

# Q&As from the Green Power Partnership’s Webinar on Corporate, Institutional, and Government Opportunities in Community Wind Development

[A recording and presentations from the webinar are available at:  
[http://www.epa.gov/greenpower/events/29jul10\\_webinar.htm](http://www.epa.gov/greenpower/events/29jul10_webinar.htm)]

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## Questions Addressed to Own Energy

### **Question: Can Jacob talk a little more about the Kansas project? Interconnection?**

**Answer:** OwnEnergy and our local joint venture partner are currently developing a 50MW wind project, the Alexander Wind Farm, in Rush County, KS. The largest landowner in the project footprint also serves as our local partner and has a significant equity stake and role in facilitating project development decisions. They have done the lion's share of the work to socialize the project to the local community, manage relationships with neighbors, and secure additional wind rights required to build the Project. Our partners have helped to customize the lease agreement and other land documents to meet local commercial conditions and requests. Having our largest landowners serve as a member of the development team has also served to increase support for the Project in the community.

The Alexander Wind Farm is in discussions with local Kansas utilities on a long-term, power purchase agreement. Construction is scheduled to begin in late 2011.

The Project has completed two of three stages in the Southwest Power Pool's generation interconnection study process. An Interconnection Agreement is expected to be executed in the first quarter of 2011. Interconnection is a complex process within wind development that affects all wind projects. As a developer of community wind projects, we seek to find transmission advantaged projects that have an interconnection advantage over competitive projects. As many of our projects are less than 100 MW, we have been able to develop commercially attractive projects that utilize existing transmission as compared to larger projects that often require the construction of new transmission lines or upgrades to existing lines.

### **Question: Jacob, what is the approximate construction cost of wind power per KW? RECs value has high impact on the project economics. But is the RECs value is reserved over the 15 years of project operation.**

**Answer:** Fully installed costs can range from \$1,800/kw to \$2,400/kw, depending on site conditions, geography, and project size. Complex terrain features like ridge-tops may cost more. Projects in more densely populated areas could cost more. Smaller projects could cost more (on a per unit basis).

REC values could have a major bearing on project economics. In many regions of the country, such as the Midwest and Great Plains, electricity and RECs are commonly bundled together in a power purchase agreement (PPA). So the selling price in a PPA represents all of the benefits attributed to wind power production in these markets, and the contract term is usually for a longer period. The positive in this arrangement is that if RECs are contracted, a developer is typically able to attract a greater level of financing. Lenders and tax equity investors will typically only lend against contracted cash flow. Obviously the downside is the developer is not able to take advantage of upside in REC prices over the contract term. These upsides flow to the offtaker.

In other regions, such as the Northeast, RECs can be sold separately and the developer can take advantage of positive movement in REC prices.

**Question: Is there a particular demographic you are seeing from those interested in developing community wind projects?**

**Answer:** Due to OwnEnergy’s unique business model that aligns community and developer interests, we receive interest and inquiry from a wide and varied group. However, OwnEnergy local partners are often entrepreneurs, landowners, community leaders, municipalities, and rural electric cooperatives that want to have an active role in developing wind in their communities. Smaller community wind projects often have particular appeal to smaller municipal and cooperative utilities because they can be consumed locally (they are typically “right-sized” to fit existing grid conditions) and because they maximize local economic benefit.

**Question: Are there regulations that guarantee “access” to wind power? In California everyone is guaranteed access to solar. However many communities have restrictions on towers for aesthetic reasons.**

**Answer:** Regulations are state specific and can vary widely by state and community. As a developer of community wind projects, we can often utilize existing transmission lines and pockets of access that might not accommodate extremely large projects. We have found that OwnEnergy local partners are the best asset we have in attaining local permits and organizing community support behind a project. We seek to develop projects that abide by state and local regulations, but recognize that “guaranteed” access is difficult to obtain.

**Question: In New York State, low power prices are stalling many projects. Is community wind a way around low power prices so that projects can get built?**

**Answer:** We recognize that lower power prices are affecting many projects in the New York State area. We believe that community wind is a better way to develop projects than the conventional “absentee owned” projects. Developing a project with local ownership enables the reinvestment of profits within a community and can afford a community wind project economic advantages so that a project can get built.

**Question: How are development costs and investment requirements funded to bring a project financial close? Who bears these costs in a community development partnership with Own Energy and National Wind?**

**Answer:** For OwnEnergy projects, local partners typically share in the early development costs, such as funding the meteorological tower. It is important local partners are “invested” in the project, both monetarily and emotionally. Beyond the early stage costs, OwnEnergy typically funds the lion’s share of what’s remaining. However, local partners are often given the option (but not the obligation) to make future investments in the project to increase their equity stake.

## **Questions Addressed to National Wind**

**Question: How is the Windfrastructure program brandable by anyone other than the owner of the wind farm?**

**Answer:** Naming rights to a wind farm are negotiable and may be conferred to a third party. National Wind would structure the project such that the Windfrastructure Partner acquires the naming rights to the wind farm in exchange for purchasing power generated by the wind farm.

**Question: How can local governments take advantage of Windfrastructure? Is Windfrastructure going to be available anywhere in EPA's Region 9 in the future?**

**Answer:** Local governments, agencies, and other public entities may participate in Windfrastructure by agreeing to purchase green power through Windfrastructure for a period of years. The government entity will need to consume the power rather than supply power to commercial and residential power users. The government entity or collection thereof will also need to have an electricity load comparable to a large manufacturing facility. The Windfrastructure Program can be utilized anywhere in the United States.

**Question: How is the variability in wind energy production dealt with by an industrial company like Portland Cement Co.? How do they supplement the lack of power when wind speeds are low?**

**Answer:** An entity that has the ability to generate electricity and consume that electricity on site is likely connected to the electricity grid as well. If the wind turbine is unable to generate enough electricity to meet 100% of the company's electricity load, the company will purchase the difference from the utility. Additionally, many states have net metering laws whereby utilities are legally obligated to purchase electricity generated by ratepayers. If the company generates excess electricity, the utility will buy this electricity resulting in a reduced electricity bill for the company.

**Question: Have you ever been involved in PPAs between tribes and the US government? If so, how do these differ from other PPAs?**

**Answer:** National Wind has yet to enter into PPAs with tribes but we are open to working alongside tribes to help them procure renewable energy.

**Question: Under the Windfrastructure program, does wind energy have to be provided directly or through utility? Can the green energy premium be paid in the shape of RECs to get the repayment/equity interest?**

**Answer:** State law determines whether a power user can purchase electricity directly from a wind farm. If the state in which the power user is located has a regulated electricity market, the power user must purchase electricity from the utility. There are two exceptions to this rule. First, the power user may generate electricity on site. Second, transmission can be constructed to deliver electricity directly from the wind farm to the

power user. This delivery arrangement is referred to as “behind the meter.” If the state has deregulated its electricity market, the power user may choose its electricity service provider. In some deregulated markets, a wind farm can qualify to transmit power directly to the power user utilizing third party owned transmission.

## Question Addressed to Own Energy or National Wind

**Question: Considering the average cost of brown power in the nation at \$0.095 / kwh, is community wind feasible unsubsidized?**

**Answer (from OwnEnergy):** No and Yes. All wind is subsidized by the option to choose either the production tax credit or the 30% Investment Tax Credit (ITC). Wind projects, regardless of size or ownership, can't currently compete without these incentives, at least not until the externalities of carbon are priced into competing, conventional sources of electrical generation. But, yes, community wind specifically can compete with other models of wind development without any additional subsidy. However, because community wind often faces challenges regarding scale, it is more challenging. To maximize community wind's ability to compete in a wide variety of markets and circumstances, specific incentives for utilities to purchase power from community wind projects could help to maximize the local job creation and other economic benefits that stem from community wind.

## General Questions Addressed by EPA

**Question: Can USDA's Renewable Energy for America program (REAP) funds be used as part of the financing mechanism for community wind?**

**Answer:** Eligible renewable energy projects under USDA's Rural Energy for America Program Grants include projects that produce energy from wind. Please note that eligible recipients include farmers, ranchers, and rural small businesses that are able to demonstrate financial need. More information on this grant program can be found at: [www.rurdev.usda.gov/rbs/busp/9006grant.htm](http://www.rurdev.usda.gov/rbs/busp/9006grant.htm).

**Question: What is your view on the ability to make a renewable energy claim if you sell off the carbon component?**

**Answer:** Selling the RECs transfers your claim on the renewable attributes of the system to the buyer of the RECs. As such, the electricity component of the wind project cannot offer a user any carbon reduction claims in the absence of RECs. However, users of the electricity can perform a REC swap. A REC swap is the practice of selling RECs with a higher market price and purchasing replacement RECs with a lower market price – a practice commonly known as REC arbitrage. It is important to keep in the mind that now all RECs have the same carbon value, however.

**Question: Do wind turbines produce a lot of noise?**

**Answer:** It depends. Wind turbines do produce noise. A small amount of noise is generated by the mechanical components of the turbine. However, if proper setbacks from nearby residences are taken, the noise issues can be addressed (a wind turbine 300 meters away is no noisier than the reading room of a library).

**Question: How loud are the smallest turbines?**

**Answer:** According to the American Wind Energy Association ([www.awea.org/faq/rsdntqa.html](http://www.awea.org/faq/rsdntqa.html)), small wind turbines make less noise than the average washing machine. The American Wind Energy Association also has a fact sheet on wind turbine sound with a chart that places a wind turbine around 50 decibels. For more information go to [www.awea.org/pubs/factsheets/Utility\\_Scale\\_Wind\\_Energy\\_Sound\\_Mar09.pdf](http://www.awea.org/pubs/factsheets/Utility_Scale_Wind_Energy_Sound_Mar09.pdf).

**Question: Have there been studies done on the affects of wind turbines to wild life habitat?**

**Answer:** Yes, the American Wind Energy Association has some information on wind energy and its effects on the environment on its Wind Energy and the Environmental FAQ webpage at [www.awea.org/faq/wwt\\_environment.html](http://www.awea.org/faq/wwt_environment.html). Also, the National Wind Coordinating Collaborative has some additional resources on wildlife and wind interactions at [www.nationalwind.org/publications/wildlifewind.aspx](http://www.nationalwind.org/publications/wildlifewind.aspx).