

## Incentives for Wind Energy Development in the United States – 2008

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**AUTHOR'S UPDATE MARCH 8, 2009:** As described in the following article, the federal Renewable Electricity Production Tax Credit (PTC) for wind energy (Section 45 of the Internal Revenue Code of 1986, as amended) was previously set to expire on December 31, 2008. Since this article was written, the PTC has been extended by law two times:

First, The Emergency Economic Stabilization Act passed by Congress and signed into law by President Bush on October 3, 2008, extended the PTC for wind energy through December 31, 2009. The Emergency Economic Stabilization Act of 2008 contained within it Division B, entitled the "Energy Improvement and Extension Act of 2008." Title 1(A), Section 101 of this Energy Improvement and Extension Act of 2008 extended the PTC for wind and for refined coal facilities for one year, making it applicable to such facilities placed in service before January 1, 2010.

Second, The American Recovery and Reinvestment Act of 2009 (popularly known as the Economic stimulus package), signed into law by President Obama on February 17, 2009, extended the PTC for wind energy for an additional three years through December 31, 2012. Division B, Title I(B), Part I (Tax Provisions; Renewable Energy Incentives), Section 1101, extended the PTC for wind energy, making it applicable to wind energy facilities placed in service before January 1, 2013. The American Recovery and Reinvestment Act of 2009 also provides several other very significant federal incentives for wind and solar energy development in the United States, which will be the subject of another article.

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2008: The United States wind energy generation market is booming, attracting more and more foreign investors. In 2007, for the second year in a row, more new megawatts of wind generation capacity were installed in the U.S. than in any other country in the world.<sup>1</sup> The American Wind Energy Association and the Global Wind Energy Council have confirmed that a record 5,244 Megawatts were installed in the U.S. in 2007, more than double the 2006 number, meaning that U.S. wind power generating capacity grew some 45% in 2007.<sup>2</sup> This was the third consecutive year of record-setting growth in U.S. wind energy, with remarkable and accelerating growth continuing in 2008. The European Wind Energy Association projects that the U.S. will overtake Germany as the world leader in installed wind energy capacity by the end of 2009.<sup>3</sup>

International wind energy investors and industry players are flocking to the U.S. They see that the U.S. is the fastest-growing market in the world for wind power, with greater potential for future growth than European markets, given that wind energy projects still provide only 1% of installed generating capacity in the U.S., as opposed to as high as 10% in some European countries.<sup>4</sup> In addition, the U.S. has more large open spaces with high winds, allowing the installation of larger and more efficient projects than possible in much of Europe.<sup>5</sup>

Several factors are now encouraging this remarkable growth in U.S. wind energy development and investment:

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<sup>1</sup> See February 6, 2008 News Release entitled, "U.S., China & Spain lead world wind power market in 2007," by the European Wind Energy Association, [www.ewea.org](http://www.ewea.org), ("EWEA Report").

<sup>2</sup> See American Wind Energy Association's 2007 Market Report, January, 2008; See also EWEA Report, *supra*, note 1.

<sup>3</sup> EWEA Report, *supra*, note 1.

<sup>4</sup> See, "Foreign Firms Envision Wind Farms Dotted the U.S.," by Peter Maloney, New York Times, November 7, 2007.

<sup>5</sup> *Ibid.*

1. Higher gas prices make the generally higher costs of wind energy production seem acceptable, and impel U.S. consumers to support the development of alternative sources of energy;
2. Strong demand for development of alternative sources of energy is fueled by increasing public and governmental demand to reduce U.S. dependence on foreign oil and concern over a consequent alarming flow of U.S. dollars to oil producing nations and creditor nations of the U.S.;
3. Increased awareness of serious international climate change issues has prompted public recognition of the urgency of developing clean and environmentally friendly, renewable sources of energy;
4. In an election year, all of the candidates for U.S. President have advocated expansion of renewable energy sources and "green collar" jobs in the U.S., focusing public attention and creating a favorable environment for alternative energy development;
5. After a volatile pattern of development and dry spells in the wind energy industry, tracking the on and off periods of effectiveness and expiration of the U.S. Federal Renewable Electricity Production Credit (PTC), which was allowed to expire several times since its first passage in 1992, Congress has finally kept the PTC renewed and in effect for a continuous four years since October, 2004, and legislation is now pending for the further renewal of the PTC, which is currently set to expire on December 31, 2008;<sup>6</sup> and

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<sup>6</sup> The Renewable Electricity Production Credit (PTC), contained in Section 45 of the U.S. Internal Revenue Code of 1986, 26 U.S.C. §45, is a per kilowatt-hour tax credit for generation of electricity by qualified renewable energy sources, which has been a strong driver of wind power development in the U.S., over the past several years. It was originally enacted as part of the Energy Policy Act of 1992, expired at the end of 2001, extended in March 2002 to the end of 2003, expired at the end of 2003, was later renewed and expanded in October 2004 through December 31, 2005, renewed again by the Energy Policy Act of 2005 to December 2007, and extended to December 31, 2008 by Section 201 of the Tax Relief and Health Care Act of 2006. The PTC, as currently in effect, provides a tax credit which amounts to 2.0 Cents per kilowatt-hour produced for the first ten years of a qualified renewable energy facility's operation. On February 28, 2008, the U.S. House of Representatives passed and referred to the U.S. Senate H.R. 5351 (Renewable Energy and Energy Conservation Tax Act of 2008), which proposed to extend the PTC for wind energy through 2011, and provide other tax incentives for wind power, solar power and other renewable energy initiatives for eight years, combined with a proposed repeal of approximately \$18 billion of tax breaks for oil companies. This bill was received by the Senate, and is presently pending before the Senate Finance Committee. In another attempt to renew the PTC, the U.S. Senate on April 10, 2008 passed an amended H.R. 3221, a housing stimulus and foreclosure protection bill that was amended also to contain provisions (identified as "Title X – Clean Energy Stimulus Act of 2008") to extend the PTC for wind energy through the end of 2009 (Section 1011 of the bill) and to extend the investment tax credits for solar energy and fuel cells through 2016 (Section 1012 of the bill). This bill passed to a House-Senate Conference Committee to work out differences in the House and Senate versions of the bill, and on May 13, 2008 the bill emerged from the Conference Committee and further amended versions were adopted by the House and Senate. Unfortunately, the provisions regarding the PTC appear to have been removed from the bill in the Conference Committee, however, efforts are ongoing to include these provisions in the Senate version of the amended bill. On May 21, 2008, the House of Representatives passed H.R. 6049, entitled, "Renewable Energy and Job Creation Act of 2008." This bill would extend the PTC for wind energy through 2009, extend an energy tax credit for solar energy, fuel cell, and microturbine property through 2014, allow a new tax credit for investment in qualified new clean renewable energy bonds, and include various carbon mitigation provisions in the form of investment tax credits for new technology, among other provisions. This bill remains pending efforts to bring it to a vote in the Senate. In addition, various efforts are also being made in the Senate to include a renewal of the PTC as an amendment to other pending bills that appear to have bi-partisan support. The partisan debate stalling these efforts centers primarily on how to offset the revenue losses that the PTC will generate, with Republicans strongly opposed to any roll-back of subsidies to the oil and gas industry as a means of paying for the PTC for alternative energy. With active lobbying of Congress by the American Wind Energy Association's members, Congressional efforts appear to be accelerating to secure the renewal of the PTC before it expires on December 31, 2008.

6. Significantly, the U.S. Congress and State Legislatures are increasingly passing government incentives and mandates creating favorable economics for the development of alternative energy, including wind energy, in the U.S.

At the time of this writing, some 202 bills are pending before the U.S. Congress (including the House of Representatives and Senate combined) that include incentives for some type of alternative energy.<sup>7</sup> The U.S. Department of Energy has favorably assessed the feasibility of implementing a national goal to have at least 20% of the U.S. electricity supply provided by wind energy by the year 2030.<sup>8</sup> Meeting this goal would require growth of U.S. installed wind power capacity by more than 290 GW over 23 years, an average increase of approximately 12.6 GW per year.<sup>9</sup> The U.S. Department of Energy acknowledges that current U.S. technology is not adequate in certain ways to meet this goal, and will require significant enhancements, or perhaps supplementation by European or other technology.<sup>10</sup> This obviously would create significant opportunities for European, Scandinavian, and other companies that have developed advanced wind energy technology and expertise.

In addition to the federal 20% Wind Energy by 2030 goal under consideration, some thirty-two U.S. states currently have laws which already set "Renewables Portfolio Standards ("RPS"), mandating state utilities to purchase at least a certain percentage or quantity of their energy from renewable sources by a stated target year. A summary of these State RPS is set forth in Table 1, which accompanies this article. To meet these state RPS, utilities are offering more standard long-term fixed-price power purchase agreements to renewable energy generators, creating an economically favorable environment for the development of wind energy projects in the United States. In addition, many states allow or require utilities to meet state RPS requirements in whole or in part through the purchase of Renewable Energy Credits ("RECs"). RECs are certificates representing a certain number of kilowatt hours of electricity generated by renewable sources, such as wind, which may be sold bundled with or unbundled from the actual electricity generated.<sup>11</sup> Although no national registry for RECs yet exists in the U.S., growing state and regional REC trading markets provide further incentive for the development of alternative energy, such as wind. Such REC trading markets facilitate the matching of supply with demand for "green energy," helping to mitigate the limitations that long-distance transmission challenges pose for the development of wind or solar energy to serve demand in areas with low wind or solar resources.

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<sup>7</sup> See [www.govtrack.us/congress/bill](http://www.govtrack.us/congress/bill).

<sup>8</sup> In May, 2008, the U.S. Department of Energy released its comprehensive (250 page) report entitled, "20% Wind Energy by 2030; Increasing Wind Energy's Contribution to U.S. Electricity Supply," May, 2008 (the "U.S. DOE May 2008 Wind Energy Report"), assessing favorably, in most respects, the feasibility of establishing a 20% Wind Energy Scenario by 2030. The report is available at <http://www1.eere.energy.gov/windandhydro/pdfs/41869.pdf>. In addition, on June 20, 2008, the Congressional Research Service ("CRS") has released to Members and Committees of Congress, a report entitled, "Wind Power in the United States: Technology, Economic, and Policy Issues," in which the CRS cites all of the above-referenced factors presently driving rapid wind energy growth in the U.S., and concludes, at p. 43: "Wind power in the United States is growing rapidly. Although it currently supplies only about 1% of the country's electricity needs, ... the amount of proposed new wind plants either under construction or waiting to be built is significant, and could soon make wind the largest source of new power supply at the national level." A copy of this CRS Report for Congress is available at [http://assets.opencrs.com/rpts/RL34546\\_20080620.pdf](http://assets.opencrs.com/rpts/RL34546_20080620.pdf).

<sup>9</sup> See, U.S. DOE May 2008 Wind Energy Report, p. 2, supra, note 8.

<sup>10</sup> See U.S. DOE May 2008 Wind Energy Report, pp. 56-58, supra, note 8.

<sup>11</sup> Also known variously as "Tradable Renewable Certificates," "Green Tags," "Green Certificates," or "Renewable Energy Certificates," RECs are tradable certificates associated with certain identified kilowatt hours of electricity generated from renewable sources, representing the "green" environmental attributes of such power, which may be sold separately from the commodity electricity itself by private generators of such power, and re-sold in trading markets. Further discussion of RECs, state REC policies, and REC trading markets will be contained in sequels to this article.

This article is the first of a series of articles that will outline some of the U.S. federal and state governmental incentives available to wind energy developers, project owners and operators in the U.S. Many of these incentives may not be widely known. Most of these incentives are available to Non-U.S.-owned developers and project owner/ operators, just as well as to their U.S.-owned counter-parts. These incentives significantly enhance the attractiveness of developing or acquiring wind energy businesses in the U.S.

This first article will discuss the major U.S. federal incentives for wind energy development and production (many of which also apply to other forms of alternative energy), and will provide an overview of state incentives. Following articles will discuss in greater detail state incentives available in certain of the key U.S. states promoting wind energy development.

## **U.S. Federal Incentives for Wind Energy**

The principal federal government incentives for commercial wind energy development in the U.S. include:

**1. The Renewable Electricity Production Tax Credit (PTC).** The Renewable Electricity Production Credit (PTC) is a per kilowatt-hour tax credit for generation of electricity by qualified renewable energy sources, which has been a strong driver of wind power development in the U.S. over the past several years. The PTC, set forth in Section 45 of the U.S. Internal Revenue Code of 1986,<sup>12</sup> as currently in effect with respect to wind energy, provides a tax credit which amounts to 2.0 Cents per kilowatt-hour produced for the first ten years of a qualified wind energy facility's operation. The actual amount of the credit is subject to an annual adjustment for inflation. The PTC has an "on and off" history of being adopted by Congress, allowed to expire, and then being renewed by Congress.<sup>13</sup> However, the PTC has now been in effect and renewed continuously since October 2004. Although currently set to expire December 31, 2008, bills are pending in Congress for its renewal.<sup>14</sup>

A business owning a wind facility placed in service after December 31, 1993 and while the PTC is in effect, can take the credit by completing IRS Form 8835 ("Renewable Electricity Production Credit") and IRS Form 3800 ("General Business Credit"). The credit is subject to adjustment, including a reduction under §45(b)(3) of the law with respect to grants, tax exempt or government-subsidized financing or other credits received for the project.<sup>15</sup> However, on February 27, 2006, the Internal Revenue Service (IRS) issued Revenue Ruling 2006-9, specifically holding that, "The credit under § 45 for electricity produced from qualified energy resources at a qualified facility is not reduced under § 45(b)(3) on account of a state or local tax credit."

**2. Modified Accelerated Cost-Recovery System (MACRS) + 2008 Bonus Depreciation.** The federal Modified Accelerated Cost-Recovery System (MACRS), under Section 168 of the U.S. Internal Revenue Code of 1986,<sup>16</sup> allows for recovery of cost invested in certain business property through accelerated depreciation deductions. For qualified wind energy property placed in service after 1986, the current MACRS allows for cost recovery through depreciation over a period of five years. In addition, the federal Economic Stimulus Act of 2008, enacted in February, 2008, provided for a 50% bonus depreciation for eligible renewable-energy systems placed in service in 2008. If the property qualifies for

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<sup>12</sup> 26 U.S.C. § 45.

<sup>13</sup> See supra, note 6.

<sup>14</sup> See supra, note 6.

<sup>15</sup> The credit is subject to a reduction under 26 U.S.C. §45(b)(3), determined by applying a fraction, the numerator of which is the total amount of all grants, tax exempt or government-subsidized financing or other credits received for the project, and the denominator of which is the total aggregate increases to capital account over the life of the project as of the end of the tax year. The credit is also subject to a phase out under §45(b)(1) of the law in proportion to any excess of price for the tax year over a base price, which is adjusted for inflation.

<sup>16</sup> 26 U.S.C. § 168

this benefit,<sup>17</sup> the owner may deduct 50% of the adjusted basis of the property in 2008, with the remaining 50% depreciated over the ordinary depreciation schedule. IRS Publication 946 and IRS Form 4562 and Instructions, provide more detailed information on the federal MACRS.<sup>18</sup>

These are the principal U.S. federal financial incentives for commercial wind energy development.<sup>19</sup> In addition, the US. Federal Government has implemented a "Green Power Purchasing Goal" for all agencies of the Federal Government.<sup>20</sup> Pursuant to this requirement, as currently in effect, every agency of the Federal Government is required to purchase at least 5% of its electricity from renewable sources by Fiscal Year 2010-2012, and at least 7.5% from renewable sources by Fiscal Year 2013 and thereafter. In addition, at least 50% of renewable energy consumed by a federal agency in any fiscal year must come from sources placed in service since 1999.<sup>21</sup> These and other federal, state, and local government requirements mandating a movement toward renewable energy, and away from dependence on foreign oil, help create favorable market conditions for the development and sale of alternative energy – including wind energy – in the U.S.

## Overview of U.S. State and Local Incentives for Commercial Wind Energy Development

**1. Financial Incentives.** Virtually every U.S. state and several U.S. localities offer government or private sector financial incentives for the development and commercial sale of electricity generated by alternative energy sources – including wind energy. These financial incentives generally fall within one of several categories, which may be summarized as follows:

1. Personal Tax Incentives;
2. Corporate Tax Incentives;
3. Sales Tax Incentives;
4. Property Tax Incentives;
5. Rebates;
6. Grants;
7. Loans;
8. Industry Support;
9. Bonds; and

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<sup>17</sup> To qualify for bonus depreciation, a project must satisfy 4 criteria: (i) it must have a 20 year or less recovery period under normal federal depreciation rules, (ii) the taxpayer claiming the deduction must be the original user of the property, (iii) the property must be acquired during 2008, and (iv) it must be placed in service during 2008 (or, in certain limited cases, 2009).

<sup>18</sup> Publication 946 and Form 4562, with Instructions, can be found on the IRS website, <http://www.irs.gov>.

<sup>19</sup> In addition to the Renewable Electricity Production Tax Credit (PTC) and the Modified Accelerated Cost-Recovery System (MACRS) + 2008 Bonus Depreciation, referenced above, an additional federal incentive called the "Business Energy Tax Credit" is available for certain microturbine projects, as well as for solar, geothermal, and fuel cells projects. The Business Energy Tax Credit, contained in 26 U.S.C. § 48, provides a 10% tax credit for eligible microturbine projects, and a 30% tax credit for expenditures for solar technologies, fuel cells and solar hybrid lighting, installed between January 1, 2006 and December 31, 2008. The maximum microturbine credit is \$200 per kW of capacity. The credit expires on December 31, 2008 for microturbines and fuel cells, and reverts to 10% for solar energy and solar hybrid lighting projects installed after January 1, 2009. The property must be operational in the year the credit is claimed, and original use must begin with the taxpayer claiming the credit. The taxpayer must reduce the basis for calculating the credit by the amount of any federal, state or local subsidized energy financing or tax-exempt private activity bond financing received for the project.

<sup>20</sup> First enacted in Executive Order 13123 on June 3, 1999, the Government's Green Power Purchasing Program has been renewed and expanded by the Energy Policy Act of 2005, §203, and by Executive Order 13423, effective January 24, 2007.

<sup>21</sup> The Federal Energy Management Program (FEMP) provides updates on progress in meeting these goals, available at its website, <http://www1.eere.energy.gov/femp>.

10. Production Incentives.

Table 2 accompanying this article summarizes the numbers of financial incentive programs in each of these categories offered by the state government or by localities, utilities, or private non-profit groups in each state.

**2. Rules, Regulations & Policies.** In addition to financial incentives, the states and local governments have promulgated rules, regulations and policies, with the purpose of encouraging or mandating the development and increased sale and consumption of energy from renewable sources – including wind energy. These rules, regulations and policies include such things as:

- Renewables Portfolio Standards for Renewable Energy (summarized in Table 1 to this article)
- Renewable Energy Credit ("REC") Programs
- Green Power Purchasing/ Aggregation Programs
- Public Benefits Funds for Renewables & Efficiency
- Mandatory Utility Green Power Option for Renewable Energy
- Generation Disclosure Rules for Renewable Energy
- Interconnection Standards for Renewable Energy
- Line Extension Analysis Requirements for Renewable Energy
- Equipment Certification Requirements for Renewable Energy
- Construction & Design Policies for Renewable Energy
- Contractor Licensing Standards for Renewable Energy
- Net Metering Rules for Renewable Energy
- Solar Access Laws/ Guidelines for Renewable Energy
- Alternative Fuel and Vehicle Policies and Incentives
- Green Energy Building Codes
- Energy Standards for Public Buildings

Sequels to this article will discuss in further detail some of the financial incentives currently offered, and rules, regulations and policies implemented, by certain U.S. states and localities in promotion of the commercial development and sale of energy from renewable sources, including wind energy.

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For more information or answers to any questions you may have, please feel free to contact the author by e-mail at: [CBarnhart@BarnhartLawPLC.com](mailto:CBarnhart@BarnhartLawPLC.com) or by telephone at +1-954-232-5378.



**Constance R. Barnhart** is the Managing Member of Barnhart Law PLC. After 12½ years as a Partner in the law firm of Holland & Knight LLP and more than 30 years of practicing law with large law firms, she founded the law firm of Barnhart Law PLC in March, 2009. Barnhart Law PLC ([www.BarnhartLawPLC.com](http://www.BarnhartLawPLC.com)) is a niche firm that represents clients in the wind and solar energy industries, as well as clients in technology industries, engaged in corporate, commercial, and contract matters. In over 30 years of practice, Ms. Barnhart has handled as lead attorney many substantial mergers & acquisitions, and corporate, commercial, and financial transactions for U.S. and international clients. This includes acting as lead counsel for the development of wind energy project finance transactions, including several developed in California for Danish project investors, financiers, and wind turbine manufacturers, as well as solar energy transactions. Ms. Barnhart is fluent in English, Spanish, and Norwegian, and conversant in Danish and Swedish. She is admitted and licensed to practice law in four U.S. States – New York, Florida, Texas, and Minnesota – each of which is currently very active in promoting the development of wind and solar energy. **Ms. Barnhart may be reached at [CBarnhart@BarnhartLawPLC.com](mailto:CBarnhart@BarnhartLawPLC.com) or by telephone at +1-954-232-5378.**

**Table 1**

**Summary of U.S. State Renewables Portfolio Standards (RPS)  
May, 2008<sup>22</sup>**

State	% of Energy to be Purchased from Renewable Energy (RE) Sources	By What Year	Other Requirements/ Notes
Arizona	15%	2025	
California	20%	2010	
Colorado	20%	2020 (IOUs)	10% by 2020 (co-ops+large munis)
Connecticut	23%	2020	
Delaware	20%	2019	
D.C.	11%	2022	
Hawaii	20%	2020	
Illinois	25%	2025	
Iowa	105 MW	Immediately	+ Voluntary Goal : 1,000 MW wind capacity by 2010 (Governor's Order)
Maine	30%	2000	10% by 2017 – new RE
Maryland	9.5%	2022	
Massachusetts	4%	2009	+ 1% annual increase
Minnesota	25%	2025	(Xcel: 30% by 2020)
Missouri	11%	2020 (Goal)	
Montana	15%	2015	
New Hampshire	23.8%	2025	
New Jersey	22.5%	2021	
New Mexico	20%	2020 (IOUs)	10% by 2020 (co-ops)
New York	24%	2013	
North Carolina	12.5%	2021 (IOUs)	10% by 2018 (co-ops & munis)
North Dakota	10%	2015 (Goal)	
Ohio	12.5%	2025	
Oregon	25%	2025 (large utilities)	5%-10% by 2025 (smlr utilities)
Pennsylvania	18%	2020	8% Tier I/ 10% Tier II (includes non-renewables)
Rhode Island	16%	2020	
South Dakota	10%	2015 (Goal)	
Texas	5,880 MW	2015	
Utah	20%	2025 (Goal)	
Vermont	RE meet inc in retail sales	2012 (Goal)	+ 20% RE by 2017 (Goal)
Virginia	12%	2022 (Goal)	
Washington	15%	2020	
Wisconsin	10%	2015 (Goal)	Requirement varies by utility

<sup>22</sup> Source: Interstate Renewable Energy Council (IREC), 2008. Standards are mandatory unless designated "Goal."

**Table 2****Summary****U.S. State and Local Financial Incentives for Renewable Energy<sup>23</sup>**

S = State/Territory L = Local U = Utility P = Private

State	Personal Tax	Corp. Tax	Sales Tax	Prop. Tax	Rebates	Grants	Loans	Industry Support	Bonds	Production Incentives
Alabama	1-S				3-U	1-S	1-S 1-U			1-U
Alaska							2-S			1-U
Arizona	3-S	1-S	1-S	1-S	6-U					
Arkansas										
California	1-S			1-S	5-S 33-U	1-L	2-S 1-U 1-L			1-S 2-U
Colorado			1-S 1-L	2-S	6-U 3-L	1-L 1-P	3-U 1-L	1-S		
Connecticut			1-S	1-S	1-S	4-S	2-S	2-S		1-P
Delaware					1-S	2-S				
Florida		2-S	1-S		1-S 7-U 2-L	2-S	4-U			1-U
Georgia			1-S		3-U		3-U			1-U
Hawaii	1-S	1-S			2-U		2-U 1-L	1-S	1-L	
Idaho	1-S		1-S	1-S	1-U	2-P	1-S		1-S	1-P
Illinois				2-S	1-S	3-S 1-P				
Indiana				1-S	1-S 25-U	1-S				
Iowa	1-S	1-S	1-S	3-S	6-U	1-S	2-S			
Kansas				1-S			1-S			
Kentucky	1-S	1-S	1-S		5-U		2-U 1-P			1-U
Louisiana	1-S	1-S		1-S			1-S			
Maine					1-S	1-S				
Maryland	2-S	2-S	1-S	4-S 3-L	3-S 1-L		2-S			
Massachusetts	2-S	3-S	1-S	1-S	2-S 2-U	4-S	3-S 1-U	2-S		1-P
Michigan				1-S	1-U	4-S		2-S		
Minnesota			2-S	1-S	1-S 15-U	3-U	5-S 1-U			1-S 1-U
Mississippi					3-U		1-S			1-U
Missouri		1-S			5-U		1-S 1-U			
Montana	3-S	1-S		3-S	2-U	1-U 2-P	1-S	2-S		1-P
Nebraska	1-S	1-S	1-S		2-U		1-S			
Nevada				3-S	1-S					
New Hampshire				1-S	3-U		1-S			
New Jersey			1-S		2-S		1-S 1-U			1-S
New Mexico	3-S	3-S	2-S					1-S	1-S	1-U
New York	2-S	1-S	1-S	2-S	7-S 3-U	1-S	2-S	2-S		1-S
North Carolina	1-S	1-S		1-S			1-S	1-S		1-U 1-P
North Dakota	1-S	1-S		2-S						
Ohio		1-S	1-S	1-S 1-L	6-U	2-S				1-S
Oklahoma		1-S					1-S	1-S		
Oregon	1-S	1-S		1-S	3-S 12-U	1-S 2-P	1-S 7-U	1-S		1-U 1-P
Pennsylvania				1-S		3-S 4-L	2-S 1-U 5-L			
Rhode Island	1-S	1-S	1-S	2-S	1-S 1-U					1-P
South Carolina	1-S	2-S	1-S		1-S 2-U	1-S	1-S 5-U			1-S
South Dakota				3-S	1-U					
Tennessee				1-S		1-S	1-S			1-U

<sup>23</sup> Source: Interstate Renewable Energy Council (IREC), 2008.



State	Personal Tax	Corp. Tax	Sales Tax	Prop. Tax	Rebates	Grants	Loans	Industry Support	Bonds	Production Incentives
Texas		1-S		1-S	9-U			1-S		
Utah	1-S	1-S	1-S		4-U					
Vermont		1-S	1-S	1-S	1-S	1-U	1-S			1-U
Virginia				1-S				1-S		1-U
Washington			1-S		11-U	1-L 2-P	9-U	1-S		1-S 3-U 1-P
West Virginia										
Wisconsin				1-S	2-S 2-U	1-S 1-U		1-S		3-U
Wyoming			1-S		1-S 1-U					
District of Columbia						1-S				
Palau										
Guam										
Puerto Rico	1-S		1-S	1-S						
Virgin Islands					1-S	1-S				
N. Mariana Islands										
American Samoa										
Total Numbers of Programs:	30	30	26	51	225	58	89	20	3	36

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