Market Insight

12 April 2018

Taiwan: the next offshore wind gold rush

With Europe's largest offshore wind developers, investors and lenders flocking to the Taiwan Strait, inspiratia takes a deeper look at the opportunities and challenges awaiting them

The Government of Taiwan, on the back of its decision to discontinue its nuclear power programme, has launched an ambitious offshore wind strategy along its western coast, where it intends to deliver 5.5GW of capacity by 2025.

In Europe, a number of major players in the sector have answered the call. Following close behind them are offshore wind's biggest lenders, hungry for more favourable terms than in the overly-liquid, fiercely-competitive European market.

Nine consortia – featuring the likes of Macquarie Capital, Northland Power, Ørsted, Copenhagen Infrastructure Partners (CIP) and wpd – representing more than 10GW of capacity have qualified for environmental permits. These projects will have to compete for an initial 3.5GW allocation of FiT contracts, while the remaining 2GW will be awarded following an auction due to take place in May [2018].

Taiwan's Bureau of Energy is already looking to the future, working to improve regulations for developers – such as giving them the ability to identify their own sites. More information is expected in 2019.

Scott Hsu, business development director at technical consultancy K2 Management, says, "The National Energy Plan is trying to structure a whole new energy policy in which offshore wind is the major focus."

With the results of the allocation round expected to be published at the end of this month [April 2018], several developers have already mandated financial advisers, confident that, should they be unsuccessful, they will be able to succeed at auction.

In February [2018], Northland Power and its partner Yushan Energy brought on board Green Giraffe and local institution Cathay United Bank to advise on their Hai Long 2 and 3 projects, which stand at nearly 1GW each.

A few days later, Germany's wpd launched the financing process for its 360MW and 700MW projects, with SMBC as financial adviser.

Meanwhile, Macquarie Capital, Orsted and Swancor are working with BNP Paribas on their 120MW Formosa 1 project, the second phase of an 8MW pilot that is currently the only offshore wind farm to have been financed and brought to operation in Taiwan.

Attractive market

Summarising one of the key drivers for international investment in the country, Ryan Chua, head of Macquarie Capital in Taiwan, tells inspiratia that "delivering successful projects involves strong commitments from government and local players – both of which are present in Taiwan".

Indeed, the government has proven its commitment not only through setting ambitious targets – of 20% renewables by 2025 – but also by facilitating their development by easing restrictions on foreign capital for green energy projects. Taiwan's financial supervisory commission (FSC) aims to generate US$38 billion (£27bn €31bn) of total financing by 2020.

Furthermore, a strong regulatory regime, complete with long-term PPAs at attractive prices, provides security and proper remuneration to go with the needs and ambitions of the state. Under Taiwan's Energy Act, the tariffs will fall between TWD 5,000 and TWD 6,000 per MWh (£120-145 €139-166 US$171-205).

"That's why all the developers are flocking," says Evan Stergoulis, global head of the energy and infrastructure sector at Watson Farley & Williams.

"It's the scale, the government commitment and the energy deficit, and the attractive tariff in the initial phase."

The physical conditions on Taiwan's coast are also highly desirable, with strong wind speeds and manageable seabed depth. While developers are having to account for typhoon and earthquake risks – regulators are in fact working to address these issues – the base conditions are as positive as in any European market.

Local financing

Michael Volkermann, head of infrastructure and energy financing at Deutsche Bank, explains that Taiwan is "not something we see as a one-off transaction," but as a large pipeline of opportunities for years to come.

The German bank has been operating in Taiwan in the 1980s and has access to the local currency – a significant advantage on certain European counterparts, considering the PPA is awarded exclusively in Taiwanese dollars.

It also recently signed a memorandum of understanding with Bank of Taiwan specifically for investment in offshore wind. With a stipulated 20% local finance requirement on projects, European lenders and the cash-rich, experienced Japanese banks will need to expand such local co-operation on deals in the sector.

"The financial market domestically is fairly developed, with lots of institutions that are all fairly liquid," explains one European banker with involvement in Taiwan. "But that must be balanced with the fact that none of them have done offshore wind before."

Macquarie's 8MW first phase of the Formosa 1 project saw a mixture of local and international financiers support it, each group using the pilot as a knowledge transfer exercise – the local institutions to familiarise themselves with the sector, the foreign banks to grow accustomed to the conditions and regulations.

For the 120MW second phase, the sponsors are understood to be in talks with 12 banks to raise up to TWD 17 billion (£410.6m €470.2m US$581.4m) of debt, with HSBC, Deutsche Bank, Danish export credit agency EKF, Credit Agricole, Mizuho, Standard Chartered and financial adviser BNP Paribas all understood to be on board. At least three of the remaining banks are understood to be Taiwanese.

Regulatory constraints

Sophie Cherrier, a director at Green Giraffe – which is advising Northland Power on its projects – explains that "a number of regulatory constraints" apply around the amount that local banks and international banks with local branches can provide.

"This puts pressure on the overall amount each project can raise as there is a lot of competition and a lot of local currency funding needed over a similar timeline," she adds.

"This is also why you need experienced sponsors and advisers who know how to raise these types of complex financings."

This sentiment was echoed by WFW's Stergoulis, who expects international banks to lead on structuring "for the first two to three years minimum".

He adds, "When I speak to project finance professionals in Asia, they're telling me this offshore wind is the main game in town. But they do need international banks to help them structure."

Indeed, according to Michael Suppan, vice president in Deutsche Bank's infrastructure and energy team, the transactions "are expected to try to replicate what they've done in Europe" in terms of structuring.

"A lot of knowledge transfer is taking place and will continue to do so over the first few transactions," he adds.

"The key constraint we see on the funding side is with long-term liquidity in local currency, which both banks and sponsors are working to tackle."

Talking margins

Debt pricing is another area where the projects are expected to draw some parallels with Europe, in this case with the earlier offshore schemes like wpd's Butendiek and Northland's Gemini projects, which were financed in 2013 and 2014, respectively, with interest rates coming in between 275bp and 325bp + Euribor.

While the need to raise financing in the local currency will be the main challenge, according to most sources, the relative immaturity of the market, coupled with supply chain requirements, is also expected to contribute to higher margins.

That said, the liquidity of the market has never been in doubt, with every major bank looking to secure a foothold early on.

One banker believes "we are probably looking at pricing in the high 200s", while another said that "we will probably see a relatively wide range, somewhere in the 200s".

The point of contention appears to be the direction margins will take after the earlier batch of projects.

While Cherrier argues that "pricing should follow the same trend as European markets" as the risks are better understood and the market gets more liquid, Volkermann took a slightly more cautious view.

"The market is on its first project," he explains, "so therefore it's probably premature to say it will determine everything".

"Formosa is a good benchmark, but we shouldn't see all terms as cast in stone for the entire programme".

Other capital

While the experienced offshore wind players in commercial banking – both from Europe and Japan – will make up the vanguard of capital in Taiwan, market observers should expect increased involvement from export credit agencies too, as EKF's involvement in Formosa 1 demonstrates.

"ECAs have been extremely positive about Taiwan," says WFW's Stergoulis.

Meanwhile, Green Giraffe's Cherrier adds, "It makes sense for ECAs to look at new markets where they can take risks commercial banks can't at the early stage as well as bring additional liquidity for projects."

Generally, market sources seem to agree that the participation of ECAs should give more comfort to commercial lenders and help to increase lenders' appetite.

But according to several players, what is unlikely in this market, at least early on, is the presence of pension funds or insurance companies. This is namely due to regulatory constraints in what is still an emerging sector. Though there is a good amount of liquidity in Taiwan's insurance market, they are not allowed to take construction risk.

That said, CIP recently reached final close on their third fund with two Taiwanese insurance companies as investors. One of them, Taiwan Life Insurance, has signed an MoU with the Danish investor for the development of offshore wind assets.

Key challenges

The Taiwanese PPA is signed with state monopoly TaiPower as a long-term, fixed-price deal that is attractive to stakeholders as they are protected from fluctuating power prices.

However, the PPA documents have been called simplistic and lacking a number of clauses that would be considered standard in Europe.

For one, it is not index-linked, so will deteriorate on a real basis due to inflation. In addition, there is no change of law protection, nothing for curtailment or force majeure, to name but a few.

"People are complaining about it, but TaiPower has been using this form of PPA for many years," says WFW's Stergoulis. The template is in fact used for all power generation types, with no sector-specific documents.

"If it's read by itself, then it doesn't look great," he continues, "but you need to look at it in context and what other protections you have, and the law does provide different protections in the Energy Act or in general commercial law. So, the gaps are much narrower than people say."

Other challenges are generally linked to the supply chain, where the local content requirement could clash with a lack of boots on the ground in the early phases.

The relocation of engineers and manufacturing staff to Taiwan from Europe will take time, despite the proactiveness of some like turbine suppliers Siemens Gamesa and Vestas, both of which have signed a series of MoU with Taiwanese actors.

"This is going to be a bottleneck, especially for heavy duty industries that have to ramp up their in-house manpower," says Hsu of K2 Management. "This could be very challenging with costs and schedules to keep."

Finally, a key challenge could be grid capacity, as TaiPower plans to expand its grid concurrently with the development of the projects. Nevertheless, most sources agreed that the utility was a capable entity and that there shouldn't be any major difficulties in reality.

New markets beyond Taiwan

With Taiwan going all-out on offshore wind, both its government and the incoming players expect the country can be used as a base for further expansion in the sector across Asia.

Japan and South Korea are both seen as the next big markets, although there is some disagreement about exactly when opportunities will arise.

"The idea that they're all right around the corner is probably a bit optimistic," says Deutsche Bank's Volkermann. Meanwhile, according to Hsu, "Japan can see Taiwan as a pilot phase for their own market."

Hsu adds, "There is also a long-term relationship between the two: lots of factories have a close relationship with the Taiwanese supply chain."

While there are concerns around Japan's seabed depth, giving rise to questions around floating offshore, some analysis has shown that up to 5GW could be deployed in the first stage on traditional foundations.

On the other hand, Korea, according to one banker, may have "missed the boat a bit" as supply chain companies with a presence in Taiwan may not need to set up shop there given its close proximity.