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POLICY BRIEF | What Local Officials Need To Know About Wind Power In Their Communities

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Abstract

If the topic of industrial wind development was on the table in your community, where would you begin the discussion? In this working paper, we will provide information to help local officials understand the complicated issue of industrial wind farms. First, we'll describe the basics of wind development and the actors involved. Then, we'll suggest how three actions - planning ahead with residents about their questions and concerns, developing zoning and wind ordinances, and working with a neutral third party who can help with negotiations and regulations - can enable local officials to manage the process of deciding whether wind development is a good option for their communities.

Keywords

wind; wind farm; industrial wind energy; zoning; renewable energy; economic development

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Introduction: wind farms as economic development?

In recent years, the windy ridges of upstate New York have caught the interest of wind developers, and federal subsidies have helped make industrial wind farms profitable. For some towns in New York, hosting a wind farm may be an exciting opportunity for economic growth and “green” industry. However, as countless newspaper articles, websites, and town meetings have revealed, it can also tear at the very fabric of towns whose sense of community is their greatest source of pride.

This leads to two main questions: First, do wind farms actually contribute to economic development in towns in upstate New York? Second, for local officials faced with decisions about wind power in their communities, what kinds of tools are effective to control if and how it happens?

In this brief, we attempt to answer these important questions for town officials, by 1) describing industrial scale wind development including its current use as economic development and 2) suggesting four actions for managing it. It also includes a resource list at the end where you can learn more about industrial wind and the development process.

The basics of industrial wind

The wind development process may be unfamiliar. Here is some of the basic information you’ll need to get started.

What is “industrial” wind power?

An “industrial wind farm” (as opposed to community wind energy or small, personal wind turbines) can number a few, or in the hundreds of turbines. All power produced on an industrial-scale farm is sold to, and distributed by, the grid. A turbine’s classification as “industrial” usually depends on its size and how much power it can produce, but turbines generating over 1MW (enough to power about 495 homes) are commonly considered “industrial.” These sleek-looking structures stand, in some cases, over 400 feet tall from their concrete base to the tip of the blade. Wind companies usually sign leases with private landowners for 20 to 30 years, at which point they can be renegotiated. Sometimes this involves removing the turbines, but in other cases, the lifespan of the turbines on the property can be indefinite.

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Common concerns include noise, the flickering effects of shadows caused by the spinning blades (“flicker”), ice throw, bird and bat fatalities, and visual impacts. Careful placement (siting) of turbines minimizes some problems, but they remain important questions for residents. Though these questions are common, answers are specific to each town’s topography and the distance to homes.

Economic development I: financial benefits of wind farms

For town officials considering industrial wind installations, the development process consumes substantial time and resources during the processes of negotiation, permitting and development. Officials must determine whether the development can bring enough money into the town’s budget to make these efforts worthwhile. Thinking ahead about the structure of financial agreements can help to yield a more balanced return for those efforts.

Alternatives to the property tax

Building a wind farm costs developers a large sum of money up front. The multi-million dollar investments substantially improve the land value, so a standard property tax assessment of a wind farm translates into a property tax bill that developers feel is burdensome. They claim that paying the standard property tax rate prevents industrial wind farms from being viable in the short-term. Therefore, a county Industrial Development Agency (IDA) generally negotiates a Payment in Lieu of Taxes (PILOTs) with the developer in place of the property taxes for the host community. Similar to other development, the PILOT effectively serves as a negotiating tool to help draw the wind farm to a particular town or county instead of another. Another financial arrangement is sometimes negotiated between the developer and the hosting community itself; aptly termed a Host Community Agreement (HCA).

PILOTs and HCAs

PILOT payments generally start off small at the beginning of the project and grow over the project’s lifespan to give the developer a chance to recoup costs. Because the developer pays increasing payments, this is known as a “back-loaded” arrangement. Like taxes collected by a local government, revenue from a PILOT is split among the different public services (schools, special service districts) and governments (town, county) according to a formula. This can be problematic in places where the township’s taxable share represents the smallest portion of a



property tax bill. This is because, as mentioned previously, the town's share may not adequately reflect the time and money spent in the process of review, negotiation, and permitting.

For this reason, some municipalities have designed a Host Community Agreement (HCA) to balance the small PILOT payments early in the process. The HCA is set up so that the developer makes payments up front to the municipality, which is investing its resources to negotiate the development. With an HCA, a town can negotiate to cover the wind farm development costs up front and distribute the revenues with respect to impact and involvement.

Economic development II: jobs created by wind farms

The "economic development" from industrial wind farms can come in several forms. First, as suggested, industrial wind development can reduce a community's property tax rate because of funds earned through the PILOT and HCA agreements. Second, it can benefit individual property owners who lease their land, whether they receive a one-time payment or a yearly payment for the turbine(s) on their land. Third, some claim that wind farms can be a draw for tourists and create a "multiplier effect" by creating demand for other services in the area. Because multipliers attempt to measure the "ripple effects" of development, however, these benefits are harder to measure reliably.

The most important question for economic development is how many jobs wind farms create. Most jobs are created during the short construction phase. Sometimes they use local workers and unions, but more often workers are imported. For the day-to-day operation of the turbines, estimates suggest that a permanent job is created for every ten to twenty turbines installed. The exact number of jobs, and the required training varies with the type of turbines and the location of the wind farm.

In sum, wind farms create few long-term jobs when compared with other types of economic development, like regional retail or other types of industry. They also come with uncertainties that are specific to industrial wind, like view impacts, noise disturbances and the almost inevitable conflict of industrial use within residential areas. Balancing concerns and development potentials is an important and difficult process for town officials to navigate when determining if wind energy is a good economic development strategy for them.



Taking charge of the wind development process

A local official who wants to proactively address wind development needs to understand *who* is involved and *what tools are available* to guide how (and if) development happens. Thinking ahead about these issues may make it easier for officials to manage or regulate development so that it supports, rather than undermines, the town's goals for its future.

Understanding the roles: the first step

Knowing the roles and constraints of each actor in the development process is essential to navigating wind development successfully.

Like a general contractor, a developer works for or as a sub-contractor to a large wind energy company, often a multi-national firm (Aeon or First Wind are examples of such companies working in New York). Developers assemble land leases, work on obtaining permits, and then purchase and install the turbines. They are a bridge between a global industry (turbine and parts manufacturing) and a local project (the wind farm). The global market for turbines means that developers must compete for turbines with other wind developers who are building wind farms across the world while also pursuing a contractual "reservation" of space on the electrical grid for their project. Failure to meet the capacity of the reservation or delivery date due to unforeseen problems or delays produced by the turbine market results in a loss of the "slot" – as well as penalties for the developer. The coordination of these many factors increases their risk.

Once a developer identifies a potential wind farm site, he or she works with private land owners to secure land through lease agreements or, in some cases, ownership and/or easements. Because developers compete for the best sites, this phase involves "behind the scenes" planning, often leading a community to feel deceived once the developer appears with a permit application.

When a wind farm is proposed, local officials have the important but challenging role of balancing the rights of private land owners with broader larger community goals. Industrial wind siting decisions commonly require hearings, negotiation between the developer and the town, site visits to other wind farms, and new zoning or wind ordinances. The secretive research process developers use can sometimes create an atmosphere of distrust in the community, which local officials also need to deal with.

Clearly, the typical sequence described above often means that local input comes late in the process. However, a key lesson of this brief is that if a town assesses its potential as a site for

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wind, and then deals with this potential by creating wind development guidelines, they can have a more active role, earlier in the process.

Four actions that help manage wind development

Local officials can benefit from several basic actions to manage wind development. From our interviews and research, the four most important tools that emerged are:

Working with community members early and often – Discussing how (and if) wind fits in with your town’s future *before* a wind developer comes to town gives people a chance to have their questions answered and voice their concerns without having to “take sides” in the face of change. Assessing your community’s potential of wind development interest can help determine the urgency of this work. There are wind maps available in the “Resources” section at the end of this document that can help with this.

Involving a neutral third party – Forming a team including a knowledgeable third party can help you engage residents in conversation about wind, develop wind ordinances, and, perhaps most importantly, help you understand how to negotiate for the maximum benefit if you decide to permit development. An attorney can be a key player, but engineers, foresters, and mediators are others who can help. Some places will have the funds to hire a team like this, but in others, local residents may be willing to provide their services pro-bono.

Gather information about your developer –Wind developers take many different approaches to negotiation, working with communities, and dealing with environmental and conservation issues. Because of this, it is essential to gather information about a wind developer’s previous projects. Looking at financial statements, talking with local officials where the developer has worked, and searching for newspaper articles about the company are a few approaches that you can take.

Developing zoning and wind ordinances – Many prime wind farm sites lie in towns without zoning or comprehensive plans. This gives landowners flexibility on how they use their land, but leaves towns without any way to regulate wind turbine siting or other industrial development. We strongly recommend that town officials spend the time and money to develop guidelines that reflect their town’s goals. A comprehensive plan, a zoning code, and/or a wind ordinance can define things like setbacks and bonding for decommissioning, for example. This may be challenging in places that have traditionally not had land use regulation, but is worth considering to manage development on the scale of industrial wind power.

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Taking these four steps will do much more than help you create an economic development strategy that works for your town. It will help you have the conversation about wind in a way that supports, rather than divides, your community.

Worth it in the end?

Consider the big picture: the growing volatility in gas and oil prices, continuing subsidies for wind, plus advances in turbine efficiency will likely increase wind's importance to upstate New York. This puts town officials under significant pressure to balance their community's growth, community concerns, and economic development. Are these pressures worth it for the economic development that wind power will bring? Clearly, it has *some* economic development potential: the construction jobs, the few permanent positions, and the increased income for the town are the most obvious. However, the strength of industrial wind farms as economic development has not been settled in upstate New York. At this point, the best approach that communities can take is a proactive one that considers what you want for your town's future in general, and whether wind, as a specific economic development strategy, fits that vision.

Resources

- NYSERDA Small Wind Explorer
<http://nyswe.awstruewind.com/>
This searchable map of New York wind resources generates average velocity measurements and energy potentials for small wind projects.
- Wind Resource Explorer
<http://windexplorer.awstruewind.com/NewYork/NewYorkWRE.htm>
This site contains interactive and static maps at elevations up to 100 meters above ground level.
- Global Energy Concepts, LLC for NYSERDA. Wind Energy Development: A Guide for Local Authorities in New York (October 2002).
<http://text.nyserdera.org/programs/pdfs/windguide.pdf>
This document discusses benefits and impacts of wind energy installation.
- Daniels, Katherine for NYSERDA. Wind Energy: Model Ordinance Options.
http://www.powernaturally.org/programs/wind/toolkit/2_windenergymodel.pdf
Discusses wind ordinance models and makes specific suggestions about ordinance content.
- Dixmont, Maine. Wind ordinance and ordinance primer.
Primer: <http://www.dixmontwind.org/home/wind-ordinance-primer>
The primer discusses the purpose of wind ordinances and suggests some considerations for their development.

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- Database of state incentives for renewable energy and energy efficiency.
<http://www.dsireusa.org/>
State by state searchable database for incentives and policies that promote renewable energy and energy efficiency.
- Office of the New York State Comptroller, Industrial Development Agencies in New York State.
www.osc.state.ny.us/localgov/pubs/research/idabackground.pdf
This report discusses policies of IDAs and includes information related to their processes, authority and accountability.
- NYS Public Service Commission; Implementing regulations for Article 10.
<http://www.dps.state.ny.us/articlex.htm>
Article X expired in 2003, but the link details projects that submitted while the law was still in effect.
- Carter Ledyard & Milburn LLP and The New York Area Alliance
Carter Ledyard & Milburn LLP: <http://www.clm.com/publication.cfm/ID/173>
NY Area Alliance: www.area-alliance.org/documents/ArticleX.pdf
Two separate opinion pieces regarding Article 10.
- NYS Department of Environmental Conservation.
Environmental Impact Statement, Italy, NY: <http://www.ecogeneis.com/reports.html>
- Draft Environmental Impact Statement, Hounsfield, NY:
http://www.dec.ny.gov/docs/permits_ej_operations_pdf/hounsfielddfteis.pdf
Examples of New York environmental impact statements for industrial wind projects.

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