

ECAS DRIVE THE PUSH FOR OFFSHORE WIND

THE ROLE OF EXPORT CREDIT AGENCIES IN FINANCING OFFSHORE WIND PROJECTS IS SET TO GROW, WITH BILLIONS NEEDED TO FINANCE A HUGE ROLLOUT OF NEW PROJECTS BY 2030. FOLLOWING THE SUCCESS OF THE UK'S DOGGER BANK, EUROPE IS POISED TO LEAD THE WAY. BY **SUSAN FLANAGAN**, PRESIDENT & CEO, **GE ENERGY FINANCIAL SERVICES**.

Globally, decarbonisation has taken centre stage with climate change becoming an urgent priority for governments and corporations. In the power generation sector, utilities, power producers, original equipment manufacturers (OEMs), grid operators and policymakers are evaluating paths to achieve industry decarbonisation goals through technology innovation to reduce emissions and investments to make the grid more resilient at the same time.

Over the past several years, we have seen a significant response from the investment community with increased focus on transitional decarbonisation strategies, and corollary themes of environmental, social, and corporate governance (ESG) matters. Major investors, including insurance firms, pension funds, sovereign wealth funds, private equity and even family offices, are setting portfolio allocations around these themes.

A growing number of corporations are committing to net zero or RE100 targets and sourcing a higher percentage of their electric power from renewable sources through long-term power purchase agreements (PPAs) and other commercial arrangements. General Electric (GE) has in fact made a commitment to achieve carbon neutrality for its operations, Scope 1 and 2 emissions, by 2030.

Against this backdrop, energy needs continue to grow, with global demand expected to increase 50% by 2040. The International Energy Agency (IEA) estimates there are 770 million people globally without reliable electricity today. As an industry, we are challenged to solve the pressing energy issues around affordability, reliability, and sustainability while maintaining focus on climate goals and policies.

Ambitious decarbonisation goals and carbon neutrality targets will inevitably rely on renewable capacity build-out, though much of the new large-scale capacity – such as mega-offshore wind projects – comes with significant capital costs. We believe export credit agencies (ECAs) will play a critical role in driving decarbonisation and electrification through a mix of technologies including offshore wind, as ECAs help to facilitate the significant capital investments that will be required for the sector to build out globally

Need for ECAs in offshore wind

More than 250GW of offshore wind is expected to be installed by 2030, requiring an estimated US\$200bn to US\$600bn of capital (IHS Markit). Financial structures vary by region, but the typical cost is more than US\$1bn per project. This significant capital requirement is usually structured through equity financing as well as secured debt financing.

In the current climate, we are seeing a range of equity investors moving aggressively into this space. Oil and gas majors are seeing an opportunity to diversify their portfolios and potentially leverage their offshore expertise; utilities are looking to expand or diversify their generation portfolios; sector giants such as Ørsted and Equinor are expanding their geographic footprint and leveraging technology expertise; and opportunistic investors, including private equity and venture capital, are backing a range of niche platforms associated with the development and deployment of new technologies.

It is expected that approximately two-thirds of future offshore wind projects will be financed using project finance structures (BNEF), which will exert pressure on commercial bank support. With ECAs supporting the capital structure, we believe sponsors will be better positioned to leverage projects with commercial banks and thus effectively accelerate the rollout of offshore wind and the energy transition globally.

ECA support critical

There has already been strong cross-border interest and partnership from national governments and investors to collaborate to build and fund offshore wind projects. Dogger Bank Wind Farm, GE's 3.6GW project located off the north-eastern coast of England in the North Sea, is representative of a private and public capital partnership comprising multiple stakeholders – including ECAs – that has facilitated the development of the UK's largest offshore wind farm.

GE Renewable Energy and GE Energy Financial Services (GE EFS) partnered with co-sponsors, SSE Renewables (SSE) and Equinor ASA (Equinor), to secure export credit insurance from the French ECA, Bpifrance Assurance Export (Bpifrance), for the first two phases of the offshore wind farm, to be equipped with GE's Haliade-X turbines, the most powerful offshore wind turbine in the world.

GE EFS worked with Bpifrance to insure a portion of the total ECA debt financing for Dogger Bank Phases A and B. The structure facilitated a sizable senior debt financing package, £5.5bn, through a consortium of private and public financial institutions. The consortium included 29 banks and three export credit agencies, including Bpifrance, in one of the largest ever offshore wind project financings recorded. This financing initiative allows GE's Haliade-X technology to play a critical role in achieving the UK's target of 40GW of offshore wind by 2030 and further supports the country's net-zero by 2050 goal.

Dogger Bank is expected to reach full commercial operations in 2026. Upon completion, it is expected to be the world's largest offshore wind farm, powering six million homes in the UK, equivalent to 5% of the country's electricity demand. Dogger Bank Phases A and B will sell 80% of its energy under 15-year PPAs signed with Ørsted, Shell Energy Europe Ltd, and Danske Commodities. The project will save up to 52,000 metric tons of CO₂, the equivalent of the emissions generated by 11,000 vehicles in one year.

Expanding into other markets

In Europe, increasing support for offshore wind is clearly visible, with governments supporting the offshore markets through a mix of products and initiatives. These include things such as new offshore auctions through contracts for difference (CfDs) in the UK, direct subsidies, and France's Multiannual Energy Programme (PPE) for its latest 8.75GW offshore wind tender.

As noted earlier, we see ECAs playing a key role supporting debt across global markets, beyond Europe. ECAs are providing additional liquidity and building experience with mega-offshore wind projects in Asia. Taiwan has been the first to develop an offshore wind market with the support of European ECAs. Early projects successfully financed include participation by Europe-based ECAs such as EKF, Euler Hermes, GIEK, UKEF and Atradius. In addition, Asian ECAs such as K-Sure and NEXI have also participated in financing some of the more recent projects in Taiwan.

In total, ECAs have backstopped just over half of the overall debt requirements of these projects, adding diversity of funding, and complementing local banks and insurance funds that provided the balance of the debt. Post-Covid-19, the willingness of ECAs to step-up involvement in developed countries is expected to increase across Asia as the sector emerges and requires a strong component of international technologies,

equipment, suppliers, and experience while local supply chains develop.

Unlike Europe and Asia, the US offshore wind sector is expected to be supported in part by tax equity. Notwithstanding, there is potential for ECAs to play a role in the US market alongside tax equity, bank debt, project bonds and green financiers. The Biden administration has announced support of major investment in the offshore wind sector along the east coast over the next decade, and we expect the pace of offshore wind investment and development to accelerate.

For renewable energy to continue to thrive in the US, we support development of clearer and more cohesive tax incentives and regulatory structures to attract financiers. For example, a better functioning and more predictable offshore wind permitting process will be critical to accelerating the offshore wind market in the US. It is early days for the US offshore wind market, but it looks to be promising in the years ahead.

OEMs and supply chain ecosystem

OEMs such as GE are actively assessing their manufacturing footprint and supply chain, which are strategically tied to potential roles for ECA financing. GE's LM Wind Power recently announced plans to open a new blade manufacturing facility in Teesside in the North East of England. The plant will be dedicated to the production of LMWINDPOWER 107m long offshore wind turbine blades, a key component of GE's Haliade-X turbine. Opening of this new blade facility will increase GE's overall eligibility for UKEF support as the facility will become an export platform for GE's offshore wind technology.

Distributing supply chain resources effectively across geographic regions is integral to the globalisation of the offshore wind industry. Global suppliers will need to ramp up manufacturing capabilities to meet growing demand, with an eye towards strategic diversification, logistics optimisation, and security and stability of the supply chain. As part of the offshore wind rollout, we are seeing a strong push towards localisation, which will of course have an impact on eligibility and availability of ECA support.

ECAs driving force

We expect ECAs will be a driving force in the financing and deployment of the offshore wind markets, with Europe leading the way followed by Asia and the US. ECAs will be critical in enabling the robust capital structures essential in projects as capital-intensive and long duration as offshore wind. As more and more mega-offshore wind projects come to market we believe Dogger Bank will serve as a marquis transaction, illustrating how a creative collaboration of cross-border stakeholders – OEMs, banks, ECAs and others – can collectively mobilise to support the realisation of clean renewable power and related decarbonisation goals. ■



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