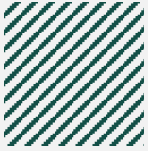


Quarterly Market Observatory



European Wind Turbine Market Outlook Update – Q4 2020

October 2020



The Eighty – 20 of Industry: What Matters?

Leading Edge

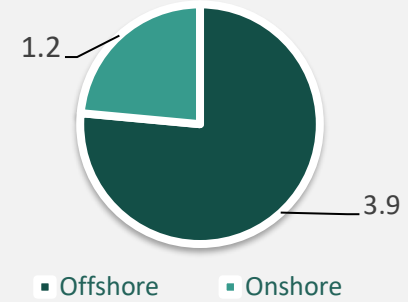
Despite major disruptions to production & assembly, installation of new wind farms over the first half of 2020 was “Business As Usual”, similar trend to follow during Q4 2020

The wind industry supply chain experienced major disruptions in the first semester, particularly in relation to the production and assembly of wind turbine components and to imports of raw materials and other subcomponents, mainly from Asia. In Europe many factories experienced short temporary closures. Some facilities had a reduction of workers due to the implementation of social distancing. Consequently, the construction of new wind farms in Europe was impacted both when the COVID-19 outbreak in Asia disrupted supply chains, as well as when lockdown policies across several European countries affected the movement of workers and goods soon after. However, Despite major disruptions to production and assembly during Q1 and Q2 2020, installation of new wind farms over the first half of 2020 was comparable to previous years. Europe managed to install 5.1 GW, 3.9 GW of which were onshore and 1.2 GW were offshore. The onshore installation figures are just above the average of the previous three years (3.7 GW).

Share of offshore and onshore wind installed capacity (GW) in Europe during Q1 and Q2 2020

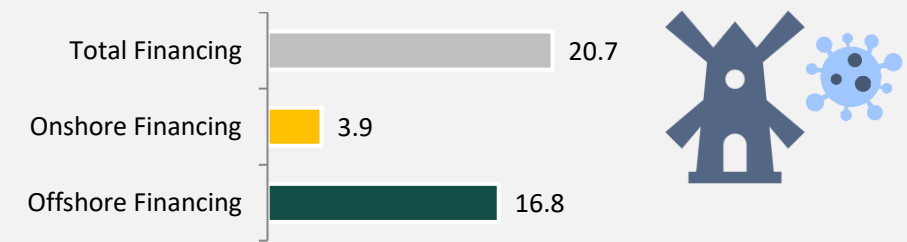
5.1 GW

Europe managed to install 5.1 GW of wind power projects in Europe during Q1 & Q2 2020



Source: WindEurope, eninrac consulting

New Asset Financing for Offshore and Onshore wind farms remains unaffected during first half of 2020



Source: WindEurope, eninrac consulting



In spite of the very challenging economic environment the first half of 2020 has seen a record USD 16.8 bn raised for the financing of new wind farms due to a strong half-year for offshore wind energy

Numbers to Focus Upon



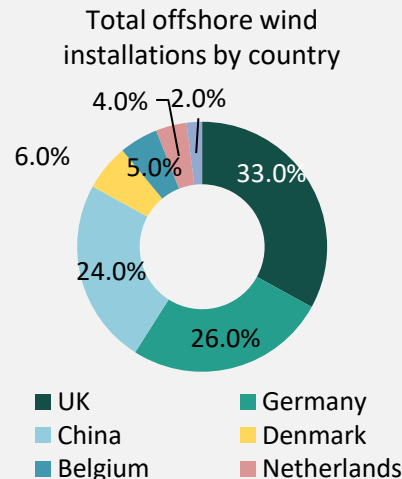
Wind Power Plants covered 17% of the electricity demand in H1 2020

With reduced electricity demand and lower supply from nuclear and gas, renewable electricity generation exceeded fossil fuel generation, for the first time ever. Renewables generated 40% of the EU-27's electricity, whereas fossil fuels generated only 34%. Wind power plants in Europe produced 241 TWh of electricity in H1 2020 and covered 17% of the electricity demand



Europe remains the largest offshore market at the end of 2019

Globally, offshore wind installations have grown from 3.4 GW in 2015 to 6.1 GW 2019, bringing its market share in global new installations from 5% to 10% in just five year. Europe remains the largest offshore market as the end of 2019, making up 75% of total global offshore wind installation.



Source: eninrac consulting, WindEurope

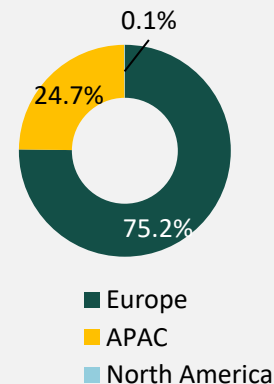
Key Features Expected



Belgian Government set to reinforce wind energy commitments

The new Government's draft coalition agreement has a strong focus on climate and energy policies. Belgium has 2.3 GW of onshore wind capacity and 1.6 GW of offshore wind capacity. It will also aim to double the country's offshore wind capacity to 4 GW in the next decade by exploring the potential for additional capacity

Total offshore wind installations by country



Deployment Trends - Projects

01 Saipem awarded new offshore wind energy contracts worth 90 million euros

Saipem has been awarded new offshore wind power contracts, for wind farm projects currently under development off the coasts of England, Scotland and France, for a total value of over 90 million euros

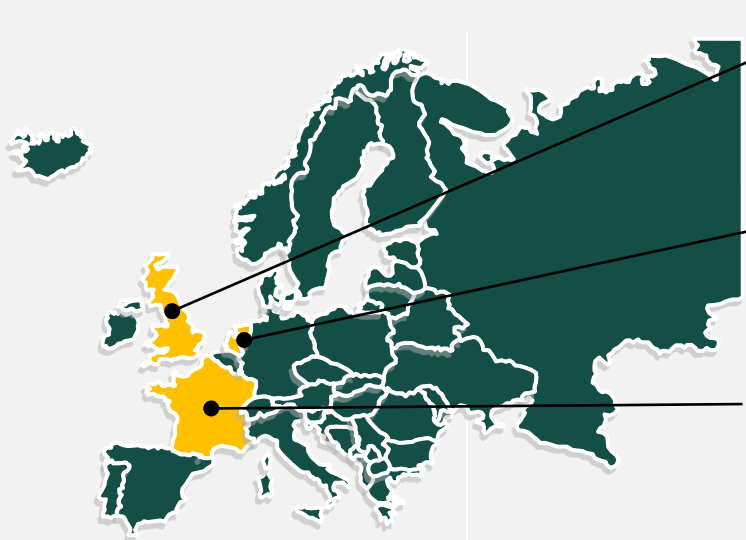
02 France opens public consultation to install 750 MW of floating wind energy

The Multiannual Energy Program (PPE) calls for tenders for 8.75 GW of offshore wind energy between 2020 and 2028, and for the development of up to 6.2 GW of operating capacity

03 Shell, Eneco Wins 750 MW offshore Wind power Tender

A consortium of Shell and Eneco has triumphed in the latest subsidy free Dutch offshore wind auction, securing the right to build the 759MW project. The CrossWind joint venture will install 69 wind turbines from Siemens Gamesa, each with a capacity of 11MW and is due online in 2023.

Auction Schedules in 2020 with slight modification due to COVID-19 in Europe



- 1 **United Kingdom:** UK gave three weeks longer to bid in their latest round of seabed leases for offshore wind.
- 2 **Netherlands:** The Dutch Government has postponed by two months the first SDE++ auction round where onshore wind can participate; it will take place in November.
- 3 **France:** France is auctioning the same volumes as originally planned with the auctioning for part of the volume postponed to November instead of June.

Quarterly Update – Q4 CY 2020



- As financing costs are likely to increase, it is more important than ever that countries stick to their auction schedules. Most countries are doing that for their auction schedules in 2020 with slight modification. Moreover, France, Germany, Spain, Poland, Greece and Ireland have extended commissioning deadlines originally due in 2020. The only country which has not adapted commissioning deadlines is Turkey.

Source: eninrac consulting, WindEurope

Key Investments – Q4 2020

- Enlight Renewable Energy announced it has completed the transaction to acquire control in a huge wind power generation project in Sweden. Enlight will invest €435 – 445 million in building the project, which has a total capacity of 372 megawatts, and has obtained the main required permits for its construction, which will begin immediately.
- Siemens Gamesa has closed the largest order to date for its 5.X platform with a new deal to supply 372 MW of the SG 5.8-170 turbine for the Björnberget project in Sweden.

Key Trends – Wind Turbine market in Europe Q4 2020

- At the end of the third quarter, the Nordex Group received an order for the delivery of thirteen N133 / 4.8 wind turbines in the UK. The order also includes a 15-year premium service contract for the turbines linked to production-based availability.
- France submits the final 2030 National Plan: The Plan foresees up to 34.7GW of onshore wind in 2028. And the Government boosted up offshore wind ambitions to 5.2-6.2 GW by 2028 on the back of the competitive price. France is also betting on cost reductions in the floating wind. 750 MW auctions of floating wind are now scheduled by 2022.

Key Signpost – Wind Turbine Market in Europe – Q4 2020

- The European countries to stick to their investment plan and policy commitments to reach climate change goal. Moreover, France and Germany made a joint declaration on the European Green Deal and the European Recovery Plan, setting out joint climate policy commitments such as: support for a higher 2030 emissions reduction target (in line with the Commission' plan, 50-55% up from 40%), support for a minimum carbon price, and support for a green industrial growth.



Contents & Coverage – Q4 2020

01 This Quarter

The section shall showcase the major highlights for wind turbine segment in Europe including investments, project developments, policy & regulatory interface, M&A etc.

04 Numbers to Learn

All wind power capacity additions with a split on ownership wise, & state wise break up shall be included. Moreover, the numbers for deals secured by wind turbine manufacturers in Europe

07 Deployment Trends

The pace of deployment of projects at wind turbine manufacturers levels covering issues like investments, tenders and capacity additions shall form part of this section

02 Key Features

Key features shall cover the major strengths and development map that the industry has shown over the quarter

05 The Eighty - 20 of Industry – What Matters?

In this section the major factors which are acting as the growth catalysts / barriers in the Wind turbine segment are highlighted inclusive of policies, regulations etc.

08 Technology & Price Trends

This section shall cover all the latest technology implementation and trends, price benchmarks of wind turbines in Europe

European Wind Turbine Market Outlook Update – Q4 2020

03 Leading Edge

The current affairs leading business impacts on Wind turbine market with insightful data analytics & our exclusive “Knowledge Grid” feeds covered in the section. Our analyst's viewpoints with sharp edged objectives shall be central to the section

06 Key Signposts

The business factors which shall govern the course of coming quarters of business and the industry response to the changes shall be the focus area of this segment

09 Industry Activities & Corporate Strategies

All the industry order track & merger's and acquisition activities shall be tracked. Fresh investments in wind turbine sector as per players profiles shall also be tracked in this section



Must Buy For

- Power Transmission Utilities
- Power Distribution Utilities (DISCOMs)
- Original Equipment Manufacturers
- Power Traders
- Banks/Financial Institutions/Project Financing Agencies
- EPC Service Providers
- Consultants
- Research Firms/Research Institutions
- Regulatory Bodies
- Government Agencies



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Email: akdubey@eninrac.com

Please call at +91 120 – 4147 000 for any other queries

European Wind Turbine Market Outlook Update – Q4 2020



Companies Mentioned

- General Electric
- Vestas
- Suzlon
- Inox Wind
- Wind World
- Indowind Energy Limited
- Siemens Gamesa
- Envision Energy
- Acciona Nordex
- ReNew Power
- Enercon
- Orient Green Power Ltd.
- Enel Green Power India Pvt Ltd
- Senvion India Pvt Ltd
- Continuum Wind Energy India Pvt Ltd
- Hero Future Energies Pvt Ltd
- Indian Wind Turbine Manufacturers Association



The life of a man consists not in seeing visions and in dreaming dreams, but in active charity and in willing service

- Henry Wadsworth Longfellow

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