC-8	North Carolina	Tax credits—AF facilities	tax credit for constructing and installing refueling facilities	AF (Biodiesel, ethanol)	Commercial

NC-9	North Carolina	Tax credits—Corporate	tax credit is available for the production or processing of biodiesel and ethanol or ethanol/gasoline mixtures	AF (Biodiesel, ethanol)	Industrial
NC-10	North Carolina	Mandated—AFV purchases	Mandated to purchase AFVs	AFV	State Government (fleets)
NC-11	North Carolina	Tax exemptions—sales	Exemption from the state retail sales and use tax	AF	Private business
ND-1	North Dakota	Grants—Production Incentive	Support payments	Ethanol	Commercial, Industrial
ND-2	North Dakota	Mandated—Net metering	Net metering, up to 100 kW	Biomass, MSW, AF, cogeneration	Commercial, Industrial, Residential
ND-3	North Dakota	Tax credit—corporate	Income tax credit for biodiesel production equipment costs	AF (biodiesel)	Industrial (biodiesel producer)
ND-4	North Dakota	Grants—production incentive	Incentive for agriculturally derived fuel, \$0.40/gal	AFVs, AF (ethanol)	Industrial
ND-5	North Dakota	Tax reduction—excise tax (fuels)	Reduces excise tax on biodiesel	AF	Individuals, businesses
OH-1	Ohio	Tax exemption—Corporate income, sales, use, and franchise taxes	Exempts certain equipment from the income, sales, use, and franchise taxes	Biomass, AF, MSW	Commercial, Industrial
OH-2	Ohio	Tax credit—Corporate	Creates a tax credit against corporation franchise or income tax liability for investments in ethanol plants	AF (Ethanol)	Commercial, Industrial
OH-3	Ohio	Tax credit—Personal income	Personal Tax Credit for ethanol plant investors	AF (Ethanol)	Residential
OH-4	Ohio	Tax exemption—Property	Exempts certain equipment from property taxation	Biomass, AF, MSW	Commercial, Industrial
OH-5	Ohio	Tax exemption—Sales (equipment) Tax exemption—use (equipment)	Exempts certain equipment from state sales and use tax	Biomass, AF, MSW	Commercial, Industrial
OH-6	Ohio	Grants—Interest subsidies on loans	Low interest loans for renewable energy projects	Biomass, Fuel Cells	Commercial, Industrial, Residential, Nonprofit, Schools, Local Government
OH-7	Ohio	Voluntary—Green power	Bowling Green Municipal Utility	Biomass	Commercial, Industrial, Residential, Local Government
OH-8	Ohio	Mandated—Net metering	Net Metering, 25 kW maximum	Fuel cells	Commercial, Residential
OH-9	Ohio	Mandated—Net metering	Net metering, total installed capacity is limited to 0.1% of each utility's in state customer peak demand	Landfill Gas, Biomass, AF, Fuel Cells, micro turbines	Commercial, Industrial, Residential
OH-10	Ohio	Loans—Equipment	Public Benefits Fund	Biomass, AF, Fuel Cells, MSW	Commercial, Industrial, Residential, Utilities
OH-11	Ohio	Mandated—emission inspection exemptions	Exempts AFVs from certain motor vehicle inspection and maintenance programs	AFVs	Private sector
OH-12	Ohio	Mandated—use exemptions	Forbids vehicle emission tampering except for AF modifications	AFVs	Private sector
OK-1	Oklahoma	Tax credit—Corporate	Provides tax credit for converting a vehicle to AF, or for the incremental cost of a new OEM AFV	AFV	Commercial, Industrial, Residential

OK-2	Oklahoma	Tax credit—Personal	Provides tax credit for converting a vehicle to AF, or for the incremental cost of a new OEM AFV	AFV	Commercial, Industrial, Residential
OK-3	Oklahoma	Loans—Equipment	Loan program to convert public fleets to operate on AFs	AFV	Schools, Local Government, State Government
OK-4	Oklahoma	Loans—Equipment	Low interest loans to convert private fleets to AFVs	AFV	Commercial, Industrial
OK-5	Oklahoma	Mandated—Net metering	Net metering, 100 kW maximum	Biomass, AF, MSW, Cogeneration	Commercial, Industrial, Residential
OK-6	Oklahoma	Tax credit—personal, corporate	State tax credit for AFVs, AF	AFVs, AF	Individuals, businesses
OK-7	Oklahoma	Loan—AFV purchases	Alternative fuels loan program to help convert public fleets to operate on alternative fuels	AFVs	Local government, School (K-12), Governmental authorities
OK-8	Oklahoma	Loan—AFV purchases	Loan program for converting private fleets to operate on alternative fuel	AFVs	Individuals businesses
OK-9	Oklahoma	Mandated Outreach (fuel cells)	Establishes Fuel Cell Initiative Task Force to develop a fuel cell industry in the state	AF	State government
OK-10	Oklahoma	Mandated—AFVs, AF	Encourages schools to use AFVs and AFs	AFVs, AF	State government
OK-11	Oklahoma	Mandated—Outreach	Encourages state bioenergy production programs	AFVs, AF	State government
OK-12	Oklahoma	Outreach	Establishes the OK Ethanol Development Study Act and the OK Ethanol Development Advisory Committee to promote ethanol in OK	AFV, AF	Industrial, state government, schools (universities), non-profits
OK-13	Oklahoma	Tax exemption—excise tax	Establishes an annual flat fee on AFVs in lieu of fuel excise tax	AFVs, AF	Individuals, businesses
OK-14	Oklahoma	Mandated—technician certification	Regulates the training, testing, and certification of AFV technicians	AFVs	Individuals, businesses
OK-15	Oklahoma	Mandated—regulation exemption	Exempts the price and sale of AF from regulation	AFVs	Individuals, businesses
OR-1	Oregon	Tax credit—Corporate	Corporate Tax Credit for investment in renewable energy	Biomass, AF, MSW	Commercial, Industrial, Transportation, Utilities
OR-2	Oregon	Tax credit—Personal	Personal Tax Credit	AFVs, Fuel Cells	Residential
OR-3	Oregon	Tax exemption—Property	Property Tax Exemption	Fuel Cells, Methane Gas	Commercial, Industrial, Residential
OR-4	Oregon	Grants—Equipment	Funds renewable energy resource projects funded by Energy Trust of Oregon	Landfill Gas, Biomass, Digester Gas, MSW	Commercial, Industrial, Residential, General Public, Nonprofit, Schools, Local Government, State Government
OR-5	Oregon	Loans—Equipment	Oregon Small Scale Energy Loan Program	Biomass, AF, MSW, Cogeneration	Commercial, Industrial, Residential, Nonprofit, Schools, Local Government, State Government
OR-6	Oregon	Loans—Equipment	Utility Loan Program	Fuel Cells, (Biodiesel) AF	Commercial, Industrial, General Public, Nonprofit, Schools, Local Government
OR-7	Oregon	Voluntary Rebates—Equipment	Eugene Water & Electric Board (EWEB) Energy Smart Services program	Fuel Cells, (Biodiesel) AF	Commercial, Industrial, General Public, Nonprofit, Schools, Local Government

OR-8	Oregon	Voluntary—Green power	Central Electric green pricing program	Landfill gas	Commercial, Residential
OR-9	Oregon	Voluntary—Green power	Douglas Electric green pricing program	Landfill gas	Commercial, Residential
OR-10	Oregon	Mandated—Standards	Construction/Design Standard	Biomass, biogas	Commercial, Residential, Construction, Institutional
OR-11	Oregon	Voluntary—Green power purchases	City of Portland purchases	Biomass	General Public, Local Government
OR-12	Oregon	Mandated—Net metering	Net metering , 25 kW maximum	Fuel cells	Commercial, Industrial, Residential
OR-13	Oregon	Grants—Equipment	Public Benefits Fund	Biomass, AF	Commercial, Industrial, Residential, Utilities
OR-14	Oregon	Tax credit—Corporate	AFV (purchase or conversion)	AFVs, AF	Businesses
OR-15	Oregon	Tax credit—Personal	Residential tax credit	AFVs, AF	Individuals
OR-16	Oregon	Mandated—AFV purchases	Mandated- purchase AFVS	AFVs	State government
PA-1	Pennsylvania	Grants—Business development	Business startup and planning grants	Landfill gas, Biomass, AF, AFVs, Fuel Cells, MSW, Cogeneration	Commercial, Industrial, Residential, General Public, Nonprofit, Schools, Local Government, Transportation, Construction, State Government
PA-2	Pennsylvania	Grants—Equipment	Sustainable Energy Fund of Central Eastern Pennsylvania	Landfill Gas, Biomass, Fuel Cells	Commercial, Industrial, Nonprofit, Local Government, Utilities, State Government
PA-3	Pennsylvania	Grants—Equipment	West Penn Power Sustainable Energy Fund	Landfill Gas, Biomass, AF, AFVs, Fuel Cells, MSW	Non-profit, schools
PA-4	Pennsylvania	Loans—Equipment	Low interest loans	Landfill Gas, Biomass, Fuel Cells	Commercial
PA-5	Pennsylvania	Loans—Equipment	GPU Energy Sustainable Energy Fund	Landfill Gas, Biomass, Fuel Cells, MSW Cogeneration	Commercial, Industrial, Residential, Nonprofit, Schools
PA-6	Pennsylvania	Loans—Equipment	West Penn Power Sustainable Energy Fund	Landfill Gas, Biomass, AF, AFVs, Fuel Cells, MSW	Commercial, Industrial, Residential, General Public, Nonprofit, Schools, Local Government, Transportation, Construction, Utilities, State Government
PA-7	Pennsylvania	Grants—Equipment	Pennsylvania Department of Environmental Protection	AFVs, AF stations	Commercial, Industrial, Residential, General Public, Nonprofit
PA-8	Pennsylvania	Mandated—Generation disclosure	Suppliers must verify fuel mix data and Greenpower claims	Biomass, AF, MSW, Cogeneration	General Public, Utilities
PA-9	Pennsylvania	Mandated—Net metering	Net metering, varies with utility, up to 50 kW	Biomass, AFVs	Commercial, Industrial, Residential
PA-10	Pennsylvania	Mandated—RPS	Renewables Portfolio Standard	Biomass, MSW	Utilities
PA-11	Pennsylvania	Grants—AFVs, AF facilities	Alternative fuels incentive grants program	AFVs, AF	Individuals, businesses
PA-12	Pennsylvania	Rebates—AFVs, AF	The Greater Philadelphia Clean Cities Program	AFVs, AF	Individuals, businesses

PA-13	Pennsylvania	Mandated—AF permit	Requires AF distributors to have an AF permit.	AF	Individuals, businesses
PA-14	Pennsylvania	Tax imposition—Sales (fuel)	Imposes excise tax on AFs used for highway use.	AFVs	Individuals, businesses
RH-1A	Rhode Island	Grants—Production Incentive Rebates—Green power purchases	Rhode Island Renewable Energy Collaborative, production incentive capped at \$0.03/kWh	Landfill Gas, Biomass, Fuel Cells	Commercial, Utilities, Industrial, Institutional
RH-1B	Rhode Island	Grants—Outreach	Rhode Island Renewable Energy Collaborative	Landfill Gas, Biomass, Fuel Cells	Non-profits, State Government, Local Government, Commercial, Industrial
RH-2	Rhode Island	Rebates—Equipment	Rhode Island Renewable Energy Collaborative	Landfill Gas, Biomass, Fuel Cells	Commercial
RH-3	Rhode Island	Mandated—Net metering	Net metering, applies to renewable energy generating facilities and cogeneration facilities, 15 kW or 25 kW	Biomass, AF, MSW, Cogeneration	Commercial, Industrial, Residential
RH-4	Rhode Island	Grants—Equipment	Public Benefits Fund	Biomass, AF, Fuel Cells	Commercial, Industrial, Residential, General Public, Utilities
RH-5	Rhode Island	Loan—AFV purchases	Loans for purchase of AFVs	AFVs	State agencies, municipal governments
RH-6	Rhode Island	Tax credit—corporate Tax credit—personal	Tax credit—corporate (AFVs), construction (production AF)	AFVs, AF	Individuals, businesses
RH-7	Rhode Island	Tax deduction—AF	Tax deduction	AF	Corporations
RH-8	Rhode Island	Tax exemption—AFV	AFV tax exemption	AFV	Individuals, corporations
SC-1	South Carolina	Voluntary—Green power purchases	North Myrtle Beach, Conway, Monks Corner, St. Steven, Loris/ Santee Cooper's GreenPower program	Landfill gas	Commercial, Industrial, Residential
SC-2	South Carolina	Voluntary—Green power purchases	Myrtle Beach/ Santee Cooper's GreenPower program	Landfill gas	Local Government
SC-3	South Carolina	Mandated—AF use	Mandated use of alternative fuels in AFVs	Alternative fuels	State Government (fleets)
SD-1	South Dakota	Grants—Production Incentive	Ethanol production, \$0.20/gal	(Ethanol) AF	Commercial, Industrial
SD-2	South Dakota	Tax exemption—Property	Property Tax Exemption	Renewable energy systems, biomass, AF	Commercial, Residential
SD-3	South Dakota	Tax Imposition—Excise (AF)	Sets excise tax rate on biodiesel	AF	Individuals, corporations
SD-4	South Dakota	Tax credit (excise)	AF tax credit	AF	Individuals, corporations
SD-5	South Dakota	Grants—Production incentive	Ethanol production incentive	AF	Individuals, corporations
TN-1	Tennessee	Loans—Equipment	Low interest loans	Biomass, MSW, AF	Commercial, Industrial
TN-2	Tennessee	Voluntary—Green power	TVA Green Power Switch with 19 distributors	Landfill gas	Commercial, Residential
TN-	Tennessee	Mandated—Green power purchases	Covers all state buildings in Nashville	Landfill gas	State Government

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TX-1	Texas	Tax deduction—Corporate	Corporate Tax Deduction	Biomass	Commercial
TX-2	Texas	Voluntary—Green power	Austin Energy GreenChoice program	Landfill gas	Commercial, Residential
TX-3	Texas	Outreach	Texas State Energy Conservation Office's Renewable Energy Demonstration Program	Landfill Gas, Biomass, AF, AFVs, Fuel Cells, MSW, cogeneration	Commercial, Industrial, Residential, General Public, Nonprofit, Schools, Local Government, Transportation, Utilities, State Government
TX-4	Texas	Mandated—Generation disclosure	Describes what and how information must be reported	Landfill Gas, Biomass	Commercial, Industrial, Residential, Utilities
TX-5	Texas	Mandated—Net metering	Net metering, CPS' distributed generation rate, 25 kW maximum	Landfill Gas, Biomass	Commercial, Residential
TX-6	Texas	Mandated—Net metering	Net metering, Investor-owned utilities and rural electric cooperatives, 50 kW maximum	Landfill Gas, Biomass	Commercial, Industrial, Residential
TX-7	Texas	Mandated—RPS	Renewables Portfolio Standard, 2,000 MW of new renewables installed in TX by 2009	Landfill Gas, Biomass	Utilities
TX-8	Texas	Mandated—Standards	Requires state government to consider alternative energy for new state government office buildings	Fuel cells	Construction, State Government
TX-9	Texas	Grants—AFV	Grants to replace school buses with AFVs	AFVs, AF	Schools
TX-10	Texas	Grants—clean air projects	Available for new or converted AFVs and engines	AFVs	Individuals, corporations
TX-11	Texas	Grants—demonstration projects	New Technology Research and Development Program	AFVs, AF	Individuals
TX-12	Texas	Grants—production	Grants program for ethanol and biodiesel fuel producers	AFVs	Industrial (Ethanol and biodiesel producers)
TX-13	Texas	Grants—Outreach	Grants program to promote the use of alternative energy sources	AF	School districts
TX-14	Texas	Outreach	To encourage the use of alternative fuels	AFVs	Local Government, State Government, Non-Profit, Private Businesses (Public and private entities)
TX-15	Texas	Outreach	The Texas Energy Planning Council	AF	State government
TX-16	Texas	Outreach	The Texas Alternative Fuels Program	AF	Non-profits
TX-17	Texas	Tax exemption—Excise (AF)	Diesel fuel tax exemption	AF	Individuals, corporations
TX-18	Texas	Mandated—AFV purchase	Requires certain fleets to purchase AFVs	AFVs, AF	State and local government
TX-19	Texas	Outreach	The Clean Vehicle Loaner Program for local government test drives of AFVs	AFVs, AF	State and local government
TX-20	Texas	Grants—AFVs	Grants for clean fuel vehicle purchases and conversions	AFVs, AF	Government and private entities
UT-1	Utah	Tax credit—Corporate	Corporate income tax credit for renewable energy systems	Biomass	Commercial, Industrial, Residential
UT-2	Utah	Mandated—Net metering	Net metering, 25 kW maximum	Fuel cells	Commercial, Industrial, Residential

UT-3	Utah	Mandated—Use Exemption	Exempts AFVs from HOV restrictions	AFVs, AF	Individuals
UT-4	Utah	Grants—AFVs	Grants for converting a vehicle to AFs and/or purchasing OEM AFVs	AFVs, AF	Individuals, corporations, local government, state government
UT-5	Utah	Tax credit—purchase (AFV) Tax credit—conversion (AFV)	Tax credits for converting a vehicle to AFs and/or purchasing OEM AFVs	AFVs, AF	Individuals, corporations
VT-1	Vermont	Tax exemption—Property	Allows municipalities the option of offering property tax exemptions for certain renewable energy systems	AF	Commercial, Industrial, Residential
VT-2	Vermont	Tax exemption—Sales (equipment)	Sales tax exemption for renewable energy systems	Fuel Cells, Anaerobic digestion	Commercial, Residential, Agricultural
VT-3	Vermont	Mandated—Net metering	Net metering, 150 kW maximum	Biomass, Fuel Cells	Commercial, Residential, Agricultural
VT-4	Vermont	Tax credit—corporate	Tax credit—income tax (AFVs, design, development, and manufacture)	AFVs	Businesses
VT-5	Vermont	Mandated—Purchase AFVs	Mandated-purchases of AFVs	AFVs, AF	State government
VT-6	Vermont	Mandated—Purchases (AFVs)	Mandated—purchases of AFVs	AFVs, AF	State government
VT-7	Vermont	Mandated—Govt Planning	Mandated-- Requires Secretary of Administration to develop a state energy plan	AFVs, AF	State government
VA-1	Virginia	Loans—Equipment	Low interest loans for low and moderate income homeowners	Biomass, MSW	Residential
VA-2	Virginia	Tax credit—Personal	tax credit for AFV purchases	AFV	Individuals
VA-3	Virginia	Use exemptions—AFVs	Allows use of HOV lanes with AFV decal	AFV, AF refueling stations	Existing residential
VA-4	Virginia Board of Education	Loans—AFV conversions Loans—AF facilities	loans to convert school buses to operate on alternative fuels or construct alternative fuel refueling stations	AF and AF refueling stations	Schools
VA-5	Virginia	Tax credit—Corporate	Tax credit for job creation	AF and AF refueling stations	Private business, industrial, commercial
VA-6	Virginia	Tax credit—personal and corporate	reducing personal property taxes for AFVs	AFVs, AF refueling stations	Individuals and Businesses
VA-7	Virginia	Tax reduction—property	Sales tax on liquid alternative fuel used in AFVs	Liquid AF, AFV's	Private business, individuals
VA-8	Virginia Department of Motor Vehicles	Mandate—tax imposition	Imposes an excise tax on AF used in AFVs	AF, AFV's	Schools
VA-9	Virginia Board of Education	Mandated—licensing	Requires certain users and distributors of AFs to obtain a license.	AF and AFV, AF refueling stations	School (buses), individuals, commercial, industrial
VA-10	Virginia	Voluntary—outreach	Allows signs or other markings on school buses using alternative fuels in AFVs	AFVs, AF	Schools (k-12)
WA-1	Washington	Tax exemption—Corporate	Exempts qualifying high technology manufacturers from the state corporate excise	Biomass, AF, MSW	Commercial, Industrial

			tax		
WA-2	Washington	Voluntary—Production Incentive	Chelan County PUD, maximum payment \$1.25/kWh	Biofuels	Commercial, Industrial, Nonprofit, Schools, Local Government, Transportation, Utilities, State Government, Residential (Utility Service Area, Chelan County PUD)
WA-3	Washington	Tax exemption—Sales (electric)	Sales Tax Exemption for electric generating facilities	Landfill gas, fuel cells	Commercial, Industrial, Residential, General Public, Nonprofit, Utilities
WA-4	Washington	Voluntary—Green power	Benton County Public Utility District	Landfill gas	Commercial, Industrial, Residential
WA-5	Washington	Voluntary—Green power	Seattle City Light	Landfill Gas, Biomass	Commercial, Industrial, Nonprofit, Schools, Local Government, Transportation, Utilities, State Government, Residential (Utility Service Area, Seattle City Light)
WA-6	Washington	Outreach	Sustainable Building Advisor Certificate Program	Biomass	Local Government
WA-7	Washington	Outreach	Washington State University (WSU) Cooperative Extension Service's Energy Program	Biomass, AF	General Public, Utilities
WA-8	Washington	Mandated—Generation disclosure	Requires disclosure of fuel mix	Biomass, MSW	Utilities
WA-9	Washington	Mandated—Green power option	Mandatory Utility Green Power Option	Landfill Gas, Biomass, MSW	Utilities
WA-10	Washington	Voluntary—Net metering	Grays Harbor PUD, 25 kW maximum	Fuel cells	Commercial, Industrial, Residential
WA-11	Washington	Mandated—Net metering	Washington State, 25 kW maximum	Fuel cells	Commercial, Industrial, Residential
WA-12	Washington	Tax deferment—manufacturing (AF)	Manufacturing tax deferment	AF (biodiesel, ethanol)	Corporations, industrial
WA-13	Washington	Tax deduction—Corporate Tax exemption—Equipment and AF facilities	Tax deduction for the sale or distribution of AFs; exempts from retail fuel sales and use taxes equipment and facilities used for sale of AFs	AFVs, AF (biodiesel, ethanol)	Individuals, corporations
WA-14	Washington	Outreach	Pilot project on the use of biodiesel with ultra low sulfur diesel in school buses	AFVs, AF	Local government, schools
WA-15	Washington	Grants—equipment Grants—outreach Grants—AF facilities	To assist in the purchase AFV public transit vehicles, certify AFV mechanics, and establish AF refueling infrastructure	AFVs, AF (equipment and facilities)	Local government, commercial, schools
WA-16	Washington	Mandated—Standard	Requires standards for biodiesel storage tanks	AF	Corporations, state government
WA-17	Washington	Grants—equipment	Grants for school bus emission controls	AFVs, AF	Non-profits, schools
WA-18	Washington	Mandated—AF use	Encourages use of biodiesel in state vehicles	AFVs, AF	State agencies
WA-19	Washington	Outreach	Encourages state agencies to establish a biennial Sustainability Plan	AFVs, AF	State agencies
WA-20	Washington	Mandated—AFVs	Requires that 30% of all new vehicles purchased through a state contract must be	AFVs, AF	State agencies

			clean-fuel vehicles		
WA-21	Washington	Mandated—Labeling	Requires vehicles fueled by an AF to be labeled	AFVs	all
WA-22	Washington	Voluntary—AF and AFV use	Sets goals for purchasing AFVs and AFs	AFV's, AF	Local government
WV-1	West Virginia	Tax credit—corporate Tax credit—personal	tax credit for the incremental cost of purchasing an OEM AFV, or for the cost of converting a vehicle to operate on an alternative fuel	AF and AFV	Individual or corporations
WV-2	West Virginia	Grants—AFVs Grants—AF conversions	grants program to assist in converting and purchasing AFVs	AFVs	Local governments
WV-3	West Virginia	Mandated—prohibiting AF incentives	Mandated prohibition of incentives or subsidies from political subdivisions for the production of alternative fuels	AF	Local governments
WV-4	West Virginia Secretary of Administration	Mandated—AFV purchases	Mandated purchases of AFVs	AFVs	State, county and municipal government fleets
WI-1	Wisconsin	Grants—Business development	Feasibility studies for the production of renewable-energy-derived transportation fuels	AF	Commercial, Nonprofit, Local Government, Utilities, State Government
WI-2	Wisconsin	Grants—various	Wisconsin Focus on Energy program provides grants for business and marketing development, demonstrations, equipment, feasibility studies, library materials, R&D	Biomass	Commercial, Residential, Nonprofit, Schools, Local Government, State Government
WI-3	Wisconsin	Rebates—Equipment	Provides rebates for residential renewable energy systems.	Biomass	Commercial, Industrial, Residential, Nonprofit, Schools, Local Government, State Government
WI-4	Wisconsin	Voluntary—Green power	Alliant Energy Second Nature Program	Biomass	All (Alliant Energy Customers)
WI-5	Wisconsin	Voluntary—Green power	We Energies' Energy for Tomorrow	LFG	Commercial, Industrial, Residential
WI-6	Wisconsin	Voluntary—Green power	Wisconsin Public Power, Inc.'s Renewable Energy Program	Biomass, MSW	Commercial, Industrial, Residential, Nonprofit, Schools, Local Government, State Government
WI-7	Wisconsin	Voluntary—Green power	Wisconsin Public Service's NatureWise Program	Biomass, LFG	All (WI Public Service Corp. Customers)
WI-8	Wisconsin	Mandated—Net metering	Net metering, 20 kW	Biomass, AF, waste, cogeneration	Commercial, industrial, residential
WI-9	Wisconsin	Mandated—Public benefits fund	Establishes Wisconsin's Public Benefit fund	Biomass, waste	Commercial, industrial, residential, general public, utilities
WI-10	Wisconsin	Mandated—RPS	Renewable portfolio standard, 2.2% renewables by 2010	Biomass, fuel cells	Utilities
WI-11	Wisconsin	Tax deduction—state (AFV)	State AFV tax deduction	AFVs	Individuals, corporations
WI-12	Wisconsin	Tax Imposition—Excise (AF)	State excise tax on AF	AFVs, AF	Individuals, businesses
WI-13	Wisconsin	Tax exemption—Excise, license, privilege, occupational tax (AF)	Prohibits local governments from collecting any excise, license, privilege, or occupational	AFVs, AF	Local government

			tax upon AFV or AF		
WI-14	Wisconsin	Mandated—licensing	Requires licensing of AFV dealers	AFVs	Individuals, Commercial
WY-1	Wyoming	Tax credit—Corporate	Provides for corporate income tax credit of \$0.40/gallon for ethanol fuel producers	Ethanol	Individuals, corporations
WY-2	Wyoming	Mandated—licensing	Requires licensing for anyone that imports, exports, or supplies ethanol	AF	Individuals, corporations
PR-1	Puerto Rico	Tax exemption—Excise (equipment)	Exempts farmers from paying excise tax on renewable energy equipment	Biomass facilities	Farmers
PR-2	Puerto Rico	Tax exemption—Excise (equipment)	Exempts certain AFVs from excise taxes	AFV	General Public, Transportation

APPENDIX C

Table 3A. A breakdown by state of the different incentive and policy types

APPENDIX D

Table 4A. A breakdown by state of the different types of biomass or things (e.g., equipment, facilities, vehicles) targeted by each incentive or policy

APPENDIX E

Table 5A. A breakdown by state of the different eligible classifications targeted by each incentive or policy

Table 3A. Incentive or PolicyType																	
	Grants																
State	Interest	Production		Clean Air	Demo			Equity			AF	AF			Planning &		
	Subsidies	Incentives	Bus. Dev.	Projects	Projects	R&D	Outreach	Investments	AFV	AF	Conversion	Facilities	Eqt	Facilities	Studies	Training	Various
AL1	1																
AL2																	
AL3																	
AK1																	
AK2																	
AZ1																	
AZ2																	
AZ3																	
AZ4																	
AZ5																	
AZ6																	
AZ7																	
AZ8																	
AZ9																	
AZ10																	
AZ11																	
AZ12																	
AZ13																	
AR1																	
AR2																	
AR3																	
AR4																	
AR5		1															
AR6																	
CA1			1														
CA2						1											
CA3																	
CA4																	
CA5																	
CA6																	
CA7																	
CA8																	
CA9																	
CA10																	
CA11																	
CA12						1	1										
CA13A																	
CA13B																	
CA14																	
CA15A													1				
CA15B																	
CA16																	
CA17									1	1		1					
CA18									1								
CA19									1								
CA20									1								
CA21									1								
CA22									1			1					
CO1																	
CO2																	
CO3																	
CO4																	
CO5																	
CO6																	
CO7																	
CO8																	
CT1																	
CT2						1											
CT3																	
CT4																	
CT5						1		1									
CT6																	
CT7																	
CT8																	
CT9																	
CT10																	
CT11																	
DL1																	
DL2																	
DL3																	
DL4																	
DL5																	
DC1									1								
DC2																	
DC3																	
FL1																	
FL2																	
FL3																	
FL4																	
FL5																	
FL6																	
GA1																	
GA2																	
GA3																	
GA4																	
GA5									1								
GA6																	
GA7																	
HI1																	
HI2																	
HI3																	
HI4																	
HI5																	
HI6																	
HI7																	
HI8																	
HI9																	
HI10																	
ID1																	
ID2																	

Table 3A. Incentive or PolicyType																	
	Grants																
State	Interest	Production		Clean Air	Demo			Equity			AF	AF			Planning &		
	Subsidies	Incentives	Bus. Dev.	Projects	Projects	R&D	Outreach	Investments	AFV	AF	Conversion	Facilities	Eqt	Facilities	Studies	Training	Various
ID3																	
ID4																	
ID5																	
IL1																	
IL2													1				
IL3						1	1										
IL4													1				
IL5																	
IL6																	
IL7																	
IL8																	
IL9																	
IL10						1											
IL11																	
IL12													1				
IL13																	
IL14																	
IL15																	
IL16																	
IL17						1											
IL18																	
IL19																	
IL20																	
IL21																	
IL22																	
IL23																	
IN1										1	1						
IN2						1							1				
IN3						1							1				
IN4						1											
IN5						1							1				
IN6																	
IN7																	
IN8																	
IN9																	
IN10													1				
IN11																	
IN12																	
IN13																	
IN14																	
IN15																	
IN16																	
IA1																	
IA2																	
IA3																	
IA4						1											
IA5																	
IA6																	
IA7			1														
IA8																	
IA9																	
IA10																	
IA11																	
IA12						1	1										
IA13																	
IA14																	
IA15										1							
IA16																	
IA17																	
IA18																	
KS1																	
KS2																	
KS3		1															
KS4																	
KS5			1			1											
KS6																	
KS7																	
KS8																	
KS9																	
KS10																	
KY1																	
KY2																	
KY3																	
LA1																	
ME1																	
ME2													1				
ME3																	
ME4																	
ME5																	
ME6																	
ME7																	
ME8																	
ME9													1	1			
ME10																	
ME11																	
ME12																	
ME13													1				
ME14																	
ME15																	
MD1																	
MD2																	
MD3																	
MD4																	
MD5																	
MD6																	
MD7																	
MD8																	
MD9																	
MD10										1							
MD11																	

Table 3A. Incentive or PolicyType																	
	Grants																
	Interest	Production		Clean Air	Demo			Equity			AF	AF			Planning &		
State	Subsidies	Incentives	Bus. Dev.	Projects	Projects	R&D	Outreach	Investments	AFV	AF	Conversion	Facilities	Eqt	Facilities	Studies	Training	Various
MA1																	
MA2																	
MA3															1		
MA4							1						1		1		
MA5																	
MA6																	
MA7													1				
MA8																	
MA9																	
MI1																	
MI2																	
MI3																	
MI4													1				
MI5																	
MI6																	
MI7																	
MI8																	
MI9													1				
MN1		1															
MN2		1															
MN3																	
MN4																	
MN5						1							1				
MN6																	
MN7																	
MN8		1															
MN9																	
MN10																	
MN11																	
MN12																	
MS1																	
MS2																	
MS3													1				
MS4		1															
MS5																	
MO1																	
MO2																	
MO3		1															
MO4		1															
MO5																	
MO6										1							
MO7																	
MO8																	
MO9																	
MO10																	
MO11																	
MO12																	
MT1																	
MT2																	
MT3																	
MT4																	
MT5																	
MT6													1				
MT7																	
MT8																	
MT9																	
MT10																	
MT11																	
MT12																	
MT13																	
MT14																	
MT15																	
NE1																	
NE2																	
NE3																	
NE4																	
NE5																	
NV1																	
NV2																	
NV3																	
NV4																	
NV5																	
NV6																	
NV7																	
NV8																	
NV9																	
NV10																	
NV11																	
NH1																	
NJ1																	
NJ2																	
NJ3																	
NJ4																	
NJ5													1				
NJ6																	
NJ7																	
NJ8												1					
NJ9																	
NJ10																	
NM1																	
NM2																	
NM3													1				
NM4									1								
NM5																	
NM6																	
NM7																	
NM8																	
NM9																	
NM10																	
NY1																	

Table 3A. Incentive or PolicyType																	
	Grants																
State	Interest	Production		Clean Air	Demo			Equity			AF	AF			Planning &		
	Subsidies	Incentives	Bus. Dev.	Projects	Projects	R&D	Outreach	Investments	AFV	AF	Conversion	Facilities	Eqt	Facilities	Studies	Training	Various
NY2																	
NY3						1											
NY4						1											
NY5																	
NY6																	
NY7													1				
NY8																	
NY9																	
NY10									1	1	1						
NY11																	
NY12						1											
NY13																	
NY14																	
NY15																	
NC1																	
NC2																	
NC3																	
NC4																	
NC5																	
NC6													1				
NC7																	
NC8																	
NC9																	
NC10																	
NC11																	
ND1		1															
ND2																	
ND3																	
ND4		1															
ND5																	
OH1																	
OH2																	
OH3																	
OH4																	
OH5																	
OH6	1																
OH7																	
OH8																	
OH9																	
OH10																	
OH11																	
OH12																	
OK1																	
OK2																	
OK3																	
OK4																	
OK5																	
OK6																	
OK7																	
OK8																	
OK9																	
OK10																	
OK11																	
OK12																	
OK13																	
OK14																	
OK15																	
OR1																	
OR2																	
OR3																	
OR4													1				
OR5																	
OR6																	
OR7																	
OR8																	
OR9																	
OR10																	
OR11																	
OR12																	
OR13													1				
OR14																	
OR15																	
OR16																	
PA1			1														
PA2													1				
PA3													1				
PA4																	
PA5																	
PA6																	
PA7													1				
PA8																	
PA9																	
PA10																	
PA11									1				1				
PA12																	
PA13																	
PA14																	
RH1A		1															
RH1B							1										
RH2																	
RH3																	
RH4													1				
RH5																	
RH6																	
RH7																	
RH8																	
SC1																	
SC2																	
SC3																	
SD1		1															

Table 3A. Incentive or PolicyType																	
	Grants																
State	Interest	Production		Clean Air	Demo			Equity			AF	AF			Planning &		
	Subsidies	Incentives	Bus. Dev.	Projects	Projects	R&D	Outreach	Investments	AFV	AF	Conversion	Facilities	Eqt	Facilities	Studies	Training	Various
SD2																	
SD3																	
SD4																	
SD5		1															
TN1																	
TN2																	
TN3																	
TX1																	
TX2																	
TX3																	
TX4																	
TX5																	
TX6																	
TX7																	
TX8																	
TX9										1							
TX10				1													
TX11					1												
TX12		1															
TX13							1										
TX14																	
TX15																	
TX16																	
TX17																	
TX18																	
TX19																	
TX20									1								
UT1																	
UT2																	
UT3																	
UT4										1							
UT5																	
VT1																	
VT2																	
VT3																	
VT4																	
VT5																	
VT6																	
VT7																	
VA1																	
VA2																	
VA3																	
VA4																	
VA5																	
VA6																	
VA7																	
VA8																	
VA9																	
VA10																	
WA1																	
WA2																	
WA3																	
WA4																	
WA5																	
WA6																	
WA7																	
WA8																	
WA9																	
WA10																	
WA11																	
WA12																	
WA13																	
WA14																	
WA15												1	1			1	
WA16																	
WA17													1				
WA18																	
WA19																	
WA20																	
WA21																	
WA22																	
WV1																	
WV2									1		1						
WV3																	
WV4																	
WI1			1														
WI2																	1
WI3																	
WI4																	
WI5																	
WI6																	
WI7																	
WI8																	
WI9																	
WI10																	
WI11																	
WI12																	
WI13																	
WI14																	
WY1																	
WY2																	
PR1																	
PR2																	
Total	2	14	5	1	1	18	6	1	17	5	2	5	30	1	2	1	1

Table 3A. Incentive or PolicyType				
	Rebates			
	Alternative	AF	Equip.	Green Power
State	Fuel	Outreach	Including AFV	Purchases
AL1				
AL2				
AL3				
AK1				
AK2				
AZ1				
AZ2				
AZ3				
AZ4				
AZ5				
AZ6				
AZ7				
AZ8				
AZ9				
AZ10				
AZ11				
AZ12				
AZ13				
AR1				
AR2				
AR3				
AR4			1	
AR5				
AR6				
CA1				
CA2				
CA3				
CA4				
CA5			1	
CA6			1	
CA7				
CA8				
CA9				
CA10				
CA11				
CA12				
CA13A				
CA13B				
CA14				
CA15A			1	
CA15B				1
CA16				
CA17				
CA18				
CA19				
CA20				
CA21				
CA22				
CO1				
CO2				
CO3			1	
CO4				
CO5				
CO6				
CO7				
CO8				
CT1				
CT2				
CT3				
CT4				
CT5				
CT6				
CT7				
CT8				
CT9				
CT10				
CT11				
DL1				
DL2				
DL3		1		
DL4				
DL5				

Table 3A. Incentive or PolicyType				
	Rebates			
	Alternative	AF	Equip.	Green Power
State	Fuel	Outreach	Including AFV	Purchases
DC1				
DC2				
DC3				
FL1				
FL2				
FL3				
FL4				
FL5				
FL6				
GA1				
GA2				
GA3				
GA4				
GA5				
GA6				
GA7				
HI1				
HI2				
HI3				
HI4				
HI5				
HI6				
HI7				
HI8				
HI9				
HI10				
ID1				
ID2				
ID3				
ID4				
ID5				
IL1				
IL2				
IL3				
IL4			1	
IL5	1			
IL6			1	
IL7			1	
IL8				
IL9				
IL10			1	
IL11				
IL12				
IL13				
IL14				
IL15			1	
IL16				
IL17				
IL18				
IL19				
IL20				
IL21				
IL22				
IL23				
IN1				
IN2				
IN3				
IN4				
IN5				
IN6				
IN7				
IN8				
IN9				
IN10				
IN11				
IN12				
IN13				
IN14				
IN15				
IN16				
IA1				
IA2				

Table 3A. Incentive or PolicyType				
	Rebates			
	Alternative	AF	Equip.	Green Power
State	Fuel	Outreach	Including AFV	Purchases
IA3				
IA4				
IA5				
IA6				
IA7				
IA8				
IA9				
IA10				
IA11				
IA12				
IA13				
IA14				
IA15				
IA16				
IA17				
IA18				
KS1				
KS2				
KS3				
KS4				
KS5				
KS6				
KS7				
KS8				
KS9				
KS10				
KY1				
KY2				
KY3			1	
LA1				
ME1				
ME2				
ME3				
ME4				
ME5				
ME6				
ME7				
ME8				
ME9				
ME10				
ME11				
ME12				
ME13				
ME14				
ME15				
MD1				
MD2				
MD3				
MD4				
MD5				
MD6				
MD7				
MD8				
MD9			1	
MD10				
MD11				
MA1				
MA2				
MA3				
MA4				
MA5				
MA6				
MA7				
MA8				
MA9				
MI1				
MI2				
MI3				
MI4				
MI5				
MI6				
MI7				

Table 3A. Incentive or PolicyType				
	Rebates			
	Alternative	AF	Equip.	Green Power
State	Fuel	Outreach	Including AFV	Purchases
MI8				
MI9				
MN1				
MN2				
MN3				
MN4				
MN5				
MN6				
MN7				
MN8				
MN9				
MN10				
MN11				
MN12				
MS1				
MS2				
MS3				
MS4				
MS5				
MO1				
MO2				
MO3				
MO4				
MO5				
MO6				
MO7				
MO8				
MO9				
MO10				
MO11				
MO12				
MT1				
MT2				
MT3				
MT4				
MT5				
MT6				
MT7				
MT8				
MT9				
MT10				
MT11				
MT12				
MT13				
MT14				
MT15				
NE1				
NE2				
NE3				
NE4				
NE5				
NV1				
NV2				
NV3				
NV4				
NV5				
NV6				
NV7				
NV8				
NV9				
NV10				
NV11				
NH1				
NJ1				
NJ2			1	
NJ3				
NJ4				
NJ5				
NJ6				
NJ7			1	
NJ8				
NJ9				

Table 3A. Incentive or PolicyType				
	Rebates			
	Alternative	AF	Equip.	Green Power
State	Fuel	Outreach	Including AFV	Purchases
NJ10				
NM1				
NM2				
NM3				
NM4				
NM5				
NM6				
NM7				
NM8				
NM9				
NM10				
NY1				
NY2				
NY3				
NY4				
NY5				
NY6				
NY7				
NY8				
NY9				
NY10				
NY11				
NY12				
NY13				
NY14				
NY15				
NC1				
NC2				
NC3				
NC4				
NC5				
NC6				
NC7				
NC8				
NC9				
NC10				
NC11				
ND1				
ND2				
ND3				
ND4				
ND5				
OH1				
OH2				
OH3				
OH4				
OH5				
OH6				
OH7				
OH8				
OH9				
OH10				
OH11				
OH12				
OK1				
OK2				
OK3				
OK4				
OK5				
OK6				
OK7				
OK8				
OK9				
OK10				
OK11				
OK12				
OK13				
OK14				
OK15				
OR1				
OR2				
OR3				

Table 3A. Incentive or PolicyType				
	Rebates			
	Alternative	AF	Equip.	Green Power
State	Fuel	Outreach	Including AFV	Purchases
OR4				
OR5				
OR6				
OR7				
OR8				
OR9				
OR10				
OR11				
OR12				
OR13				
OR14				
OR15				
OR16				
PA1				
PA2				
PA3				
PA4				
PA5				
PA6				
PA7				
PA8				
PA9				
PA10				
PA11				
PA12	1		1	
PA13				
PA14				
RH1A				1
RH1B				
RH2			1	
RH3				
RH4				
RH5				
RH6				
RH7				
RH8				
SC1				
SC2				
SC3				
SD1				
SD2				
SD3				
SD4				
SD5				
TN1				
TN2				
TN3				
TX1				
TX2				
TX3				
TX4				
TX5				
TX6				
TX7				
TX8				
TX9				
TX10				
TX11				
TX12				
TX13				
TX14				
TX15				
TX16				
TX17				
TX18				
TX19				
TX20				
UT1				
UT2				
UT3				
UT4				
UT5				

Table 3A. Incentive or PolicyType				
	Rebates			
	Alternative	AF	Equip.	Green Power
State	Fuel	Outreach	Including AFV	Purchases
VT1				
VT2				
VT3				
VT4				
VT5				
VT6				
VT7				
VA1				
VA2				
VA3				
VA4				
VA5				
VA6				
VA7				
VA8				
VA9				
VA10				
WA1				
WA2				
WA3				
WA4				
WA5				
WA6				
WA7				
WA8				
WA9				
WA10				
WA11				
WA12				
WA13				
WA14				
WA15				
WA16				
WA17				
WA18				
WA19				
WA20				
WA21				
WA22				
WV1				
WV2				
WV3				
WV4				
WI1				
WI2				
WI3			1	
WI4				
WI5				
WI6				
WI7				
WI8				
WI9				
WI10				
WI11				
WI12				
WI13				
WI14				
WY1				
WY2				
PR1				
PR2				
Total	2	1	17	2

Table 3A. Incentive or PolicyType						
	Loans					
	AFVs	AFV	AF	Business	Equip. &	Working
State		Conversions	Facilities	Development	Facilities	Capital
AL1					1	
AL2						
AL3						
AK1						
AK2					1	
AZ1						
AZ2						
AZ3						
AZ4						
AZ5						
AZ6						
AZ7						
AZ8						
AZ9						
AZ10						
AZ11						
AZ12						
AZ13						
AR1						
AR2						
AR3						
AR4						
AR5						
AR6						
CA1						
CA2						
CA3					1	
CA4					1	
CA5						
CA6						
CA7						
CA8						
CA9						
CA10						
CA11						
CA12						
CA13A						
CA13B						
CA14						
CA15A						
CA15B						
CA16						
CA17						
CA18						
CA19						
CA20						
CA21						
CA22						
CO1						
CO2						
CO3						
CO4						
CO5						
CO6						
CO7						
CO8						
CT1						
CT2						
CT3					1	
CT4						
CT5						
CT6						
CT7						
CT8						
CT9						
CT10						
CT11						1
DL1						
DL2						
DL3						
DL4						
DL5						

Table 3A. Incentive or PolicyType						
	Loans					
	AFVs	AFV	AF	Business	Equip. &	Working
State		Conversions	Facilities	Development	Facilities	Capital
DC1						
DC2						
DC3						
FL1						
FL2						
FL3						
FL4						
FL5						
FL6						
GA1						
GA2						
GA3						
GA4						
GA5						
GA6						
GA7						
HI1						
HI2						
HI3						
HI4						
HI5						
HI6						
HI7						
HI8						
HI9						
HI10						
ID1						
ID2					1	
ID3						
ID4						
ID5						
IL1						
IL2						
IL3						
IL4						
IL5						
IL6						
IL7						
IL8						
IL9						
IL10					1	
IL11						
IL12						
IL13						
IL14						
IL15						
IL16						
IL17						
IL18						
IL19						
IL20						
IL21						
IL22						
IL23						
IN1						
IN2						
IN3						
IN4						
IN5						
IN6						
IN7						
IN8						
IN9						
IN10						
IN11						
IN12						
IN13						
IN14						
IN15						
IN16						
IA1						
IA2						

Table 3A. Incentive or PolicyType						
	Loans					
	AFVs	AFV	AF	Business	Equip. &	Working
State		Conversions	Facilities	Development	Facilities	Capital
IA3						
IA4						
IA5					1	
IA6					1	
IA7				1		
IA8						
IA9						
IA10						
IA11						
IA12						
IA13						
IA14						
IA15						
IA16						
IA17						
IA18						
KS1						
KS2						
KS3						
KS4						
KS5						
KS6						
KS7						
KS8						
KS9						
KS10					1	
KY1						
KY2						
KY3						
LA1						
ME1						
ME2						
ME3						
ME4						
ME5						
ME6						
ME7						
ME8						
ME9					1	
ME10						
ME11						
ME12	1		1			
ME13					1	
ME14						
ME15						
MD1						
MD2						
MD3						
MD4						
MD5						
MD6						
MD7						
MD8						
MD9						
MD10						
MD11						
MA1						
MA2						
MA3						
MA4						
MA5						
MA6						
MA7						
MA8						
MA9						
MI1						
MI2						
MI3						
MI4						
MI5						
MI6						
MI7						

Table 3A. Incentive or PolicyType						
	Loans					
	AFVs	AFV	AF	Business	Equip. &	Working
State		Conversions	Facilities	Development	Facilities	Capital
MI8						
MI9						
MN1						
MN2						
MN3						
MN4						
MN5						
MN6						
MN7						
MN8						
MN9						
MN10						
MN11						
MN12						
MS1					1	
MS2						
MS3						
MS4						
MS5						
MO1						
MO2					1	
MO3						
MO4						
MO5						
MO6						
MO7						
MO8						
MO9						
MO10						
MO11	1		1			
MO12						
MT1						
MT2						
MT3						
MT4						
MT5						
MT6						
MT7					1	
MT8						
MT9						
MT10						
MT11						
MT12						
MT13						
MT14						
MT15						
NE1						
NE2					1	
NE3						
NE4	1		1			
NE5						
NV1						
NV2						
NV3						
NV4						
NV5						
NV6						
NV7						
NV8						
NV9						
NV10						
NV11						
NH1						
NJ1						
NJ2						
NJ3						
NJ4						
NJ5						
NJ6						
NJ7						
NJ8						
NJ9						

Table 3A. Incentive or PolicyType						
	Loans					
	AFVs	AFV	AF	Business	Equip. &	Working
State		Conversions	Facilities	Development	Facilities	Capital
NJ10						
NM1						
NM2						
NM3						
NM4						
NM5						
NM6						
NM7						
NM8	1					
NM9						
NM10						
NY1						
NY2						
NY3						
NY4						
NY5						
NY6						
NY7						
NY8						
NY9						
NY10						
NY11						
NY12						
NY13						
NY14						
NY15						
NC1						
NC2						
NC3						
NC4					1	
NC5						
NC6						
NC7						
NC8						
NC9						
NC10						
NC11						
ND1						
ND2						
ND3						
ND4						
ND5						
OH1						
OH2						
OH3						
OH4						
OH5						
OH6						
OH7						
OH8						
OH9						
OH10					1	
OH11						
OH12						
OK1						
OK2						
OK3					1	
OK4					1	
OK5						
OK6						
OK7	1					
OK8	1					
OK9						
OK10						
OK11						
OK12						
OK13						
OK14						
OK15						
OR1						
OR2						
OR3						

Table 3A. Incentive or PolicyType						
	Loans					
	AFVs	AFV	AF	Business	Equip. &	Working
State		Conversions	Facilities	Development	Facilities	Capital
OR4						
OR5					1	
OR6					1	
OR7						
OR8						
OR9						
OR10						
OR11						
OR12						
OR13						
OR14						
OR15						
OR16						
PA1						
PA2						
PA3						
PA4					1	
PA5					1	
PA6					1	
PA7						
PA8						
PA9						
PA10						
PA11						
PA12						
PA13						
PA14						
RH1A						
RH1B						
RH2						
RH3						
RH4						
RH5	1					
RH6						
RH7						
RH8						
SC1						
SC2						
SC3						
SD1						
SD2						
SD3						
SD4						
SD5						
TN1					1	
TN2						
TN3						
TX1						
TX2						
TX3						
TX4						
TX5						
TX6						
TX7						
TX8						
TX9						
TX10						
TX11						
TX12						
TX13						
TX14						
TX15						
TX16						
TX17						
TX18						
TX19						
TX20						
UT1						
UT2						
UT3						
UT4						
UT5						

Table 3A. Incentive or PolicyType						
	Loans					
	AFVs	AFV	AF	Business	Equip. &	Working
State		Conversions	Facilities	Development	Facilities	Capital
VT1						
VT2						
VT3						
VT4						
VT5						
VT6						
VT7						
VA1					1	
VA2						
VA3						
VA4		1				
VA5						
VA6						
VA7						
VA8						
VA9						
VA10						
WA1						
WA2						
WA3						
WA4						
WA5						
WA6						
WA7						
WA8						
WA9						
WA10						
WA11						
WA12						
WA13						
WA14						
WA15						
WA16						
WA17						
WA18						
WA19						
WA20						
WA21						
WA22						
WV1						
WV2						
WV3						
WV4						
WI1						
WI2						
WI3						
WI4						
WI5						
WI6						
WI7						
WI8						
WI9						
WI10						
WI11						
WI12						
WI13						
WI14						
WY1						
WY2						
PR1						
PR2						
Total	7	1	3	1	27	1

Table 3A. Incentive or PolicyType

[illegible]

Table 3A. Incentive or PolicyType

[illegible]

Table 3A. Incentive or PolicyType

[illegible]

Table 3A. Incentive or PolicyType

[illegible]

State	AFV/Use	AFUse	AF	Facility	Definitions	Government	Net Metering	Generation	RPS	Prohibiting	Regulation	Renewables	Use	Emission	Mandates		Emissions Testing	Green Power	Green Power	AFV	Licensing	AF Price	Public Benefits	Standards	Solid Waste	Technician	Outreach
															Emission Inspection	Exemptions											
State	Purchases	Purchase	Permit	Certification		Planning		Procurement		AF Incentives	Exemption	Set Aside	Exemptions	Reduction Credits	Exemptions	Requirements	Options	Purchases	Labeling	Licensing	Exemption	Reduction	Fund		Reduction Credits	certification	
AL1																											
AL2																											
AL3																											
AK1																											
AK2																											
AZ1																											
AZ2																											
AZ3																											
AZ4							1																				
AZ5										1																	
AZ6																	1										
AZ7																				1							
AZ8																					1						
AZ9														1													
AZ10																											
AZ11	1		1																								
AZ12																								1			
AR1																										1	
AR2																											
AR3							1																				
AR4																											
AR5																											
AR6																											
CA1																											
CA2																											
CA3																											
CA4																											
CA5																											
CA6																											
CA7																											
CA8																											
CA9																											

[illegible]

State	APV/Use			Facility Certification	Government		Disclosure	Prohibiting	Regulation	Renewables	Use	Emission	Mandates		Green Power	Green Power	APV	Licensing	AP Price	Public Benefits	Standards	Solid Waste	Technician	Outreach
	Purchases	Purchase	Permit		Planning	Net Metering							Exemption	Set Aside										
NJ0																								
NJ1		1	1																					
NJ2		1																						
NM1																								
NM2																								
NM3																								
NM4																								
NM5																								
NM6																								
NM7																								
NM8																								
NM9																								
NM10																								
NY1																								
NY2																								
NY3																								
NY4																								
NY5																								
NY6																								
NY7																								
NY8																								
NY9																								
NY10																								
NY11																								
NY12																								
NY13		1																						
NY14		1																						
NY15																								
NC1																								
NC2																								
NC3																								
NC4																								
NC5																								
NC6																								
NC7																								
NC8																								

Table 3A. Incentive or PolicyType

[illegible]

Table 3A. Incentive or PolicyType								
		Voluntary						
State	Outreach	AF and AFV Use	Offer Green Power Option	Green Pwr Labeling	Green Power Purchases	Net Metering	Rebates (equipment)	Production Incentive
AL1								
AL2								
AL3			1					
AK1								
AK2								
AZ1								
AZ2			1					
AZ3			1					
AZ4								
AZ5								
AZ6								
AZ7								
AZ8								
AZ9								
AZ10								
AZ11								
AZ12								
AZ13								
AR1								
AR2								
AR3								
AR4								
AR5								
AR6								
CA1								
CA2								
CA3								
CA4								
CA5								
CA6								
CA7			1					
CA8			1					
CA9			1					
CA10			1					
CA11			1					
CA12								
CA13A								
CA13B				1				
CA14								
CA15A								
CA15B								
CA16								
CA17								
CA18								
CA19								
CA20								
CA21								
CA22								
CO1								
CO2								
CO3								
CO4								
CO5								
CO6								
CO7								
CO8								
CT1								
CT2								
CT3								
CT4								
CT5								
CT6								
CT7								
CT8								
CT9								
CT10								
CT11								
DL1								
DL2								
DL3								
DL4								
DL5								
DC1								
DC2								
DC3								
FL1			1					
FL2			1					
FL3			1					
FL4								
FL5								
FL6								
GA1								
GA2								
GA3			1					
GA4								

Table 3A. Incentive or PolicyType								
	Voluntary							
State	Outreach	AF and AFV Use	Offer Green Power Option	Green Pwr Labeling	Green Power Purchases	Net Metering	Rebates (equipment)	Production Incentive
GA5								
GA6								
GA7								
HI1								
HI2								
HI3								
HI4								
HI5								
HI6								
HI7								
HI8								
HI9								
HI10								
ID1								
ID2								
ID3								
ID4								
ID5								
IL1								
IL2								
IL3								
IL4								
IL5								
IL6								
IL7								
IL8								
IL9								
IL10								
IL11								
IL12								
IL13								
IL14								
IL15								
IL16	1							
IL17								
IL18	1							
IL19	1							
IL20								
IL21								
IL22								
IL23	1							
IN1								
IN2								
IN3								
IN4								
IN5								
IN6				1				
IN7				1				
IN8				1				
IN9								
IN10								
IN11								
IN12								
IN13								
IN14								
IN15								
IN16								
IA1								
IA2								
IA3								
IA4								
IA5								
IA6								
IA7								
IA8				1				
IA9								
IA10								
IA11								
IA12								
IA13								
IA14								
IA15								
IA16								
IA17								
IA18								
KS1								
KS2								
KS3								
KS4								
KS5								
KS6								
KS7	1							
KS8								
KS9								
KS10								

Table 3A. Incentive or PolicyType								
		Voluntary						
State	Outreach	AF and AFV Use	Offer Green Power Option	Green Pwr Labeling	Green Power Purchases	Net Metering	Rebates (equipment)	Production Incentive
KY1			1					
KY2			1					
KY3								
LA1								
ME1								
ME2								
ME3								
ME4								
ME5								
ME6								
ME7								
ME8	1							
ME9								
ME10								
ME11								
ME12								
ME13								
ME14								
ME15	1							
MD1								
MD2								
MD3								
MD4								
MD5								
MD6								
MD7								
MD8								
MD9								
MD10								
MD11								
MA1								
MA2								
MA3								
MA4								
MA5								
MA6								
MA7								
MA8								
MA9								
MI1								
MI2								
MI3								
MI4								
MI5			1					
MI6								
MI7								
MI8	1							
MI9								
MN1								
MN2								
MN3								
MN4								
MN5								
MN6								
MN7								
MN8								
MN9								
MN10	1							
MN11								
MN12								
MS1								
MS2			1					
MS3								
MS4								
MS5								
MO1								
MO2								
MO3								
MO4								
MO5		1						
MO6								
MO7								
MO8								
MO9								
MO10								
MO11								
MO12	1							
MT1								
MT2								
MT3								
MT4								
MT5								
MT6								
MT7								
MT8								

Table 3A. Incentive or PolicyType								
		Voluntary						
State	Outreach	AF and AFV Use	Offer Green Power Option	Green Pwr Labeling	Green Power Purchases	Net Metering	Rebates (equipment)	Production Incentive
MT9								
MT10								
MT11								
MT12	1							
MT13	1							
MT14	1							
MT15	1							
NE1								
NE2								
NE3			1					
NE4								
NE5								
NV1								
NV2								
NV3								
NV4			1					
NV5								
NV6								
NV7								
NV8	1							
NV9								
NV10								
NV11								
NH1								
NJ1								
NJ2								
NJ3	1							
NJ4								
NJ5								
NJ6								
NJ7								
NJ8								
NJ9								
NJ10								
NM1								
NM2								
NM3								
NM4	1							
NM5	1							
NM6								
NM7								
NM8								
NM9								
NM10	1							
NY1								
NY2								
NY3								
NY4								
NY5								
NY6								
NY7								
NY8								
NY9								
NY10								
NY11	1							
NY12								
NY13								
NY14								
NY15								
NC1								
NC2								
NC3								
NC4								
NC5	1							
NC6								
NC7								
NC8								
NC9								
NC10								
NC11								
ND1								
ND2								
ND3								
ND4								
ND5								
OH1								
OH2								
OH3								
OH4								
OH5								
OH6								
OH7			1					
OH8								
OH9								
OH10								

Table 3A. Incentive or PolicyType								
	Voluntary							
State	Outreach	AF and AFV Use	Offer Green Power Option	Green Pwr Labeling	Green Power Purchases	Net Metering	Rebates (equipment)	Production Incentive
OH11								
OH12								
OK1								
OK2								
OK3								
OK4								
OK5								
OK6								
OK7								
OK8								
OK9								
OK10								
OK11								
OK12	1							
OK13								
OK14								
OK15								
OR1								
OR2								
OR3								
OR4								
OR5								
OR6								
OR7							1	
OR8			1					
OR9			1					
OR10								
OR11					1			
OR12								
OR13								
OR14								
OR15								
OR16								
PA1								
PA2								
PA3								
PA4								
PA5								
PA6								
PA7								
PA8								
PA9								
PA10								
PA11								
PA12								
PA13								
PA14								
RH1A								
RH1B								
RH2								
RH3								
RH4								
RH5								
RH6								
RH7								
RH8								
SC1						1		
SC2						1		
SC3								
SD1								
SD2								
SD3								
SD4								
SD5								
TN1								
TN2			1					
TN3								
TX1								
TX2			1					
TX3	1							
TX4								
TX5								
TX6								
TX7								
TX8								
TX9								
TX10								
TX11								
TX12								
TX13								
TX14	1							
TX15	1							
TX16	1							
TX17								
TX18								

Table 3A. Incentive or PolicyType								
	Voluntary							
State	Outreach	AF and AFV Use	Offer Green Power Option	Green Pwr Labeling	Green Power Purchases	Net Metering	Rebates (equipment)	Production Incentive
TX19	1							
TX20								
UT1								
UT2								
UT3								
UT4								
UT5								
VT1								
VT2								
VT3								
VT4								
VT5								
VT6								
VT7								
VA1								
VA2								
VA3								
VA4								
VA5								
VA6								
VA7								
VA8								
VA9								
VA10	1							
WA1								
WA2								1
WA3								
WA4				1				
WA5				1				
WA6	1							
WA7	1							
WA8								
WA9								
WA10						1		
WA11								
WA12								
WA13								
WA14	1							
WA15								
WA16								
WA17								
WA18								
WA19	1							
WA20								
WA21								
WA22		1						
WV1								
WV2								
WV3								
WV4								
WI1								
WI2								
WI3								
WI4				1				
WI5				1				
WI6				1				
WI7				1				
WI8								
WI9								
WI10								
WI11								
WI12								
WI13								
WI14								
WY1								
WY2								
PR1								
PR2								
Total	32	2	33	1	3	1	1	1

Table 4A. Types of Biomass or Equipment Targeted by Incentive or Policy																						
	Anaerobic				AF	General							Biomass				Internal	Small &		Ind.	Res.	
	Manure	Landfill			refueling	AF &	AF	AF					Facilities/ Systems/			Fuel	Combustion	Micro-	Stirling	Wood	Wood	
State	Digester	gas	Biogas	AFV	Stations	Biofuels	Biodiesel	Ethanol	Methanol	Hydrogen	Biomass	MSW	Equipment	Biopower	CHP	Cells	Engines	turbines	Engines	Energy	Stoves	Total
AL1						1							1									2
AL2																					1	1
AL3		1																				1
AK1								1			1											2
AK2						1		1			1	1										3
AZ1											1										1	2
AZ2		1																				
AZ3		1																				1
AZ4											1											1
AZ5											1											1
AZ6				1																		1
AZ7				1																		1
AZ8				1																		1
AZ9				1																		1
AZ10				1																		1
AZ11				1		1																2
AZ12							1															1
AZ13				1																		1
AR1						1																1
AR2																1		1	1			3
AR3											1					1		1				3
AR4				1				1	1													3
AR5							1															1
AR6						1																1
CA1						1					1	1										3
CA2						1					1					1						3
CA3		1	1								1				1	1						5
CA4		1	1													1						3
CA5																1						1
CA6																1	1	1				3
CA7											1											1
CA8											1	1										2
CA9											1											1
CA10											1											1
CA11		1									1											2
CA12		1		1		1					1	1			1	1						7
CA13A						1					1											2
CA13B														1								1
CA14			1																			1
CA15A											1	1										2
CA15B											1	1										2
CA16		1									1	1										3
CA17				1	1	1																3
CA18				1																		1
CA19				1																		1
CA20				1																		1
CA21				1																		1
CA22				1	1	1																3
CO1				1																		1
CO2					1																	1
CO3				1																		1
CO4						1																1
CO5				1																		1
CO6				1																		1
CO7				1																		1
CO8						1																1
CT1		1									1				1	1						4
CT2																1						1
CT3											1											1
CT4		1									1					1						3
CT5						1					1	1				1						4
CT6		1									1	1				1						4
CT7				1																		1
CT8				1		1																2

	Anaerobic				AF	General							Biomass									
	Manure	Landfill			refueling	AF &	AF	AF					Facilities/			Fuel	Combustion	Micro-	Stirling	Wood	Wood	
State	Digester	gas	Biogas	AFV	Stations	Biofuels	Biodiesel	Ethanol	Methanol	Hydrogen	Biomass	MSW	Equipment	Biopower	CHP	Cells	Engines	turbines	Engines	Energy	Stoves	Total
CT9				1																		1
CT10				1																		1
CT11				1																		1
DL1		1									1											2
DL2											1											1
DL3							1															1
DL4				1	1	1	1	1	1	1												7
DL5						1																1
DC1				1																		1
DC2				1																		1
DC3				1																		1
FL1		1																				1
FL2											1											1
FL3											1											1
FL4						1																1
FL5				1																		1
FL6						1																1
GA1				1																		1
GA2				1																		1
GA3		1									1											2
GA4																1						1
GA5				1																		1
GA6				1																		1
GA7						1																1
HI1								1														1
HI2		1				1					1					1						4
HI3								1														1
HI4						1																1
HI5											1											1
HI6		1									1	1				1	1					5
HI7		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	20
HI8						1																1
HI9								1														1
HI10						1																1
ID1							1	1														2
ID2											1											1
ID3											1						1					2
ID4							1	1														2
ID5							1															1
IL1								1														1
IL2		1	1			1					1											4
IL3											1						1					2
IL4											1						1					2
IL5							1	1														2
IL6				1																		1
IL7				1																		1
IL8		1									1	1										3
IL9											1											1
IL10																						1
IL11											1											1
IL12						1																1
IL13								1														1
IL14							1															1
IL15				1																		1
IL16				1																		1
IL17								1														1
IL18				1		1																2
IL19				1																		1
IL20				1																		1
IL21				1																		1
IL22				1		1																2
IL23								1														1
IN1				1		1											1					3
IN2						1						1	1	1								4
IN3		1									1					1	1					4

	Anaerobic				AF	General							Biomass									
	Manure	Landfill			refueling	AF &	AF	AF					Facilities/			Fuel	Combustion	Micro-	Stirling	Wood	Wood	
State	Digester	gas	Biogas	AFV	Stations	Biofuels	Biodiesel	Ethanol	Methanol	Hydrogen	Biomass	MSW	Equipment	Biopower	CHP	Cells	Engines	turbines	Engines	Energy	Stoves	Total
IN4											1	1										2
IN5						1					1											2
IN6		1																				1
IN7		1									1											2
IN8		1																				1
IN9						1					1	1			1							4
IN10				1	1	1																3
IN11							1															1
IN12							1															1
IN13							1															1
IN14				1																		1
IN15							1															1
IN16				1																		1
IA1								1														1
IA2		1	1																			2
IA3								1														1
IA4						1					1	1										3
IA5											1											1
IA6						1					1											2
IA7						1					1											2
IA8											1											1
IA9											1	1										2
IA10											1	1										2
IA11											1	1										2
IA12				1		1																2
IA13								1														1
IA14								1														1
IA15							1															1
IA16				1																		1
IA17				1																		1
IA18						1																1
KS1				1	1																	2
KS2				1	1																	2
KS3								1														1
KS4		1									1		1									3
KS5		1		1		1					1	1			1	1						7
KS6				1																		1
KS7							1	1														2
KS8				1		1																2
KS9				1																		1
KS10				1		1																2
KY1		1																				1
KY2		1																				1
KY3				1																		1
LA1				1	1																	2
ME1						1					1	1			1	1						5
ME2						1					1	1				1						4
ME3						1					1	1				1						4
ME4						1																1
ME5						1																1
ME6						1																1
ME7				1																		1
ME8				1		1																2
ME9	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	20
ME10				1																		1
ME11						1																1
ME12				1		1																2
ME13				1		1																2
ME14						1																1
ME15				1																		1
MD1		1									1											2
MD2																1						1
MD3		1									1											2
MD4																1						1
MD5																1						1

	Anaerobic				AF	General							Biomass									
	Manure	Landfill			refueling	AF &	AF	AF					Facilities/			Fuel	Combustion	Micro-	Stirling	Wood	Wood	
State	Digester	gas	Biogas	AFV	Stations	Biofuels	Biodiesel	Ethanol	Methanol	Hydrogen	Biomass	MSW	Equipment	Biopower	CHP	Cells	Engines	turbines	Engines	Energy	Stoves	Total
MD6											1	1										2
MD7											1											1
MD8		1									1	1										3
MD9				1																		1
MD10				1																		1
MD11				1																		1
MA1						1					1	1										3
MA2						1					1	1										3
MA3																	1					1
MA4																	1					1
MA5						1					1	1			1							4
MA6											1	1			1	1						4
MA7						1					1					1						3
MA8		1									1					1						3
MA9				1																		1
MI1				1		1									1	1		1				5
MI2				1		1									1	1		1				5
MI3				1		1									1	1		1				5
MI4				1																		1
MI5											1											1
MI6											1	1				1						3
MI7				1		1																2
MI8				1		1																2
MI9	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	20
MN1								1			1											2
MN2	1																					1
MN3		1									1					1						3
MN4											1	1			1							3
MN5											1					1						2
MN6											1											1
MN7											1											1
MN8								1														1
MN9							1															1
MN10							1															1
MN11				1		1																2
MN12								1			1			1								1
MS1						1					1		1									3
MS2		1																				1
MS3													1									1
MS4								1														1
MS5				1																		1
MO1											1									1		2
MO2													1									1
MO3								1														1
MO4							1															1
MO5							1															1
MO6				1																		1
MO7							1															1
MO8						1																1
MO9						1																1
MO10				1		1																2
MO11				1		1																2
MO12						1																1
MT1		1									1					1						3
MT2		1									1					1						3
MT3		1									1					1						3
MT4											1					1				1		3
MT5											1	1										2
MT6											1											1
MT7		1									1					1						3
MT8											1											1
MT9											1											1
MT10				1		1																2
MT11							1	1														2
MT12				1																		1

	Anaerobic				AF	General							Biomass				Internal	Small &		Ind.	Res.	
	Manure	Landfill			refueling	AF &	AF	AF					Facilities/			Fuel	Combustion	Micro-	Stirling	Wood	Wood	
State	Digester	gas	Biogas	AFV	Stations	Biofuels	Biodiesel	Ethanol	Methanol	Hydrogen	Biomass	MSW	Equipment	Biopower	CHP	Cells	Engines	turbines	Engines	Energy	Stoves	Total
MT13				1																		1
MT14				1																		1
MT15				1		1																2
NE1								1														1
NE2				1		1					1	1										4
NE3		1																				1
NE4				1	1																	2
NE5							1	1														2
NV1											1	1										2
NV2												1										1
NV3											1	1					1					3
NV4																	1					1
NV5						1					1	1										3
NV6											1											1
NV7											1											1
NV8				1		1																2
NV9						1																1
NV10				1		1																2
NV11				1																		1
NH1																				1		1
NJ1						1					1											2
NJ2											1						1					2
NJ3											1											1
NJ4		1									1	1					1					4
NJ5		1				1					1	1					1					5
NJ6		1									1	1					1					4
NJ7				1																		1
NJ8						1																1
NJ9				1		1																2
NJ10				1																		1
NM1		1									1						1					3
NM2		1									1						1					3
NM3										1							1					2
NM4				1																		1
NM5				1		1																2
NM6				1							1											1
NM7						1																1
NM8				1																		1
NM9						1																1
NM10				1		1																2
NY1												1					1					1
NY2											1											1
NY3						1					1											2
NY4						1					1	1										3
NY5											1						1					2
NY6											1											1
NY7						1					1	1				1	1					5
NY8				1		1																2
NY9				1																		1
NY10				1		1																2
NY11				1																		1
NY12				1		1																2
NY13				1		1																2
NY14				1																		1
NY15				1																		1
NC1						1					1		1									3
NC2																	1					1
NC3						1					1											2
NC4													1									1
NC5				1		1																2
NC6				1																		1
NC7						1																1
NC8							1	1														2
NC9							1	1														2
NC10				1																		1

	Anaerobic				AF	General							Biomass				Internal	Small &		Ind.	Res.	
	Manure	Landfill			refueling	AF &	AF	AF					Systems/			Fuel	Combustion	Micro-	Stirling	Wood	Wood	
State	Digester	gas	Biogas	AFV	Stations	Biofuels	Biodiesel	Ethanol	Methanol	Hydrogen	Biomass	MSW	Equipment	Biopower	CHP	Cells	Engines	turbines	Engines	Energy	Stoves	Total
NC11						1																1
ND1								1														1
ND2						1					1	1			1							4
ND3							1															1
ND4				1				1														2
ND5						1																1
OH1						1					1	1										3
OH2								1														1
OH3								1														1
OH4						1					1	1										3
OH5						1					1	1										3
OH6											1					1						2
OH7											1											1
OH8																1						1
OH9		1				1					1					1		1				5
OH10						1					1	1				1						4
OH11				1																		1
OH12				1																		1
OK1				1																		1
OK2				1																		1
OK3				1																		1
OK4				1																		1
OK5						1					1	1			1							4
OK6				1		1																2
OK7				1																		1
OK8				1																		1
OK9						1																1
OK10				1		1																2
OK11				1		1																2
OK12				1		1																2
OK13				1		1																2
OK14				1																		1
OK15				1																		1
OR1						1					1	1										3
OR2				1													1					2
OR3			1													1						2
OR4		1	1								1	1										4
OR5						1					1	1			1							4
OR6							1										1					2
OR7							1										1					2
OR8		1																				1
OR9		1																				1
OR10			1								1											2
OR11											1											1
OR12																1						1
OR13						1					1											2
OR14				1		1																2
OR15				1		1																2
OR16				1																		1
PA1		1		1		1					1	1			1	1						7
PA2		1									1					1						3
PA3		1		1		1					1	1				1						6
PA4		1									1					1						3
PA5		1									1	1			1	1						5
PA6		1		1		1					1	1				1						6
PA7				1	1																	2
PA8						1					1	1			1							4
PA9				1							1											2
PA10											1	1										2
PA11				1		1																2
PA12				1		1																2
PA13						1																1
PA14				1																		1
RH1A		1									1					1						3
RH1B		1									1					1						3

	Anaerobic				AF	General							Biomass				Internal	Small &		Ind.	Res.	
	Manure	Landfill			refueling	AF &	AF	AF					Facilities/			Fuel	Combustion	Micro-	Stirling	Wood	Wood	
State	Digester	gas	Biogas	AFV	Stations	Biofuels	Biodiesel	Ethanol	Methanol	Hydrogen	Biomass	MSW	Equipment	Biopower	CHP	Cells	Engines	turbines	Engines	Energy	Stoves	Total
RH2		1									1					1						3
RH3						1					1	1				1						4
RH4						1					1					1						3
RH5				1																		1
RH6				1		1																2
RH7						1																1
RH8				1																		1
SC1		1																				1
SC2		1																				1
SC3						1																1
SD1								1														1
SD2						1					1		1									3
SD3						1																1
SD4						1																1
SD5						1																1
TN1						1					1	1										3
TN2		1																				1
TN3		1																				1
TX1											1											1
TX2		1																				1
TX3		1		1		1					1	1				1	1					7
TX4		1									1											2
TX5		1									1											2
TX6		1									1											2
TX7		1									1											2
TX8																1						1
TX9				1		1																2
TX10				1																		1
TX11				1		1																2
TX12				1																		1
TX13						1																1
TX14				1																		1
TX15						1																1
TX16						1																1
TX17						1																1
TX18				1		1					1											2
TX19				1		1																2
TX20				1		1																2
UT1											1											1
UT2																1						1
UT3				1		1																2
UT4				1		1																2
UT5				1		1																2
VT1						1																1
VT2	1															1						2
VT3											1					1						2
VT4				1																		1
VT5				1		1																2
VT6				1		1																2
VT7				1		1																2
VA1											1	1										2
VA2				1																		1
VA3				1		1																2
VA4						1	1															2
VA5						1	1															2
VA6				1		1																2
VA7				1			1															2
VA8				1		1																2
VA9				1		1	1															3

	Anaerobic				AF	General							Biomass									
	Manure	Landfill			refueling	AF &	AF	AF					Facilities/			Fuel	Combustion	Micro-	Stirling	Wood	Wood	
State	Digester	gas	Biogas	AFV	Stations	Biofuels	Biodiesel	Ethanol	Methanol	Hydrogen	Biomass	MSW	Equipment	Biopower	CHP	Cells	Engines	turbines	Engines	Energy	Stoves	Total
VA10				1		1																2
WA1						1					1	1										3
WA2						1																1
WA3		1														1						2
WA4		1																				1
WA5		1									1											2
WA6											1											1
WA7						1					1											2
WA8											1	1										2
WA9		1									1	1										3
WA10																1						1
WA11																1						1
WA12							1	1														2
WA13				1			1	1														3
WA14				1		1																2
WA15				1		1																2
WA16						1																1
WA17				1		1																2
WA18				1		1																2
WA19				1		1																2
WA20				1		1																2
WA21				1																		1
WA22				1		1																2
WV1				1		1																2
WV2				1																		1
WV3						1																1
WV4				1																		1
WI1						1																1
WI2											1											1
WI3											1											1
WI4											1											1
WI5		1																				1
WI6											1	1										2
WI7		1									1											2
WI8						1					1	1			1							4
WI9											1	1										2
WI10											1					1						2
WI11				1																		1
WI12				1		1																2
WI13				1		1																2
WI14				1																		1
WY1								1														1
WY2						1																1
PR1													1									1
PR2				1																		1
Total	5	75	11	183	18	175	32	40	5	5	169	69	13	4	27	88	4	10	4	4	4	945

Table 5A. Summary of the various economic sectors targeted by the different types of incentives and policies																			
State	General Public	Individuals/ Residential	Consumers	Construction	Commercial	Industrial	Private Businesses	Utilities	Trans- portation	Farms/ Agriculture	Authorities	F Govt	L Govt	S Govt	Non- Profit	Schools	Hospitals	Institutional	Total
AL1					1	1				1						1			4
AL2		1																	1
AL3		1			1		1												3
AK1									1										1
AK2							1	1					1		1				4
AZ1		1																	1
AZ2		1			1														2
AZ3		1			1														2
AZ4		1			1	1									1				4
AZ5								1											1
AZ6	1	1	1	1	1	1	1	1	1	1	1		1	1	1	1	1	1	17 all
AZ7	1	1	1	1	1	1	1	1	1	1	1		1	1	1	1	1	1	17 all
AZ8												1		1					2
AZ9		1					1							1					2
AZ10							1												1
AZ11													1						1
AZ12					1														1
AZ13					1														1
AR1						1													1
AR2						1													1
AR3		1			1									1					2
AR4							1												1
AR5						1													1
AR6					1														1
CA1					1	1													2
CA2		1			1	1									1	1			5
CA3						1													1
CA4													1	1		1			3
CA5		1			1	1				1									4
CA6		1			1														2
CA7		1																	1
CA8		1			1	1													3
CA9	1	1			1	1													4
CA10		1			1														2
CA11		1																	1
CA12	1	1			1	1													4
CA13A								1											1
CA13B								1											1
CA14		1			1	1													3
CA15A								1											1
CA15B								1											1
CA16								1											1
CA17																1			1
CA18	1	1	1	1	1	1	1	1	1	1	1		1	1	1	1	1	1	17 local
CA19													1	1					2
CA20													1	1					2
CA21							1						1						2
CA22		1					1												2
CO1		1																	1
CO2		1			1				1										3
CO3													1	1	1				3
CO4														1					1
CO5		1																	1
CO6		1					1												2
CO7		1					1												2
CO8									1										1
CT1		1			1	1													3
CT2					1	1							1		1	1			5
CT3		1																	1
CT4		1																	1
CT5		1			1	1													3
CT6								1											1
CT7														1					1
CT8									1										1
CT9									1										1
CT10									1										1
CT11							1												1
DL1					1			1											1
DL2		1																	2
DL3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	17
DL4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	17

Table 5A. Summary of the various economic sectors targeted by the different types of incentives and policies																		
	General	Individuals/					Private		Trans-	Farms/		Govt		Non-				
State	Public	Residential	Consumers	Construction	Commercial	Industrial	Businesses	Utilities	portation	Agriculture	Authorities	F Govt	L Govt	S Govt	Profit	Schools	Hospitals	Institutional
DL5		1			1													2
DC1							1						1					2
DC2							1						1					2
DC3							1						1					2
FL1		1			1	1							1					3
FL2		1			1	1									1			4
FL3		1			1	1												2
FL4													1					1
FL5		1																1
FL6					1													1
GA1					1													1
GA2		1																1
GA3		1			1	1							1	1	1	1		7
GA4		1			1	1												3
GA5							1						1					2
GA6	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	17
GA7		1			1													1
HI1						1												1
HI2						1												1
HI3	1								1									2
HI4	1																	1
HI5		1			1													2
HI6								1										1
HI7								1										1
HI8									1									1
HI9		1					1											2
HI10					1													1
ID1					1													1
ID2		1			1	1												3
ID3		1			1													2
ID4		1					1											2
ID5									1									1
IL1		1			1			1					1	1	1	1		7
IL2					1	1												2
IL3													1	1	1	1		4
IL4		1			1	1							1	1	1	1		7
IL5		1			1	1		1					1	1	1	1		8
IL6		1		1	1	1	1	1	1				1	1	1	1		10
IL7		1		1	1	1	1	1	1				1	1	1	1		10
IL8								1										1
IL9														1				1
IL10	1	1			1	1		1										5
IL11								1										1
IL12																1		1
IL13		1					1											2
IL14		1					1											2
IL15		1					1						1		1			4
IL16					1													1
IL17	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	17
IL18									1									1
IL19									1									1
IL20									1									1
IL21														1				1
IL22														1				1
IL23									1									1
IN1					1								1		1			3
IN2					1								1		1	1		4
IN3					1	1							1	1		1		5
IN4	1				1										1			3
IN5	1					1		1										3
IN6		1			1	1												3
IN7		1			1	1							1		1	1		6
IN8		1			1													2
IN9		1			1	1												3
IN10							1						1		1	1		4
IN11						1												1
IN12						1												1
IN13					1													1
IN14					1	1												2
IN15													1	1		1	1	4
IN16									1									1
IA1					1													1
IA2		1			1	1												3
IA3									1									1
IA4		1			1	1			1	1								5
IA5		1			1	1												3
IA6													1	1	1	1	1	5
IA7					1	1												2

Table 5A. Summary of the various economic sectors targeted by the different types of incentives and policies																			
State	General Public	Individuals/ Residential	Consumers	Construction	Commercial	Industrial	Private Businesses	Utilities	Trans- portation	Farms/ Agriculture	Authorities	Govt F Govt	L Govt	S Govt	Non- Profit	Schools	Hospitals	Institutional	Total
IA8	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	17
IA9																			1
IA10		1			1	1		1											4
IA11							1												1
IA12								1											2
IA13						1										1			1
IA14						1	1												2
IA15														1					1
IA16																		1	1
IA17		1																	1
IA18						1													1
KS1		1				1	1												3
KS2		1				1	1												3
KS3						1	1												2
KS4		1				1	1		1										4
KS5				1		1	1		1					1	1	1	1		9
KS6		1																	1
KS7												1							1
KS8															1				1
KS9															1				1
KS10														1	1				2
KY1		1				1													2
KY2		1				1	1		1					1	1	1	1		9
KY3		1																	2
LA1		1						1								1			2
ME1		1				1	1												3
ME2									1										1
ME3									1										1
ME4							1												1
ME5									1										1
ME6						1													1
ME7															1				1
ME8															1				1
ME9																			0
ME10										1									1
ME11						1													1
ME12									1										1
ME13										1									1
ME14										1									1
ME15						1													1
MD1						1	1												2
MD2		1				1	1												3
MD3		1				1													2
MD4		1				1	1												3
MD5						1													1
MD6		1																	1
MD7									1										1
MD8															1				1
MD9													1	1					2
MD10								1					1						2
MD11														1					1
MA1		1				1	1												3
MA2		1				1	1												3
MA3						1							1	1	1				4
MA4																1			1
MA5									1										1
MA6		1				1	1												3
MA7	1	1				1	1		1										5
MA8									1										1
MA9															1				1
M11						1	1												2
M12						1	1												2
M13						1	1												2
M14													1		1				2
M15		1				1													2
M16									1										1
M17							1												1
M18										1									1
M19								1											1
MN1							1												1
MN2		1				1							1		1				4
MN3									1										1
MN4		1				1	1												3
MN5						1	1							1	1	1	1		6
MN6																			1
MN7									1										1
MN8							1												1
MN9										1									1

Table 5A. Summary of the various economic sectors targeted by the different types of incentives and policies																			
	General Public	Individuals/ Residential	Consumers	Construction	Commercial	Industrial	Private Businesses	Utilities	Trans- portation	Farms/ Agriculture	Authorities	Govt F Govt	L Govt	S Govt	Non- Profit	Schools	Hospitals	Institutional	Total
MN10		1			1	1													3
MN11														1					1
MN12					1														1
MS1					1	1													2
MS2		1			1														2
MS3					1	1													2
MS4						1													1
MS5																1			1
MO1					1	1							1					1	2
MO2																	1		3
MO3						1							1					1	1
MO4						1													1
MO5																			1
MO6															1		1		1
MO7															1				1
MO8							1												1
MO9															1				1
MO10															1				1
MO11													1						1
MO12	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	17
MT1						1	1												2
MT2			1			1	1												3
MT3			1			1	1												3
MT4			1																1
MT5			1			1													2
MT6	1		1			1	1												4
MT7			1			1													2
MT8									1										1
MT9			1			1													2
MT10			1					1											2
MT11			1																1
MT12	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	17
MT13													1						1
MT14										1									1
MT15						1													1
NE1						1	1												2
NE2			1			1					1		1						4
NE3			1			1													2
NE4			1					1											2
NE5							1												1
NV1						1	1												2
NV2			1			1	1												3
NV3			1			1													2
NV4			1			1													4
NV5									1							1	1		1
NV6			1			1	1												3
NV7									1										1
NV8										1									1
NV9										1									1
NV10													1	1					2
NV11										1									1
NH1			1																1
NJ1			1			1	1		1										4
NJ2			1			1													2
NJ3			1																1
NJ4										1									1
NJ5			1			1	1		1								1		5
NJ6									1										1
NJ7												1		1			1		3
NJ8												1		1			1		3
NJ9										1									1
NJ10															1				1
NM1									1										1
NM2									1										1
NM3														1			1		2
NM4														1	1	1			4
NM5															1		1		2
NM6															1				1
NM7										1									1
NM8																			2
NM9			1					1									1		2
NM10																			1
NY1			1		1	1									1				3
NY2			1			1	1				1								4
NY3						1	1		1										4
NY4		1	1			1	1		1										5
NY5															1				1
NY6			1							1									2

Table 5A. Summary of the various economic sectors targeted by the different types of incentives and policies																			
	General	Individuals/ Residential					Private		Trans-	Farms/ Agriculture		Govt		Non-					
State	Public	Consumers	Construction	Commercial	Industrial	Businesses	Utilities	portation	Authorities	F Govt	L Govt	S Govt	Profit	Schools	Hospitals	Institutional	Total		
NY7	1	1			1	1		1									5		
NY8		1															1		
NY9		1					1										2		
NY10								1									1		
NY11		1					1							1			3		
NY12					1	1											2		
NY13													1				1		
NY14												1	1				1		
NY15		1					1										2		
NC1		1			1	1											3		
NC2						1											1		
NC3		1															1		
NC4					1	1						1		1	1		5		
NC5	1	1		1	1	1									1		6		
NC6		1			1	1											3		
NC7							1										1		
NC8					1												1		
NC9						1											1		
NC10													1				1		
NC11							1										1		
ND1					1	1											2		
ND2		1			1	1											3		
ND3						1											1		
ND4						1											1		
ND5		1					1										2		
OH1					1	1											2		
OH2					1	1											2		
OH3		1															1		
OH4					1	1											2		
OH5					1	1						1		1	1		2		
OH6		1			1	1						1					6		
OH7		1			1	1						1					4		
OH8		1			1												2		
OH9		1			1	1											3		
OH10		1			1	1		1									4		
OH11							1										1		
OH12							1										1		
OK1		1			1	1											3		
OK2		1			1	1											3		
OK3												1	1		1		3		
OK4					1	1											2		
OK5		1			1	1											3		
OK6		1					1										2		
OK7										1		1			1		3		
OK8		1					1										2		
OK9													1				1		
OK10													1				1		
OK11													1				1		
OK12						1							1	1	1		4		
OK13		1					1										2		
OK14		1					1										2		
OK15		1					1										2		
OR1					1	1		1	1								4		
OR2		1															1		
OR3		1			1	1											3		
OR4	1	1			1	1						1	1	1	1		8		
OR5		1			1	1						1	1	1	1		7		
OR6	1				1	1						1		1	1		6		
OR7	1				1	1						1		1	1		6		
OR8		1															2		
OR9		1			1												2		
OR10		1		1												1	4		
OR11	1											1					2		
OR12		1			1	1											3		
OR13		1			1	1		1									4		
OR14							1										1		
OR15		1															1		
OR16													1				1		
PA1	1	1		1	1	1			1			1	1	1	1		10		
PA2					1	1		1					1	1	1		6		
PA3													1		1		2		
PA4					1												1		
PA5		1			1	1								1	1		5		
PA6	1	1		1	1	1		1	1			1	1	1	1		11		
PA7	1	1			1	1								1			5		
PA8	1							1									2		
PA9		1			1	1											3		
PA10								1									1		

Table 5A. Summary of the various economic sectors targeted by the different types of incentives and policies																		
State	General Public	Individuals/Residential	Consumers	Construction	Commercial	Industrial	Private Businesses	Utilities	Transportation	Farms/Agriculture	Authorities	F Govt	L Govt	S Govt	Non-Profit	Schools	Hospitals	Institutional
PA11		1					1											2
PA12		1					1											2
PA13		1					1											2
PA14		1					1											2
RH1A					1	1		1										4
RH1B					1	1							1	1	1			5
RH2		1					1											2
RH3		1			1	1												3
RH4	1	1				1	1	1										5
RH5						1	1						1	1				2
RH6		1					1											2
RH7							1											1
RH8		1					1											2
SC1		1			1	1												3
SC2													1					1
SC3														1				1
SD1					1	1												2
SD2		1			1													2
SD3		1					1											2
SD4		1					1											2
SD5		1					1											2
TN1					1	1												2
TN2		1			1													2
TN3														1				1
TX1					1													1
TX2		1			1													2
TX3	1	1			1	1		1	1				1	1	1	1		10
TX4		1			1	1		1										4
TX5		1			1													2
TX6		1			1	1												3
TX7								1										1
TX8				1										1				2
TX9																1		1
TX10		1					1											2
TX11		1																1
TX12						1												1
TX13																1		1
TX14							1						1	1	1			4
TX15														1				1
TX16															1			1
TX17		1					1											2
TX18													1	1				2
TX19													1	1				2
TX20							1						1	1				3
UT1		1			1	1												3
UT2		1			1	1												3
UT3		1																1
UT4		1					1						1	1				4
UT5		1					1											2
VT1		1			1	1												3
VT2		1			1					1								3
VT3		1			1					1								3
VT4							1											1
VT5														1				1
VT6														1				1
VT7														1				1
VA1		1																1
VA2		1																1
VA3		1																1
VA4																1		1
VA5					1	1	1											3
VA6		1					1											2
VA7		1					1											2

Table 5A. Summary of the various economic sectors targeted by the different types of incentives and policies																			
	General	Individuals/					Private		Trans-	Farms/			Govt		Non-				
State	Public	Residential	Consumers	Construction	Commercial	Industrial	Businesses	Utilities	portation	Agriculture	Authorities	F Govt	L Govt	S Govt	Profit	Schools	Hospitals	Institutional	Total
VA8																1			1
VA9		1				1	1									1			4
VA10																1			1
WA1		1			1	1			1	1			1	1	1	1			2
WA2		1			1	1			1						1				9
WA3	1	1			1	1			1						1				6
WA4		1			1	1													3
WA5		1			1	1		1	1				1	1	1	1			9
WA6													1						1
WA7	1							1											2
WA8									1										1
WA9								1											1
WA10		1			1	1													3
WA11		1			1	1													3
WA12							1												2
WA13		1					1												2
WA14													1	1		1			3
WA15					1								1	1		1			4
WA16							1								1				2
WA17															1	1			2
WA18															1				1
WA19															1				1
WA20															1				1
WA21	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	17
WA22													1						1
WV1		1					1												2
WV2													1						1
WV3													1						1
WV4													1	1					2
WI1					1			1					1	1	1				5
WI2		1			1								1	1	1	1			6
WI3		1			1	1							1	1	1	1			7
WI4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	17
WI5		1			1	1													3
WI6		1			1	1							1		1	1			6
WI7	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	17
WI8		1			1	1							1	1	1	1	1	1	3
WI9	1	1			1	1		1	1										5
WI10																			1
WI11		1						1											2
WI12		1						1											2
WI13													1						1
WI14		1			1														2
WY1		1					1												2
WY2		1					1												2
PR1										1									1
PR2	1								1										2
Total	39	218	13	22	212	169	84	80	54	22	16	3	96	100	68	77	14	18	1305

APPENDIX F

Southern States Energy Board

Biodiesel Business Risk Roundtable
Arranged by Southern States Energy Board
Sponsored by U.S. Department of Energy
January 30, 2005
3:30pm – 5:30pm
Marriott Marina, Ft. Lauderdale

Dolphin Room

- Presentation of Business Risk Survey for Bioenergy Investments
- Discussion of Key Business Risk and Finance Issues
- Focus segment: Discussion of Biodiesel Business Issues in Brazil
- Executives and officials active in biodiesel investment decisions

Overview of Roundtable

- Objectives, interactive format
- Introductions

Andy Paterson, moderator
U.S. DOE / EBI
Participants

Focus Segment: Discussion of Biodiesel Commercialization Issues in Brazil

Policy & Regulatory Issues

- Proposed National B2 Program (2% mandate)
- Fuel Standards & Quality

Rosangela Moreira, ANP

Presentation of Market Issues & Biodiesel Economics

- Market Drivers
- Economics Summary

Alan Weber, MARC-IV

Overview of Business Risk Survey

- Walk through of Business Risk Framework

Andy Paterson
Participants

Roundtable Discussion of Key Issues and Risk Mitigation Approaches

Participants

Summary Points / Wrap-up

Andy Paterson

Participants will come away from the roundtable with a deeper understanding of key business risks from multiple perspectives and with insights on financing issues in biodiesel markets.

Questions:

- Andy Paterson: 619.807.3267
- Alan Weber: 573.268.6502

Invited Attendees (nearly all confirmed):

Executive

Rosangela Moreira
Federico Kladt
Luiz Ramos
Julio Vianna
Dr. Hans-Peter Lohrlein
Laurie Lato
Russ Teall
Mike Haas
Donnell Rehagen
Alan Weber
Maria Dubravka Pineda
Andy Paterson, moderator

Organization

Agency National Petroleo (Brazil
Bunge (food processor)
Federal University of Parana
Rocio
University of Kassel
Texas Biodiesel Corporation
Biodiesel Industries
USDA Agricultural Research Service
National Biodiesel Board
MARC-IV
Waterous & Co. (investment bankers)
Environmental Business International

Additional executives are being contacted through the National Biodiesel Expo event