Supply chain success is critical for offshore wind

As applicants prepare submissions for Crown Estate Scotland's ScotWind programme, the leasing round for offshore wind farms in Scottish waters, our industry must sharply turn its attention to the formation and delivery of successful supply chain partnerships that will enable us to apply our knowledge of developing wind power whilst taking learnings from the long-established oil and gas operators.

Words: Rick Campbell, Head of Offshore Markets at Natural Power

Crown Estate Scotland reviewed the ScotWind option structure in February and March of this year in response to the new market dynamics of the offshore wind sector following the result of The Crown Estate's auction for sites in waters around England and Wales.

In summary, ScotWind Leasing will retain the same basic pricing structure for option agreements, but the maximum fee that might be paid has increased from £10,000 per km^2 of seabed to £100,000 per km^2. Furthermore, the threshold of Supply Chain Development Statement commitments that applicants must meet to request a lease has been increased from 10% to 25%. The closing date for applications will be 16th July 2021.

Earlier this year when The Crown Estate announced six newly proposed offshore wind projects in the waters around England and Wales as part of its Round 4 leasing round for offshore wind, the successful applicants included two joint ventures and a consortium including global oil and gas majors forming strategic partnering with established renewable energy specialist – demonstrating the importance of supply chain relationships for success in offshore wind.

These six projects together represent just under 8 GW of potential new offshore wind capacity, which could deliver electricity for more than seven million homes.

Here in the UK, we live on a densely populated island with windy, shallow, seas surrounding us, and consequently the opportunity to lead the world in the deployment of offshore wind energy is obvious and exciting.

The UK already has the world's largest deployment of offshore wind energy and it is now established as the lowest cost route to large scale low carbon electricity generation. If we (the UK) are to meet our carbon emission reduction targets and provide the energy to drive our economy and society forward, we must continue and accelerate the incredible technical and operational achievements of the offshore wind energy sector. However, to achieve this growth, we must convince many more UK businesses to commit to the sector and build the supply base required to support the industry going forward.

The UK has proven to be a great place to innovate for many other sectors and we should now encourage businesses to embrace the opportunities in offshore wind, establish knowhow and global competitiveness to create enduring employment and export revenues as the worldwide market opportunity accelerates.

In view of the very ambitious scale and cost targets now being set for the offshore wind sector, UK business needs to step up and provide a competitive offering and complement the existing supply chain. To facilitate this, UK companies need to be encouraged to offer innovative and cost-effective services and technology to the sector. If this can be achieved, UK businesses and the overall economy can greatly benefit from the substantial offshore wind export opportunities that are now opening throughout the world.

Offshore wind can provide a cost effective and low carbon route to providing at least 50% of the future electricity demands of the UK. The offshore wind sector has matured rapidly over the past few years in the waters around the UK and it is now capable of providing a reliable supply with proven technology. Opportunities exist through these new leasing rounds to build on this platform with new and emerging technological solutions.

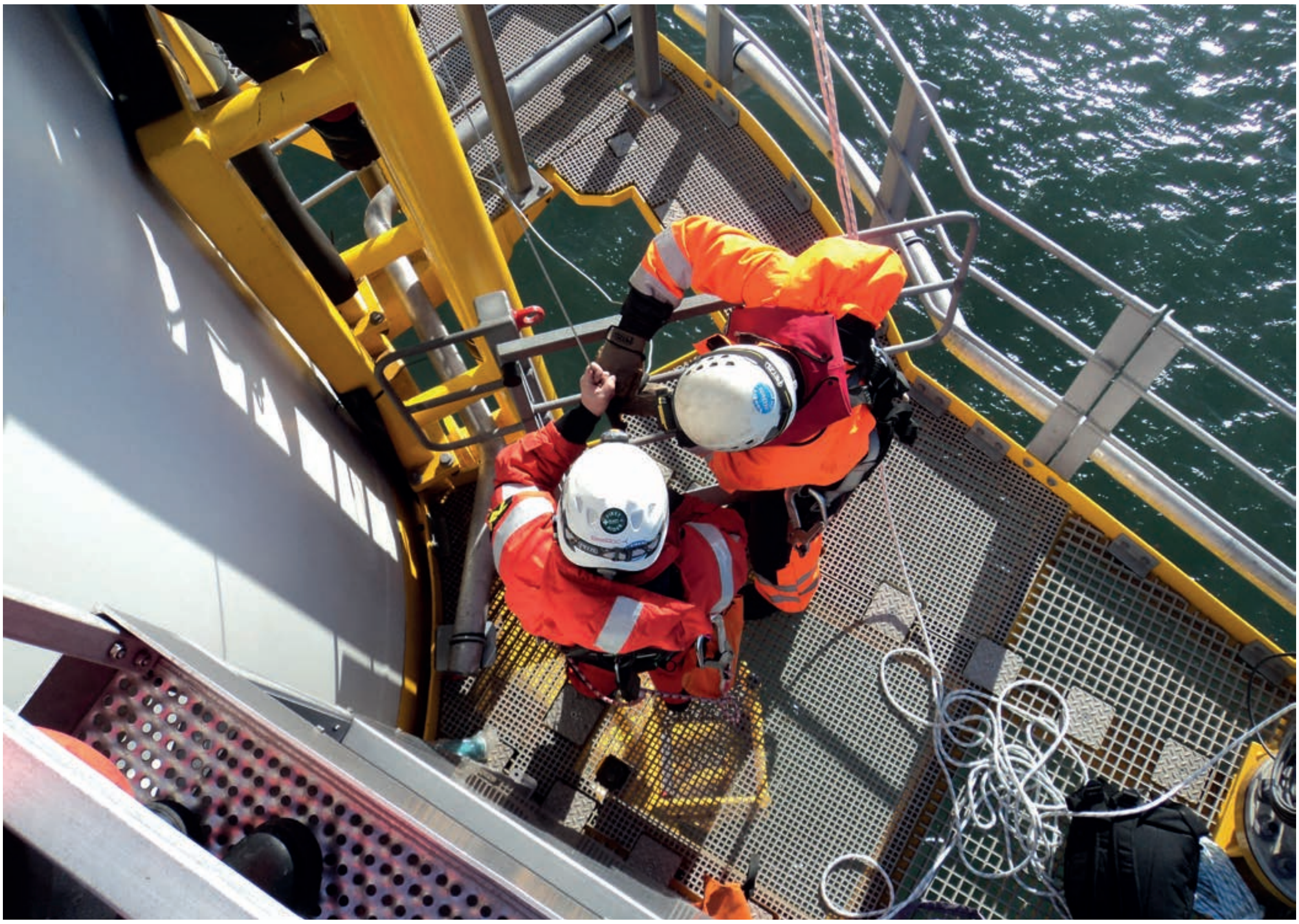
Globally, the industry is growing at between 18-21% year on year. This has attracted many new developers and investors to the market, and these new entrants are looking to establish their position through strategic partnerships.

Rick Campbell

We want to develop a sustainable supply chain, built on first-hand research and experience, whilst building the skills and capability of a wider range of SMEs. They should be able to benefit from opportunities emerging from the development of low carbon energy infrastructure in the UK, particularly offshore wind, bringing increased growth, competitiveness and productivity.

As the pressure has been mounting on fossil fuel producers to make more immediate moves to tackle climate change, this has opened up whole new raft of welcome partnership opportunities. Such partnerships allow organisations to access and combine resources, providing opportunity to accelerate growth.

There are three principal advantages that arise from such partnerships; property rights, or intangible asset advantages, which allow for efficiency and an increase in market power, for example access to capital or resource; common governance, which improves the effectiveness of the organisation; and institutional advantages,



such as local knowledge, which improve legitimacy and trust.

Partnerships can fall into one of several categories:

A joint venture (JV)

Can provide many advantages including combining skillsets, limiting financial exposure, allowing economies of scale, and enabling local content. Cross-business learning, and the opportunity for increased capacity are also good corollaries. JVs are particularly appropriate where projects include high levels of uncertainty, costly technological innovation and high levels of information costs. However, difficulties can also arise in areas such as cross-partner management, cultural differences, access to finance, and appetite for risk, which can lead to instability in the longer term.

License agreement

By licensing use of a product or technology a firm may allow an independent organisation (generally with some specialist or local knowledge) to produce or distribute the product. This provides a collaborative, flexible approach to firms with a specific product to expand their market without diverting finance or other resource and limiting exposure.

Key to successful license agreement activity is appropriate management of quality, as this has the opportunity to undermine both the product and organisation where quality of offering does not match expectations.

Mergers and acquisitions

The main advantages of mergers and acquisitions are an increase in value creation, an increase in market share and improved efficiencies and economies of scale. Successful mergers and acquisitions have positive long-term benefits, in particular control over quality of output and over activities.

However, these can be countered by high establishment costs, acquisition on behalf of the acquiring organisation of 'non-desired assets' and a merging of cultures and operating practices which carries a risk of being unsuccessful. Cultural integration forms one of the key explanations for failure of mergers and acquisitions, and often insufficient attention is paid to this during the integration of teams.

In selecting a partner, conventional wisdom states that firms seeking to enter a partnership should concentrate on complementarity and compatibility, and seek to address the preferences, opportunities and constraints of one another by considering the values each is seeking.

Technical, operational and cultural compatibility positively correlate with performance. Technical and operational compatibility focus on the practical and procedural capabilities of the firms whereas cultural compatibility considers the goals and values of the organisation.

The Triple Bottom Line paradigm encourages organisations to consider social, environmental and financial implications of a strategy. This can be used to evaluate suitable partnerships by focusing on the social and environmental values of each organisation.

For offshore wind, greenwashing, the practice of adopting the environmental policies of another organisation to avoid environmental accountability, is considered a risk that may undermine the environmental values of both the industry and individual organisations. However, if the industry is to accommodate market entrants with a background in thermal or oil and gas, the task, and partner, related distinction is an effective method.

To establish the basis of a successful partnership from the outset it is useful to consider criteria for success.

Organisational performance improves where knowledge transfer is prioritised. It is obvious that an organisation seeking to enter a new market will look to acquire knowledge. To ensure stability in a partnership and maximise competitive advantage it is important that outward transfer of knowledge – that is, sharing knowledge and information with your partner – is also given due focus.

Shared value systems are identified as a key influencer on the likely success of a partnership. Rather than seeking to avoid acknowledgement of differences between partners' corporate values and/or backgrounds, these should be emphasised. In particular, attention should be given to how parent companies' organisational values influence the project(s), and the effect the partnership may have on the parent companies.

When seeking a new partner to enter or expand into the offshore wind market, it is useful to consider several key factors. Firstly, the organisation's social and environmental values, as well as its access to resources. The renewable energy industry, and offshore wind in particular, is rapidly expanding and attracting investment from organisations lacking in positive environmental credentials. Whilst this should not pose a barrier to partnership in itself, it is an opportunity to engender a change towards alignment with a green agenda.

Secondly establish roles, responsibilities and criteria for success at an early stage. Differing objectives between partners is a key reason for failure. Impacts of a partnership should be considered beyond the scope of an individual project or activity, in particular ensuring that strategic objectives of parent organisations are preserved.

Thirdly, prioritise knowledge sharing between partners. Knowledge sharing is a key aspect of partnering. It is not uncommon for an organisation to prioritise internal knowledge transfer whilst seeking to avoid transferring knowledge to partners. Such practice creates an imbalance, which can undermine levels of trust in the relationship. Developing a consistent position on knowledge sharing helps align partnership objectives and improve relationships between partners at all levels of the organisation, thereby reducing instability and risk of failure, and maintaining quality of output.

The offshore wind market is at an exciting stage and will play a major role in the Just Transition towards an environmentally sustainable economy, and the global recovery from the Covid-19 pandemic. By seeking to attract new entrants to the market and develop knowledge sharing opportunities, there is an opportunity to develop long term investment and supply chain benefits. Understanding, evaluating and establishing approaches to partnerships is a key step in this process, providing structure and accountability which will enhance the likelihood of success.

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About Natural Power

Natural Power is an independent consultancy and service provider that supports a global client base in the effective delivery of a wide range of renewable projects including onshore wind, solar, renewable heat, energy storage and offshore technologies. It has a global reach, employing more than 400 staff across 14 international offices. Its experience extends across all phases of the project lifecycle from initial feasibility, through construction to operations and throughout all stages of the transaction cycle.