Due to slow load growth coming out of the recession and wholesale power prices depressed by cheap natural gas, utilities have decreased their procurement of new capacity and are closer than expected to meeting renewable portfolio targets. Nonetheless, developers are competing to bring several gigawatts of potential new wind capacity online before the end of 2015 in order to take advantage of grandfathered production tax credit eligibility. Therefore, the opportunity to secure a power purchase agreement (PPA) dwindles, so where else can a wind developer turn to stabilize revenues and attract long-term financing? A synthetic PPA is one innovative solution.

How it works

A project with a synthetic PPA is like a merchant project, selling energy directly into the open market without a long-term power sales contract. The synthetic PPA essentially functions as a hedge against market price volatility, providing pricing certainty for a negotiated quantity of produced energy (based either on actual output or a fixed amount per year). If properly structured, these hedging arrangements stabilize projected revenues to enable the developer to attract project financing or tax equity.

One synthetic PPA structure gaining popularity starts with the project company entering into a long-term agreement with a financial institution or power marketer as hedge provider. The hedge agreement includes a “strike price” per kilowatt-hour for a negotiated amount of produced energy. The project company then sells power into the open market and receives the spot market price (either in the real-time or day-ahead market). If the market price is lower than the strike price, the hedge provider pays the difference to the project. If the market price is higher than the strike price, the project developer pays the difference to the hedge provider.

A technical variation of this structure functions like a traditional fixed-for-floating swap. The fluctuating market price is used as the “floating” index, while the “fixed” price is negotiated with the hedge provider. The project developer pays the market price received to the hedge provider and is paid the negotiated fixed price in return. The hedge counterparty is, in effect, guarantying the price without taking physical delivery of the power, which may be sold through a power marketing company. The power marketer handles all energy trading and scheduling activities, including real-time dispatch, wholesale trades and settlement accounting.

In other situations, a non-utility off-taker (e.g., an industrial customer or large retailer) enters into a hedge arrangement under which it pays (or receives) the net difference in price per kilowatt-hour between power it pulls from the grid and the price that the generator receives at its interconnection point. Some adjustment is made to account for different interconnection or settlement points for the buyer and seller. Under this scheme, both the buyer and the seller achieve a level of price certainty for at least a portion of their consumption or output.

Where it works and with whom

Synthetic PPAs are ideally suited for regions of the U.S. with deregulated wholesale power markets that are liquid and deep. Where demand for power is relatively predictable even if prices are not, such as the Electric...
Reliability Council of Texas and PJM Interconnection markets, there has been an increase in the frequency of synthetic PPA deals in the past 12 to 18 months—a trend that is expected to continue. Synthetic PPAs will be most successful where there is a low risk of transmission congestion and curtailment.

A synthetic PPA offers developers and sponsors the potential for higher returns than does a traditional PPA. While a traditional PPA usually sets a fixed price for 100% of the energy output of a project, a synthetic PPA can be more flexible, depending on how it is structured.

A developer could see higher returns by negotiating a balance between the strike price and the negotiated quantity of produced energy covered by the hedge. By trading a higher strike price for a smaller notional amount, a developer could cover the lender’s debts or the tax equity investor’s return targets while retaining some production for unhedged sales. If the market price is above the strike price of the synthetic PPA, the unhedged sales would result in higher returns.

Another approach is to negotiate a strike range, rather than a single strike price. For example, the hedge provider would pay the project if the market price is below $0.30/kWh, while the project pays the hedge provider if the market price is above $0.35/kWh. Depending on the market price and the negotiated price range, this could produce higher returns while limiting the risk of loss.

One negotiated term that could benefit all parties to a synthetic PPA is an escalating strike price, akin to the price inflator found in many traditional PPAs. If the strike price includes an index-based variable that allows it to follow the then-current market price over the duration of the agreement, all parties could be exposed to less risk from the volatility of market energy prices.

**Inter-creditor issues**

Under a utility PPA, payments typically flow from buyer to seller. However, under a synthetic PPA, each party to the hedge has credit concerns because payments flow in both directions. Hedge counterparties (which are often banks) may have to maintain minimum credit ratings. In return, the hedge provider may require a letter of credit, cash deposit or other credit support to secure the project company’s obligations.

Shared interests in collateral can cause tension among financial parties for a project financed with a synthetic PPA. Both the hedge provider and the secured lender will demand a first-priority lien on project assets. In some deals, this tension has been diffused by allowing the lender to take a first-priority lien while the hedge provider takes a second-priority lien. In other instances, the secured lender receives a standby letter of credit or is granted a specific collateral account.

A tax equity investor may also have cause for concern if the hedge provider takes the project assets as collateral. In the event of a foreclosure by the hedge provider, the tax equity party could lose its entire investment, including expected future tax benefits plus potential tax recapture liability. Contractual protections can guard against this, such as an opportunity for the tax equity investor to cure prior to the hedge provider’s right to foreclose.

Timing is another factor that can mitigate these concerns, as a synthetic PPA becomes functionally operational only once the project begins production. If a lender provides only construction or bridge financing with a short tenor, its interest in the collateral may not overlap with that of the hedge provider.

**Residual risks**

Synthetic PPAs may support less leverage than would fully contracted assets. Most energy hedges have terms of up to 10 years, shorter than the traditional PPA. By creating a merchant tail, this shorter term either caps debt capacity or creates refinancing risk, though it may provide opportunities for the project owners to realize upside from higher future energy prices and a chance to re-lever their investment. Investors and lenders alike should focus on termination rights and events of default to build protections against an early termination of the hedge agreements.

Lastly, though no definitive statement has been made, synthetic PPAs are likely regulated by the Commodity Futures Trading Commission (CFTC) as “swaps” under the Dodd-Frank Act. They should fall under the “Commercial End-User Exception” as long as one of the parties satisfies the following conditions: it is not a “financial entity” (as defined by the CFTC), it is using the swap to hedge or mitigate commercial risk, and it notifies the CFTC how it generally meets its financial obligations associated with the swap. If the company elects this exception through the CFTC, the synthetic PPA should not be subject to ongoing Dodd-Frank regulation.

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