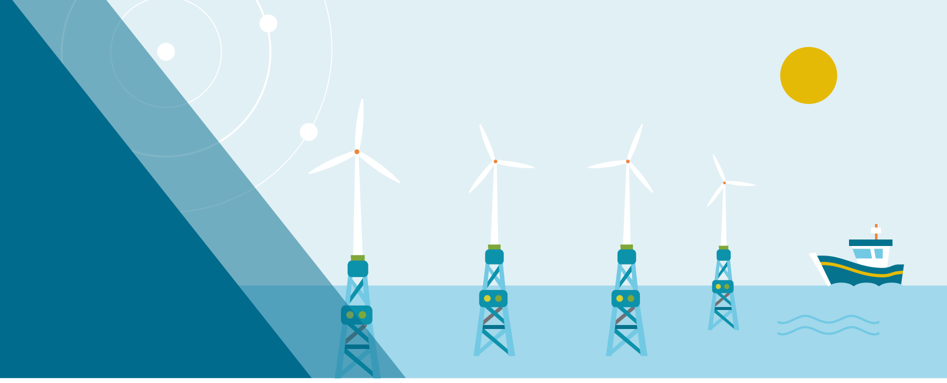
TECHNICAL NEWSLETTER

#54 - April 2021



# TOWARDS CARBON NEUTRAL ENERGY: OFFSHORE WIND FARMS

### FUNDAMENTALS AND INDUSTRY OVERVIEW

The global offshore wind industry is growing at an extraordinary rate, playing a major role in the world's net zero objectives. Still in its early stages, this is an exciting journey, but one that presents multiple challenges. This Technical Newsletter aims to give a broad overview of offshore wind farms, looking at their history, the main components and development of a typical wind farm project, the current market situation, the finance models involved, and the role played by insurance.

## EXPONENTIAL DEVELOPMENT

Since the first offshore wind farm was inaugurated in 1991, 2.5 km off the Danish coast at Vindeby, and after three decades of rapid growth, offshore wind farms have become a major source of affordable renewable energy, helping to decarbonize economies and tackle global warming worldwide.

However, until 2001, the growth of the offshore wind farm sector was uneven and mainly depended on a handful of small nearshore projects in Danish and Dutch waters, featuring wind turbines with a capacity of less than 1 MW. With 20 turbines and a total capacity of 40 MW, the Middelgrunden project in Danish waters became the first "utility-scale" offshore wind farm in 2001. That same year, seven 1.5 MW turbines were grid-connected off Utgrunden in Sweden.

Since the beginning of the last decade, the growth of offshore wind farms has been exponential, with several large new developments coming online every year. By the end of 2020, a total of 35.3 GW of offshore wind farm capacity had been installed globally, with Europe as the leading market and China catching up fast.

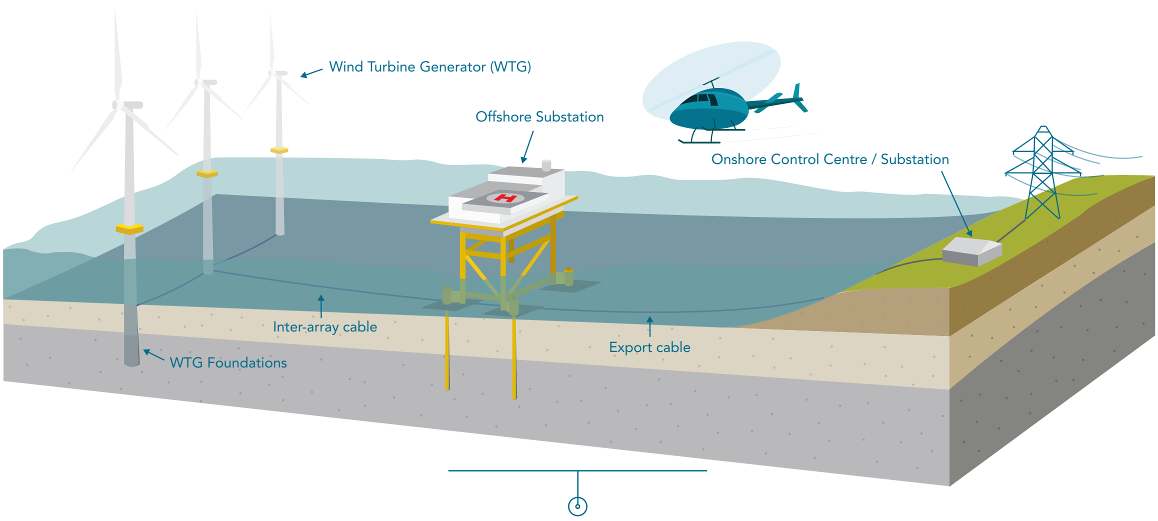
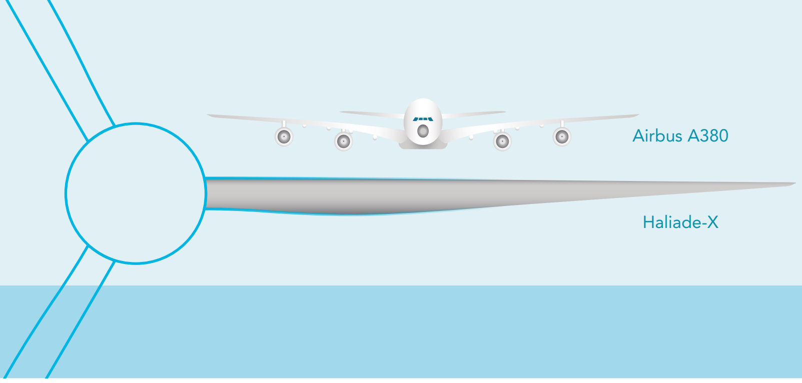



FIGURE 1: ILLUSTRATION OF AN OFFSHORE WIND FARM




More recently, the construction of the world's largest wind farm has begun in the UK. The Dogger Bank offshore wind farm features GE's 13 MW Haliade-X and will have a total installed capacity of 6.0 GW, which is enough to power 4.5 million homes.

The growth of the offshore wind industry has been fostered in European countries bordering the North Sea, where high-quality wind resources and a relatively shallow water depth have provided exceptionally good conditions in which to develop offshore wind technologies and bring them to market.

# WHAT IS AN OFFSHORE WIND FARM?

A typical offshore wind farm is located in an offshore area with relatively shallow water, not too far from the coastline and naturally with a good wind resource. It comprises a number of Wind Turbine Generators (WTGs), supported by different types of foundations, which are fastened to the seabed. Turbines use wind energy to generate electricity, which is then transmitted to an offshore substation via subsea cables called inter-array cables. At the offshore substation, the electricity is converted to a higher voltage current, which is then transported to an onshore substation via different subsea cables (a.k.a. export cables) before being integrated into the grid system and distributed to customers (Figure 1, page 1).

The following section will give a brief introduction to the main components of offshore wind farms:

- Wind Turbine Generators (WTG)
- Foundations
- Cables – inter-array and export cables
- Substations - offshore and onshore substations

## WIND TURBINE GENERATOR – *Bigger and better*

The turbine is an essential part of a wind farm. It comprises a nacelle - where the generator is housed, blades – modern turbines generally have three, a hub / rotor – which attaches the blades to the nacelle, and a tower – steel tubes attaching the nacelle to the foundation.

There are two main types of wind turbine: gearbox and direct drive.

- A gearbox is a more traditional technology for wind turbines (Figure 2A), where a lower rotational speed by the blades, i.e. 7-12 rotations per minute (rpm), must be increased significantly for the traditional generator to produce electricity, usually to +1,500 rpm. The components inside gearboxes, i.e. wheels and bearings, are moving at very high speed. Any wind turbulence can cause enormous stress to these components, which can in turn lead to defects in the turbine components and ultimately may stop the mechanism. A gearbox is therefore one of the most vulnerable and high-maintenance parts of a turbine.
- To improve reliability and lower maintenance costs, direct-drive turbines have been developed where the rotor is directly connected to the generator without a gearbox, which means that the generator speed is equivalent to the rotor speed. Direct-drive turbines have fewer rotating components and a more efficient generator, which provides users with high energy yields, quieter operation, long-term reliability and better availability. However, due to its relatively low rotational rotor speed, this generator is much larger in size, and contains a large number of magnetic poles to achieve a high enough output frequency to produce electricity. Such turbines have traditionally been much more expensive to manufacture and much heavier in weight. In the past few years,

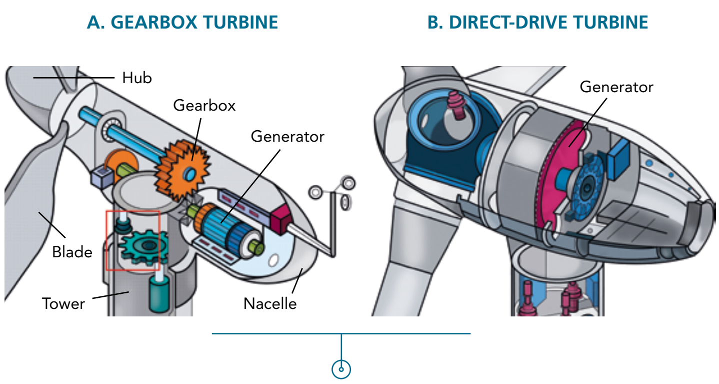
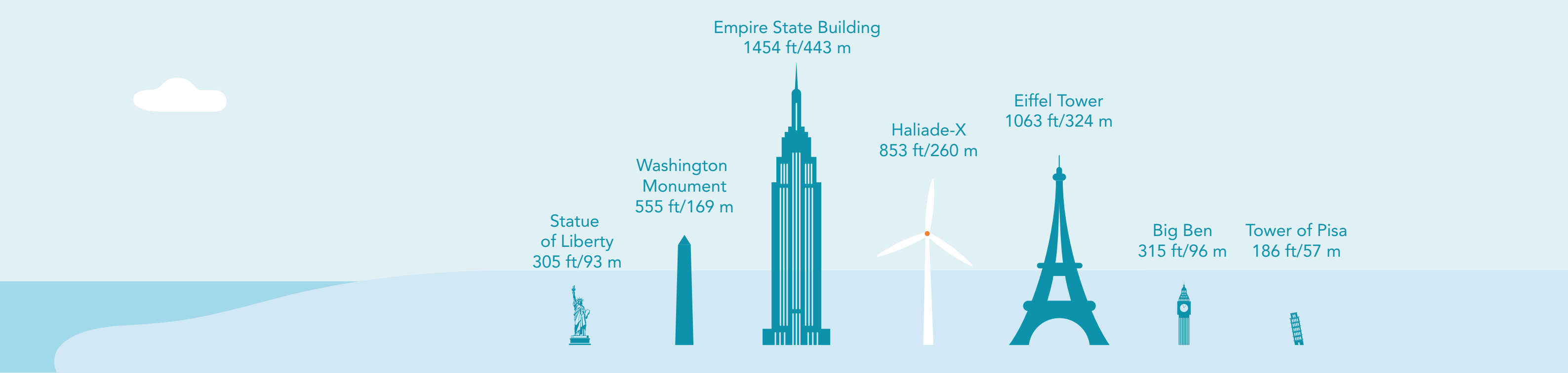



FIGURE 2: GEARBOX VS. DIRECT-DRIVE TURBINE




however, due to the improved design and significant fall in price of permanent magnets, direct-drive turbines have become more affordable and much lighter. As such, direct-drive turbines are dominating the current offshore wind farm market with leading manufacturers such as Siemens Gamesa Renewable Energy (SGRE), GE, Shanghai Electric and Goldwind. The leading gearbox turbine manufacturers, e.g. MHI Vestas and Mingyang, have been actively improving the reliability of their turbines by switching from conventional high-speed geared-drive technology to medium-speed geared-drive turbines (sometimes referred to as hybrid or semi-direct turbines).

In the past decade, the capacity of WTG has increased significantly, from an average of 3 MW to 8-9 MW. To date, the largest commercially available turbine, GE's Haliade X, has a capacity of 13 MW, which is enough to power around 16,000 homes. Approximately 35 Haliade X turbines are enough to satisfy the annual electricity consumption of a mid-sized European city. The size of turbines is still growing and GE's rival, SGRE, recently announced its 14 MW model, which is expected to be commercially available in 2024. Offshore wind pioneer and father of the modern wind turbine, Henrik Stiesdal, recently predicted that by 2030, the next generation of offshore wind turbines will probably be around 27 MW, with a rotor diameter of 275m.

## FOUNDATIONS – *From fixed to floating*

The selection of a suitable foundation type to support the wind turbine is usually based on two main factors: water depth and seabed soil condition at the site. Some other factors should also be considered, i.e. local supply chain, cost of transportation and installation, regulatory requirements, environmental constraints, etc. Typical foundation types are summarized in the table below, together with their pros and cons (Table 1). To date, the most widely installed foundation types are monopiles, however as offshore wind farms advance into deeper waters, other types of foundation are being developed. In areas with a water depth of more than 60m – which is where 80% of the world's offshore wind resources lie - floating foundations have to be used. Floating offshore structures can be built in different forms, i.e. tension leg platforms, spars or semisubmersibles, anchored to the seabed via mooring lines. Floating foundations are much more expensive than traditional fixed-bottom foundations, however with the improvement of technology and reduced supply chain costs, coupled with the effects generated by economies of scale in large commercial projects, floating wind is on track to unlock the great resource of wind energy further offshore.

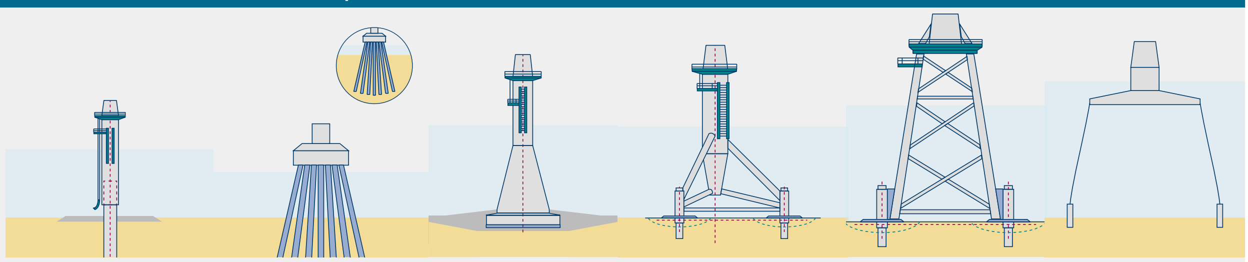
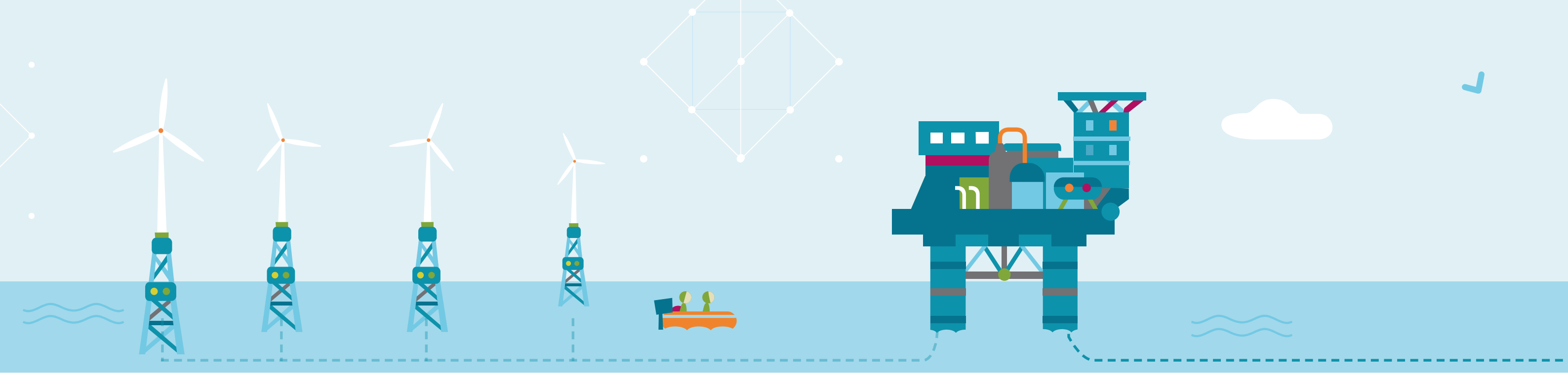
| Type | Monopile | High Rise Multiple Pile Cap | Concrete GBS | Tripod / pile | Jacket | Floating |
|---|---|---|---|---|---|---|
| Illustration |  | | | | | |
| Water depth | 0-30m | 0-20m | 0-40m | 0-40m | 0-50m | >60m |
| Examples | Hornsea 1 (UK), Triton Knoll (UK) | CGN Daishan 4 (China), Tra Vinh REE (Vietnam) | Avedøre Holme (DK), Fecamp (FR) | Borkum West (GE), Bard (GE) | East Anglia 1 (UK), Beatrice (UK) | Hywind Scotland (UK), Kincardine (UK) |
| Pros | • Simple Design and easy fabrication • Minimal seabed preparation • Mature supply chain | • Mature technology and adequate supply chain • No heavy lifting required | • Mass production and easy transportation • Superior stiffness and durability | • Stability and versatility • Relatively cheaper fabrication | • Relatively light structure • Easy transportation • Great stability | • Feasible for deep water • Sustainable in harsh environment |
| Cons | • Dimensions increase significantly with water depth • Difficult to install in rocks | • Time consuming construction process • Difficult to install in rocks | • Seabed preparation • Complicated installation procedures | • Expensive installation • Complex design • Difficult to install in rocks | • Expensive fabrication • Difficult to install in hard ground | • Expensive to build • Limited project experience |

TABLE 1: FOUNDATION TYPE FOR WTGs



## SUBSEA CABLES – *Strategic and fragile*

The main function of cable systems in an offshore wind farm is to transmit the electricity produced by wind turbines to the grid. There are two types of cables used in a typical offshore wind farm: inter-array cables and export cables.

- Typically, 7-10 turbines are connected in one string of inter-array cables, which transmits the medium-voltage electricity (between 33 kV and 66 kV) generated by the turbines to an offshore substation, where it is stepped up to high voltage, e.g. 130 kV to 220 kV, to reduce the loss of energy during the long distance transmission to shore.
- An export cable is then used to transmit the high-voltage electricity from the offshore substation to an onshore substation, where it is integrated into the electricity grid system. Because they are usually only a short distance from shore, the majority of early offshore wind farms do not include an offshore substation, and electricity generated from the turbines is directly transmitted to the onshore substation.

A typical cable for an offshore wind farm comprises three conductor cores, made either of copper or much cheaper aluminum. Cores are protected, insulated, and sealed by different layers and fillers (Figure 3). In most cases, fiber optic cables are integrated into subsea cables in order to collect and transmit the operating data from the turbines to the onshore control center, allowing the project team to monitor and analyze the performance of the wind turbines in real time.

Both inter-array and export cables are usually buried 2-3 m below the seabed, in order to protect the cables from damage caused by anchor dragging, trawling gear or dropped objects. At sites where the seabed is too hard to bury the cable, concrete mattresses, rock berms or other forms of cable protection are used.

Cables remain the "Achilles heel" of the offshore wind industry, resulting in many losses and insurance claims. We will look at cable losses in detail in our next newsletter on this sector.

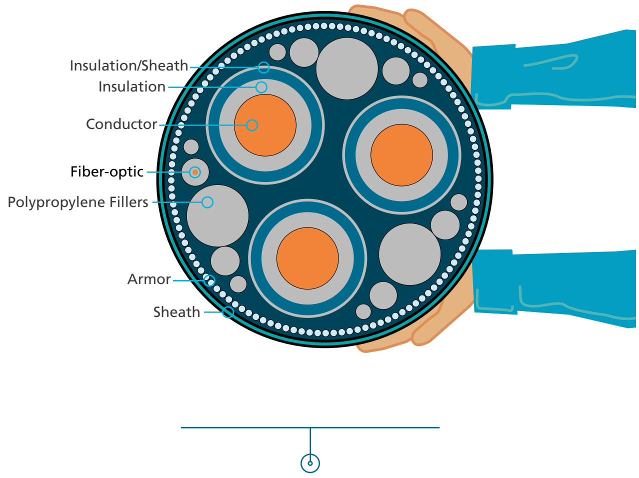


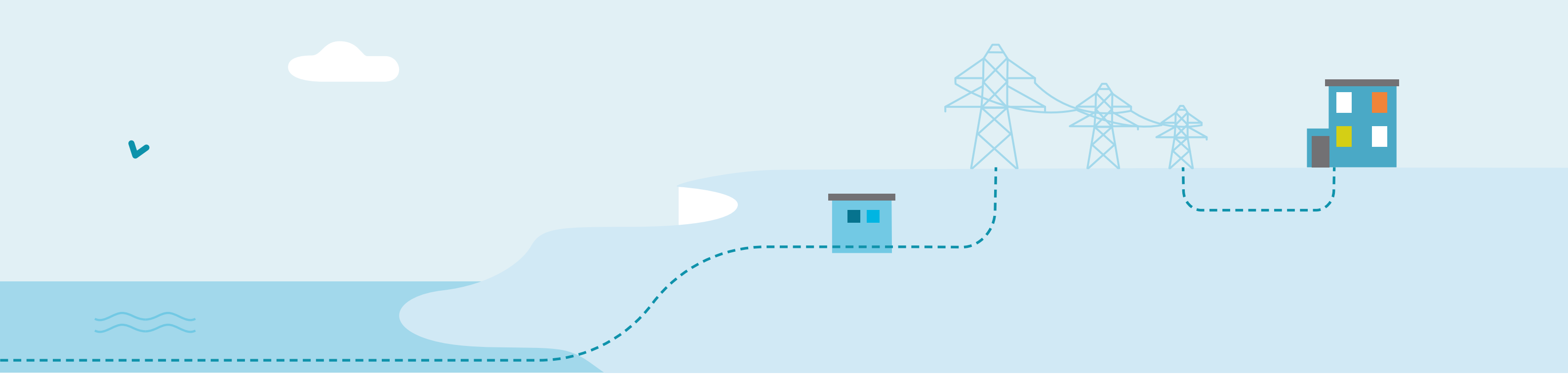

FIGURE 3: A TYPICAL CROSS-SECTION OF SUBSEA CABLE

## SUBSTATIONS – *The heart and the brain*

Two types of substation are usually constructed as part of an offshore wind farm, one offshore and one onshore. As discussed in previous sections, electricity generated by the turbines is collected and transformed at the offshore substation, then exported to the onshore substation where it is integrated into the grid system and distributed to end users.

A typical offshore substation consists of a topside sitting on a steel jacket, which is fixed onto the seabed with steel piles. The topside usually features three to four levels of steel structural decks, where several different systems and equipment are housed, i.e. cable terminations, transformers, firefighting system, diesel engines, living quarter facilities, etc. Offshore substations are designed as unmanned facilities, but they can usually provide temporary accommodation for technicians carrying out operation and maintenance activities.

In general, an onshore substation not only includes a transformer and other electrical systems, but also a control system – the "brain" of the wind farm – where the project team monitors each turbine performance in real-time, analyzing the state of its health using advanced machine learning and big data technology, and organizing maintenance activities accordingly.



# OFFSHORE WIND MARKET

## FROM EUROPE TO THE REST OF THE WORLD

2020 was an exceptional year, with 6.1 GW of new capacity added. Half of this was just for China, which is emerging as a major player in this field, even though it is a newcomer.

The United Kingdom is still at the top of the market, followed by China (overtaking Germany), with 29% and 28% of global installed capacity respectively.

## EUROPE

In cumulative terms, Europe had a total installed offshore wind capacity of 25 GW at the end of 2020.

This represents 116 offshore wind farms in 12 European countries and 5,402 wind grid-connected turbines

## GLOBAL FORECAST BY REGION

It took 24 years to reach the 10 GW threshold for offshore wind installations following commissioning of the first offshore wind farm, the Vindeby, in 1991. It took just three years to double this capacity and exceed the 20 GW threshold reached in H1 2018, with almost 17 GW installed in Europe and more than 3 GW in Asia, mainly in China.

The industry is now mature but still at the beginning of its expansion. Wind speed is stronger and steadier offshore than onshore, and according to GWEC market intelligence, 205 GW of new offshore wind capacity will be added over the coming decade. China, Taiwan and the U.S. will be the main contributors to growth outside Europe.

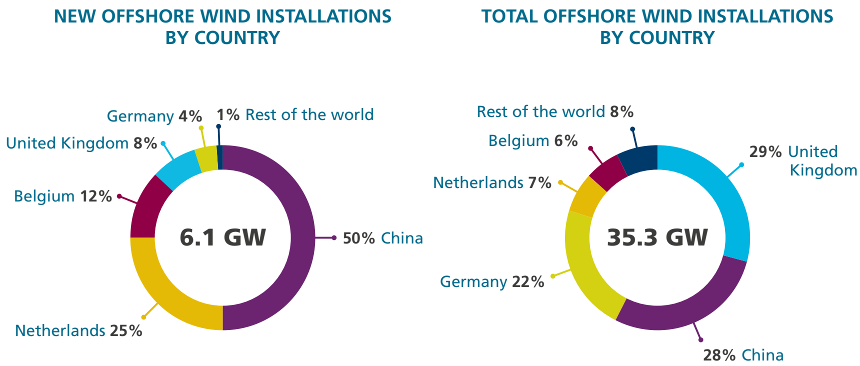



FIGURE 4: GLOBAL CUMULATIVE OFFSHORE WIND CAPACITY IN 2020

Source GWEC

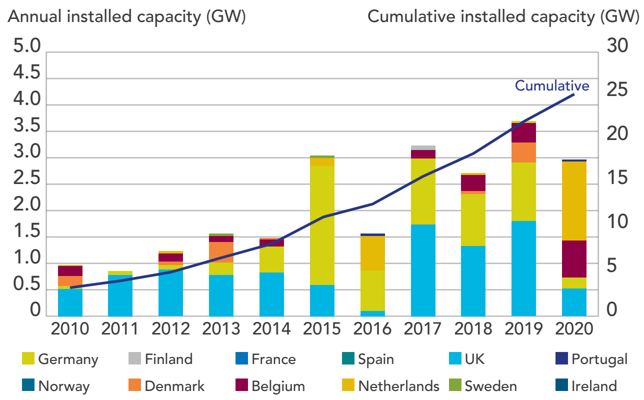



FIGURE 5: ANNUAL OFFSHORE WIND INSTALLATIONS BY COUNTRY AND CUMULATIVE CAPACITY (GW) IN 2020

Source WindEurope

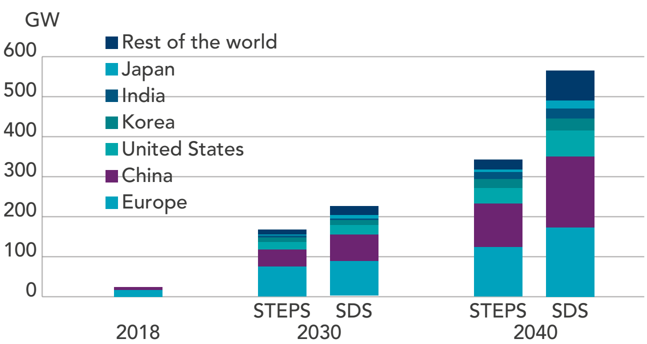



FIGURE 6: GLOBAL FORECAST AND SCENARIO BY REGION/COUNTRY

STEPS = Stated Policies Scenario; SDS = Sustainable Development Scenario

Source IEA

## LEADING OFFSHORE WIND DEVELOPERS

In Europe, a 250 MW project costs around EUR 1 billion. Given the relatively high upfront capital costs, such projects are mainly driven by large utilities in Europe, and by investment funds and State-owned enterprises in China. By comparison, other types of renewables (onshore wind and Solar PV) require lower initial investments and present fewer barriers to entry for smaller players.

Traditional Oil & Gas majors (e.g. Shell, Equinor, Total) are transforming into energy companies with considerable investments in renewable energy. The aim is to:

- diversify their revenues from volatile oil prices;
- demonstrate the contribution they can make to reducing greenhouse gas emissions and achieving the goals of the Paris Agreement.

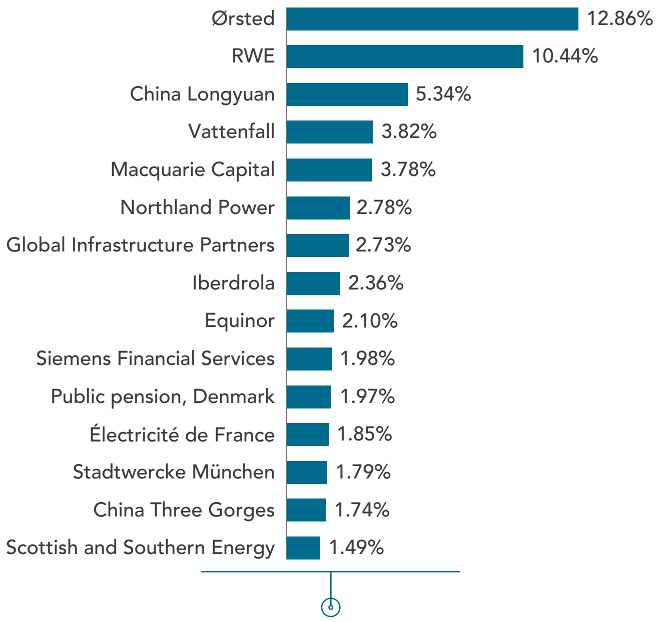



FIGURE 7: LEADING MARKET PLAYERS IN THE OFFSHORE WIND INDUSTRY
Source: IEA analysis based on BNEF (2019) DOO – Developer, Owner and Operator

## WIND TURBINE MANUFACTURERS

The market is in fact concentrated among just a few companies (Figure 8). Siemens Gamesa and MHI Vestas dominate the offshore wind industry and were responsible for over 50% of the offshore wind capacity installed in 2019. Since 1995, they have accounted for over 80% of all the offshore capacity commissioned, but China is playing catch-up.

Servicing is a key part of the sector, with more than USD 1 billion spent annually on servicing and maintenance across Europe and China. Given the supply chain similarities and shared structural technologies between wind turbine and Oil & Gas servicing contractors, synergies between the two sectors in this area can only increase over time.

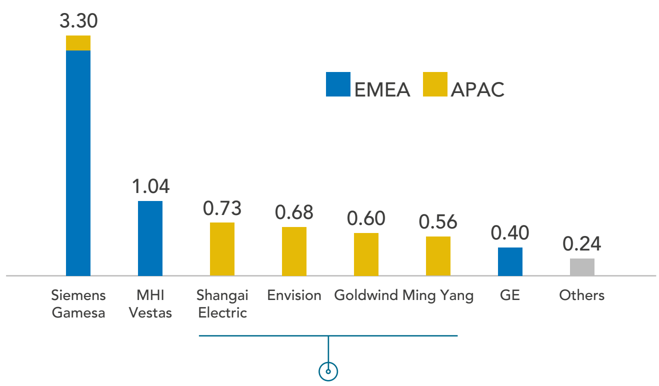
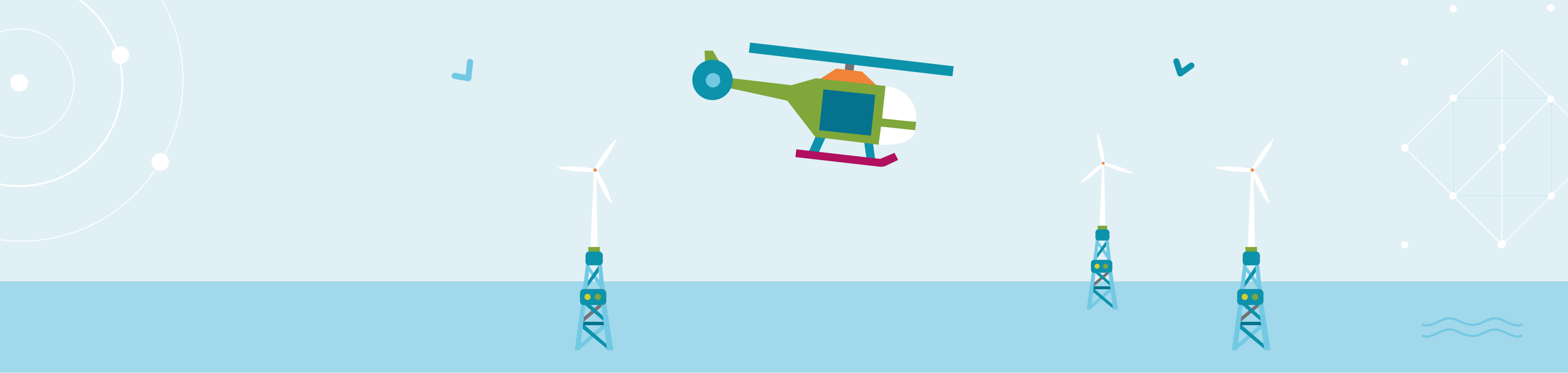



FIGURE 8: TOP GLOBAL OFFSHORE TURBINE MANUFACTURERS IN GW (2019)
Source: BNEF



# OFFSHORE WIND FARM LIFE CYCLE – *From cradle to grave*

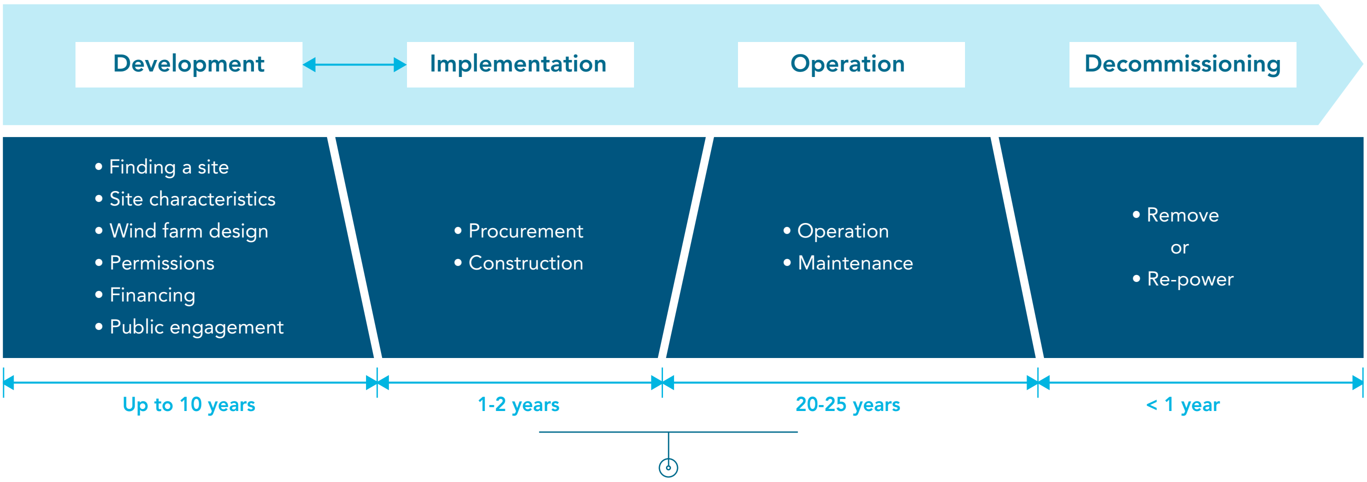



FIGURE 9: THE WIND FARM PROJECT TIMELINE

## DEVELOPMENT PHASE (5 TO 10 YEARS)

This phase is really all about finding the right site. The characteristics of the site must be examined in detail to make sure it is suitable for the project. The wind farm design needs to begin at an early stage during the development phase and evolves during implementation until it is final. Permissions and licenses can take some time (depending on the issuers involved).

The development phase represents a real period of uncertainty for the finance side, as it is not certain that the project will go ahead until the final permissions are granted.

Some countries may have an even shorter development phase (sometimes only 2-3 years in China, for example).

## IMPLEMENTATION (1 TO 2 YEARS)

This is the phase during which the equipment will be bought, and the wind farm constructed. It is the capital-intensive part of the project and is a relatively short phase. When well planned, the construction of a wind farm can move very quickly.

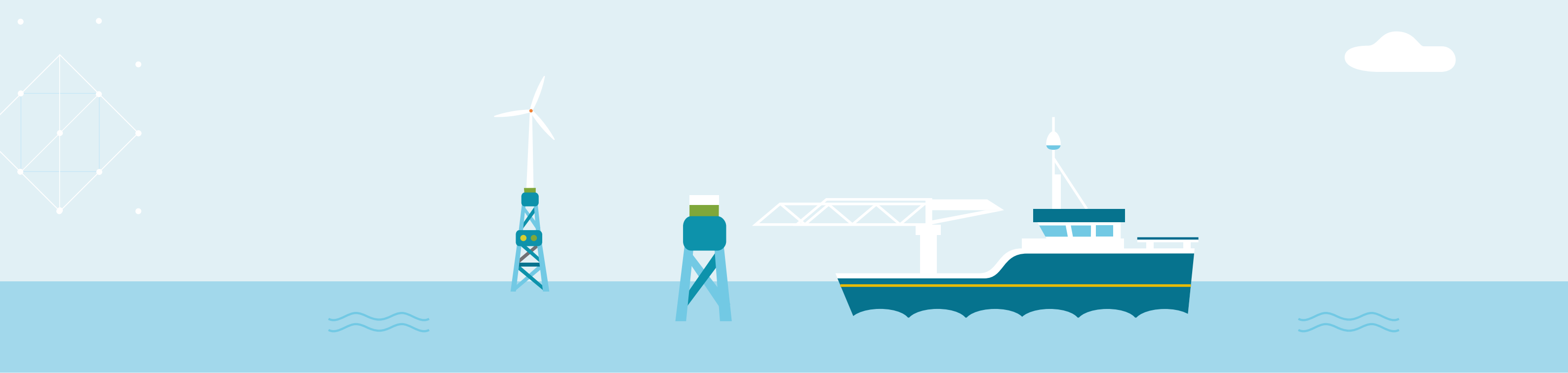
## OPERATION PHASE (UP TO 25 YEARS)

This is normally the longest phase of a wind farm project. Nowadays wind farms are designed for a duration of up to 25 years. Regular maintenance is needed, both for the turbine and the other assets.

## DECOMMISSIONING

This is the last phase. The point at which the wind farm is decommissioned depends on how well it has been maintained throughout its operational life. There are two options for decommissioning:

- Remove everything (wind turbine, foundations, substations etc.) and return the ground to its original use,
- Repower by replacing the old turbines with new generation turbines.



## A MORE INTEGRATED VALUE CHAIN

Traditionally, there has been minimal overlap between value chain players. However, in recent years their respective roles have become more integrated.

- Investors/Owners: Investors are now becoming owners by making equity investments (the sector has become attractive given the growth prospects and better understanding of the risks involved)
- Owners/Developers: Integrated owners and developers own, develop and operate offshore sites
- Contractors/Manufacturers: Manufacturers also provide installation and maintenance services (some of them are also investing in projects and becoming shareholders)

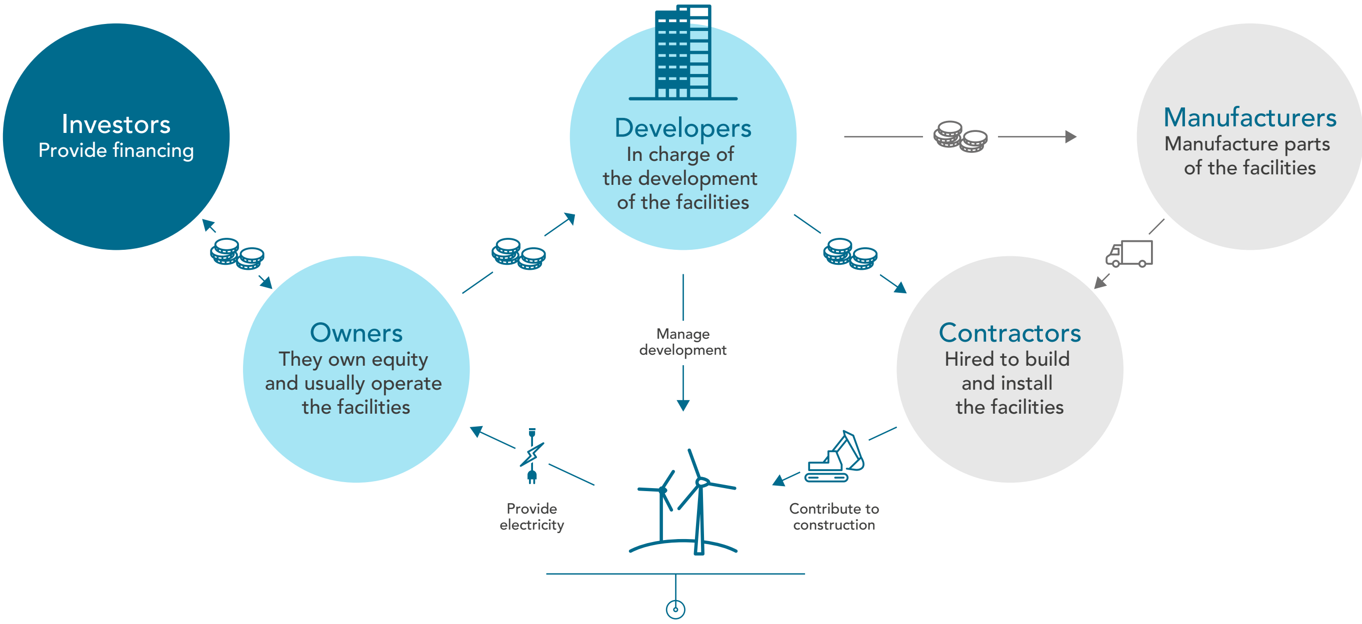



FIGURE 10: VALUE CHAIN PLAYERS

# ECONOMICS OF OFFSHORE WIND – *Making the numbers add up*

In economic terms, the main benefit of wind power is the fact that it reduces exposure to fuel price volatility. This is why investment in offshore wind has been growing over the past few years, despite the industry's high installation and connection costs. It is becoming increasingly competitive, with incentives set up by governments. Moreover, as they are remote and less visible, offshore turbine projects are less likely to face objections and barriers from local populations and organizations. This chapter shows the key costs involved.

Figure 11 shows the cost breakdown for a typical 500 MW offshore wind farm in Europe. With upcoming projects located further away from shore in deeper water areas, the costs of operation and decommissioning are increasing significantly (respectively up to 43% and 7% of total costs).

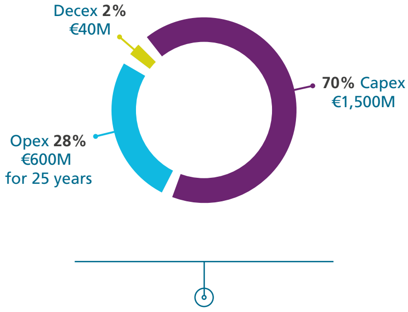
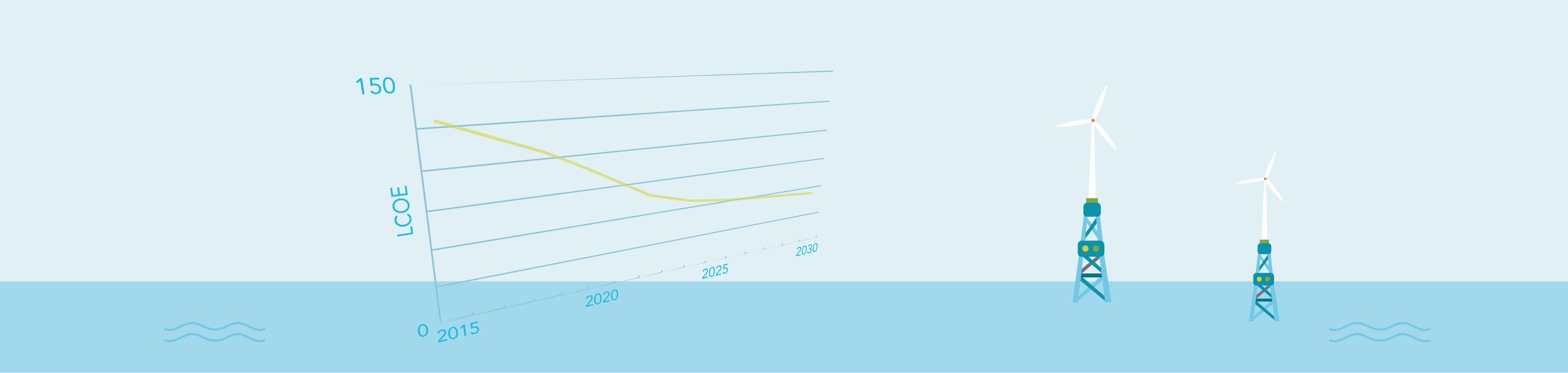



FIGURE 11: COST COMPONENTS




### Levelized Cost of Energy (LCOE)

The LCOE is a measurement used to compare the cost per MWh of generating electricity from different types of energy sources, across their full lifecycle. To do this, it uses the following data:

- Capital expenditure (CAPEX), including cost of development, project management, installation and commissioning
- Operational expenditure (OPEX), including costs of operation, maintenance and other services
- Decommissioning expenditure (DECEX).

The LCOE only considers costs that are unrelated to revenues.

Figure 12 shows the LCOE comparison between different sources in Europe.

Offshore wind costs have declined steeply over the past few years. This is mainly due to technological improvements (increases in turbine single capacity) and supply chain maturity. According to the latest report published by the UK Department for Business, Energy and Industrial Strategy (BEIS), the forecast LCOE for projects commissioning in 2025 will range from £51/MWh up to £63/MWh (the graph below shows a range of £99 - £175/MWh).

### THE IMPACT OF COVID-19

Without a shadow of a doubt, the Covid-19 crisis has disrupted the global wind supply chain and the execution of construction projects. However, because the offshore sector has longer project development timelines, it has been impacted far less than the onshore sector, which is more exposed to short-term supply chain disruption. The industry has shown strong resilience to the pandemic, and the impact on the global offshore wind market is minimal.

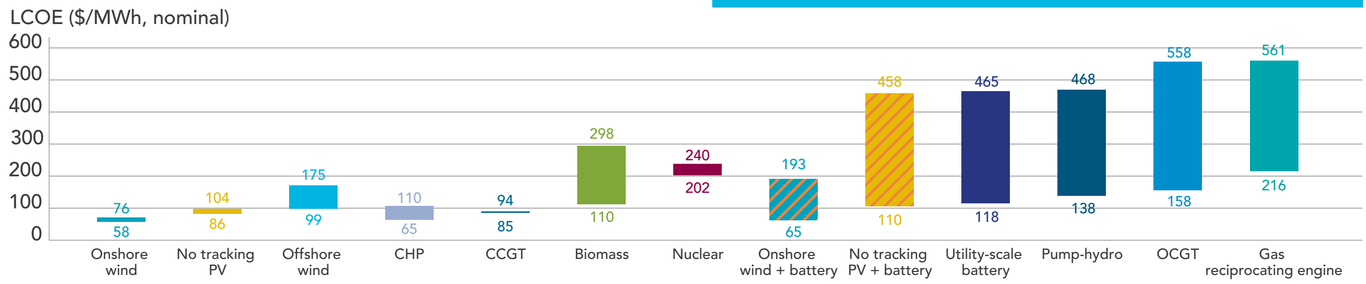



FIGURE 12: LEVELIZED COST OF ELECTRICITY (LCOE) OF MAJOR POWER GENERATION TECHNOLOGIES IN EUROPE
Source: BNEF 2018

## ELECTRICITY SUPPORT SCHEMES

There are many ways for governments to support investment in renewable energy, including using different types of tariffs for electricity prices. The aim for governments is to give investors a better level of certainty in terms of the future revenue from a wind farm, as they are exposed to the variations of the market and the upfront investment is significant.

### Feed-in tariff

Under a feed-in tariff scheme, the producer receives guaranteed support for each MWh or kWh of electricity put into the grid. This gives investors a good level of certainty in terms of the future revenue from a wind farm, but setting the right level of support can be difficult. This support mechanism is applied in most European countries.

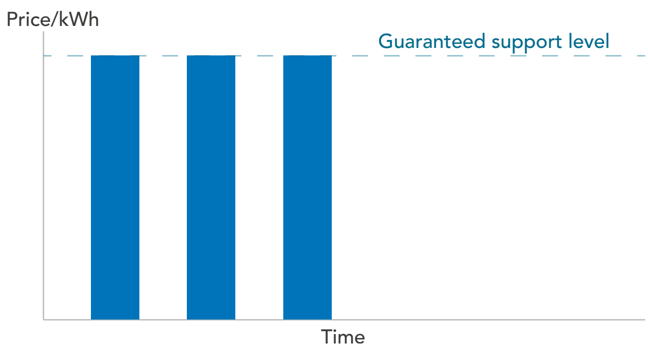



FIGURE 13: FEED-IN TARIFF MODEL

### Tendering

With tendering, an individual developer will bid for a specific project, saying they need a minimum EUR/MWh price for the project in order for their business case to be sustainable. An authority will then review all the offers received, and make a choice based on specific criteria or just price. The authority will award the contract to a developer to build the wind farm, and the developer will receive a guaranteed level of support. This creates real competition at the start of the process.


FIGURE 14: TENDERING MODEL

### Contract for Difference

A Contract for Difference or CfD is a private law contract between an electricity generator and a Low Carbon Contracts Company (LCCC) wholly owned by the government. Through this contract, the generator stabilizes its revenue at a pre-agreed level called a "strike price". Under the CfD, payments can flow in both directions between the LCCC and the generator.

When the market price for electricity generated by a CfD generator is below the strike price agreed in the contract, the LCCC will pay the CfD generator to make up the difference. However, when the market price exceeds the strike price, the generator pays the LCCC the difference. The CfD scheme is currently only in place in the UK, however over the next few years the mechanism will also be employed in Poland and in Denmark, where offshore wind projects have been agreed through CfD.

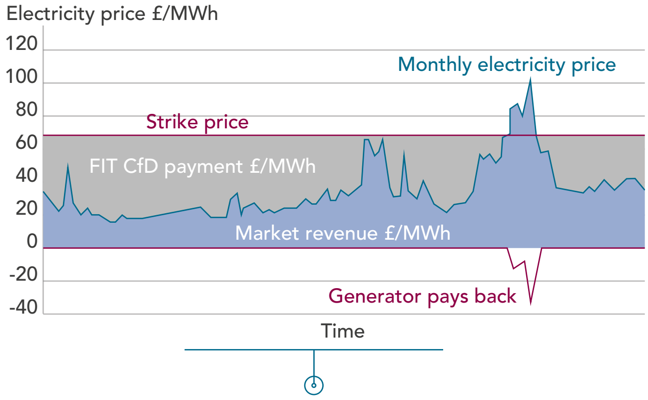



FIGURE 15: CfD MODEL

Source: UK Government White Paper, July 2011, licensed under the Open Government License v1.0

## REVENUE – PRODUCTION & PRICE

Wind farm revenue has two components: Production and Price. The economic revenue of an offshore wind farm depends on:

- How much it produces
- How much the energy is sold for (including any subsidies)


### Revenue – Production

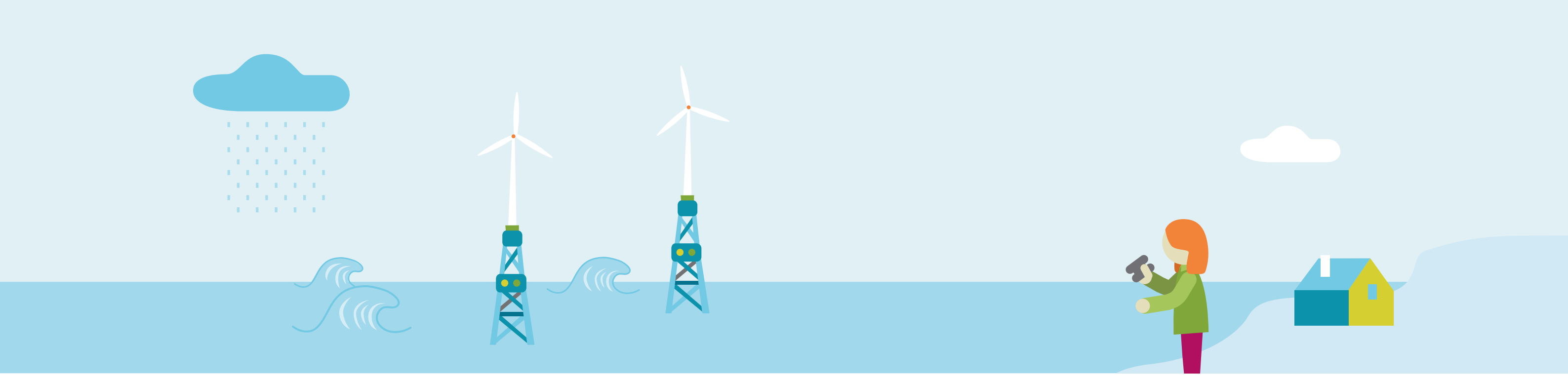
The first component of the revenue is electricity production, referred to as Annual Energy Production (AEP).

- Net AEP is measured at the electricity meter.
- For a proposed project, this will have to be estimated.
- AEP enables operators to calculate the average electricity production over the lifetime of the wind farm.

The data coming from the turbines themselves cannot be used to calculate AEP, because of the losses sustained when the electricity goes through the cables, transformers and switch gear before it reaches the grid. The measurement must be taken at the metering station.

For future projects, AEP must be estimated. With the correct input data, many software programs can provide a good idea of AEP.

The key element is the **average electricity production** over the lifetime of the wind farm, as wind is a variable resource and therefore so is the electricity it produces.



For a simple approximation, we need the capacity of the wind farm (MW) and the capacity factor percentage (this describes the average output over the year relative to the maximum rated power capacity. A value of 25% means that, on average, the wind farm will be producing at full capacity for 25% of the time).

> Offshore wind provides higher capacity factors than other variable renewables. In 2018, the average global capacity factor for offshore wind turbines was 33%, compared with 25% for onshore wind turbines and 14% for solar PV.
>
> Source: IAE Off Wind Outlook 2019

Simple approximation:

500MW @ capacity factor 33%
gives 1,445 GWh energy production per annum

AEP = 500 (MW) x 8,760 (h) x 33% ≈ 1,445,000 (MWh)

### Revenue – Price

Price is the second component of the revenue.

- Electrical energy from wind is a commodity
- The price of any commodity can vary from:
  - the cost of production, to
  - whatever a buyer is prepared to pay.

The wind farm operator can sell the energy on the electricity market, but the challenge is that the price is not always stable. There are various support schemes in place to mitigate this uncertainty.

Click below to read an offshore wind finance case study focusing on a project off the east coast of the UK.

▸ Discover the UK WIND 1 case study

## THE ROLE OF INSURANCE IN OFFSHORE WIND

Insurance plays a key role in offshore wind farm engineering projects. There are two main reasons for this. First, new technologies – in terms of turbine size, power cable output, foundation design, and so on - have enabled wind farm developers to lower their costs. However, new technologies also represent a risk in terms of possible higher failure rates and unplanned downtime. Second, as offshore wind farms increase in size, new investors are needed to provide financial support. These investors are looking for steady returns on their investments and have a very low appetite for any project risk. So, there is a trade-off between pushing for innovation to lower costs and satisfying entrepreneurs taking technological risks. Insurance cover decreases a project's exposure to risk.

The extent of cover will differ depending on the category of the insured. For large construction projects, the main insured is usually the owner/developer (Principal) who prefers to control the insurance for the project, especially where Delay in Start Up cover (DSU) is involved.

Typical cover requirements are presented below.

Insurance is key to protect developers from unexpected losses. There are combined risks to consider, linked to design, fabrication, heavy lifting, cable laying, wind, waves and tight construction time frames.

The requirements must be specific to the project and the range of cover is much wider than for onshore wind.

| Phase | Cover | Main insured | Parties covered |
|---|---|---|---|
| Construction | Construction All Risks (CAR) | Principal | Principal / Lenders / Contractors / Consultants |
| | Delay inStart Up (DSU) | Principal | Principal / Lenders |
| | Third Party Liability | Principal / Contractors | Principal / Lenders / Contractors / Consultants |
| Operation | Operating All Risk including Machinery Breakdown | Principal | Principal / Lenders / Contractors (maintenance) |
| | Business Interruption | Principal | Principal / Lenders |
| | Third Party Liability | Principal | Principal / Lenders / Contractors (maintenance) |

FIGURE 16: TYPICAL REQUIREMENTS

The risk appetite will vary depending on the developer. This is why the policies are tailored to each project.

### Coverage summary

There are standard policies for operation and construction (WindOP and WindCAR) but with key clauses that are specific to offshore wind such as serial loss and manufacturer warranty. These aspects will be further developped in our next newsletter.

## CONCLUSION AND OUTLOOK

This newsletter presents a general analysis of the offshore wind sector, as countries around the world become increasingly committed to accelerating the deployment of renewable energy. For many of these countries, supporting investment in renewable energy reduces their $CO_2$ output and helps to reduce their dependency on fossil fuels.

Technological innovation, enabling policies and the drive to address climate change have all placed renewables at the center of the global energy transformation. But alongside these developments, the chief driver of renewable energy is its strong business case, which offers increasingly exciting economic opportunities.

The energy transition is a pathway towards the transformation of the global energy sector, with ambitious targets by the second half of this century. At SCOR, we are firmly committed to supporting and promoting this transition and have the necessary resources to do so.

In our next newsletter, we will take a deep dive into insurance cover for offshore wind farms, including policy wordings, loss and claims trends, and risk management.

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