

Assessing the Value of Wind Turbine Lease Revenue³

Brad Haight, Esq.
LeaseGen

For a landowner with wind turbines on his/her property, understanding the value of the future revenue stream from those turbines is essential – when selling the property, selling the wind rights (where allowed), for estate planning, and maybe in the case of financing or divorce.

For buyers of this land, the need for an assessment is equally important – they need to know the value of the asset they are buying.⁴

The wind business does not lend itself to simple explanations. Therefore, a multi-pronged approach to assessing this value is required.

At the broadest level, consideration should be given to the areas of the business that most directly affect (i) how much a landowner will be paid for turbines on his property and (ii) what may affect that revenue.

Addressing these issues requires consideration of three general areas: 1) legal and regulatory issues; 2) operations and production; and, 3) project risk factors.

Assessing these issues is a complex exercise. But it is essential if an assessment is to be useful. The information below generally discusses some of the issues in this analysis.

1) Legal

A number of contracts and regulations overlay every wind project, and all should be considered.

a. The lease

The main agreement behind the revenue to a landowner is the lease or easement. These are cumbersome agreements, and rarely are any two the same. The compensation rates vary and sometimes change during the term. Also, the mechanics for calculating rates may change. Often the rate is a royalty of the total paid the project owner (a percentage of “gross revenue”). But under some leases there will be exceptions to the royalty, such as for certain project costs, some of which may apply at the time of assessment or may apply in the future, depending, for instance, on potential regulatory changes. In all, an understanding of long-term lease economics is essential to assessing value.

While lease review is the starting point, because lease revenue usually depends on gross revenue, gross revenue should be analyzed. This requires analysis of other contractual arrangements that drive revenue and of the regulatory issues, project operations, and project risk factors that may affect that revenue.

b. The power purchase agreement

Usually, the project owner is paid under a power purchase agreement (“PPA”).⁶ These are long-term contracts between the purchaser (most often a utility) and the project owner. Like leases, all PPAs are different. Their lengths vary as do the

purchase prices (and many other contract elements).

A PPA usually has a term between 15-30 years. During this term the purchase price may adjust, and as with the term these adjustments affect value. All economic elements of the PPA require consideration, as do any PPA peculiarities that may affect the revenue stream, especially any elements that bear on gross revenue because these may affect the landowner royalty and thus value.

c. Regulatory

The wind business is highly-regulated. These regulations can affect operations or impose costs that could be netted from a lease or PPA, reducing revenue and affecting value. By example, wildlife or military issues can require curtailment (affecting production).⁸ The balancing authority (the party controlling the grid) may impose additional charges that, depending on the PPA and/or lease, could be deducted from gross revenue. These are a few of many examples of regulatory issues that can affect revenue and value. Ongoing familiarity with industry issues is therefore important to assessing the effect of different applicable (and potentially-applicable) regulatory issues on revenue and thus value.⁷

2) Operations

Just as all contracts are different, so too are all turbines and project operators and counterparties. And these differences affect value.

Production, which determines revenue, depends on the turbine.⁹ Some turbines are more productive than others. Similarly, some turbines have better operating histories and manufacturers. GE, Siemens, Vestas and others have proven track records. Some manufacturers are out of business, have neglected their equipment, or produced defective turbines. Good equipment makes for better projects, and better projects create more value. Therefore, it is important to consider the equipment installed, its fleet history, its design life, and who is behind it.

Consideration also should be given to the various parties involved with the project. A project owner’s strength and sophistication bear on its ability to manage the project, meet its obligations, and thus maximize revenue. If an owner lacks resources or has shown a history of failure to meet project obligations, then there is a greater chance that revenue will be negatively affected. While “bad” owners are the exception, a number of projects are being poorly run, and this affects revenue and the likelihood of a project’s long-term continuation – all affecting value.¹⁰

3) Risk factors and project continuation¹¹

While the great majority of projects continue at least for the term of their PPA (and historically most continue after that), there is no guaranty. A project may terminate at any time, for any number of reasons,¹² ending lease revenue. A number of factors could lead to



this result. At the end of a PPA, the utility may not extend its contract – it may not require the power, or it may not need the renewable power for compliance purposes. If there is no other option for selling power, then that project could become a stranded asset, potentially eliminating revenue. Similarly, any number of other issues could factor in to a project's ability to continue beyond its PPA or design-life, such as: community opposition; new curtailment risks; equipment obsolescence. These and other factors should be noted, especially as the US fleet of projects ages and the potential revenue becomes more uncertain.

Some additional thoughts related to project continuation (post-PPA) are worth noting. To date, most projects have continued beyond their original PPA – through repowering (turbine replacement) or upgrades. But this cannot be guaranteed. Where projects are continued, the likelihood is that revenue will be different, and maybe markedly different (also meaning the value associated with that period will be different than that for the PPA-period). Assessing the likelihood of a project's continuation is a difficult exercise, requiring consideration of what can go wrong, and then making appropriate adjustments to value, based on the multiple factors that either support or work against that project's continuation. A considered and careful analysis of the project and the market are therefore important to assessing value.

4) About LeaseGen

LeaseGen was started by an experienced energy lawyer, who saw a need for a resource to help landowners understand the value of turbines on their property. Based on over 10 years of work representing landowners and developing, financing, and building wind projects, and with input from other industry lawyers and experienced engineers, financiers, economists, and meteorologists, LeaseGen built a proprietary model for helping landowners (or purchasers) assess this value. Whether selling or buying or estate planning (or selling wind rights, when allowed), LeaseGen is able to help its customers assess the value of the turbines on their property or on the property they are buying.



Brad Haight, Esq. has practiced law in the renewable sector for over 12 years. He focuses on solar and wind development transactions, representing developers, landowners, equipment designers and manufacturers—including major wind turbine OEMs—in various transactions, involving development issues, renewable energy leases, and project sales. Haight represented landowners in connection with projects involving over 20 different developers in five states.

- 3 Copyright LeaseGen, LLC 2014. www.leasegen.com.
- 4 A buyer's need for an assessment presumes the wind rights (where allowed) have not been severed.
- 5 Note that lease revenue cannot be presumed to continue for the lease term. A 40-year lease does not mean 40-years of revenue. Even if revenue does continue for the term, it may adjust (upward or downward) over time (sometimes based on a schedule and sometimes not), and it may end prematurely if the project fails. Only considered analysis will help to understand what may affect revenue.
- 6 Power sales under a PPA is not the only model. Projects may operate as "merchant" plants, selling power on the spot market, or a utility may own the project. These scenarios are beyond the scope of this article but also require consideration.
- 7 Depending on the particular interconnection and (if applicable) transmission arrangements, review of these agreements also may be appropriate because these are critical to power sales and thus revenue.
- 8 Similarly, non-regulatory matters (e.g. sounds issues) could lead to curtailment arrangements. While these issues may not be driven by regulation, they may affect production and thus value and therefore should be noted.
- 9 Production also depends on the wind resource, among other things. In certain cases, a meteorologist review may be appropriate. Discussion of meteorological issues is beyond the scope of this article.
- 10 Consideration of the operations and maintenance provider and/or asset manager also may be appropriate.
- 11 Decommissioning (turbine removal) issues also could bear on valuation, depending, for instance, on the project's age. The potential cost (and thus the potential effect on value) will depend on a number of factors, including: 1) equipment location, size, and type; 2) lease and permit requirements; 3) decommissioning security requirements, if any; 4) owner self-help rights; and/or, 5) re-sale costs. Decommissioning presents additional issues beyond the scope of this article. LeaseGen is prepared to assess these additional issues if requested.
- 12 The 2013 termination of two relatively-young Texas projects is a case in point.