



White Paper

A greener, more sustainable approach to safety

Subscription-based rental and the future of offshore PPE



Shifting powers

Wind power is one of the fastest growing forms of renewable energy. The Intergovernmental Panel on Climate Change (IPCC) report reveals by 2050, 80% of global energy could come from renewable sources. The report also states, by the same year, wind energy will play a major role in electricity generation. 2021 was the best year to date with 21.1 GW of offshore wind capacity being commissioned, three times more than in 2020. In the growing market for wind energy and the limited available space onshore, the development of offshore wind farms has become more and more important. With a rapid development of technology, offshore wind projects have become an increasing trend in many countries across Europe, Asia and the Americas.

An average onshore wind turbine produces around 2.5 to 3 MW, meanwhile an offshore turbine produces an average of 3.6 MW

Climate change, global energy crisis and commitment by Governments

Climate change, the discussions from COP26, and the global energy crisis have bolstered offshore wind growth where governments are steadfast in their commitment and delivery of their strategic environmental objectives. Russia's invasion of Ukraine has accelerated the transition to alternative energy sources. Alternative energy sources are now high on the agenda for governments and policymakers, balancing sustainability, energy security, and increased investment in wind energy. With the commitment from governments, companies are actively increasing their requirements in terms of resources, people, and equipment, which involves tricky economics to ensure projects are delivered safely, on time, and within budget.

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Did you know...

The tallest offshore wind turbine stands 260m (853ft) tall and has a rotor diameter of 220m (721ft).



When the winds of change blow, build windmills

In recent years the industry has experienced mammoth strides in the construction of offshore wind facilities. While China is the forerunner with a cumulative capacity of 27.7 GW in 2021, the UK, USA and many countries across Europe all have significant wind capacity currently in operation or under construction. In the USA, the offshore wind industry, whilst modest has growth projected to increase to 35 GW by 2050. In 2021 the President of the United States, President Biden issued an executive order for 30 GW of installed offshore wind capacity to be built by 2030. The Bureau of Ocean Energy Management (BOEM) subsequently announced a priority Wind Energy Area on the East Coast between Long Island and the New Jersey coast which can 'support up to 25,000 development and constructions jobs' alone from 2022 – 2030.

The offshore wind market is expected to grow significantly, with the Asia-Pacific region showing the greatest long-term growth potential

Installed capacities, gigawatts (GW), 2021 base case¹

2021 accelerated case²



Note: APAC includes OECD Asia–Pacific and non-OECD Asia; EMEA includes OECD Europe, Eurasia, Middle East, and Africa; Americas includes OECD Americas and Latin America.

¹ McKinsey's view on current path of energy transition without major shifts in production and consumption compared to today.

²McKinsey's view on an accelerated energy transition, including several conceivable shifts in production and consumption compared to today.

³Capacity decrease due to forecasted decommissions. Source: McKinsey Global Energy Perspective 2021

Source Kühn et al., 2022



Flexibility for a changeable workforce

Offshore wind cannot operate without Personal Protective Equipment (PPE) such as lifejackets, immersion suits and height safety solutions. With more personnel travelling offshore and the capital investment of approximately €3,300 per crew member, this can be an expensive business.

Operators may also be impacted by a changeable workforce which directly impacts an operator's stock availability and investment if they're constantly needing to buy. The flexibility offered by suppliers to the industry is changing and for the benefit of wind farm operators. Renting the necessary equipment flexibly on either a weekly or monthly rate affords the operator the option to scale up or down with minimum notice at any time.



Did you know...

Average PPE costs of €3,300 per personnel



A digital revolution in asset management

Digital transformation has a crucial role in helping to accelerate the transition and reliance on fossil fuels to green energy. Technology improvements and software as a solution (SAAS) are helping to improve the performance across the offshore wind sector, including digitised distribution, artificial intelligence (AI), and paper-to-data solutions such as equipment certification requirements. Online and app-based systems digitally store the required documents that can be checked at the touch of a button. Back-end monitoring keeps the equipment compliant. This allows operators to concentrate on the job at hand and removes any administrative burden and resources required to check and issue certification manually.

As offshore wind facilities increase, the flexibility and ease with which operators can obtain, track and comply with legislation is improving at a pace that keeps up with the speed of growth of the sector.





A greener and more sustainable approach to safety

An increasing number of companies alongside industry regulators are rapidly transforming their processes to ensure they are greener. In addition to often being more financially economic, being more environmentally conscious helps reduce pollution, the impact on biodiversity and climate change. A leading conservation charity and energy experts agreed the seabed needs to be protected as economic activity in the waters increases. The increased focus on climate change, carbon footprint and a responsible resource management all adds to the virtues of PPE via leasing. Renting PPE reduces the need for stockpiling significantly. This is a much more sustainable solution. Instead of a personal PPE set being in use for 3-5 months a year, rented PPE is constantly at work. It is similar to shared, circular economy.

One of the most crucial elements of the growth of offshore wind is requirement for Survival Technology. The offshore wind sector needs a supportive supply chain to aid and support its growth but one of the most crucial elements is the safety of the workforce.

Renting PPE is the simpler, greener and more efficient option. It is hassle-free; it saves customers time and reduces the need for investment !!

- Mads Enemark Nørgreen, Survitec's HeliPPE CEO.



Our customers are interested in reliable PPE on site, on time. Not in owning, financing, transporting and maintaining it

Mads Enemark Nørgreen, Survitec's HeliPPE CEO.

Protection by subscription

In many sectors, a subscription-based approach has paid dividends giving the end user control. The automotive, beauty and food industries have adopted a subscription based model in recent years.

Now too, PPE offers this approach and has proven success in doing so.

The leasing style PPE-concept offers by far the easiest PPE-solution in the industry providing state-of-the-art PPE equipment where and when needed, taking all the logistics and hassle out of the equation as well as reducing the financial burden and the carbon footprint in the process.

PPE is absolute key to all wind energy companies driving a safe operation in the harsh climate and challenging environments. While PPE is essential to get the job done, few companies see the managing, logistics, warehousing and financing of PPE as core business. Even re-certifying the equipment is provided – always with an eye on customer value and logistics at heart.

On top of saving the offshore companies a lot of time and hassle, renting PPE is also quite good business. A full PPE set averages at \notin 3,300 each – a lot of money, not least in companies with 50 or 100 offshore specialists all needing their individual PPE.

With leasing PPE available from under \notin 50-60 a week, renting PPE reduces the burden financially significantly, both in terms of the lessened strain on the cash flow and a simpler and more efficient process by outsourcing the entire logistics operation with a reduced demand for warehousing and other expenditure

Alongside government support, the cost of setting up an offshore wind facility can be substantial requiring extra support from financial institutions. However, the scope of financial institutions willing to lend to the level required may be challenging. This is due in part of the requirements to meet decarbonisation targets and the commercialisation proposition of pricing for electricity generated by offshore wind farms.

A leading executive for global offshore product strategy said the relative immaturity of floating offshore wind will cause lenders to require more due diligence and perhaps raise capital costs. However, he predicts lenders to develop confidence as they see the performance and growing track record.

Reliable flexibility through responsible duty-of-care



Mads Enemark Nørgreen, Survitec's HeliPPE CEO explains how Survitec HeliPPE became a trusted partner to European energy company, Vattenfall.

Since 2014, Survitec HeliPPE have been supplying immersion suits, lifejackets, harnesses and other relevant personal protective equipment (PPE) to Vattenfall offshore sites in Denmark, Germany, Sweden, the Netherlands and the United Kingdom - covering both helicopter and CTV equipment alongside the servicing and support of Vattenfall's own PPE.

The service agreement is delivered from strategically located offices in Denmark, Germany and the United Kingdom which optimise an established logistics network to deliver on the contract requirements.

Survitec HeliPPE have implemented an online booking system to provide Vattenfall with a secure PPE ordering and management portal, allowing for an efficient and convenient way to secure equipment at any time. Quality in the product, full flexibility in the service provided and fast response times were all key elements for Vattenfall in selecting Survitec HeliPPE, and we will do our best to continue to tick all those boxes. We strive to be close to our customers where and when they need our service.

Freeing the customer from the hassle and administration related to PPE servicing, warehousing and logistics cannot be a better proof of concept than seeing a renewables major such as Vattenfall commit fully to Survitec HeliPPE's rental solutions.

Easy access to fully serviced quality PPE is key to our safety commitment. With the new agreement, we can supply the best safety equipment to our technicians while enjoying the full flexibility and conveniences from a dedicated service provider

- Kim Jensen, HSE Specialist at Vattenfall



Conclusion

The offshore wind market is picking up speed across the globe as countries tap into the potential of new sources of energy. Countries are shifting their reliance on traditional sources of energy and spotlighting energy security, expedited by the Russian invasion of Ukraine.

Governments have set targets and introduced green energy grants to help the industry unlock wind resource. Among the risks and challenges faced by offshore wind developers are logistics, finance and environmental factors.

As the market sector grows, the people resource will inevitably grow considerably too as too will need for PPE. Aligning the supply chain with the green energy transformation is key to meeting targets.

Digital technologies are capable of significantly supporting the growth of offshore wind facilities. There are many benefits to operators who utilise technologies' automation to their full potential. Digitalisation improves efficiency and productivity, helping to solve the challenges of exponential growth over the next decade.

Reconfiguring PPE requirements are made easy with a subscription based model. The impact provides multiple benefits to offshore developers, not least minimising the risk of downtime in ensuring technicians and crew have PPE available, serviced and documentation on hand and the ability to increase and decrease supply without delay.

The future success of wind energy will play an important role in helping to enhance climate change efforts, one that will feel the impact on a worldwide scale.

The international capability of wind energy is colossal and so too is ensuring a PPE provider has the scope, experience and capability to play a critical role in the success of offshore energy.

Get in touch



You can responsibly delegate your duty of care with us when it comes to PPE. Visit our website or contact us to find out more about partnering with us for your PPE requirements





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