Five Key Considerations For Turbine Supply Agreements

When it comes to negotiating turbine supply agreements, how protected are you against common "pressure points"?

BY ED ZAELKE & TIFFANY DUONG

A typical wind turbine supply agreement generally has between 40 and 60 so-called "pressure points" or material areas of negotiation. Which of these pressure points get the most attention has varied over time and is affected by factors such as the price and efficiency of the particular wind turbine, the vendor's experience, the developer's need for financing, the project location, the operating history of the turbine and – most significantly – the market conditions.

Over the past three to four years, there has been a significant drop in the cost per kilowatt-hour to convert wind to energy at many of the wind farms under development in the U.S. Through a combination of greater domestic production at lower costs and improved turbine designs, some wind turbine manufacturers have been able to provide a cost reduction per kilowatt-hour at lower-wind-speed sites of as much as 50% below what it would have cost to produce wind energy at those sites just a few years ago.

Zaelke

Duong

Normally, this would be market-changing news for an industry that, for the past 30 years, has been struggling to free itself of the need for government support. It should also take a lot of pressure off of the need to heavily negotiate the terms of turbine supply agreements.

Unfortunately, the opposite is true. The drop in the cost to produce a kilowatt-hour of wind energy has been accompanied by an even greater drop in the price per kilowatt-hour of wholesale electricity throughout the country. For example, during the first half of March 2008, the price for wholesale electricity traded in California averaged $81.49/MWh. Four years later during the same time period, the price had fallen to $24.57/MWh – a drop of nearly 70%.

This type of price drop has been common throughout the country. The wholesale electricity price drop is partly due to the sluggish economy over the past few years, as well as the drop in natural-gas prices in the U.S.

As the economy begins to improve and as the natural-gas industry begins to look at ways to export gas to markets where the price is much higher, many believe that electricity prices will eventually return to prior levels. If and when this occurs, the advances in wind turbine technology and cost reductions will be rewarded, as wind will likely be the lowest-cost source of power.

In the meantime, however, the industry will likely continue on a more modest growth path, fueled by state renewable portfolio standards and by the desire for fuel diversity by utilities with a long-term view of power prices. This environment of low power prices and limited demand for new wind projects, while likely only temporary, has begun to back both wind project developers and wind turbine manufacturers into the same corner.

In the current environment, wind turbine developers are being forced to accept low prices for power and agree to a whole host of new performance requirements in order to secure power purchase agreements (PPAs) with utilities and other electricity purchasers. These additional terms often include the need to produce power by a specified date and significant liquidated damages if the project is not completed. Furthermore, once the project is online, the developer faces additional penalties if production drops below guaranteed levels in any year. These obligations are, in turn, guaranteed by ever-increasing