Spotlight on due diligence

The more cautious lending environment means wind projects will only get off the ground once they pass the scrutiny of some major due diligence investigations.

DEVELOPING A wind farm is a heavily capital-intensive task. While the costs for onshore projects have fallen significantly over the years, securing the up-front finance required to proceed with a development – be it on- or offshore – is a major undertaking. This has been even more apparent since the credit crunch, and many banks previously active in the wind market have withdrawn to focus on their core areas instead. Those that remain are more cautious than ever when it comes to lending.

There are various types of financing options available to prospective wind developers these days, but Project Finance – a mortgage-like finance structure for power projects – is a popular option for larger onshore developments, and most offshore wind farms (see box, page 30).

Further reading:
Wind project planning: plan to succeed
Renewable Energy Focus Jan/Feb 2011, ps. 32-37

Online:
Environmental Impact Assessments (EIA) – what you need to know
http://tinyurl.com/5wbjfbb
Windpower: from conception to reality – an overview
http://tinyurl.com/4w57nt4
Turbine development: generation innovation part 1
http://tinyurl.com/3dmourb
As with any form of finance borrowing, to be approved for a loan you have to tick the right boxes. The more boxes you can tick the better your chances of securing finance. And the better the loan conditions are likely to be.

When it comes to wind project financing that means passing a number of critical due diligence tests. This is especially so if you plan on sourcing the capital from a financial institution like a bank or a specialist equity fund, which will often conduct its own due diligence (in some cases outsourcing it to an independent third party) before approving finance.

“A considerable amount of work is carried out before the loan is agreed, to check that the project is well planned, and that it can actually make the necessary repayments by the required date,” explains Wind Energy: The Facts, an EU-funded reference guide to the sector:

“There is usually separate commercial, technical and legal due diligence carried out on behalf of the bank. The investors will make careful consideration of technical, financial and political risks, as well as considering how investment in a project fits in with the bank’s own investment strategy.”

The same due diligence tests are generally performed even if a company plans to finance a project ‘on-balance sheet’ - using its own money to pay for a project rather than turning to an outside third party like a bank. Put simply, it is good business practice, and much of the information required for due diligence is also required for other stages of a project’s life - securing planning permissions for example.

“Whether you are a bank, financial institution, equity holder or project owner, you need to understand and mitigate all risks long before you decide to finance a project,” says SGS, a leading inspection, verification, testing and certification company which provides due diligence services to both industry and the investor community. “Due diligence services thoroughly assess the viability of a project, enabling clients to make a fully informed decision before investing any money.”

GL Garrad Hassan, long established in the wind industry, agrees: “Understanding the risks and mitigation measures associated with the wind industry is vital for lenders and investors in wind farms.”

What is due diligence?

Essentially, what due diligence amounts to is a combination of risk assessment; character and performance checks (for the equipment and suppliers you plan to use); and a demonstration that a project is viable; and will make money in the long term. Developers putting finance requests before potential investors

Securing the upfront finance required to proceed with a development, be it on or offshore, is a major undertaking.
will have every aspect of the project proposal scrutinised.

German consultancy, Dewi describes it as “a thorough analysis of the complete wind farm project including all planning; financing; building permit and contract documents; in order to minimise the project risk for investors, developers and owners. During a due diligence process, all the project-specific risks will be identified and quantified.”

The lower the risk perceived by a lender the better terms they are likely to set for the loan, for example with lower interest rates.

Similarly, insurers will conduct due diligence to determine premiums and insurance conditions. The key is a thorough assessment of the risks and how those risks can be dealt with.

According to SGS, the key questions potential investors need to ask (and that project developers should be able to answer confidently with evidence to support) are:

- Is the project feasible?
- What is the project’s impact?
- Does the project meet environmental and social standards?
- Are the project costs realistic?
- What is the real project status?
- Where is the project money spent?
- Will the project be profitable?
- Will the project be completed on schedule?
- Will the project meet operational requirements?

“Some risks are hard to manage and require robust protective and corrective mechanisms to mitigate them, such as insurance, currency hedging, contractual arrangements, contingency funds and lines of credit,” the company says. These risks typically include legal risks (contractor insolvency, breach of contract); market and political risks (price and currency fluctuation, legal system change, civil commotion, war, terrorism); and other risks such as natural disaster; fire; and force majeure.

Lenders will therefore want to see clear demonstration that these risks are covered, for example, via suitable insurance products and stringent contract terms.

Other risks are more easily managed and lenders (and insurers) will insist on strict due diligence relating to them. These typically include technical and operational risks (faulty design, materials or workmanship, construction or supplier performance); environmental and social risks (pollution, impact on landscape, labour conditions, health, safety, security, land acquisition, biodiversity, conservation); and economic risks (cost of construction, supplies, operations or maintenance).

“Ironically, these are the risks that cause the majority of cost overruns and delays, yet can be easily prevented,” notes SGS.

Technical due diligence typically involves a design and engineering review; site assessment; technical contract evaluation; specification verification; supplier and subcontractor qualification review; and a permit and license review.

The technology planned for a project, particularly the wind turbine model chosen, and the companies supplying equipment, will come under severe scrutiny. After all, the capital costs of wind energy projects are dominated by the cost of the wind turbine itself, accounting for between 68%-84% of total onshore project costs.

Meantime, the total project cost for offshore developments is typically 50% higher than for onshore. ‘The higher offshore capital costs are due to the larger structures and the complex logistics of installing the towers,” according to Wind Energy: The Facts.

“The costs of offshore foundations, construction, installations and grid connection are significantly higher than for onshore. For example, offshore turbines are generally 20 percent more expensive, and towers and foundations cost more than 2.5 times the price of those for a similar onshore project.”

This puts equipment suppliers, and those companies involved in the construction, operation and maintenance chain in the due diligence spotlight.

“In today’s economic climate, banks and investors care about the return on their investment, as well as its certainty over the typical 20-year investment lifespan of a wind power plant,” explains Danish turbine manufacturer Vestas.

“To guard against uncertainty, the financing of a project often depends

The more boxes you can tick the better your chances of securing finance, and the better the loan conditions are likely to be.
Project finance demystified

Traditional “project finance” has become an increasingly popular route for funding wind farms, particularly large commercial scale ones outside of the U.S., although in these harsh economic times, the terms and conditions attached to loans are tougher than ever. This type of finance is a “mortgage” for power projects.

“The only security for a loan is the project itself,” says Wind Energy: The Facts. “In other words, the owner of the project company is not personally, or corporately, liable for the loan. In a project finance deal, no guarantee is given that the loan will be repaid; however, if the loan is not repaid, the investor can seize the project and run or sell it in order to extract cash.” So in this structure, repossession is the ultimate consequence of failure to pay your debt.

However, banks will not just hand over money without some sense they’ll get a healthy return. “Any project finance lender will want to know if there is any risk that repayment will not be made over the loan term...the financing of a project requires careful consideration of all the different aspects, as well as the associated legal and commercial arrangements.”

Approval along with associated terms and conditions will only be given once the lender has conducted its due diligence on the project (see main story). Still, the predictable nature of cash flows from a wind farm means they are highly suited to the project finance investment mechanism.

A typical, simple project finance deal will be arranged through a special purpose vehicle (SPV) company - a separate legal entity which may be owned by one company, consisting of several separate entities or a Joint Venture. In terms of the lender, one bank may act alone if the project is small. In the past, a lending syndicate comprising a group of banks was more typically formed to provide the finance, with one bank acting as the ‘lead arranger’ of the deal. In the wake of the financial crisis, this syndication process has become less common as the number of potential lenders has declined.

Meantime, just as the 100% home-buyer mortgage has pretty much had its day in the wake of the global credit crisis, it’s rare to find a bank that will lend 100% of a wind project’s value anymore either.

The project owner/developer is usually expected to make an equity investment itself (a cash contribution to project costs), typically accounting for at least 25%-30% of total project financing. Banks will generally provide loans for up to 70%-75%.

“The size of the loan depends on the expected project revenue, although it is typical for investors to take a cautious approach, and to assume that the long-term income will be lower than assumed for normal operation,” says Wind Energy: The Facts. “This ensures that the loan does not immediately run into problems in a year with poor wind conditions or other technical problems, and also takes into account the uncertainty associated with income prediction.”

Typically, a bank will base the financial model on the ‘exceedance cases’ provided within the energy assessment for the project, it continues. The mean estimated production of the project (P50) may be used to decide on the size of the loan, or in some cases a value lower than the mean (for example P75 or P90). This depends on the level of additional cash cushioning that is available to cover costs, and production variation over and above the money that is needed to make the debt payments. “The energy assumptions used for the financial model are always a matter of negotiation with the bank as part of the loan agreement,” it adds.

Loan structure and terms

While varying from deal to deal, project finance loans are often split into two parts. They will start out as a construction loan, providing money specifically to fund the construction of a project - as the name suggests. At completion the loan converts to a term loan. At this point, the terms and conditions associated with the loan change, as does the pricing of the debt. “The term loan is usually less expensive than the construction loan as the risks are lower during operation.”

Loan terms/pay-back periods vary from country to country and from bank to bank. In the past, as banks became more familiar with wind projects and government support mechanisms (and policy improved), it was possible to secure loans with pay-back periods of around 15 years and in some instances up to 20 years, in line with many power purchase agreements and the expected lifespan of a project.

While it is still possible in many cases, the global economic crisis has seen many banks adopt more conservative approaches, reducing lengths of loans significantly in some cases. Similarly, interest rates vary while, as with home-buyer mortgages, a loan set-up fee is usually charged.

Investors will also impose financial covenants on any loan agreement, generally determined by the outcome of the due diligence. Typical covenants include the regular provision of information about operational, environmental and financial reporting, insurance coverage and management of project bank accounts.

In the U.S., the wind market is largely driven by tax incentives under the Federal Government’s Production Tax Credit. In this instance, tax investors generally own the majority stake in projects for a significant period of time before ownership reverts back to its original developer/proponent.
...instance, in the case of multilateral finance, we have a strong track record of working with EKF - the Danish Export Credit Agency - to facilitate insurance cover and finance for wind power projects.”

Environmental due diligence work has grown in importance, in line with stricter environment legislation, demand for Environmental Impact Assessments (see links on page 26) and with the increase in the number of banks adopting environmental and social policies as a standard part of their investment decision process.

Primarily conducted by banks and financial institutions to identify and quantify environment-related financial and legal risks, the impact of any potential reputational risk is also assessed.

Due diligence will involve assessing risks, mitigation measures and associated costs relating to existing and impending environmental legislation - that could affect the project, the environmental liability regime of the host country, and project sponsors characteristics including previous compliance problems and history of accidents.

In addition, environmental risks that need to be assessed for wind projects include effluent emissions; on-site contamination and hazardous materials issues.

Issues relating to biodiversity protection (impact and mitigation on habitats and wildlife); worker health and safety issues; and environmental issues sensitive to public perception such as noise or visual intrusion should also be examined.

Many financial institutions now work to the Equator Principles, a framework for evaluating social and environmental risks in project finance activities. The Principles also provide a set of benchmarks against which project proposals can be assessed.

When it comes to the economic analysis, due diligence procedures include a review of estimated costs; budget and the financial model being used; as well as the identification of possible cost overruns. Insurance and performance bond coverage will be reviewed in addition to any associated penalties and liquidated damages.

Then provisions made by a company in its financial business plan are evaluated by comparing the costs of similar projects, as well as construction and operational costs. The planned project schedule and the impact of possible delays are also evaluated.

Documentary verification of the prices of the main suppliers and equipment, using prevailing market price methodology, is required, as is a technical validation of the economic model.

“Estimating such costs is important even if the financial institution or investor may not be directly responsible for them,” says the guidelines. “First, any unforeseen costs can compromise the financial viability of the proposal; and secondly, the financial institution could be held liable under certain liability regimes.”

For investors in wind farms, the financial business plan, due diligence work, and economic validation are crucial. The principles help ensure that the financial and environmental risks are fully assessed and managed.

"At a time when financial institutions have been under pressure for a perceived lack of transparency and risk management in other areas of their business, adherence to the Equator Principles will go a long way to safeguarding investments in project finance," says SGS.

Understanding the risks and mitigation measures associated with the wind industry is vital for lenders and investors in wind farms.

To guard against uncertainty, the financing of a project often depends on the turbine supplier offering schemes and committed services that adds comfort and security during both the construction and operation phases of the project. In the case of the construction phase, project finance can depend on the turbine supplier accepting turnkey responsibility.

The next article in the series will discuss wind project financing structures, along with funding options for smaller scale and community owned projects.

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