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New York Wind Energy Guide for Local Decision Makers:

Land Agreements



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To develop a wind project, developers must obtain legal rights to the land. A right can be in the form of a purchase, lease, or easement. The type of agreement depends on the infrastructure intended for the land, the developer's business model, and the type of arrangement acceptable to the landowner. The process of securing land rights for wind energy projects usually occurs early in the development stage and may begin with an option agreement (an exclusive right to conduct due diligence on the wind resource, property conditions, and energy market until the developer is ready to move forward with project development).

The most common land agreement for a wind energy project is a lease. Leases allow the developer to spread the payments over the life of the project to minimize upfront costs. And, since the wind project facilities occupy only a small portion of the land, landowners can continue existing land uses, while adding an additional revenue source with a wind energy lease.

It's common for a utility to require land ownership of property where a utility-owned substation will be located. Therefore, if the project includes construction of a new utility-owned substation, depending on the arrangement with the utility, either the developer or the utility will negotiate a purchase agreement directly with a landowner.

Because different agreements can have very different legal and tax implications, landowners should always have an attorney carefully review all agreements.

Easements and Rights-of-Way

A wind project developer may seek to secure land rights that do not necessarily require a lease or purchase of land, including:

- The right to install underground cables (“collector system”) or overhead transmission lines connecting the wind turbines to substations and, ultimately, to the power grid
- The right to cross nonleased land for construction, operation, and maintenance of the turbines and related equipment
- The right to prevent obstacles (buildings, trees) from interfering with the free flow of wind across the turbines
- The right to produce noise, shadows, or other minor nuisances
- The right to use property for off-site mitigation to address assumed impacts within the leased area that cannot be mitigated on-site

An **easement** is a right to use property for a defined use. Easements are commonly used for project development needs on land that does not include wind turbines, substations, or other major project construction and operation features, but that provides rights to adjoining land to prevent impacts to the project. An easement is a nonpossessory property interest that gives the holder—in this case, the developer—a right of use over the property, or that prevents landowners from doing something that is otherwise lawful, but that would be detrimental to the wind project. For instance, an easement might prohibit landowners from putting up a grain silo directly upwind of a turbine. Because easements convey property rights, they must be in writing and filed with the proper municipality or county recorder. The easement will run in perpetuity (forever) unless the instrument granting the easement provides for a term of years. Developers usually offer a one-time, lump-sum payment for the easement.

A **right-of-way (ROW)** is an easement that allows a developer to cross land with project features, such as access roads, transmission lines, or underground cabling. A ROW is also a nonpossessory property interest that gives the holder rights, for a set term or in perpetuity, to access or cross the land. As with a standard easement, a ROW must be in writing and must be filed with the proper municipality or county recorder. Any rights to alter the property within the ROW at a future date must be negotiated with the ROW holder. Developers usually offer one-time, lump-sum payments for ROWs; however, for transmission line ROWs, leases are not uncommon.

Neighbor Agreements and Variances

Neighbor agreements or “participation agreements,” are written agreements between developers and landowners whose property is directly adjacent to a project. Like easements and rights-of-way, neighbor agreements usually involve compensation to a landowner and are considered mitigation for a quantifiable impact to the landowner. Quantifiable impacts typically addressed by neighbor agreements include noise, and visual and general construction nuisances. Landowners are not typically compensated for their general dislike of a project; however, public involvement and testimony is a standard part of the land-use process in New York State and provides an opportunity for a landowner to share concerns about a project and shape the decision process. (See Local Role in Planning and Permitting for more information.)

Variances are used to address a land-use regulation when a developer wishes to get an exception to plan a project. Examples include when turbines or other project features are sited within a setback zone, or when a noise limit is exceeded at a residence due to a turbine’s placement. If the local jurisdiction has a variance process for the applicable regulation, a developer may seek a variance from the zoning board. A local jurisdiction may require a developer to show evidence of all applicable variances when a land-use application is submitted, or before it issues a land-use decision. For participating landowners (those under lease or

other property agreements with the developer), the compensation for a variance may be assumed in the lease agreement. For nonparticipating landowners, a developer may request that a neighbor agreement or some other form of agreement be executed to document the agreement and the associated compensation. Compensation for variances and neighbor agreements are typically one-time, lump-sum payments.

Lease Agreements

Under a **lease agreement**, the developer rents a portion of the property for a term of years. The lease is a written contract between the landowner and the developer, spelling out the landowner's rights and obligations, and the rights and duties of the developer. This document will govern the relationship between the landowner and developer over the life of the wind project. From the standpoint of the developer, the most important aspect of the lease is that it secures the exclusive right to use defined sections of the property for development, installation, operation, and maintenance of wind turbines and related equipment. To most landowners, the critical elements of the lease include provisions dealing with payments (how much, when, and under what conditions) and a property owner's right to continue to use the property for farming, hunting, or other purposes that aren't in conflict with the project. A well-crafted lease will deal with all facets of the wind operation from its inception to its decommissioning. It will address the duration of the agreement, the total acreage affected, ownership of the wind farm equipment, responsibility for taxes and utilities, indemnity and liability insurance, access, the developer's right to install signs and give tours of the facility, and every other aspect of the relationship between the landowner and developer. Several of these issues are covered in more detail below.

Option Agreements

In the early stages of project development, a developer may want to assess the feasibility of developing a project prior to executing a lease. This can be done under an option to lease agreement or "option agreement." The **option agreement** allows the developer access to the land to install wind energy measurement devices, such as meteorological towers and sonic detection and ranging (SODAR) equipment. An option agreement may also be secured with a landowner within the project area where no equipment will be installed, merely to secure the right to future development. An option period established in the agreement can vary in length, depending on how advanced the development project is and the business plan of the developer. Typical option periods last from two to five years, allowing a developer adequate time to assess project feasibility. During an option period, a developer is not only testing the feasibility of the wind resource, but also assessing potential environmental impacts and construction feasibility, and marketing the anticipated power output. It is common for the option agreement and lease agreement to be negotiated concurrently, where the option agreement expires at a certain date and the developer either decides to execute a lease agreement or cancel any rights to the property. As with long-term leases and easements, option agreements usually include payment according to a set schedule, and, in some cases, may include incremental increases, which encourages a developer to act quickly to determine the project's feasibility instead of tying up land for an indefinite amount of time. A developer is not inclined to make significant investments in real estate until they are confident with the feasibility of the project; therefore, option agreements typically include modest fees.

Lease Agreement Terms

Leases should be carefully developed so they clearly address issues important to the project developer and landowner at the time the lease starts, during the full life of project operations, and during project decommissioning. In some cases, the original parties to a lease will change throughout the life of the project, so it's important that all potential issues are clearly spelled out to prevent future misinterpretation.

Below is a summary of the typical lease terms that both parties tend to be most concerned with during negotiation.

Developer's Lease Goals

- Long-term with clearly defined amendment rights and extension options
- Well-defined, unimpeded rights to access and use of the property for all potential project development, construction, and operation activities
- Well-defined payment structure that spreads the real estate costs over the life of the project and is tied to predictable metrics, such as land acreage and wind-project power output
- The ability to transfer the lease without approval from the landowner

Landowner's Lease Goals

- Fair and adequate compensation for use of the property and loss of certain rights
- Well-defined, clearly established rights for continuing uses on the property
- Default terms and responsibilities of the developer at the end of the project
- Indemnification
- Clearly established measures for reducing unintended impacts

Term

Wind power leases generally have terms of 20 to 40 years, often with an option for extending the lease. A typical utility-scale wind power project has a useful life of 20 years. Developers will typically want an agreement that can be extended without significant negotiation and risk to the project, so options to extend may be written into the contract. Some contracts include clauses specifying the conditions under which either party has the right to terminate the contract. These termination clauses need to be reasonable so the risk of installing the wind turbine equipment and then having the lease terminated is low and manageable.

Area Leased

The lease should clearly state where facilities planned for the project are to be located. It is common at the early stages of development for a developer to be unsure about the exact location of infrastructure; however, areas of development can be established, and a landowner can exclude certain areas from development. Any desired setbacks from residences and property lines should be stated. Because construction and major repairs require more activity on the land than routine operations, the lease should include a provision for temporary land use during such periods for equipment storage; cranes; and other construction, operations, and maintenance activities.

A typical lease would give the sole discretion to the developer to determine the size, type, manufacturer, and exact location of wind turbines, but would exclude the developer from locating certain infrastructure within setback areas established during the lease negotiations.

Landowner's Approved Uses

The lease should clarify what uses the landowner reserves for land not developed as part of the wind project. The landowner typically reserves the right to continue to grow crops, raise cattle, or otherwise use the land. Most rural land uses are compatible with wind power projects; however, there can be some restrictions. For example, a developer may ask that hunting be restricted in the area around the turbines, for fear of vandalism to expensive equipment and compliance with insurance clauses. In these cases, it's possible that the income a landowner can earn from leasing land for wind power project development can more than offset any income lost by switching to another land use. Developers will also be concerned with any uses that could affect the wind in the area of the turbines. For example, tree crops or large structures could be restricted. The landowner's access to their property should not be limited; however, a developer may want notification when a landowner plans to harvest crops or repair roads so no conflicts arise with regularly scheduled project maintenance.

Upwind Blockage

Developers have an interest in protecting the project site from any future upwind development that could adversely impact the wind resource on the project site. If the same landowner owns the upwind land, the lease may include provisions addressing this issue. The developer may want an easement to prohibit any development within the upwind property that might impact the wind at the turbine sites. The extent of this potential problem depends on the topography of the land and the wind characteristics. The extent to which upwind development affects a project depends on the distance to the project. While properties more than 2 kilometers away are not usually of concern, the appropriate distance of concern depends on the size of the upwind project and atmospheric conditions.

Crop Protection

Normally, wind turbines can operate in productive fields with minimal interference. However, crop damage may occur in some situations, and the lease should address how this will be handled. Typical lease provisions require developers to use best efforts to minimize damage, but allow for the possibility that damage may occur and subject the party causing the damage to paying appropriate compensation. Typically, a landowner would receive payment from the wind power project for such crop damage. Damage is calculated as the lost amount of product multiplied by the market price for the crop in the season the crop was damaged or destroyed. Impacts to fallow fields are usually not compensated.

Road Maintenance

The lease should identify responsibilities for maintenance of existing and new access roads. Generally, the wind power developer is responsible for this maintenance. The provisions should protect the property owner by allowing for penalties if maintenance is not performed after a reasonable request and time passage.

Decommissioning

Leases should include provisions for decommissioning the project at the end of its useful life. This includes removing wind turbines; transformers; wiring, which penetrates above ground; and the top part of foundations—and returning the land as close to its original condition as possible. The lease should also address the timely removal or disposal of damaged equipment. As part of the land-use permitting process, it is common for land-use authorities to require a developer to execute a decommissioning agreement and establish a bond, naming the county Industrial Development Agency (IDA) (or similar economic development organization) as the benefactor. Landowners should not rely on the IDA to cover their costs of decommissioning in the event a developer defaults on a contract and leaves equipment in place. Instead, landowners should ensure provisions are written into the contract to adequately protect them in such an instance.

Taxes

Responsibility for payment of property taxes should be clearly specified in the lease. The wind power project developer generally assumes responsibility for any increases in property taxes associated with the wind power project.

Typical Payment Structures

It's important to understand that a property's location within a proposed project area doesn't necessarily guarantee that a turbine will be placed on the property. There are many factors that contribute to the design of a project layout, and the distribution of turbines across the project area is not determined until the later phases of project development. Some developers do, however, compensate landowners adjacent to turbine installations—this amount is usually less than a full lease, but more than an option agreement.

Royalties

The most common compensation structure is the royalty payment. In **royalty arrangements**, the developer pays the landowner a percentage of the revenue received from the electricity produced by the turbines. This percentage is negotiated between the landowner and the developer. Royalties ensure an ongoing economic relationship between the developer and the landowner, and guarantee benefits for the landowner, provided the turbines generate the expected power. Royalties fluctuate with project revenue, based on both variable production and variable energy prices. Revenue is based on both variable production and variable energy prices. Revenue can be measured by gross receipts or metered production multiplied by the price of power paid to the project. One well-accepted option is for the wind power project operator to provide a summary of gross receipts along with each royalty payment (quarterly, annually, or other payment period agreed to in the contract), with project operators allowing landowners access to the data upon request. The landowner does not have a say in the price of the electricity that is sold.

Today in the United States, wind power project land-leasing royalties tend to be within the range of 1% to 4% of gross revenue, with the majority being between 2% and 3%. This royalty payment can be expressed in terms of a percent of production (MWh). In most cases, the percentage is a fixed number throughout the term of the lease.

Royalties are paid on a per-turbine production basis based on the average turbine production across the project (overall project generation divided by number of turbines in the project). The advantage of this arrangement versus payment on output of a specific turbine is that the pooling arrangement takes into account the production of the entire project and reduces the effects of variability of individual turbine production or the possibility that one turbine could suffer from operations problems.

Often, lease payments based on a percentage of gross revenue are supplemented by a guaranteed minimum payment. Minimum payments essentially serve as a floor price and guarantee that landowners receive some revenue, even if the wind turbines experience more than typical maintenance outages or if winds are lower than expected in any given year, producing less energy and generating less revenue.

Flat- or Fixed-Fee

In a flat- or fixed-fee arrangement, the developer and landowner agree on a fixed fee—per turbine, per unit of land, or per megawatt (MW) of installed capacity—to be paid by the developer on a monthly or yearly basis. The payment reflects the total amount of land made available by the landowner for meteorological towers, turbines, turbine spacing requirements, access roads, and control and maintenance buildings. This ensures transparency and clarity, and provides both the landowner and project developer with certainty about future income or payment streams.

One-Time, Lump-Sum Payment

This type of contract is the least common arrangement. It may be satisfactory to both parties if the landowner is in need of immediate cash and is willing to forego the prospect of a steady income stream, and the developer has the ability to release a large amount of cash up front. This arrangement is most common for easements and ROWs.

Typical Payment Range

In a study conducted by Windustry in 2009, lease details were summarized to provide landowners with an idea of the current market rate for wind energy leases. Due to the fluctuating energy market and changes in methods for financing wind energy projects, prices noted in the 2009 study are not necessarily representative of what a landowner should expect today. Additionally, landowner payments may vary both within and across projects based on several factors. It is advised to have a real estate attorney (with an understanding of the current energy market and typical wind energy lease structure) review lease proposals from developers to assess what a landowner is being offered.

Lease rates are likely to be highest in regions and states with a more competitive renewable energy market, for example, in states with Renewable Portfolio Standard laws and/or financial incentives. Additionally, the price of energy varies across markets, so the price of renewable energy will also vary. The Windustry study summarized lease prices from 1998 through 2008 and found a trend of increasing lease rates as the wind energy market matured. Data was not available beyond 2008, so it can't be confirmed that the trend toward increasing lease payments continued. In fact, it's likely that lease prices leveled off, and in some places were reduced to reflect the lower prices of wind energy in the current market. The study found the average per-turbine per-year lease payment in 1998 was \$1,650 and the average per-MW per-year payment was \$2,300. In 2008, the average per-turbine per-year lease payment was \$5,400 and the average per-MW per-year payment was \$3,500. The per-acre payment for temporary impacts and leases for infrastructure other than turbines (including access roads, easements, and ROWs) varies across regions as well. Typically, the price reflects the value of the crop or land that is impacted. Market value for land should be considered, as well as the value of any crop or livestock displaced or affected by installed infrastructure, in determining the appropriate per-acre cost.

Additional Resources

[Windustry: Wind Energy Easements and Leases: Compensation Packages](#)

[NYSDAM: Guidelines for Agricultural Mitigation for Wind Power Projects](#)