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Cape Wind's US offshore finance debut

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The US lags well behind Denmark, Germany and the UK in the offshore wind sector. No wind farms are in operation off the US coast, while Europe reached 5GW of installed generation in late 2012. Energy Management Inc. (EMI) hopes to start construction on the first offshore wind project in the US before the end of the year. It already has its federal and state permits for the plant, to be located off the coast of Cape Cod, Massachusetts.

But construction is contingent on EMI closing a debt financing for the first phase of its $2.5 billion 468MW Cape Wind project. EMI may need to bring together debt from European and Japanese commercial banks, a direct loan or credit guarantee from the US Department of Energy (DoE) and backing from an export credit agency (ECA). Such a combination would be unprecedented in US renewables, and will make a 2013 deadline for financial close aggressive.

Cape Wind is probably the most famous power or renewables project in the US, and is certainly the most polarising in the north-east. It was conceived in 2001 as a wind farm in Nantucket Sound, and attracted vocal opposition. Environmentalists sensitive to regional dependence on fossil fuels in power generation backed Cape Wind, but some local residents are worried that 130 turbines parked 8km off the coast would alter views and damage the sound.

The Cape Wind site

Costs and criticisms

Representatives of electricity consumers complain that the project will need to increases in power prices of as much as 1.3-1.4%, thanks to 15-year power purchase agreements (PPAs) with local utilities National Grid and NSTAR. The PPAs, for 50% and 27.5% of Cape Wind?s output, respectively, allow for upward and downward price adjustments depending on the changes in the plant?s circumstances.

Throughout the plant?s development, EMI pointed to New England?s limited indigenous onshore sources of energy, not to mention a robust offshore wind resource. New England is densely populated, so building new onshore power projects is cumbersome and laborious.

Natural gas is cheap at the Henry Hub distribution centre in Louisiana ? a global pricing benchmark ? but more expensive in New England. New England recorded a price of $5.46 per million metric British thermal units (BTU) on 26 April 2013, higher than the $4.18 per million BTU at Henry Hub and more than a dollar more than the Mid-Atlantic, the second most expensive market in the US. And New England is especially dependent on gas.

In 2012, it generated 53% of its electricity from gas, up from 29% in 2001, according to the Rocky Mountain Institute.

Cape Wind eventually won the argument with utilities and regulators. Now, it needs to assemble a financing to finally begin construction. But there is no definitive financing template for offshore wind financing, even in Europe, where each country has own regulatory and market peculiarities.

EMI, a small, if venerable, developer, wants to single-handedly kick-start an offshore wind market in the US, but it does

not have the resources to fund this step with anything other than non-recourse debt. The utilities that built Europe?s first offshore projects had more options. Utilities, not independent power producers like EMI, built most of the early European projects, using either equity or corporate debt.

The European approach

Despite facing different regulatory regimes, US developers will benefit from the experience of the European pioneers. They will, for instance, turn to European banks with experience in the sector. More than 20 commercial banks have helped finance offshore wind projects, about a dozen of which have been consistent market participants, and the majority of which are European lenders.

?The banks have the knowledge and the precedents,? says J?r?me Guillet, managing director at Green Giraffe Energy Bankers in Paris, who has advised on several European offshore deals. ?For a big project finance bank, it?s not that different. From a general risk perspective, it?s no harder in the US than in Europe.? One New York-based senior project finance banker at a European lender describes his group?s awareness as ?inherited.?

The European offshore project finance market is still fairly young, however. The first fully project-financed offshore wind project, for 120MW Q7, closed just seven years ago. Q7, located off the coast of Ijmuiden, Netherlands, featured multiple construction contracts, because developer Eneco could not find a contractor willing to offer a lender-friendly turnkey engineering, procurement and construction contarct. That multi-contract structure persists today.

Initially, lenders required developers to put up about 40% of construction costs as equity, requiring many of them to go out and find outside investors, though that level has receded to nearer 30%, including mezzanine debt, a level that is more typical of renewables project financings that benefit from feed-in tariffs or long-dated PPAs.

Since Q7, about a dozen other offshore projects have reached financial close, but not all of those deals covered construction, and some were refinancings or acquisition financings. European sponsors have relied heavily on multilateral lenders and ECAs. The European Investment Bank, which expanded its activities considerably after the financial crisis, Danish ECA EKF, which supports Vestas and Siemens turbine exports, and Germany?s KfW have been particularly prominent. Past financings have featured Siemens 3.6MW turbines of a similar type to those destined for Cape Wind. Cape Wind, at 468MW, would be a shade larger than the largest project financed wind farm to date ? Germany?s 400MW Eu1.6 billion Global Tech One, which signed in mid-2011.

For Cape Wind, EMI has already started working with experienced European banks, including Natixis and Rabobank, which are candidates to help lead a financing. It has already mandated Bank of Tokyo-Mitsubishi UFJ as an arranger of the debt. EMI has suggested to lenders that the debt could break down into three tranches, each of a similar size: a commercial bank piece, a portion with cover from an ECA, and a direct loan from the DoE. But that structure is contingent on EMI wining approval from the DoE and an ECA and would require the US government and the export finance institution to work through intercreditor issues from scratch.

Since the 2008 financial crisis, ECAs have been willing and able to finance projects in industrialised countries, including, occasionally, their home markets. German ECA Euler-Hermes has, for example, noted an increase in requests for infrastructure debt from industrialised countries since the crisis.

Despite the European precedents, lenders are still uneasy about the sector. Fitch views the construction and technical risks of an offshore wind farm as a cross between a traditional power project, such as a gas-fired plant, and a large offshore oil & gas project that requires the use of marine vessels. While lenders draw little of their expertise from oil and gas, they acknowledge that offshore wind?s supply chain complexities have something in common with that sector

Lenders worry about how to coordinate a large and diverse group of contractors and suppliers during construction ? and how to allocate risks between those players ? often insisting that project costs include a large contingency. With a standard onshore wind project, developers can hire one contractor to oversee engineering, procurement and construction, though they still frequently divide work into turbine supply and balance of plant. For offshore, developers typically sign multiple bilateral contracts, including turbine supply agreements, foundation supply agreements, contracts

for cable installation and marine service contracts.

The use of a multi-contract structure ?introduces interface risk among contractors and exposes the projects to an increased risk of delays and cost overruns,? according to a Fitch report from 2012. Bankers say this structure adds unneeded risk. ?But at least in Europe, banks took on this risk because there?s a stronger renewables mandate,? says a lender familiar with the North American and western European markets. ?Offshore wind is a way to get there. That mandate simply doesn?t exist in the US.? The presence of a mandate means that suppliers and service providers will invest in the infrastructure necessary to service offshore wind reliably and inexpensively.

Insufficient political support

Indeed, western European governments exert much more sway with their domestic banks ? especially to support public policy priorities with lending ? than their US counterparts.

ECAs and multilaterals will provide generous cover or direct lending, supporting the development of manufacturing capacity at home. European utilities follow domestic, and to a lesser extent EU, renewables mandates and benefit from either feed-in tariffs, some of them supercharged specifically for offshore, or renewable obligation credits.

The US encourages renewables development either indirectly, through manipulation of its tax code, or through sporadic ? and voluntary ? federal programmes such as cash grants. Most states require local utilities to buy meet specific proportions of their power demand from renewable sources, but few of them have ambitious targets.

Germany, Denmark and the UK have proven tolerant of the higher power prices required to build offshore wind farms, and have established regulatory regimes that try and blunt the impact of higher power prices. Such a regime is probably not politically palatable in the US, at least while natural gas prices remain stubbornly low. Gas prices are vastly cheaper in the US than in western Europe, and have been even more so since the 2008 crisis.

?With few US projects, banks will rely on the the existing PPAs as the basis to finance these projects,? Guillet says. ?But banks aren?t convinced that others will follow, and the supply chain won?t be convinced, so it won?t spur the sector along. This hurts the one political argument, that offshore wind would create jobs.

"Really, it?s a ?chicken-or-the-egg? situation. You can do projects as one-offs. But companies are not going to build manufacturing plants for one project. They need to justify the investment.? Without a dedicated and experienced supply chain in the US, the offshore wind industry will struggle to gain traction. Other proposed farms include projects off the coast of Rhode Island and New Jersey, developed by Deepwater Wind and Fisherman?s Energy, respectively.

Cape Wind has some construction and operational advantages over many European peers. It would sit in sheltered, shallower water ? 18-36 feet, compared to 100-feet for some European projects ? and close to the coast. A consortium of Flatiron, Cal Dive and Cashman Equipment is Cape Wind?s construction contractor.

DoE support?

Despite minimal government incentives and little support in the US Congress for renewables subsidies, offshore wind has the support of President Barack Obama and presumably most federal departments.

When Obama first entered office, in January 2009, the US economy was contracting, prompting unemployment to soar. So Congress, urged by Obama, passed a stimulus bill to try to stave off an even deeper recession. That bill, the American Reinvestment and Recovery Act, introduced initiatives to spur renewables development and, proponents insisted, to create new jobs.

The bill allowed the Treasury to pay 30% of the construction costs of renewables projects back to their owners at completion. It also expanded a DoE programme that involved the agency guaranteeing loans to advanced technology renewables generation projects and manufacturing plants to cover more proven technologies ? the 1705 authorisation.

At a time when banks? capacity to support any projects was constrained, the DoE programme helped several prominent

projects to reach financial close, including the 845MW Shepherds Flat onshore wind project in Oregon. But it also attracted criticism that combined with a mania for budget cuts to doom the programme. The DoE approved a $535 million direct loan to Solyndra, a California-based solar manufacturer. The company collapsed in September 2011, and allowed critics to contend that the programme was steering funding to connected developers without strong business plans.

Solyndra?s bankruptcy coincided with the scheduled expiry of the DoE programme, which ceased a few weeks later. Since then, the DoE has issued no loan guarantees or approved any federal loans for renewables generation projects. But that may soon change.

About six months before Solyndra?s collapse, Congress appropriated additional funding authority to the DoE, under the precursor programme, 1703. That other programme is still active, though it has never closed a loan or guarantee.

Today, the DoE is reviewing applications from developers seeking funding under the so-called ?energy efficiency and renewable energy? category. As of 29 January 2013, it had eight active applications in the category?s queue. Cape Wind was one of those eight ? and should be a strong candidate for support.

But the DoE will need to find the stomach to endure a potential re-run of the Solyndra saga, particularly given how much discussion and opposition the Cape Wind project has already sparked

Building momentum

Throughout Cape Wind?s development, EMI has shrewdly taken a consistent public stance: the project is moving forward. Renewables developers rarely give significant publicity to their lead lenders and equity providers before financial close. But in mid-February, EMI announced BTMU?s involvement in Cape Wind?s debt at a renewables conference in New York and issued a press release to general interest publications shortly afterwards.

EMI has been highly communicative with lenders, too ? and far before the deal launched. In April 2012, it invited bankers to a boutique hotel in Lower Manhattan to watch a screening of a documentary that painstakingly detailed the disputes that slowed Cape Wind ? but how it kept moving, nonetheless.

As Cape Wind approaches the launch of its debt financing ? perhaps as soon as mid-year ? lenders are still waiting for EMI to identify the project?s full roster of equity investors. Siemens will be part of that mix, though probably as a minority investor, market observers say.

If an ECA joins the Cape Wind financing, it would shape the composition of the bank group in any deal. A Japanese ECA would attract home country lenders, for instance, though it would only come in if a Japanese trading house or a utility bought equity in Cape Wind.

Lenders assume that an ECA will participate. ?The Cape Wind project is known to all experts around the world,? says a spokesperson for a European ECA. The choice of ECA will influence which commercial lenders join the deal, and how many of them are required. Many lenders prefer the risk profiles of uncovered tranches, because, as a senior project lender in New York notes, banks would be willing to assume greater construction and technical risk, as they do in Europe, in return for for higher margins than a vanilla deal. He pointed to lender eagerness for the slim portion of Shepherds Flat?s debt financing that did not benefit from a DoE loan guarantee, when it closed in late 2010.

If the Cape Wind deal does launch in 2013, EMI hopes to benefit from recent improvements in market conditions. The quantity of project financings in the US has disappointed lenders since the expiration of the DoE?s loan programme in September 2011. Volumes have been so poor that margins have compressed, despite the exit of several lenders amid the eurozone crisis.

With the sluggish deal flow, lenders are especially hungry for the rare financings that offer high returns. Lenders accepted tickets up to $350 million in mid-2012 to help build the first two trains at Cheniere Energy?s Sabine Pass export liquefied natural gas project in Louisiana because it paid about 100bp more than rival deals.

Pricing of onshore US wind deals today starts at 225bp over Libor for vanilla projects ? and can sometimes go as low as 200bp. ?That?s another thing about Cape Wind that would appeal to me: higher pricing,? says a banker in New York. ?I hate 225bp.? European offshore wind deals have typically priced about 50-80bp higher than onshore deals, Guillet notes.

EMI may also seek tax equity from US investors, and while such funding is typically pricier than debt, it is cheaper than equity. About 20 investors are able to provide tax equity, though not all offer it to projects that also feature debt. The amount of wind tax equity raised in 2012 slipped from the level achieved in 2010 and 2011, in part due to fewer deals in the sector.

Over the past year, bond and term loan B investors have been hungry for power and renewables debt, even those that featured construction risk. EMI hasn?t ruled out a bond tranche for Cape Wind, but market observers say it?s unlikely, given that ratings agencies don?t view offshore wind as an investment-grade market ? at least not yet.