

Chapter 12

Federal and State Incentives for Wind Development

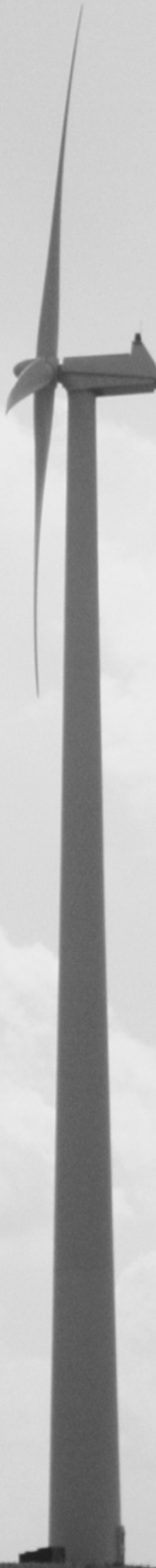
The federal government and many state governments now offer various incentives for wind energy development. Many of these incentives are specifically targeted to facilitating farmer-owned wind energy projects of a range of sizes.

Incentives can take many different forms. This chapter summarizes direct production-based payments, which can add to the revenue from generating new renewable energy, and forms of government-subsidized financing programs, including direct government grants and loans. Finally, this chapter also touches on some ways in which states have sought to encourage wind energy development through regulations placed on utilities—either mandating or facilitating utility purchases of farmer-owned wind energy.

While some of these incentives are available on a first-come, first-served basis to eligible applicants, others have a competitive application process. In addition, many incentives are of limited availability, and this is particularly true if they depend on annual government appropriations. Therefore, it is in a farmer's best interest to pursue a place in these government programs as early as possible.

Many of these incentive programs are state-created, and therefore vary depending on where the project is located. Farmers will need to do some research to find out about the state and federal incentives for wind development that are available in their area at the time of the proposed project.¹ Farmers should work with a local attorney or other wind expert who is up-to-date on the latest developments.

¹ Some additional information on state incentive programs can be found in the Database of State Incentives for Renewables and Efficiency, which is updated regularly and made available on-line at <http://www.dsireusa.org>. In addition, state agencies such as the Department of Commerce, Department of Energy, or Department of Agriculture may be able to provide additional information about any state wind incentives that are available.



I. Direct Payment Production Incentives

Production-based incentives for wind energy development provide a direct payment (or tax credit) to qualifying wind projects, based on the amount of energy produced. This chapter will only cover incentives that are not tax-related; however, farmers should be aware that many federal and state production incentives take the form of tax credits, including both the federal production tax credit (PTC) for renewably generated energy, and state PTCs. These and other tax issues related to wind development are discussed in the next chapter of this guide.

Although the federal PTC and any state PTCs are notable examples of production-based incentives, the production incentives discussed here result in a direct cash payment to the project owner (rather than a tax credit), and therefore do not require the project owner to have a separate source of tax liability sufficient to take advantage of a PTC. Therefore, these forms of direct payment production incentives can be particularly advantageous to many farmers.

A handful of states, including California and Massachusetts, currently provide some wind project owners with direct incentive payments.² Minnesota has also had a very successful production incentive program. Minnesota's production incentive provides eligible wind project owners with cash payments of 1 to 1.5 cents per kWh of generated renewable energy over 10 years of the project's operation.³ The program is limited to projects using renewable resources, such as wind power, that have a nameplate capacity of 2 MW or less.⁴⁵ The project also

² California, Massachusetts, Nevada, New Jersey, and Washington currently provide some direct production incentives that may be useful to wind project owners. Database of State Incentives for Renewable Energy (DSIRE), *Financial Incentives for Renewable Energy* (table), <http://www.dsireusa.org/summarytables/financial.cfm?&CurrentPageID=7&EE=0&RE=1> (last visited June 4, 2007).

³ Minn. Stat. § 216C.41 (2006).

⁴ Minn. Stat. § 216C.41 (2006). Certain cooperative associations can have up to 7 MW of nameplate capacity. Minn. Stat. § 216C.41, subd. 1(c)(3) (2006).

⁵ Minn. Stat. § 216C.41, subd. 1(c)(3) (2006).

has to be majority-owned by a Minnesota resident, business, government unit, municipal utility, or cooperative electric association.⁶

Minnesota's production incentive has gone through funding changes over the years and is now supporting 225 MW of wind production in the state. However, all of the current funding is committed to existing projects, and the program stopped taking applications on January 1, 2005. No new appropriations are currently expected.⁷

The federal government also currently makes a direct production payment available to certain tax-exempt entities.⁸ This federal Renewable Energy Production Incentive (REPI) is available only to Native American tribes, state and local governments, municipal utilities, rural electric cooperatives, and other non-profit entities, and it is intended to provide a benefit to tax-exempt entities similar in value to what the federal PTC provides to taxable entities.⁹

II. Government-Supported Project Financing

Some farmer-owned projects have difficulty accessing traditional commercial loans and equity investments. Even when available, these sources of financing can be quite expensive. Therefore, several states and the federal government have tried to encourage farmer-owned wind development by creating grant and loan programs to assist with the financing of these projects.

A. State Grant Programs

State grant programs offer direct financial assistance to wind project developers and typically have no requirement that any of the grant amount be paid back. State programs vary in the type of benefits offered, the eligibility requirements for those benefits, and how the grants are funded.

⁶ Minn. Stat. § 216C.41, subd. 1(c)(2)(3), subd. 6(a) (2006). This requirement has been in effect since July 1, 1999.

⁷ Minn. Dept. of Commerce, *Energy Info Center: Renewable Energy Incentives*, <http://www.state.mn.us/portal/mn/jsp/content.do?contentid=536885915&contenttype=EDITORIAL&agency=Commerce> (last visited June 4, 2007).

⁸ 42 U.S.C. § 13317 (2006).

⁹ 42 U.S.C. § 13317(b) (2006).

To illustrate some of the benefits that have been offered, this section highlights two sample grant programs from Minnesota and one from Oregon.

Minnesota: Legislative Appropriations. In 2005, the Minnesota legislature appropriated \$400,000 “to assist two Minnesota communities in developing locally owned wind energy projects by offering financial assistance rebates.”¹⁰ The Minnesota Department of Commerce’s State Energy Office is distributing these funds and intends to use them for new grid-connected community wind energy projects of 900 kW or larger that will be installed, interconnected, and operating by June 30, 2007.¹¹

Minnesota: Utility Mandated. Farmer-owned wind projects in Minnesota might also benefit from an ongoing grant program funded by Xcel Energy, an investor-owned utility in the state. In exchange for permitting Xcel Energy to continue to store nuclear waste in the state, Minnesota required the utility to create a Renewable Development Fund to be used for renewable energy projects in the state.¹² To date, Xcel Energy has committed, through this fund, nearly \$53 million for renewable energy projects, with a third round of funding to begin this year.¹³

Oregon: Utility Service Charges. Oregon has created a fund for conservation and renewable resource programs with funding derived from a System Benefits Charge—a 3 percent fee on the electric bills of customers of Portland General Electric (PGE) and Pacific Power, assessed from 2002 to 2012.¹⁴ The Energy Trust of Oregon, a private organization, administers the fund

¹⁰ 2005 Minn. Laws, 1st Spec. Sess. (Ch. 1, art. 2, § 11, subd. 10(a)).

¹¹ See Minn. Dept. of Commerce, *Community Energy Wind Projects to Receive \$400,000*, <http://www.state.mn.us/portal/mn/jsp/content.do?id=-536882793&contentid=536907426&contenttype=EDITORIAL&programid=536912013&agency=Commerce> (last visited June 4, 2007).

¹² Minn. Stat. § 116C.779 (2006); Xcel Energy, *Renewable Development Fund*, available at http://www.xcelenergy.com/XLWEB/CDA/0,3080,1-1-1_27620_11838-801-0_0_0-0,00.html (last visited June 4, 2007).

¹³ Database of State Incentives for Renewable Energy (DSIRE), *Xcel Energy - Renewable Development Fund Grants* (last updated May 23, 2007), http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive_Code=MN11F&state=MN&CurrentPageID=1&RE=1&EE=0 (last visited June 4, 2007).

¹⁴ Or. Rev. Stat. § 757.612(2)(a) (2005).

through various grant programs and spends an estimated \$10 million to \$13 million per year on renewable energy projects.¹⁵ These programs include the Energy Trust Small Wind Program targeting farmers and others who want to install a small wind project,¹⁶ the Community Wind Program specifically for commercial-scale community wind projects,¹⁷ and the Anemometer Loan Program for landowners who wish to assess the wind resource on their land.¹⁸

B. State Loan Programs

Some states also operate loan programs to support wind power development. From the state's perspective, loan programs require a significantly smaller financial commitment than outright grants. The benefits to farmers come in the form of reduced or no-interest loans from the government itself or government guarantees, which are intended to make it easier for farmers to obtain commercial loans at reasonable interest rates.

Sample programs from Iowa and Minnesota will be described to highlight the types of loan assistance that may be available.

Iowa. The Iowa Energy Center administers the Alternate Energy Revolving Loan Program to encourage the development of alternative energy within the state.¹⁹ The fund was initially created by a special assessment on electric and gas utilities, and is maintained by repayment of loans and interest accrued by the fund.²⁰ The loans are interest-free over 20 years but cannot

¹⁵ Or. Dept. of Energy, *Oregon's Renewable Resource Programs*, <http://www.oregon.gov/ENERGY/RENEW/programs.shtml> (last visited June 4, 2007).

¹⁶ Energy Trust of Oregon, Inc., *Small Wind*, <http://www.energytrust.org/RR/wind/small.html> (last visited June 4, 2007).

¹⁷ Energy Trust of Oregon, Inc., *Community Wind*, <http://www.energytrust.org/RR/wind/community/index.html> (last visited June 4, 2007).

¹⁸ Energy Trust of Oregon, Inc., *Anemometer Loan Program*, <http://www.energytrust.org/RR/wind/anemometer.html> (last visited June 4, 2007).

¹⁹ Iowa Code § 476.46(1), (2)(c) (2006).

²⁰ Iowa Code § 476.46(3) (2006).

exceed half of the project costs, or \$250,000, at any single facility.²¹ Wind projects of 20 kWh or less are eligible for 10 percent of the available funds, and wind projects of more than 20 kWh are eligible for an additional 20 percent of the funds, while other types of alternative energy facilities are allocated the remainder.²²

Minnesota. The Minnesota Rural Finance Authority (RFA) has two loan programs that can provide farmers with investment capital for wind power installations—the Agricultural Improvement Loan Program and the Value-Added Stock Loan Participation Program:

- The Agricultural Improvement Loan Program is a low-interest loan program that provides loans specifically to farmers for improvements or additions to agricultural facilities, including wind systems of 1 MW or less.²³
- The Value-Added Stock Loan Participation Program provides loans to help farmers buy into value-added cooperatives, including certain cooperatives that own wind energy systems of up to 2 MW of capacity on any one shareholder's agricultural property.²⁴

Both of these RFA loan programs are participation loan programs, in which the RFA makes loans in conjunction with local banks. The borrower must be a Minnesota resident, or a domestic family farm corporation or family farm

²¹ Iowa Code § 476.46(2)(d)(2), (2)(e)(1) (2006).

²² Iowa Energy Center, [AERLP] *Program Guidelines* (May 1, 2003), http://www.energy.iastate.edu/funding/download/Program_Guidelines.pdf (last visited June 4, 2007).

²³ Minn. Stat. § 41B.043 (2006); Minn. Dept. of Agriculture, *Agricultural Improvement Loan Program*, <http://www.mda.state.mn.us/grants/farm/improvement.htm> (last visited June 4, 2007).

²⁴ Minn. Stat. § 41B.046, subd. 4b (2006); Minn. Dept. of Agriculture, *Value-Added Stock Loan Program*, <http://www.mda.state.mn.us/grants/loans/stockloan.htm> (last visited June 4, 2007).

partnership, and must be the principal operator of a farm.²⁵ In addition, the borrower's net worth must be under \$361,000 (as of 2005, indexed for inflation).²⁶

C. Federal Grant and Loan Programs

The federal government has several financing programs specifically for farmers and rural communities that could be used to fund a wind project. For the first time in a federal farm policy package, the 2002 Farm Bill included an energy title, whose provisions were intended to provide a variety of opportunities for farmers seeking financial support for the installation of renewable energy projects.²⁷

1. USDA Section 9006 Program

Of particular note in the 2002 Farm Bill is the Renewable Energy Systems and Energy Efficiency Improvements Program, known as Section 9006.²⁸ In Section 9006, Congress authorized the use of federal loans and grants to help agricultural producers and rural small businesses “purchase renewable energy systems and make energy efficiency improvements.”²⁹

Under the existing Section 9006 program, grants are available for up to 25 percent of project costs, with grant amounts ranging from \$2,500 to \$500,000.³⁰ Loan guarantees of up to \$10 million are available for up to 50 percent of project costs.³¹ A single project can qualify for both grant and

²⁵ Minn. Stat. § 41B.043, subd. 1 (2006); Minn. Stat. § 41B.03, subds. 1 & 2 (2006) (Agricultural Improvement Loan Program); Minn. Stat. § 41B.046, subd. 4b (2006) (Value-Added Stock Loan Program).

²⁶ Minn. Stat. § 41B.043, subd. 5 (2006); Minn. R. 1656.0031 (2006).

²⁷ General Accounting Office (GAO), *Renewable Energy: Wind Power's Contribution to Electrical Power Generation and Impact on Farms and Rural Communities*, GAO-04-756, 45 & n.49 (Sept. 2004), available at <http://www.gao.gov/new.items/d04756.pdf> (last visited June 4, 2007).

²⁸ 7 U.S.C. § 8106(a) (2006); 7 C.F.R. § 4280 (2007).

²⁹ 7 U.S.C. § 8106(a), (f) (2006).

³⁰ 7 U.S.C. § 8106(c)(1)(A) (2006); 7 C.F.R. § 4280.110(e) (2007).

³¹ 7 U.S.C. § 8106(c)(1)(B) (2006); 7 C.F.R. § 4280.123(a), (b) (2007). Direct loans are authorized but have not yet been implemented by USDA. Mark Bolinger, *Avoiding the Haircut: Potential Ways to Enhance the Value of the USDA's Section 9006 Program* 3

loan assistance, but the total award cannot be more than 50 percent of total eligible costs.³²

Section 9006 grants are available to farmers and small rural businesses that demonstrate financial need, meaning that the applicant is unable to finance the project without assistance.³³ Projects must be in rural areas,³⁴ and wind energy systems are expressly eligible.³⁵ Additional requirements are: (1) the wind energy equipment must be commercially available or sufficiently tested through a research and development process for commercial viability, (2) the project must be technically feasible, and (3) the project must demonstrate that it will provide sufficient revenue to provide for operation and maintenance.³⁶

For a loan guarantee under the Section 9006 program, the applicant must find a lender willing to make the loan, which the federal government then guarantees up to a certain percent depending on the size of the loan.³⁷ Loan guarantee applicants must meet the same criteria as grant applicants except that they do not need to demonstrate financial need.³⁸ The project requirements are the same, including rural siting and technical feasibility.³⁹

(July 2006), available at <http://eetd.lbl.gov/ea/EMS/reports/61076.pdf> (last visited June 4, 2007).

³² 7 U.S.C. § 8106(c)(1)(B) (2006).

³³ 7 U.S.C. § 8106(b) (2006); 7 C.F.R. § 4280.107(a)(5) (2007). An "agricultural producer" is defined as "an individual or entity directly engaged in the production of agricultural products . . . whereby 50 percent or greater of their gross income is derived from the operations." 7 C.F.R. § 4280.103 (2007).

³⁴ 7 C.F.R. § 4280.108(d) (2007).

³⁵ 7 C.F.R. § 4280.103 (2007) (defining "rural" as any area other than a city or town with a population over 50,000 and not adjacent to such a city or town, and defining "renewable energy" to include energy derived from wind).

³⁶ 7 C.F.R. § 4280.108 (2007).

³⁷ Alan Watt, Arizona Rural Energy Coordinator, *Section 9006 Program: Rural Energy Efficiency Renewable Energy Projects*, Presentation 19-20, Aug. 2, 2006, http://swrec.org/presentations_2/Watt_part_2_9006_Program_Overview_FY_2007_Final.pdf#search=%22usda%20section%209006%22 (last visited June 4, 2007).

³⁸ 7 C.F.R. § 4280.121 (2007).

³⁹ 7 C.F.R. § 4280.122 (2007).

Funding for the Section 9006 Programs

Funding for the Section 9006 programs is dependent on the annual Congressional appropriations process. Between 2003 and 2005, roughly \$65 million was awarded in Section 9006 grants. In 2006, USDA awarded \$17.5 million in grants and allocated \$200 million to the loan guarantee program. On March 22, 2007, USDA announced the availability of \$11.4 million for grants and \$176.5 million in authority for guaranteed loans. Future funding cycles will likely require a new authorization of the program from Congress, but it is generally expected that this funding will be provided as part of the Farm Bill that is being drafted at the time this book is being written.

Of the 2006 grant awards, 45 were for wind projects, and 31 of those were on-farm projects. The other wind awards were all for commercial-scale projects of 2 MW each.

Loan guarantee requests of \$600,000 or less have a simplified loan application.⁴⁰

The Section 9006 program has proven extremely popular, which means that it is also very competitive. It is therefore important to submit a strong, complete application. In 2006, there were over \$60 million in grant requests for only \$23 million of available funding.⁴¹ Currently, the loan portion of the program has not been receiving as many applications as dollars available, so there is somewhat less competition for those awards.⁴²

Farmers should keep in mind that applying for a Section 9006 benefit is not a trivial process, and ample time should be

allotted for filling out the required forms in their entirety. In addition to the eligibility requirements listed above, applicants are required to itemize all of the expenses for the project, certify that the applicant and project conform with all applicable federal laws, and provide detailed environmental information to comply with the National Environmental Policy Act

⁴⁰ 7 C.F.R. § 4280.128(c) (2007).

⁴¹ Environmental Law and Policy Center, *An American Success Story: The Farm Bill's Clean Energy Programs 3*, available at <http://www.elpc.org/documents/FarmBillSuccessStories.pdf> (last visited June 4, 2007).

⁴² Alan Watt, Arizona Rural Energy Coordinator, *Section 9006 Program: Rural Energy Efficiency Renewable Energy Projects*, Presentation 13, Aug. 2, 2006, http://swrec.org/presentations_2/Watt_part_2_9006_Program_Overview_FY_2007_Final.pdf#search=%22usda%20section%209006%22 (last visited June 4, 2007).

(NEPA).⁴³ Applications must be submitted to the USDA Rural Energy Coordinator in the state where the project is located. The USDA Rural Energy Coordinator in the state should also be available to assist with the application.⁴⁴

2. USDA Value-Added Producer Grant Program

A second example of a federal program designed to make investing in wind energy projects more financially feasible for farmers is USDA's Value-Added Producer Grant Program. Among other purposes, this program provides grants to install farm- and ranch-based renewable energy systems.⁴⁵ For fiscal year 2007, the program has approximately \$19.3 million available in competitive grant funds for qualifying projects.⁴⁶

To receive a grant, applicants must be agricultural producers, which is defined to include individuals or businesses that produce or harvest agricultural products, such as grain, livestock, seafood, or forestry by-products.⁴⁷ This program typically funds a range of value-added projects. For most eligible projects, the applicant must show how the project increases the value of the produced commodity.⁴⁸ But applications from renewable energy development projects—including wind facilities—are exempt from showing this connection.⁴⁹ These applications need only “explain how the

⁴³ See USDA Rural Development, *Section 9006 Forms*, <http://www.rurdev.usda.gov/rbs/farmbill/9006form.html> (last visited June 4, 2007).

⁴⁴ See USDA Rural Development, *State Office Rural Energy Coordinators*, <http://www.rurdev.usda.gov/rbs/farmbill/contacts.html> (last visited June 4, 2007).

⁴⁵ See USDA Rural Development, *Value-Added Producer Grants*, available at <http://www.rurdev.usda.gov/rbs/coops/vadg.htm>; USDA Rural Development, *State VAPG Office Contacts*, <http://www.rurdev.usda.gov/rbs/coops/vapgstate.htm> (both sites last visited June 4, 2007).

⁴⁶ Announcement of Value-Added Producer Grant Application Deadlines, 72 Fed. Reg. 18949 (Apr. 16, 2007).

⁴⁷ 7 C.F.R. § 4284.3 (2007).

⁴⁸ Announcement of Value-Added Producer Grant Application Deadlines, 72 Fed. Reg. 18949, 18950 (Apr. 16, 2007).

⁴⁹ Announcement of Value-Added Producer Grant Application Deadlines, 72 Fed. Reg. 18949, 18950 (Apr. 16, 2007).

Renewable Energy will be generated on a Farm or a Ranch owned or leased by [the applicants].”⁵⁰

Beware of “Double-Dipping” Rules

Wind project owners who wish to take advantage of the federal PTC, as discussed in the next chapter, should pay particular attention to the PTC’s *double-dipping* provision when considering these other non-tax incentives. If a project receives certain kinds of other government incentives, the federal PTC may be reduced in proportion to the relationship between the amount of state and federal incentive funding and the capital cost of the project. State or federal grants that buy down the up-front capital costs of the project, state or federal loan programs that offer below-market interest rates, and other forms of government-subsidized financing are among the incentives most likely to trigger these double-dipping restrictions. More information about these rules can be found in the next chapter of this guide, in the discussion of the federal PTC.

So-called “Planning Grants” are available for developing a business plan or performing a feasibility study to assess the viability of the proposed project, and “Working Capital Grants” are available to assist agricultural producers to establish these business ventures—including, for example, to hire legal counsel or an accountant.⁵¹ Grants can only be used for up to 50 percent of these costs, and applicants must show they have a matching amount of non-federal funding from other sources to contribute to the effort.⁵²

Wind energy projects have successfully applied for and received these grants in the past.⁵³

⁵⁰ Announcement of Value-Added Producer Grant Application Deadlines, 72 Fed. Reg. 18949, 18950 (Apr. 16, 2007).

⁵¹ 7 C.F.R. §§ 4284.904, 4284.908 (2007).

⁵² 7 C.F.R. § 4284.908 (2007).

⁵³ See generally Windustry, *Value-Added Producer Grant Program*, <http://www.windustry.org/farmbill/vapg.htm> (last visited June 18, 2007).

III. Government Promotion of Renewable Energy Purchases

Governments can also use their regulatory authority over utilities within their jurisdiction to promote purchases of renewable energy. Although this does not directly affect the cash flow of a farmer's wind project, it can immediately affect the feasibility of installing new wind energy systems, because it can increase utilities' willingness to purchase the generated energy. Regulations can also simplify the negotiation process for farmers by requiring utilities to implement things like standardized interconnection and power purchase agreements, eliminating the need for intensive negotiations and freeing the farmer's time and energy to be focused on other aspects of the development.

A. Creating Demand for Farmer-Owned Wind Energy

States are increasingly making efforts to increase demand for wind energy and, in some cases, specifically for farmer-owned wind energy. The most direct way of doing this is to mandate that utilities purchase a specific percentage of their energy from renewable sources. But states can also affect utilities' willingness to purchase wind energy in other ways. For example, states can establish *green energy* programs that allow a utility's customers to express their demand for wind energy, or change utility planning regulations to facilitate purchases of renewable energy.

1. Renewable Energy Standards and Objectives

Direct initiatives to create utility demand for wind energy can take the form of either a *mandate*, in which the state requires a particular result, or an *objective*, in which the state simply encourages utilities to reach a desirable target.

In its 2007 session, the Minnesota legislature passed an ambitious renewable energy standard that includes both objectives and mandates for the use of renewable energy by electric utilities, providing a helpful example of what a state's options are.⁵⁴ Under the new Minnesota law, each utility must make a "good faith effort" to generate or procure 7 percent of its electric output from renewable sources by 2010. After 2010, each utility "shall" meet standards of reliance on renewable sources. The statute creates a schedule of increasing standards, beginning with 12 percent by 2012 and ending with

⁵⁴ Renewable Energy Act, 2007 Minn. Laws (Ch. 3, § 1) (to be codified at Minn. Stat. § 216B.1619).

25 percent reliance on renewable sources by 2020. Utilities, however, can request a modification or delay of a standard from the Minnesota Public Utilities Commission.

2. Green Energy Programs

States can also indirectly encourage the development of renewable energy by facilitating consumer demand for *green energy*.

One option is requiring utilities to offer a green-pricing program, which gives utility customers the choice of purchasing renewable energy sources for their electricity. Typically, customers can choose to make an additional payment for each block of renewable energy purchased, and then the utility is required to acquire enough renewable energy to meet consumer demand.⁵⁵ Some states specifically require utilities to offer these programs.⁵⁶ In other states, some utilities voluntarily offer such programs, sometimes with the help of an independent—but also voluntary—entity that oversees and certifies the validity of these programs.⁵⁷

A second option for states and the federal government in seeking to create demand for green energy is to regulate to ensure a functional, viable market for Renewable Energy Certificates (RECs), which are also known as *green tags*, *green certificates*, or *tradable renewable certificates*. RECs represent the positive attributes of renewable energy separate from the actual energy produced. Depending on the laws of a given state, utilities may be able to

A Federal Standard in the Future?

In 2005, a federal renewable energy standard was included as an amendment to the broader Energy Bill passed by the U.S. Senate. This national standard would have required utilities to increase renewable electricity generation or purchases to 10 percent by 2020. However, the standard was dropped from the legislation after it failed to garner support from either the House of Representatives or the Bush Administration.

⁵⁵ U.S. Dept. of Energy, *Guide to Purchasing Green Power*, http://www.eere.energy.gov/femp/pedfs/purchase_green_power.pdf (last visited Aug. 1, 2006).

⁵⁶ See, e.g., Minn. Stat. § 216B.169, subd. 2(a) (2006); Iowa Code § 476.47 (2006).

⁵⁷ See generally Green-e, *Renewable Electricity Certification Program*, <http://www.green-e.org> (last visited June 17, 2007).

purchase RECs to meet their renewable energy mandates, and other end-users can voluntarily purchase them for their environmental, social, and other benefits.⁵⁸ As discussed in the chapter on selling power (Chapter 9), these RECs can add value to the energy sales of wind projects, and the value of the generated RECs depends in large part on how transparent and trustworthy the existing REC tracking and verification system is.

3. Preference for Renewable Energy Purchases in Utility Planning Rules

Generally, a regulated utility must get permission from the state public utilities commission (PUC) to build or acquire large amounts of energy from a new generation source. State laws and regulations set criteria the PUC should use to evaluate utilities' requests. Traditionally, PUCs have primarily sought to minimize electricity costs for consumers, and therefore have required utilities to make decisions based largely on a least-cost standard. Renewable energy, such as wind, may be more expensive in some respects than conventional energy sources and can be disadvantaged in this process.

States can eliminate this disadvantage by giving a preference to renewable sources in the energy development and planning process. Minnesota's mandatory utility planning process, for example, explicitly prefers renewable energy sources.⁵⁹

B. Special Community-Based Energy Development Tariffs (C-BED)

Some states also promote commercial-scale wind projects by mandating favorable rates or contract terms from utilities that buy energy from community-owned wind projects. Essentially, states can require utilities to offer a standard contract to wind projects that meet the state's requirements. Examples of this are most commonly considered in the context of mandatory power purchase agreements and interconnection standards for Qualifying Facilities (QFs) taking advantage of the "must buy" provision of the federal Public Utility Regulatory

⁵⁸ See generally Ed Holt and Lori Bird, *Emerging Markets for RECs: Opportunities and Challenges* (N. Am. Wind Power July 2005), available at http://www.eere.energy.gov/greenpower/resources/pdfs/0705_naw_ehlb.pdf (last visited June 17, 2007).

⁵⁹ Minn. Stat. §§ 216B.2422, subd. 4, 216B.243, subd. 3a (2006); see also Minn. R. 7843.0400, subp. 2 (2006).

Policies Act (PURPA), as discussed in more detail in the earlier chapter on selling power (Chapter 9).⁶⁰

In 2005, Minnesota took a further step by enacting an innovative law—the first of its kind in the United States—requiring utilities to create special tariffs for locally owned and locally supported wind energy projects.⁶¹ This Community-Based Energy Development law is commonly referred to as *C-BED*. This section describes the goals, benefits, and process of C-BED.

In order to encourage the development of broad-based, local ownership of new wind energy installations in Minnesota, the C-BED law requires every utility providing electric service—including municipal power agencies and generation and transmission electric cooperatives—to file a special C-BED tariff with the Minnesota Public Utilities Commission (PUC).⁶² Each tariff must include terms and conditions that allow qualifying community-owned projects to have the utility front-load its power purchase payments in the first half of a 20-year contract.⁶³ It is important to note that filing this tariff does not require the utility to contract with every potential C-BED project, but the law encourages prioritization of C-BED projects. Utilities must “take reasonable steps” to determine whether a C-BED project is available when they consider new generation, in order to meet Minnesota’s new renewable energy standard.⁶⁴ The

⁶⁰ E.g., Oregon Public Utilities Commission, *Staff’s Investigation Relating to Electric Utility Purchases from Qualifying Facilities*, Order No. 05-584, at 17 (May 13, 2005), available at http://www.oregon.gov/ENERGY/RENEW/Wind/OWWG/docs/OPUC_PURPA_order_5-584.pdf (last visited June 21, 2007).

⁶¹ 2005 Minn. Laws (Ch. 97, art. 2, § 1) (codified at Minn. Stat. § 216B.1612). In 2007, the Minnesota legislature expanded C-BED to provide the same benefits to other renewable energy sources: solar, wind, hydro (for plants with a capacity under 100 kWh), and hydrogen from biomass. See Next Generation Energy Act, 2007 Minn. Laws (Ch. 136, art. 4, § 1) (to be codified at Minn. Stat. § 216B.1612, subd. 2(f)); Renewable Energy Act, 2007 Minn. Laws (Ch. 3, § 1) (to be codified at Minn. Stat. § 216B.1691, subd. 1(a) (defining eligible “renewable” energy)).

⁶² Next Generation Energy Act, 2007 Minn. Laws (Ch. 136, art. 4, § 5) (to be codified at Minn. Stat. § 216B.1612, subd. 5(a)).

⁶³ Minn. Stat. § 216B.1612, subd. 3(a), (c) (2006).

⁶⁴ See Next Generation Energy Act, 2007 Minn. Laws (Ch. 136, art. 4, § 5) (to be codified at Minn. Stat. § 216B.1612, subd. 5(a)).

Minnesota PUC also will consider utilities' C-BED-related efforts when evaluating compliance with their renewable energy obligations,⁶⁵ and the utilities must regularly report on their C-BED plans.⁶⁶

This front-loading of payments allows utilities and power generators to negotiate for higher payment rates for the first 10 years of the project, and lower rates for the last 10 years. This allows C-BED projects to more readily overcome the high startup costs of energy development and repay loans more quickly.

From the utilities' perspective, the bottom line does not change because rates are calculated using the economic concept of *net present value*—which reflects the fact that an amount of money received today is more valuable than the same amount of money received next year because of inflation, lost investment income, and other factors. By taking net present value into account, front-loaded payments do not cost the utility any more than fixed payments over the term of the contract. Prior to 2007, the C-BED law put a cap on the net present value rate a utility could pay a C-BED project over its useful life, but in 2007 the Minnesota legislature removed this rate ceiling.⁶⁷

The C-BED law ensures that the benefits of these front-loaded payments will flow to community members by limiting access to the C-BED tariff to *qualifying owners*.⁶⁸ Qualifying owners are local people and organizations, including individual Minnesota residents, public entities such as school districts, and, as a

⁶⁵ Next Generation Energy Act, 2007 Minn. Laws (Ch. 136, art. 4, § 5) (to be codified at Minn. Stat. § 216B.1612, subd. 5(c)).

⁶⁶ Next Generation Energy Act, 2007 Minn. Laws (Ch. 136, art. 4, § 5) (to be codified at Minn. Stat. § 216B.1612, subd. 5(b)).

⁶⁷ See Next Generation Energy Act, 2007 Minn. Laws 2007 (Ch. 136, art. 4, § 3) (to be codified at Minn. Stat. § 216B.1612, subd. 3(a)). Formerly, the statute capped all rates at 2.7 cents net present value per kWh. See Minn. Stat. § 216B.1612, subd. 3(a) (2006).

⁶⁸ Minn. Stat. § 216B.1612, subd. 2(c) (2006). If a non-qualifying owner has a share of the project, the project can still receive C-BED benefits, but only in proportion to ownership interest in the project held by qualifying owners. Minn. Stat. § 216B.1612, subd. 7(c) (2006). In 2007, the C-BED law was amended to expressly allow utilities serving retail or wholesale customers to form partnerships with qualifying owners subject to these limitations. Next Generation Energy Act, 2007 Minn. Laws 2007 (Ch. 136, art. 4, § 7) (to be codified at Minn. Stat. § 216B.1612, subd. 8).

result of the 2007 C-BED amendments, some local utilities.⁶⁹ At least 51 percent of gross revenues must flow to qualifying owners and to “other local entities” over the life of the project.⁷⁰

To the extent feasible, a developer of a C-BED project must provide an opportunity to invest in the project to landowners on whose property a high-voltage transmission line is constructed to transmit the energy to market.⁷¹

To further ensure local involvement and control, all C-BED projects must also receive a resolution of support from the local county board or tribal council.⁷²



⁶⁹ Next Generation Energy Act, 2007 Minn. Laws (Ch. 136, art. 4, § 2) (to be codified at Minn. Stat. § 216B.1612, subd. 2(c)). Utilities were expressly excluded from being a qualifying owner until the 2007 legislative changes. Qualifying owners now include municipal utilities and rural electric cooperatives.

⁷⁰ Next Generation Energy Act, 2007 Minn. Laws (Ch. 136, art. 4, § 2) (to be codified at Minn. Stat. § 216B.1612, subd. 2(g)(2)).

⁷¹ Minn. Stat. § 216B.1612, subd. 6 (2006).

⁷² Minn. Stat. § 216B.1612, subd. 2(f)(3) (2006).