Create opportunities when the market dips

Whether or not the federal government's lucrative PTC subsidy is extended beyond 2012, there will be a drop in the US wind market after this year. Mark Anderson looks at the steps companies are taking to steer them through tough times and equip them for the longer term

Domestic turbine installations this year are expected to be high in a scramble to beat the feared end-of-year expiry of the $0.022/kWh incentive provided by the production tax credit (PTC). Looking ahead, the only thing that is certain is that there will be a decline. An extension to the PTC incentive would now come too late to avoid a drop in production, and with few experts expecting any decision before November's elections, equipment manufacturers and component suppliers are looking for ways to survive the inevitable lull, in the hope that a renewed support scheme will be approved before long.

This is not a unique situation. The PTC, which is payable for the first ten years of a wind farm's output, has lapsed three times in the past dozen years. Results have been predictably disastrous, with following-year installations dropping off 74% or more each time, according to figures compiled by Make Consulting. Worst-case projections for 2013 suggest 2.4GW or less, while 2014 could be similarly grim — leaving few companies in the sector feeling secure.

"If there is no PTC extension, then the music stops," says Gabriel Alonso, chief executive of EDP Renewables. "And it stops for most of the players — immediately. The music may resume slowly after that." Alonso cautions developers to remain calm. "First of all, we cannot panic," he says. "We shouldn't be building projects at any price and any cost." Yet he believes the current market, treacherous as it may be, still offers some opportunities that can serve both as stopgaps and as longer-term options to maintain the domestic wind industry's momentum on an upward trajectory.

Near the top of most companies' survival strategies is looking at opportunities in several of the 30 states where targets, the renewable energy standards (RES), require utilities to source increasing percentages of their electricity from clean sources. California, for instance, is targeting 33% by 2020, while a handful of other states — including Colorado, Oregon and Minnesota — maintain similarly aggressive policies.

Yet there may not be an abundance of such opportunities — many utilities are well ahead of mandated quotas, which will not increase for several years. And tallying renewable-generation totals for individual utilities can be difficult. "You have to drill down and account for renewable-energy credits and out-of-state generation — and that gets complicated," says Jesse Broehl, a US adviser at Make Consulting. "About half of those states are ahead of compliance, and the sum total of RES-related wind development may average less than 2GW over the next few years."

Economies of scale

Developers with substantial holdings, meanwhile, can concentrate on squeezing efficiencies out of existing turbine fleets. Iberdrola Renewables, the number-two US developer, expects a cumulative 6GW in the ground by the end of this year. "That's a very substantial asset base to operate," says Kevin Lynch, the company's director of policy and regulation. "There are a lot of

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Windy with sunny spells Developer Iberdrola is looking to make existing wind projects more cost-effective and has built two solar projects

things that we can and need to look at to improve our operations, making them more cost-effective and better integrated into regional transmission grids."

Iberdrola is also among those looking into solar photovoltaic (PV) projects — in large part because the solar sector's tax subsidy runs to the end of 2016. "We've built two PV facilities of substantial size," Lynch says. "We have a pipeline of solar development opportunities in the US that have some potential."

Others, however, are unconvinced of near-term PV potential. Cannon Power, a California-based independent with 4GW of wind development over a 30-year track record, recently abandoned its solar

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pursuits — largely because of low power-purchase agreements (PPAs). "California solar projects were being bid at lower and lower PPA price levels, says Cannon CEO Gary Hardke. "It required an assumption that solar equipment costs were going to continue dropping at a certain rate and we just thought that the risk-versus-reward equation wasn't a positive one."

Going on the road

Elsewhere, developers are looking beyond US borders to hedge bets against a difficult home market. Leading American developer NextEra has secured roughly 500MW of Canadian contracts under Ontario's feed-in tariff programme, according to Broehl. "And it's not just NextEra — Pattern Energy, Invenergy and others have increased their work up there," he says. "Canada is definitely a complementary market that is suddenly more important."

In many cases, the same US developers now heading for Canada or Latin America are those that migrated from Europe in the past decade. Giants such as Iberdrola and EDP are now using their US operations as springboards to develop opportunities beyond US borders. "You tend towards the more lucrative and the

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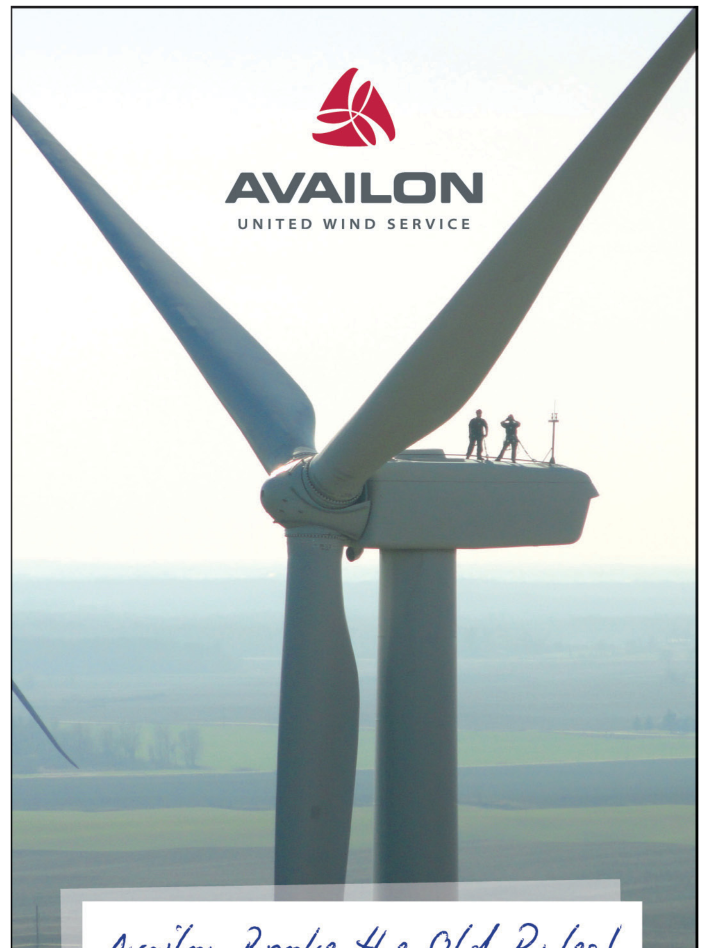
Cross-border Californian Pattern Energy's St Joseph wind farm in Canada



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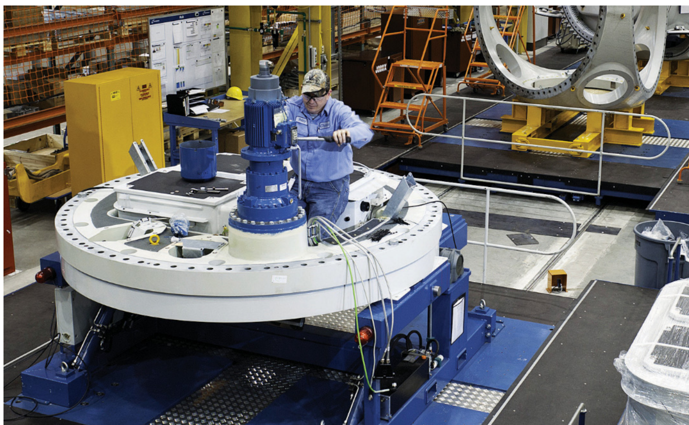
more stable markets," says Ryan Wiser, staff scientist at the Lawrence Berkeley National Laboratory. "And those markets can change over time."

California-based Pattern Energy is no stranger to the trend. With nearly 400MW of Canadian development under its belt and an 870MW build programme for 2013-14, Pattern plans to finish a 112MW project in Chile this year. "Some of the folks that would have been typically working on US projects are redirected to Chile and Canada," says CEO Mike Garland. "We're in a pretty good position for the next few years."

The US supply chain, however, is in a more precarious position. "It doesn't make sense to make turbines here and then ship them to China," Wiser says. "So the diversification options are less substantial."

That can leave major players with radically different game plans. Perennial North American market-share leader GE recently announced plans to build a $35 million turbine plant in Brazil, but Vestas, the world's leading equipment maker, is threatening to axe some 1,600 US jobs if an extension to the PTC fails to materialise.



NORDEX USA

"The possibility of exporting turbines out of the US gives us some backup and some prospects for 2013"

Ralf Sigrist, Nordex USA

Germany's Nordex opened an Arkansas factory in October 2010, producing 80 nacelles for 2.4MW machines in 2011, with similar numbers expected this year. The company considers the market for American-made machines to include Canada and Latin America. "The possibility of exporting turbines out of the US gives us some backup and some prospects for 2013," says Ralf Sigrist, CEO of Nordex USA.

Still, Wiser offers some perspective. "It's easy to bemoan the lack of stability in US energy policy generally, and in federal tax incentives for renewable energy specifically," he says. "But let's not kid ourselves into thinking that other markets are somehow way more stable than the US."

As for those lacking the flexibility to thrive without PTCs, Lynch, who has worked with Congress for more than 30 years, offers a simple suggestion. "Speak to elected representatives," he says. "The most effective form of communication with a decision maker comes from somebody who is going to be living the real-life consequences of a decision." W

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