

WINDUSTRY'S



Community Wind Toolbox



This chapter is part of **Windustry's Community Wind Toolbox** which is designed to guide you through various aspects of developing a commercial-scale community wind project. Each section gives you background information about particular steps in project development and provides you with resources to help you to do more in-depth research on your own.

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Chapter 9:

Financing Community Wind Projects

Most commercial-scale community wind projects are multi-million dollar investment endeavors that require outside financing assistance. This section will give you some background on how to approach a bank or other financing entity. Loan terms will affect the bottom line of your wind energy project revenue, so understanding the requirements and options for financing your wind development are critical. Getting organized in the beginning will put your project in a much better negotiating position for acquiring favorable financing. With enough due diligence documentation, your project will be less risky and more attractive to a financing entity.

The main topics covered in this section of the Toolbox include:

Elements of Wind Energy Finance

Getting a Bank Loan: What will the bank want to know?

At-a-Glance: Third Party Certification

Additional Resources for Financing Community Wind

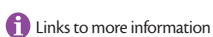
Key to Toolbox icons:



Best Practices



Caution



Links to more information



Information that will affect your project's bottom line



Example

Elements of Wind Energy Finance

Community wind development offers substantial new economic opportunities for rural landowners and communities, with considerable environmental benefits. Although wind power can be lucrative, markets can also be competitive and the margins can be tight. The process for securing financing can be much more challenging for local communities than for a large wind development firm.

As with any investment, wind energy projects require research and a fundamental understanding of the risks, costs, and benefits involved. A community wind developer needs to have a working knowledge of how this investment will translate throughout the entire project, from the initial resource assessment through operation and maintenance at year 20 and beyond.

i Windustry's "Know Your Economics" fact sheet provides a good introduction to economic issues with commercial-scale wind development:

<http://www.windustry.org/basics/07-economics.htm>

Financial Viability

The cost to buy, install, and operate the wind turbine must be able to be offset by the value of energy that can be produced at a particular site. Key variables that can impact the financial viability of a wind farm include:

- Quality of the wind resource (see section of the Toolbox on **Wind Resource Assessment**)
- Price and availability of the turbines
- Installation costs
- Availability of incentives and other forms of support for your project
- Distance the power needs to be transported
- Selling price of the power and renewable energy credits
- Cost of financing

This is the best cash crop we've run into yet. We're proud to be wind turbine owners.

Steve and Jane Tiedeman, Farmers and Community Wind Project Owners
Pipestone, MN



In many cases schools and other public entities have unique opportunities to help finance wind projects because they qualify for low interest loans, can issue bonds, have lower required rates of return, and generally can get longer financing terms. Pictured above are the Spirit Lake Community School District's 250 kW and 750 kW wind turbines. The 750 kW wind turbine was financed through a zero interest loan from the Iowa Energy Center's Alternative Energy Revolving Loan Program and a low interest loan approved by the Iowa Energy Bank.

Photo: Iowa Energy Center

Equity and Debt

In many cases, developing a community wind project necessitates requesting a loan from a bank, much as building a new ethanol production facility does. Loan terms for the debt vary, but typically are 10-15 years for conventional bank loans and up to 20 years for bond financings. The equity investment in a project is the amount of capital that is not borrowed, but is invested directly into the project upfront. This may come from private savings or direct investment by members of a cooperative, partnership, or LLC that is interested in obtaining a desired rate of return from the project's ongoing revenues.

i "Financing Community Wind: A Handbook by the Environmental Law and Policy Center" is a good resource on the ins-and-outs of financing wind development. It includes a comprehensive section on "Sourcing Equity and Debt" that covers:

- Finding an Equity Partner
- Arranging Debt Financing (Local Lenders, Regional Agricultural Lenders, and Commercial Banks, Commercial Finance, and Vendor Financing)
- Debt Structuring
- Getting the Project Financed

<http://www.elpc.org/documents/WindHandbook2004.pdf>

Getting a Bank Loan: What will the bank want to know?

Some banks and financial institutions in the Midwest have experience with the wind industry and are comfortable financing wind projects. However, if wind energy is new to your area, local banks might be wary or have a lot of questions about your plans. This section outlines the basic information you should have available before approaching a bank for a loan.

Detailed Cost and Production Estimates

A lender will want an overview of your project, including detailed cost estimates (written quotes for equipment, interconnection, installation, operation, etc.) and a legal description of the proposed project site, including aerial photos and plat drawings if possible. You also will need detailed budgets of project expenses and income (monthly for at least 24 months, and annually for 10-20 years). See the section above on **Wind Resource Assessment** as well as the section entitled **Costs Associated with Community Wind Development**, for more detailed discussion.

Other due diligence documentation requirements could include:

- Existing and pro forma financial statements
- How and to what level the project will be capitalized
- Plans for using state and federal incentives
- Legal ownership structure
- Background information on majority owners
- Personal financial statements (based on capitalization)
- Listing of all required contracts, permits & easements and your progress toward obtaining them
- Copy of proposed power purchase agreement
- Risk mitigation plans
- Construction management plans
- Ongoing management and extended warranties plans
- Insurance coverage including property/casualty liability and business interruption

This **sample pro forma** shows some of the information your lender is likely to request in order to consider your loan.

AT-A-GLANCE

★ **Third Party Certification**

If your lender is not familiar with wind energy business ventures, it is advisable to obtain a third party project feasibility certification. A third party certification will also provide you with peace of mind that the assumptions and projections in your business plan are based in reality.

Credit Guidelines

Many lenders require a minimum equity contribution of 30 percent of the project costs. The term note is typically amortized over 10 years with quarterly or yearly payments. The interest rate on the loan is important and can make the difference between a project that makes a profit and one that simply breaks even. It is important to know what rate of return is foregone by investing the money in the turbine project to determine changes in tax payments.

Evaluation

The lender will evaluate your loan application based on the following criteria:

- Thoroughness and accuracy of your business plan;
- The validity and strength of your cash flow and financial statements;
- Qualifications of your governing board
- Adequate capital secured for the project; and
- A legal review of contracts, permits, and easements.

Concerns a lender might have about financing wind projects include:

- The availability of equity capital;
- The certainty and stability of power purchase contracts and power purchasing entity;
- The stability and availability of state and national incentives;

- The stability of the market for wind energy; and,
- The availability of proven expertise in wind project design.

Individuals and groups who are interested in developing a wind project are strongly advised to seek expert financial advice as they evaluate potential sites and financial scenarios.

Other means of obtaining debt financing such as bond financing are starting to be used in the wind industry as a low-cost and longer term financing alternative. Bond financing requires due diligence documentation similar to that required by conventional banks.

Public Project Financing – Clean Renewable Energy Bonds (CREBs)

Clean Renewable Energy Bonds are available to entities that are not eligible for the production tax credit (PTC) due to their non-taxable status, including state and local governments, rural electric cooperatives, Native American tribal governments, and public and private non-profit organizations. After the bonds are issued, their interest is paid by the federal government in the form of tax credits, creating an interest-free source of financing. The IRS received over \$2 billion in applications for the initial \$800 million available. An additional \$400 million in financing authority was issued in late 2006 with a deadline of July 13th 2007 for applications. Considering the popularity of the program, there is serious discussion at the national level for future allocations for the program.

More information on CREBs is available on Windustry's website::

www.windustry.org/community/crebs.htm.

CREBs and other tax incentives are discussed further in the **Tax Incentives** section of this Toolbox.



Steve and Jane Tiedeman, from Pipestone, MN, put together a successful wind project to diversify their farm income.

Photo: Windustry staff

Financing Terms for a Community Wind Project

The following shows an example of financing terms that was supplied by AgStar Financial Services, a farm credit association working in Minnesota and Northwest Wisconsin that has experience in financing community wind projects.

This example should not be construed as typical terms and any numbers contained within the document are not to be construed as typical project costs with the rapid rate at which the wind industry is evolving. Different financing companies will have differing terms for lending to a wind energy project. To find out specific terms for various lending institutions, you should contact them directly.

EXAMPLE

Proposed Term Sheet

This is a proposal for a possible lending relationship with AgStar Financial Services. This is not a loan commitment; this proposal is subject to loan underwriting. The proposal is valid for 30 days from the date below.

Generic Wind Project • Generic County, MN

PROPOSAL OF TERMS AND CONDITIONS

Borrower	To Be Determined
Loans	<p><i>Construction loan</i> – There will be a single construction loan for up to 100% of the total estimated project cost of approximately \$23,000,000 based on the final borrower sources and uses of funds and the final underwriting outcome.</p> <p><i>Term loan</i> – The construction loan will convert to a 12 year term loan with a 12 year amortization. Conversion to the term loan will occur within 30 days post construction upon applicable certification of completion of the project.</p> <p>There will be a term loan which will refinance not more than XX% of the total construction loan.</p>
Maturity Date	Maturity dates will be based on the closing date subject to the above terms. The length of the term loan is 12 years.
Purpose	The purpose of the loan(s) is for the construction of seven individual wind farm companies building 7 – 1.65 MW turbines.
Availability Period	The loan is available from the day of formal loan closing until 30 days post construction. A third party engineer or similar representative must certify the turbines prior to the end of the construction period.
Interest Rates	<p><i>Variable Rate</i> – The construction loan facility will carry a variable interest rate of the Wall Street prime less 100 bps; the construction period is defined as 10 months from loan closing.</p> <p><i>Fixed Rate:</i> – Upon conversion of the construction loan to the term loan facility the variable interest rate will convert to a fixed rate that will carry XX basis points net margin to AgStar over their cost of funds for a 12 year fixed rate. <i>This rate will contain a three year principal pre-payment lock out provision.</i></p> <p><i>The cost of the fixed rate product is subject to change on a daily basis until actually committed to by the borrower; then the appropriate loan must be flipped to that rate with in one business day.</i></p> <p>Rate example: ...</p>
Interest Payments	Interest shall be calculated on the actual number of days each loan is outstanding on the basis of a year consisting of 360 days. Accrued construction interest is due when the construction loan is refinanced by the term loan.
Fees	There will be a XX basis point underwriting and origination fee on the entire term credit facility due at construction loan closing. Portions of this fee may be shared pro rata with any senior debt participants.

PROPOSAL OF TERMS AND CONDITIONS

Costs	<p>AgStar will bear all internal costs associated with underwriting, loan document preparation, and appraisal.</p> <p>Borrower will pay costs associated with recording and filing collateral documents and mortgage registry fees, their own legal fees, and lenders title policy without survey coverage.</p> <p>AgStar <i>escrow and title insurance</i> services are available for an additional cost to the borrower.</p>
Principal Payments	<p>All principal payments are due quarterly along with interest as will be described in the term loan facilities. The term loan amortization will be equal payments of combined principal and interest fully amortized on a 12 year schedule. The first payment is due 90 days from "live production".</p> <p><i>This loan will contain a three year principal payment lock out starting when the fixed rate is initiated (construction loan is flipped to the term loan).</i></p>
Security	<p>First security interest covering all real estate or appropriate assignment of the real estate lease or any leasehold mortgage; equipment, facilities; assignments of the PPA, turbine supply agreement and warranty and operating and maintenance agreement; assignment of the transmission and interconnection agreement.</p>
Documentation	<p>The Loans will be subject to the negotiation, execution and delivery of a definitive Master Loan Agreement (including schedules, exhibits and ancillary documentation) and all such other documentation ("Loan Documents"). The terms, conditions and definitions in this Term Sheet are set forth in relative detail not for the purpose of establishing precise terminology for the Loan Documents, but for the purpose of establishing the basic elements of the offered financing package.</p>
Representations and Warranties, Conditions Precedent, Affirmative and Negative Covenant	<p>Documentation will contain representations, warranties, conditions precedent, affirmative (including, without limitation, the Financial Covenants) and negative covenants, reporting requirements that are reasonable and customary for Loans of this type.</p> <p><i>This is a non-recourse loan to the borrower and further contains no guarantees, actual or implied from the borrower or equity contributor.</i></p>

Conditions Precedent (Requirements prior to loan closing)

- Borrower to provide AgStar with copies and assignments of all agreements with third parties, including but not limited to: easements to property and wind easements, management agreements, marketing agreements – including the Power Purchase Agreement, and other contracts used in the normal operations of borrower.
- Borrower will provide AgStar with copies of all necessary permits; including but not limited to: local construction permit, conditional use permit and/or appropriate zoning, Federal Aviation Administration permit, environmental assessment (or E.I.S. – if required), and all other required permits.
- Borrower will provide AgStar with proof of property/casualty insurance naming AgStar as loss payable for at least the loan amount.
- Borrower will provide AgStar with proof of business interruption insurance for an amount equal to \$XX,XXX per month, naming AgStar as loss payable.
- All appropriate equity funds must be committed with evidence (equity term sheet) of such commitment provided to AgStar prior to document closing.
- A resume of the construction contractor indicating prior experience in wind tower construction must be provided to AgStar prior to document closing. Borrower will provide proof to AgStar that a qualified project manager is overseeing the project on behalf of the borrower.
- Borrower will provide to AgStar three months payment in an escrow account managed by AgStar and accessible by AgStar in the event of payment default.
This is an evergreen account.

Additional Resources for Financing Community Wind

U.S. Department of Agriculture , State Office Rural Energy Coordinators

<http://www.rurdev.usda.gov/rbs/farbill/contacts.html>

AgStar Financial Services (Mankato, Minnesota)

www.agstar.com

Fishback Financial Corporation/First National Bank of Pipestone (Minnesota)

<http://www.fnbpipe.com/index.htm>

Community Wind Financing Handbook, by Charles Kubert, Environmental Law and Policy Center, 2004:

<http://www.elpc.org/documents/WindHandbook2004.pdf>

Iowa Energy Center

Spirit Lake Community School District turbines:

http://www.energy.iastate.edu/funding/aerlp_cs/aerlp_cs.html