

US Wind

**The US wind industry is in the middle of an unprecedented boom. So why are its leading players so nervous?
Chris Gadomski reports from AWEA in Denver.**

WOUND UP

The US wind finance community faces continuing uncertainty regarding the future expiration of the production tax credits (PTC). The consensus at the American Wind Energy Association's annual conference in Denver was not so much that a failure to renew the PTC would kill the industry, but rather that the continuing uncertainty has created a boom/bust mentality as developers, owners and financiers struggle with an uncertain business and regulatory environment. PTC uncertainty also creates a herd mentality with flood-like implications. Developers and sponsors deluge sites with as many pylons as they can when the PTC is in place, spiking turbine prices, and they largely recede once it expires.

Rising turbine prices

The on-again, off-again market, unfavourable dollar/euro exchange rates, as well as climbing steel and energy prices, courtesy of Chinese and Indian consumers buying more cars, have driven up turbine prices. Higher costs of goods change the financing fundamentals and often necessitate renegotiated power purchase agreements and frequently undermine the ability of certain developers to deliver on projects as promised.

Thomas Carbone, president of Vestas Americas, a large supplier to the US market, says the intermittency of the PTC adds additional costs to his operation and precludes Vestas from making the type of investments it needs to make to become a steady and price-sta-

ble supplier. "We need to understand what the rules of game are. The intermittency of the PTC and the subsequent short planning horizon that has emerged as a result has driven up costs 20% higher," he says. "If we could add more regulatory certainty, we could do a whole lot better than we do now working with one to two year renewals."

Jan Paulin, president and CEO of Padoma Wind Power, says that the US Congress' dysfunctional management of the PTC extension, combined with higher steel and oil costs have effected some North American projects by as much as 25%. "All of this creates an ugly picture that completely throws off the economic assumptions with which developers approach the financiers.

"Continuing annual 25% to 30% price increases for turbines and balance of plant costs following the moment you commit to a price in a power purchase agreement has led to a number of bids for contracts that can never be built. Consequently, a lot of renegotiation of power purchase rates takes place," says Paulin, adding that sometimes utilities are sympathetic, sometimes not. "It is almost to the point that some manufacturers appear to not want to sell turbines anymore. We will continue to see pricing problems going into 2006. Another one-year extension would further exacerbate the problem and disrupt the short-term opportunities for the industry in the US."

"There is a lot of money chasing comparatively few deals. In the US it is a developer's market if you happen to be sitting on a development asset. In the past the equity market was very illiquid, and so returns were relatively low if you were a developer."

In addition to spiking prices, the PTC, according to Shane Bush, director and head of renewable energy for Standard Chartered Bank in London, says the PTC mechanism and its management remains one of the biggest value destroyers in the industry and constitutes a barrier to entry. "The PTC carves the market up into players that have a large amount of tax capacity for ten years," he told Renewable Finance. "The mechanism drives out almost all of the middle and smaller market players and you are just left with large corporate players. In effect the PTC has become a regulatory barrier to entry...unless you are a corporation with a great big tax capacity you can't own a renewable asset in the US."

Bush contrasts the PTC with the simple fixed price incentive for renewable energy that exists in Germany. There renewable energy fetches Eu70 per MWh when sold to a utility. "It is not surprising they have the largest capacity on the planet."

The institutional awakening

No financing vehicle can address the flaws of the industry created by PTC uncertainty in the US, yet deals are getting done. The fundamental problem of two years ago, when there were few

equity players looking to invest in wind, and few understood wind risk, has changed. What made the real difference, says Paulin, was GE's acquisition of Enron's wind assets. "GE's participation gave the industry a 'stamp of approval' among institutional investors that at the time where running out of other traditional places to invest, and subsequently turned to the higher returns offered by the wind industry."

Accordingly, Standard Chartered's Bush expects record installation of new capacity in 2005, a total transformation of the players in the market as a result of consolidation through acquisition, and significant equity capital liquidity through private equity structures and strategic investors with tax capacity. "There is a lot of money chasing comparatively few deals," notes Bush. "In the US it is a developer's market if you happen to be sitting on a development asset. In the past the equity market was very illiquid, and so returns were relatively low if you were a developer."

But with liquidity now, competition for buying projects, and the fact that spreads in the bank market have come down 50bp, there is wide availability of capital. "So developers are in good shape. The market is continuing on its 5% to 12% growth rate, but the amount of capital fueling that growth has probably tripled. Challenges today relate to finding assets rather than finding equity."

Bush sees the huge influx of private equity into the US market, manifested by the presence of Babcock & Brown, HG Capital, Goldman Sachs and Australia's Macquarie as an evolution of the market into the mainstream financial sector. Assisting this evolution is the increase in the scale of the projects from 30-60MW to 100-300MW. "Players started crossing borders and developing renewable energy brands that gave the perception that the risks are now understood," says Bush. Because the cashflow profile of a wind project is characterized by relatively high operating margins and high capital cost, they lend themselves to long-term investment.

US Wind

"That attracts the big institutional money...it is no longer venture capital."

The sun sets on build-transfer

With a number of strategic investors entering the market, wind farms are increasingly being developed on a build-own-operate (BOO) model, with FPL in the lead. Now players like Shell, Entergy, BP and Chevron want to build, own and operate. "This BOO model seems to be spreading and we will see a lot less development of the type that we have historically done, where we develop and then sell a project on completion," adds Paulin.

As a consequence, Paulin sees fewer project financings these days at the developer level before completion. Rather, most of the equity players in the market want to buy on balance sheet and subsequently refinance after accumulating a number of megawatts. Agreeing with Paulin is Vivek Mittal, director in Bank of Scotland's project finance group. The bank is looking to lead some deals in the US where there is a good track record of performance. "You need diversity of regulation in a portfolio. If you are going to lend a few hundred million to the sector, some of that should be in the US."

Mittal expects 2,500MW will be built in the US through the end of 2006, approximately one-third of which will actually make it to the bank finance market. "Due to the complexity of deal structuring in the US, a lot of people are financing these deals on balance sheet and just sitting on them." It is not that the banks have a limited amount of financing, Mittal adds, but rather that the projects will not need bank finance as they will have ample money coming to the projects from their balance sheets and other equity providers.

Mike Garland, a partner at Babcock & Brown, says a lot of players, even the big ones like FPL, are considering or using portfolio financing for their deals. "I think you are going to see more and more of this with some of the other developers."

At present, Garland says 50% to 60% of wind project value stems from production tax benefits and depreciation in the US. In a post-PTC world, tax benefits will fall to 20% to 25% of the project value, making it still effective to bring in a tax investor if the sponsor is not fully taxable.

For a small, capitalized developer who wants to stay in the business of operating assets, either a leveraged or unleveraged structure can finance the project. "Small projects are more efficient unleveraged, large projects are often more efficient leveraged. The twist on that is if the small project has high cash flows, i.e., a high PPA price, it is potentially appropriate to do a leveraged deal," he says. "On large deals in the \$150 million range, we have structured leveraged and unleveraged deals. However we do see the debt markets becoming more efficient, which may allow for leverage on smaller transactions."

A big boys' game

Perhaps no better example in the US today illustrates the new "mainstream" era in the US wind energy industry than the Cape Wind project – a 468MW wind farm to be built offshore on Horseshoe Shoal in Nantucket Sound, off the coast of Cape Cod, Massachusetts. The project developer, Cape Wind, located in Boston and Yarmouth, recently engaged Lehman Brothers as financial adviser.

But the proposed project – unlike many other offshore projects – has not escaped the NIMBY syndrome that jeopardizes many onshore projects. Cape Cod, Martha's Vineyard and Nantucket are all summer playgrounds to many of the state's, and even the nation's, wealthiest vacationers and yachtsmen. The project will be visible from the Cape and both islands and from the many boats and yachts in which vacationers cruise those waters. Yachtsmen enjoy the area not only for the scenery, but also because of the wind resource. John Veech, managing director at Lehman Brothers in New York, told Renewable Finance

US Wind

that the project is attractive because the numbers are so good. "The project is located in one of the strongest wind regimes in the United States. It is an optimal site because it has consistent winds, shallow depth, low wave heights and economies of scale."

No power plant has been build in the area since the 1960s, so the approximately 130 – either GE or Siemens – 3.6MW turbines will generate 75% of the region's electrical power. "We are defining the financial structure now as we refine our costs and finish moving through the permitting stage," says Gordon. "The Commonwealth of Mass recently approved our permit to connect our transmission lines into the existing grid."

Veech from Lehman Brothers says there will be opportunities for both debt and equity investment – a signature transaction that will provide good exposure to the asset class without having to do ten small deals. "We are looking at a range of options. This project will be attractive to the commercial bank market. We hope to access the bond markets for a portion of the funding depending on the conditions at the time and we will also have some opportunities for outside equity." Gordon adds, "We can't say too much about the numbers yet because we are not at that point, but the project will be profitable and provide some attractive opportunities for the project finance investment community."

Babcock & Brown's Garland says that the presence of major players like Lehman and Goldman puts a positive light on the industry, just as GE put a positive light on the market when it bought Enron's wind business. "It legitimizes the industry to a lot of investors, the markets, and even to the power purchasers. Having said that, it is a unique world right now that we are living in. There is not a lot of capital activity in traditional areas – particularly the traditional power area", says Garland. "So, I think over the next several years, you may see the traditional power areas picking up, so the attention on wind will not be as great. It is just not that big a field."

"There is not a lot of capital activity in traditional areas—particularly the traditional power area. So, I think over the next several years, you may see the traditional power areas picking up, so the attention on wind will not be as great. It is just not that big a field."

Garland adds that big financial firms have entered and exited the project finance business several times in the last few years. "Volume-wise, there is just not that much business. If you look at the amount of wind deals that are being done by non-balance sheet players, it is a very small industry.

Cape Wind will at least merit watching. Offshore projects have a lot of issues. Typically they have to be larger, they are more expensive, and they likely need longer term financing. "They have unique risks that onshore projects don't face. So you have structure, insure or work around those issues," says Garland.

One analyst offers a reason why Lehman may be a good choice for Cape Wind: they have a retail outlet and Cape Wind might pursue a retail option for raising funds. "For that reason alone it might be a good choice. When selling shares to the public it perhaps matters little whether you are a wind project or a donut maker." ■

Chris Gadomski, president of SMIdirect, a San Diego business development consultancy, has watched renewable markets expand, contract and expand over the last 25 years. Renewable Finance, a Project Finance supplement, is published by Euromoney Institutional Investor.