Wind Turbine Orders Monitoring

Q4 2024 statistics

Wind EUROPE

windeurope.org

March 2025

Scope

This report summarises wind turbine orders that were placed between 1 October 2024 and 31 December 2024.

WindEurope tracks announced wind turbine orders on the basis of publicly available information on commercial transactions and future deals, categorising them into firm orders and conditional orders.

Orders of Enercon turbines are not included because they are not publicly available.

For details of the methodology for estimating undisclosed orders see the Methodology slide at the end of the deck.

Analysis contained in this report relates to firm and disclosed orders only unless stated otherwise.

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Content

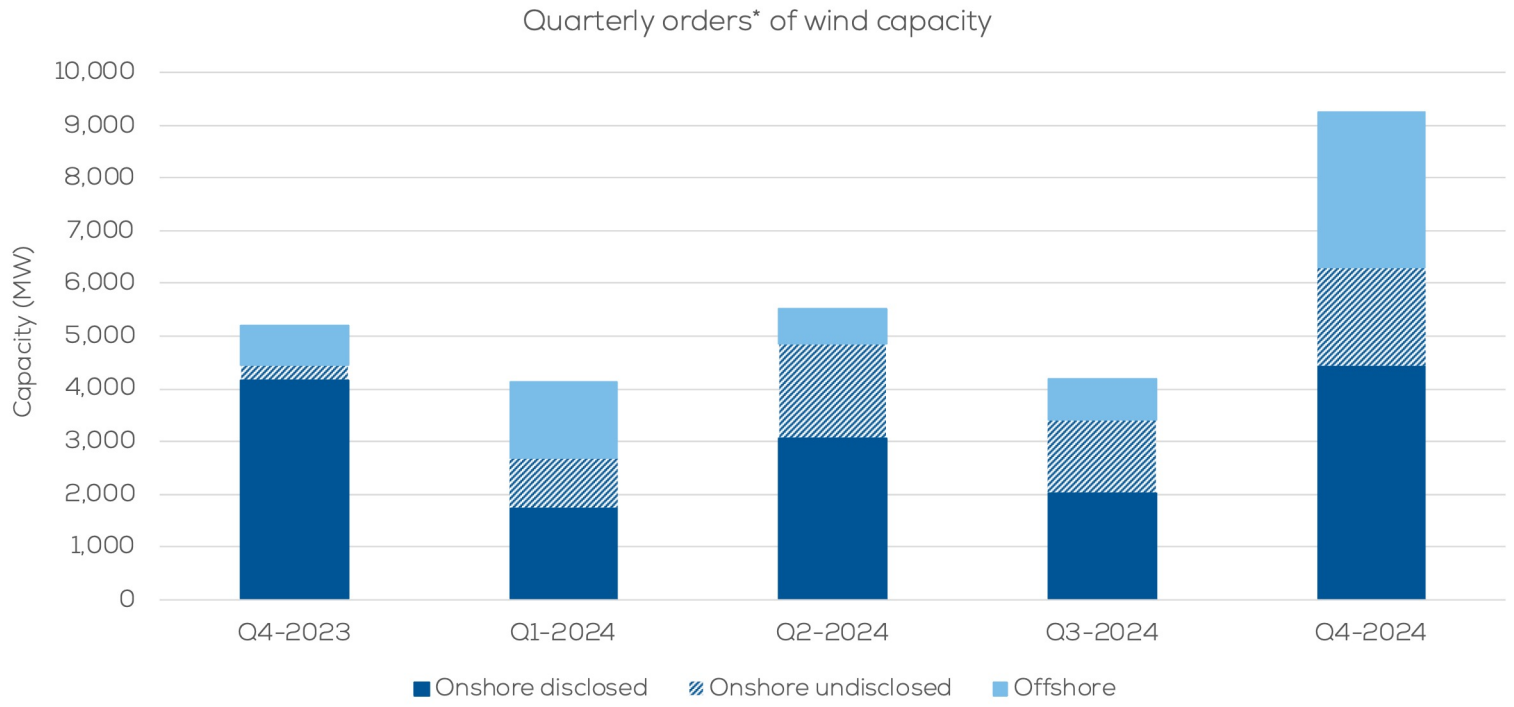
Wind EUROPE

Q4 2024 HIGHLIGHTS

- There were orders for a total of 9.3 GW (of which 1.9 GW undisclosed) across 16 countries. There were three orders for offshore wind turbines in the UK (2.0 GW) and Germany (900 MW).
- The total ordered capacity was up 121% on Q3 2024 and 77% year-on-year.
- Germany led ordered capacity with 2.5 GW, followed by the UK (2.4 GW) and Türkiye (638 MW).
- Vestas had the highest share of disclosed ordered capacity (48%), followed by Nordex (39%), Siemens Energy (13%), and Goldwind (<1%).
- 83% of the disclosed ordered capacity in Q4 2024 reported the inclusion of an Operation & Maintenance (O&M) contract.
- We tracked firm orders for 124 wind farms in Q4 2024.

With 9.3 GW of orders, Q4 2024 was up 121% on the previous quarter and 77% year-on-year.

Onshore + Offshore

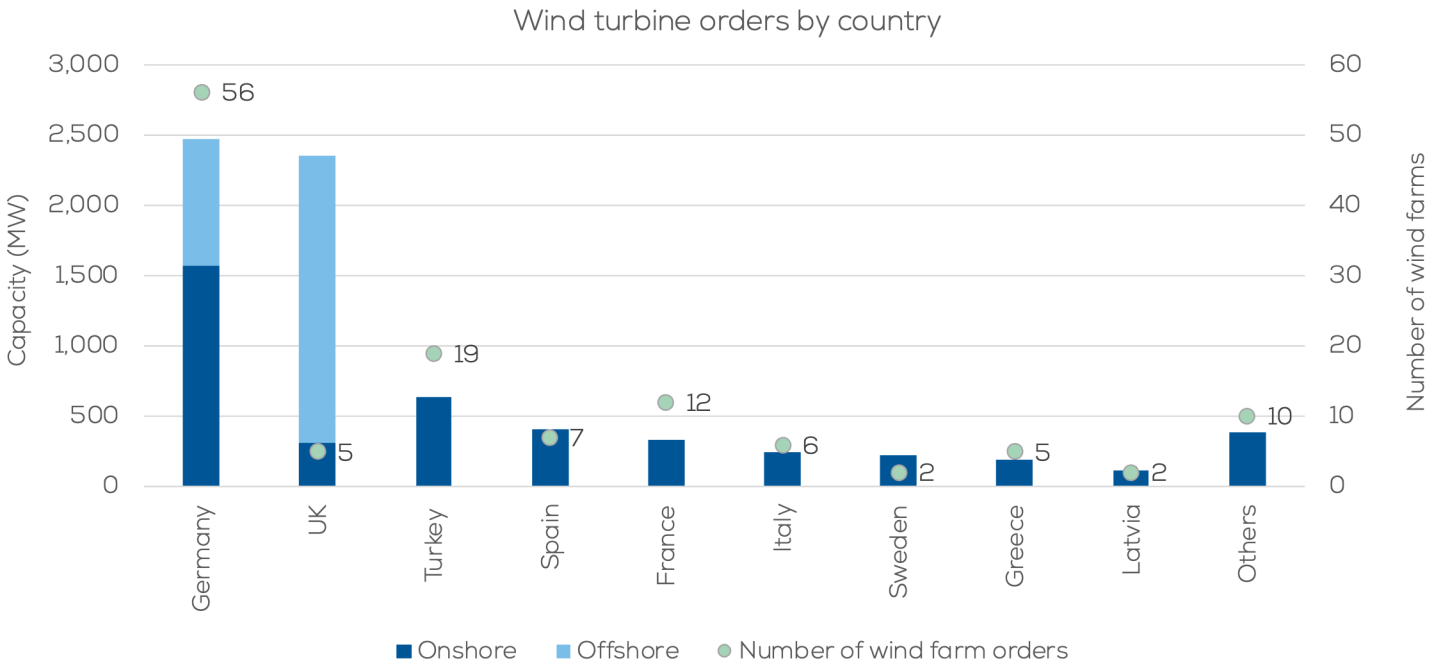


*See Methodology (slide 26) for an explanation of undisclosed orders

Source: WindEurope

Germany led ordered capacity with 2.5 GW, followed by the UK (2.4 GW) and Türkiye (638 MW).

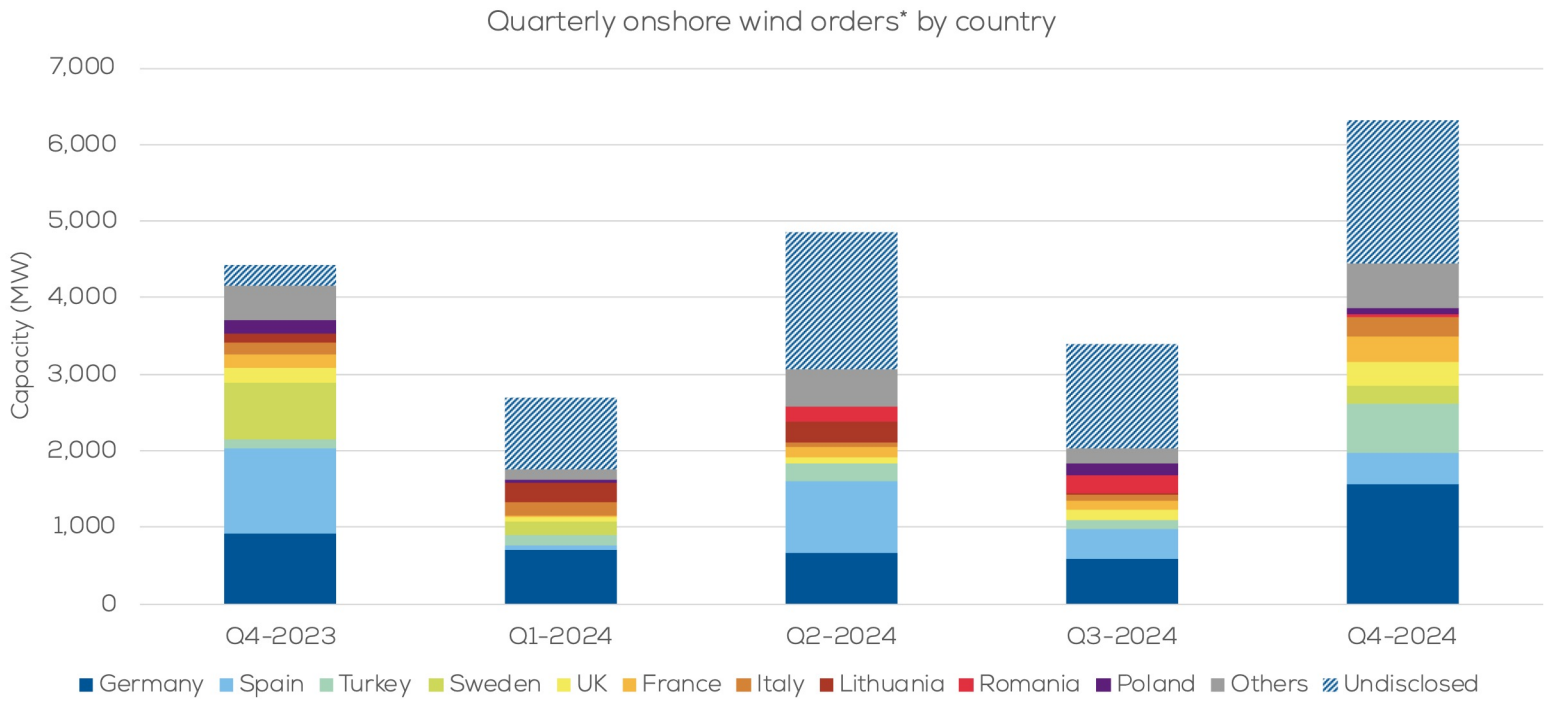
Onshore + Offshore



Source: WindEurope

Onshore orders were up 86% on Q3 2024 and 64% on the average of the previous four quarters.

Onshore

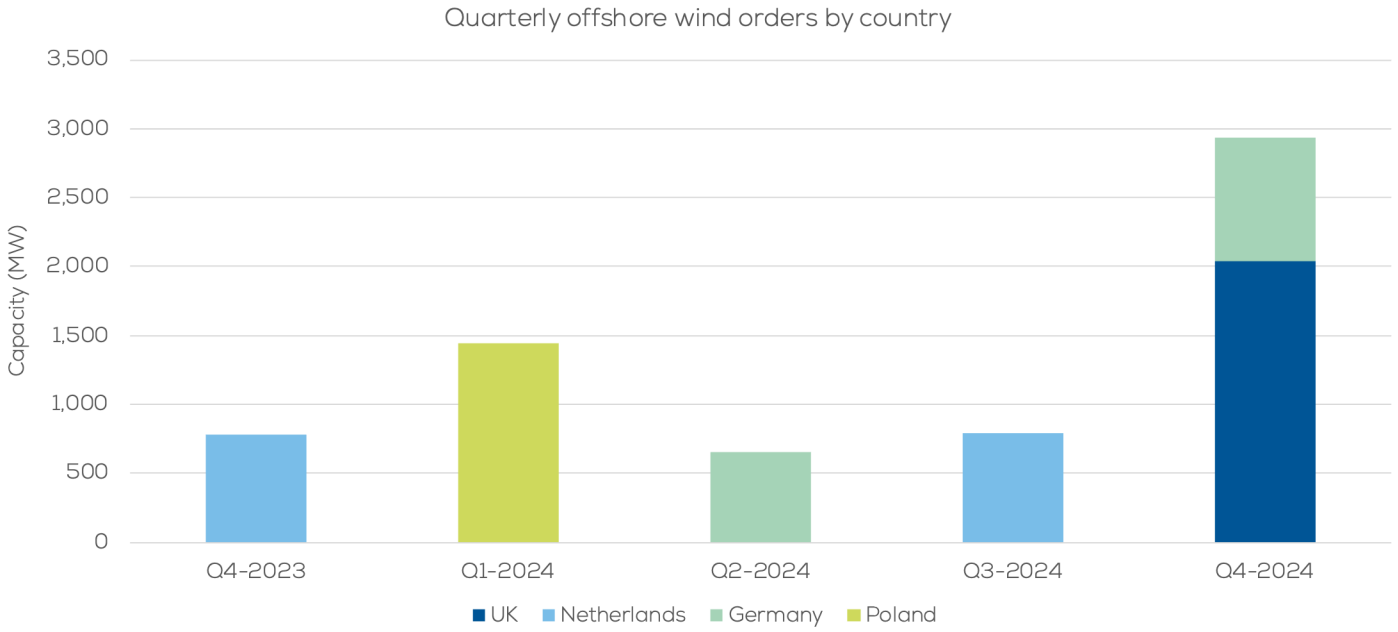


*See Methodology (slide 26) for an explanation of undisclosed orders

Source: WindEurope

There were three firm orders for offshore wind turbines, for the Inch Cape, East Anglia TWO, and Nordseecluster B wind farms.

Offshore

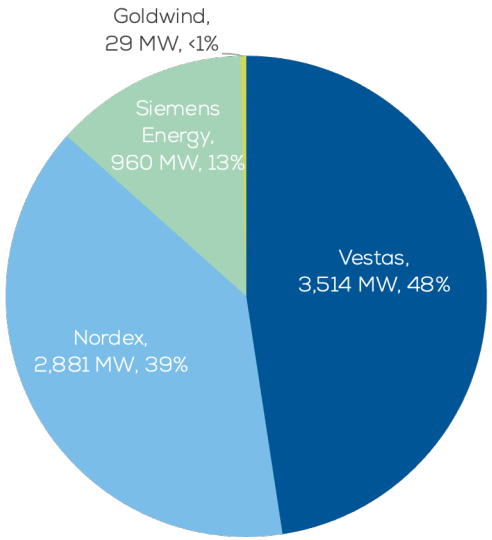


Source: WindEurope

Vestas had the highest share of disclosed ordered capacity, followed by Nordex, and Siemens Energy.

Onshore + Offshore

Wind turbine orders by OEM



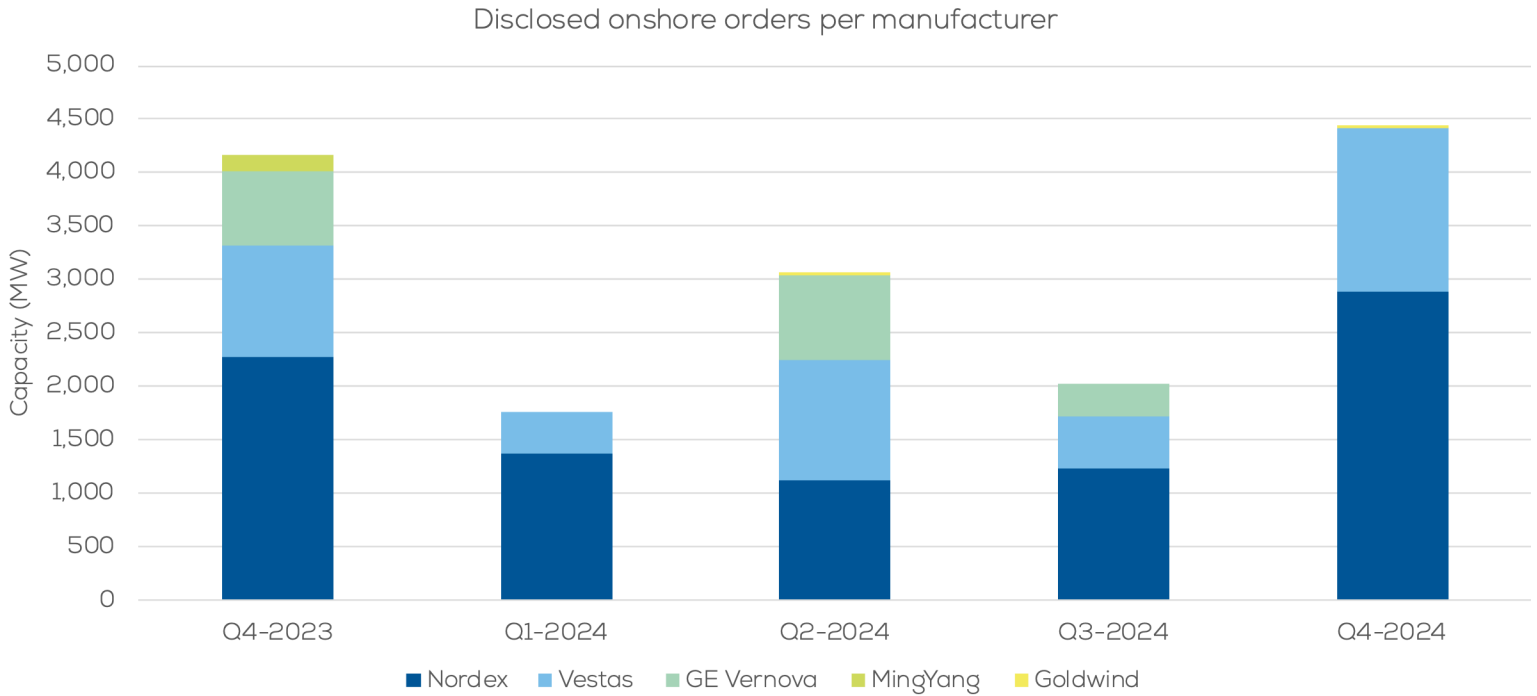
Top 5 ordered turbines

Turbine model	Ordered capacity	Number of turbines	Power rating configuration	
V236-15.0 MW	1,980 MW	132	15.0 MW	132
SG 14-236	960 MW	64	15.0 MW	64
N163/6.X	904 MW	130	6.6 MW	3
			6.8 MW	21
			6.9 MW	8
			7.0 MW	98
V162-6.2 MW	810 MW	130	5.6 MW	7
			6.0 MW	8
			6.2 MW	65
			6.4 MW	50
N149/5.X	583 MW	101	5.6 MW	8
			5.7 MW	54
			5.9 MW	39

Source: WindEurope

In Q4 2024 three OEMs disclosed onshore orders totaling 4.4 GW, 120% more than in the previous quarter.

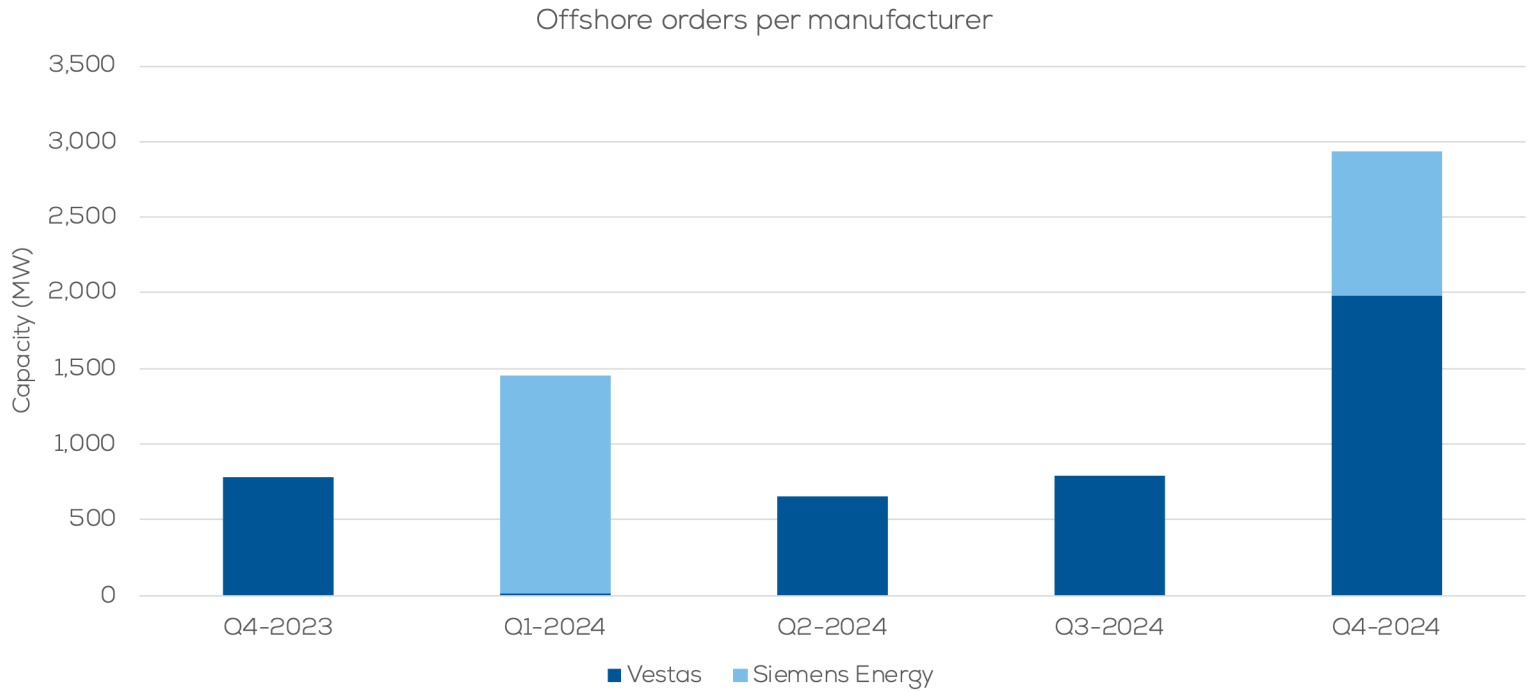
Onshore



Source: WindEurope

In Q4 2024 two OEMs disclosed firm orders for offshore wind turbines totaling 2.9 GW, up 270% on Q3 2024.

Offshore



Source: WindEurope

The top five disclosed buyers accounted for 46% of the disclosed ordered capacity for Q4 2024.

Onshore + Offshore

Top 5 buyers of disclosed orders

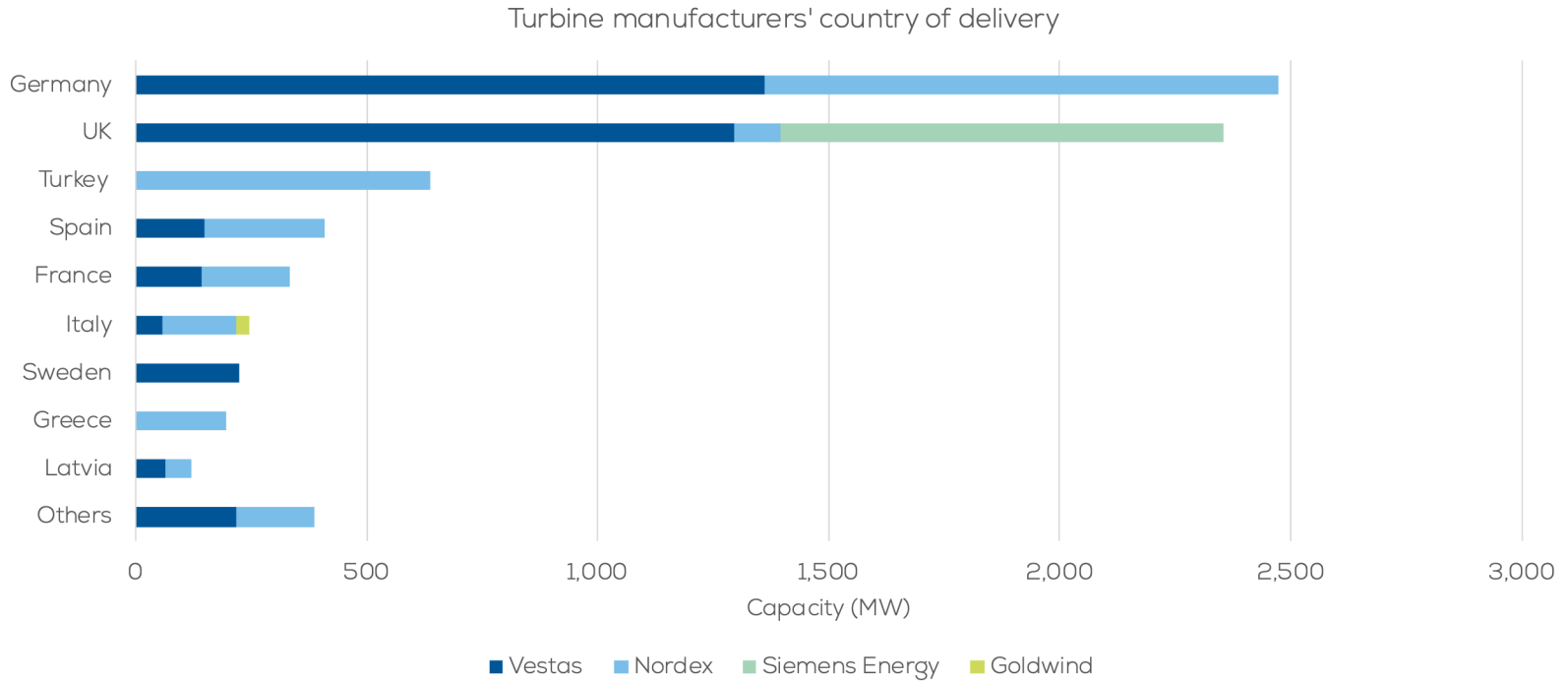
Buyer	Ordered Capacity
Red Rock Power, ESB	1,080 MW
ScottishPower Renewables	960 MW
RWE, Northland Power	900 MW
Vinliden Vindkraft	224 MW
SSE Renewables	217 MW

Offshore Onshore

Source: WindEurope

Nordex disclosed orders in 12 countries, Vestas in 11, Siemens Energy and Goldwind in one country, respectively.

Onshore + Offshore



Source: WindEurope

69% of ordered onshore wind turbines had a power rating above 5 MW; all offshore turbines ordered were 15 MW.

Onshore + Offshore

	2 to 4 MW	4 to 5 MW	5 to 6 MW	6 to 7 MW	7 to 8 MW	10 to 16 MW
Germany		18 turbines	73 turbines	123 turbines	37 turbines	60 turbines
UK			11 turbines	41 turbines		136 turbines
Turkey		3 turbines	30 turbines	1 turbines	63 turbines	
Spain		33 turbines	29 turbines	3 turbines	10 turbines	
France	76 turbines	16 turbines				
Italy		9 turbines	16 turbines	18 turbines		
Sweden				35 turbines		
Greece			23 turbines	9 turbines		
Latvia		12 turbines		10 turbines		
Denmark		17 turbines				
Poland	25 turbines					
Portugal		14 turbines				
Montenegro				8 turbines		
Romania		12 turbines				
Ukraine			7 turbines			
Belgium	8 turbines					
Total	**109 turbines**	**134 turbines**	**189 turbines**	**248 turbines**	**110 turbines**	**196 turbines**

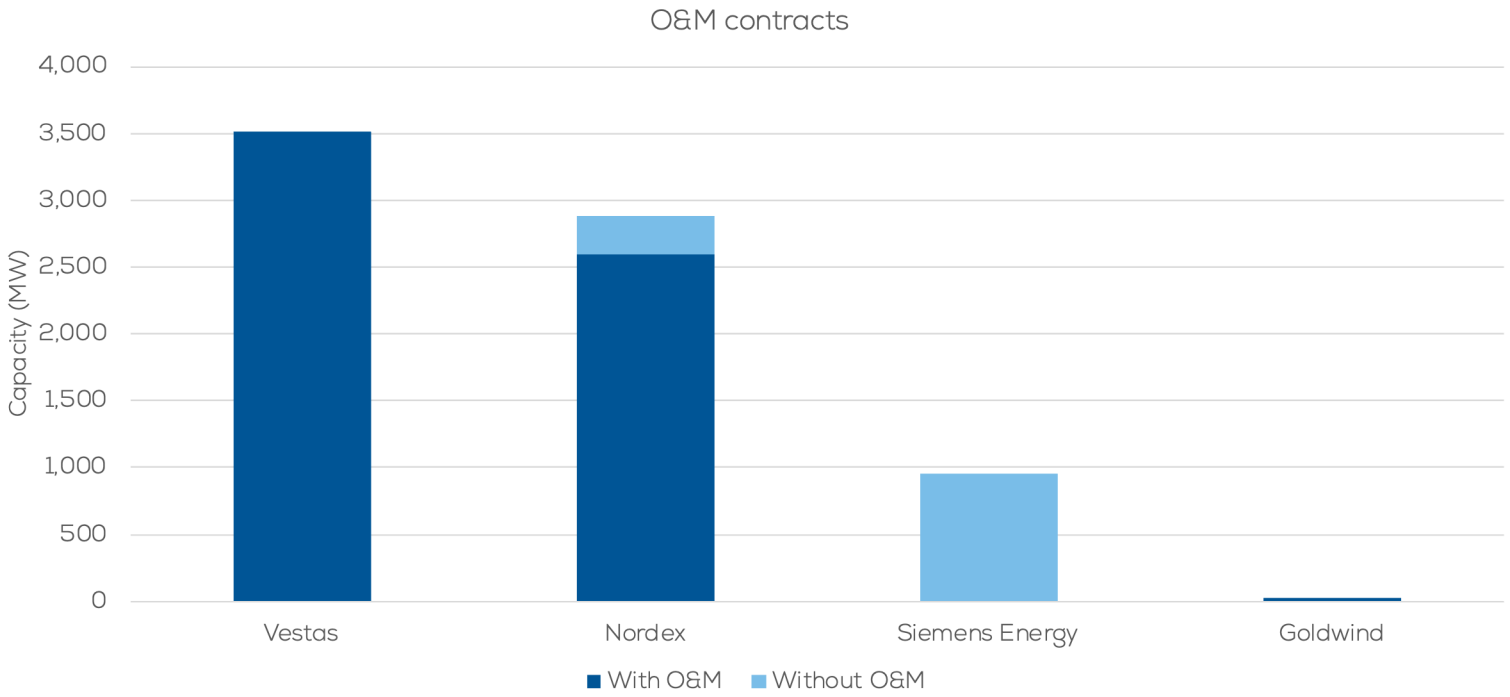
Wind EUROPE

Onshore Offshore

Source: WindEurope

83% of the disclosed ordered capacity reported the inclusion of an Operation & Maintenance (O&M) contract.

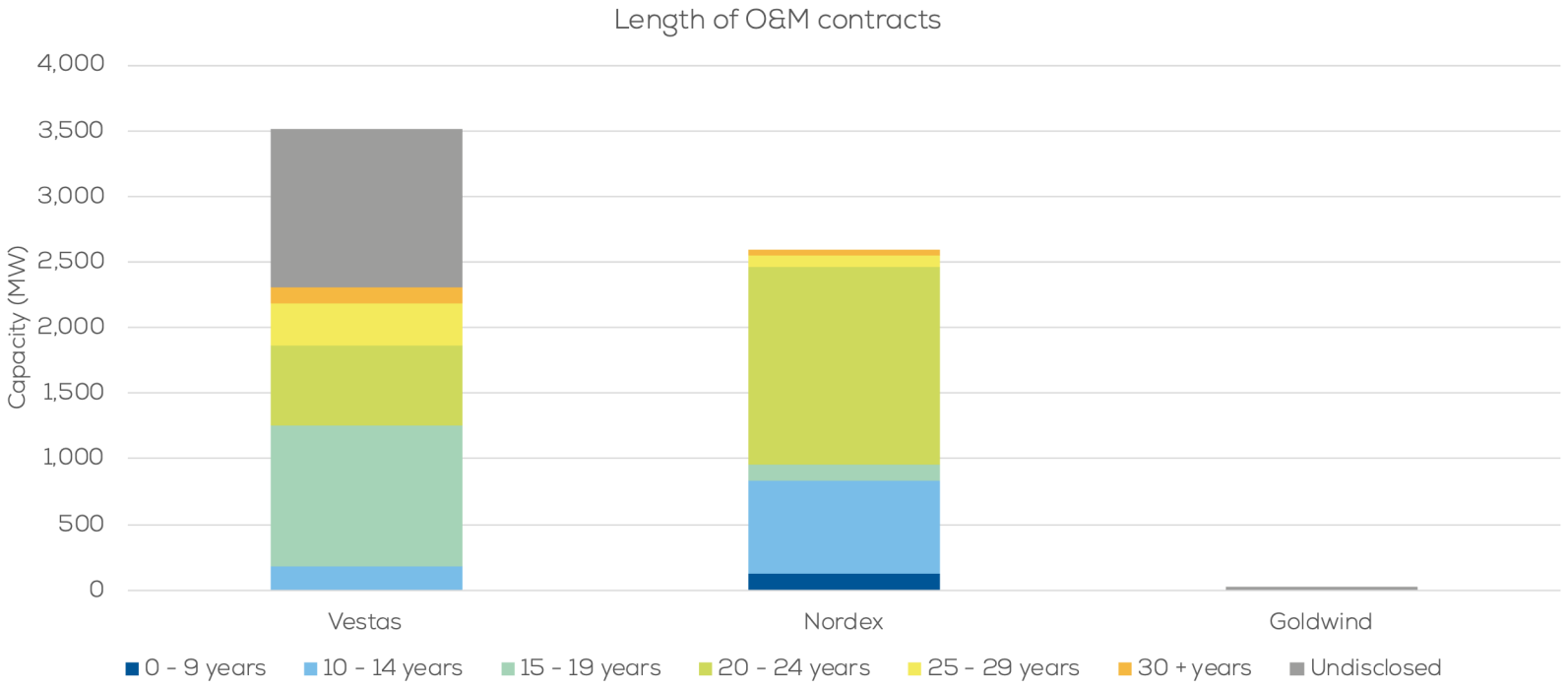
Onshore + Offshore



Source: WindEurope

2.7 GW of disclosed ordered capacity featured an O&M service agreement of at least 20 years.

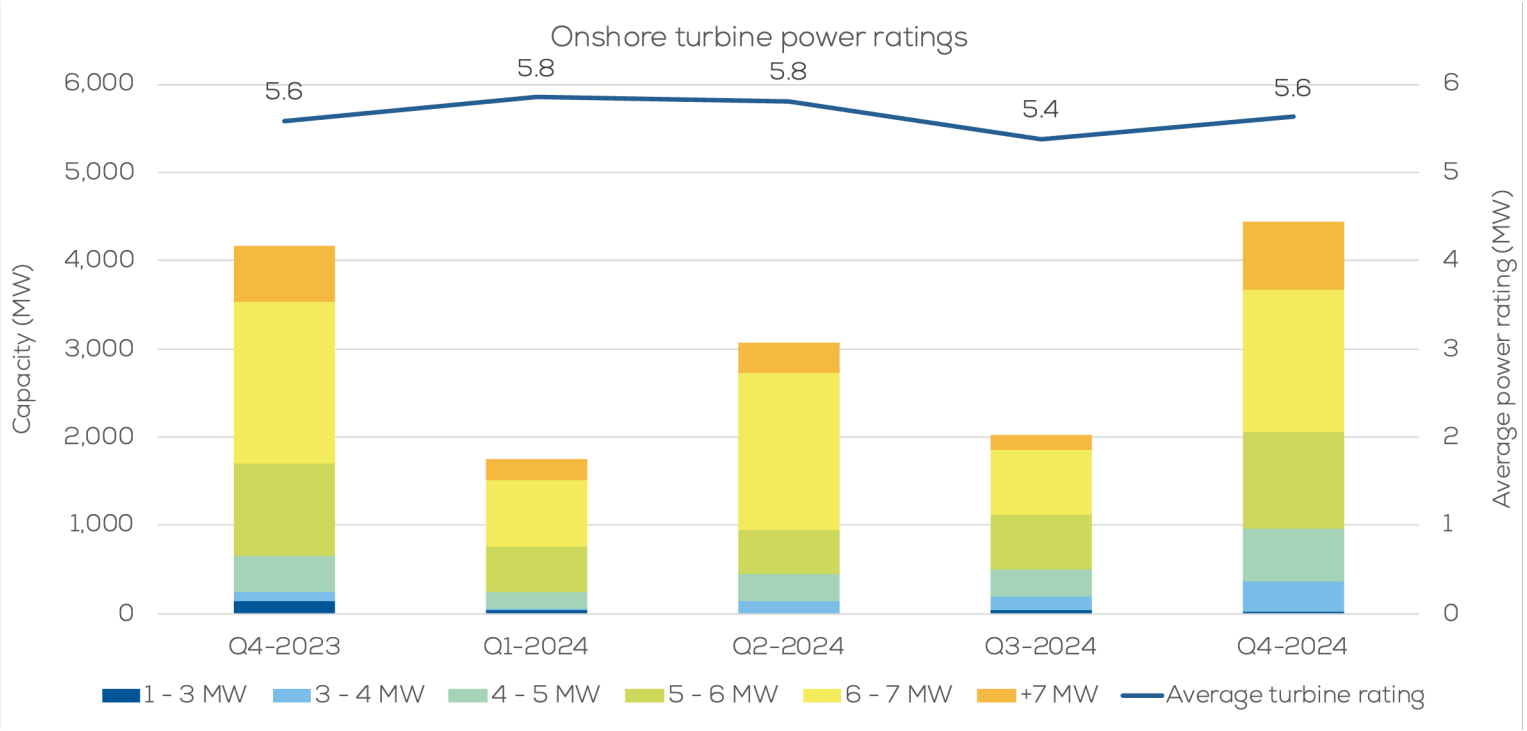
Onshore + Offshore



Source: WindEurope

The average onshore turbine size ordered in Q4 2024 was 5.6 MW, 4% more than in Q3 2024.

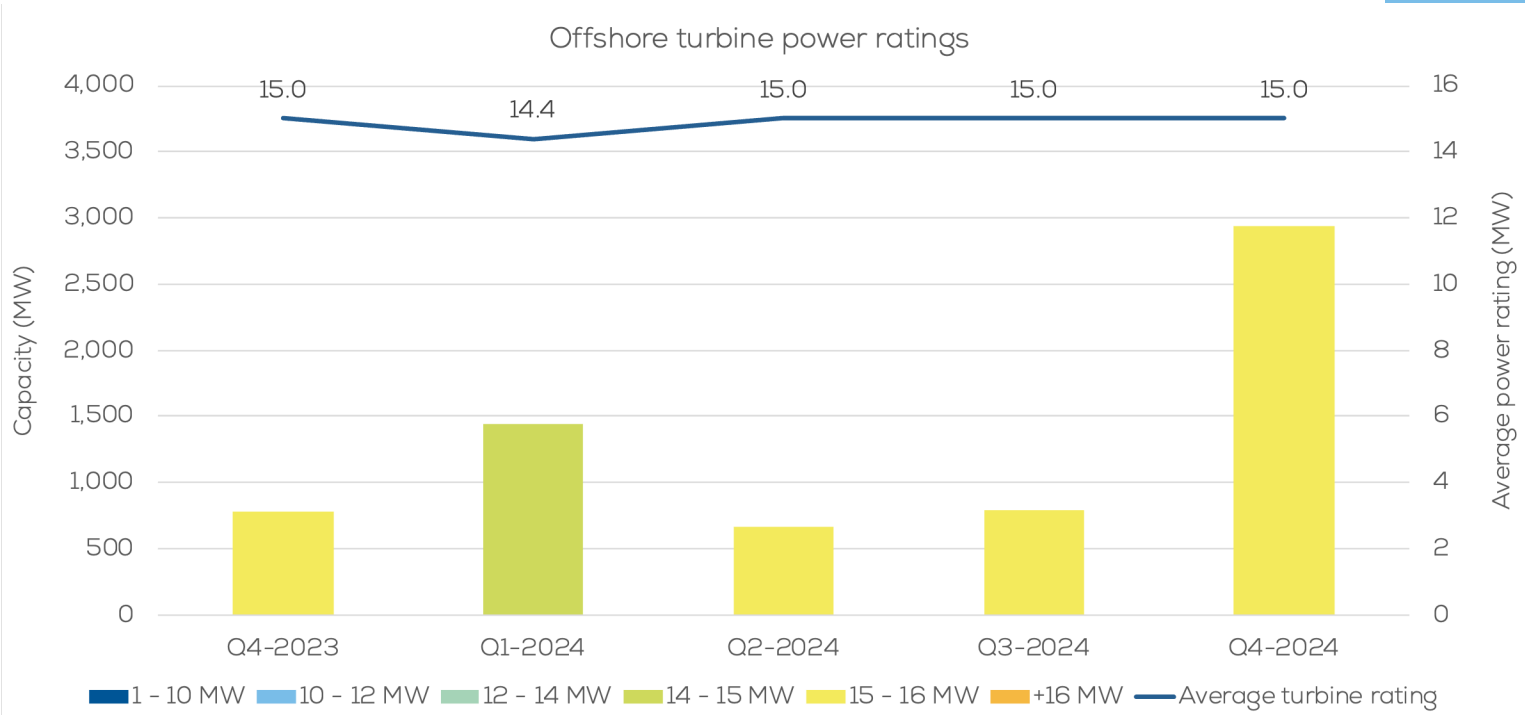
Onshore



Source: WindEurope

The average offshore turbine size ordered in Q4 2024 was 15 MW, matching the size ordered in Q3 2024.

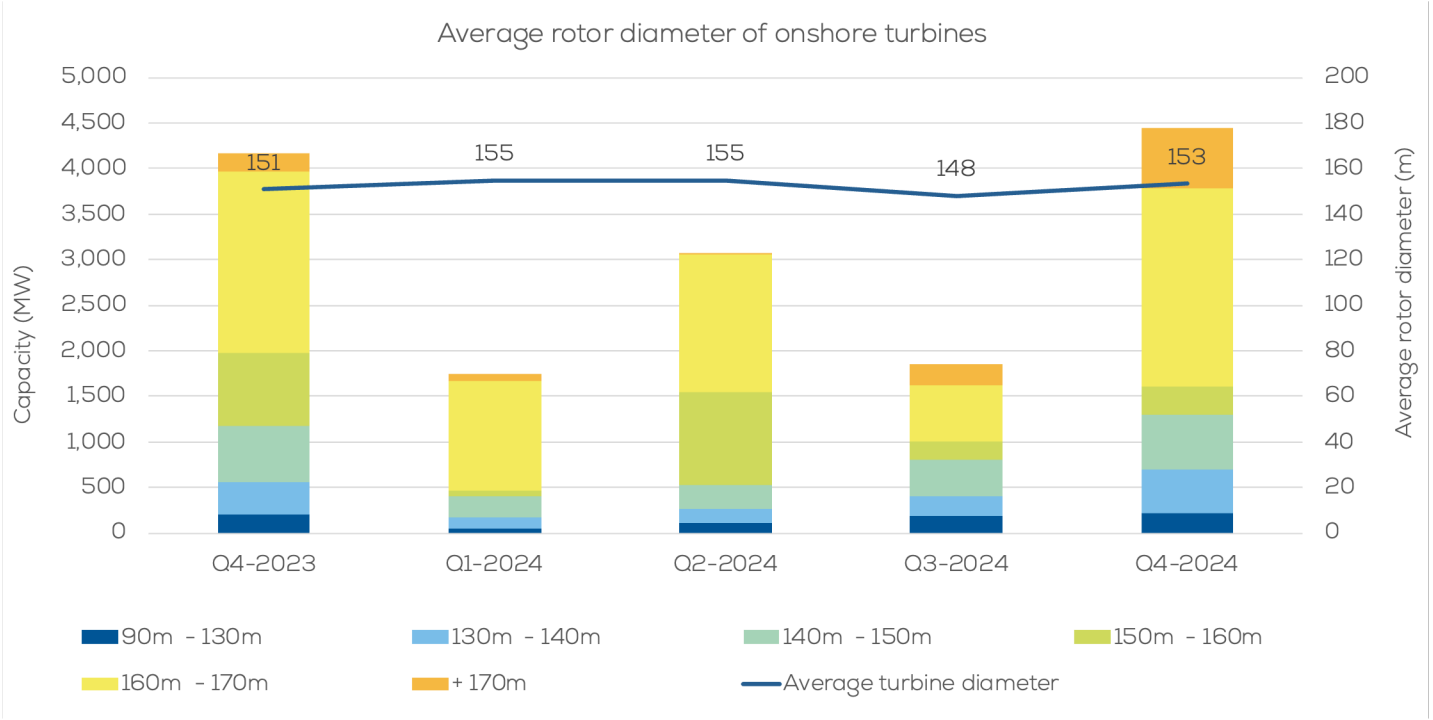
Offshore



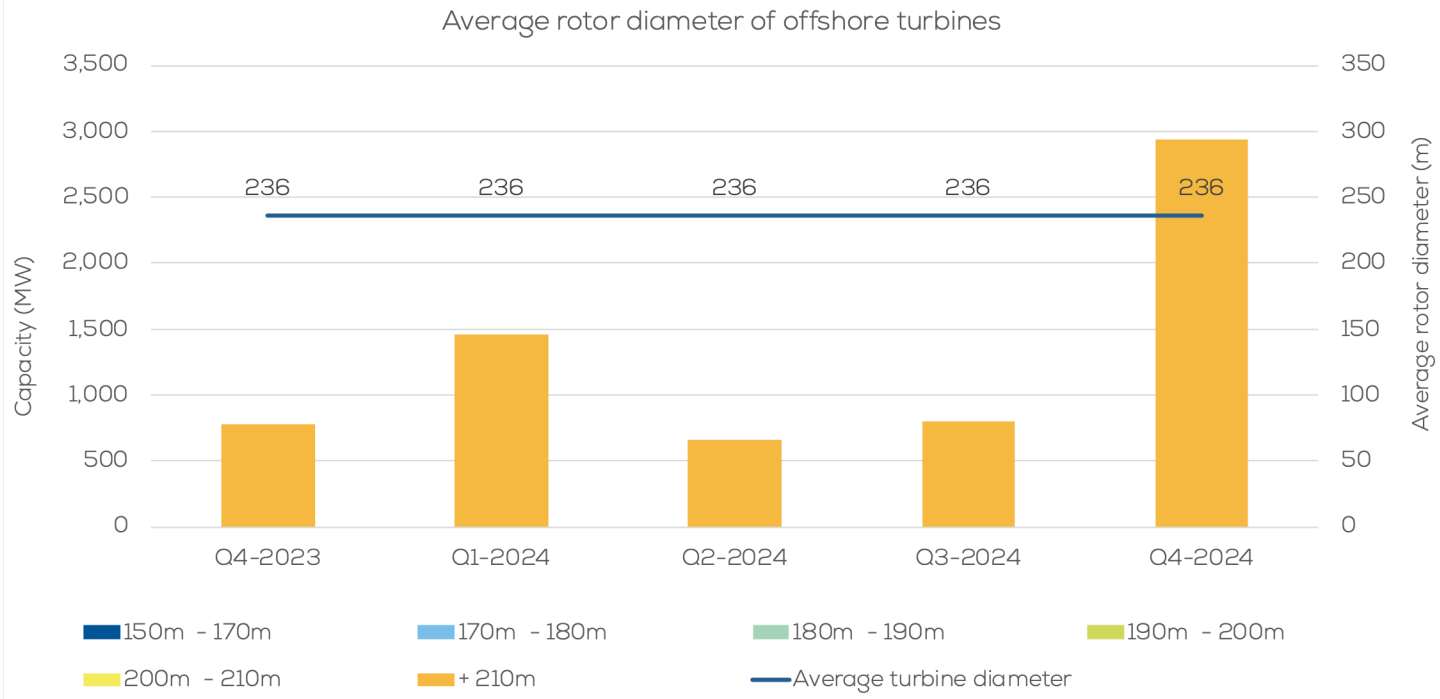
Source: WindEurope

The average rotor diameter of onshore turbine orders in Q4 2024 was 153m, up from 148m in Q3 2024.

Onshore

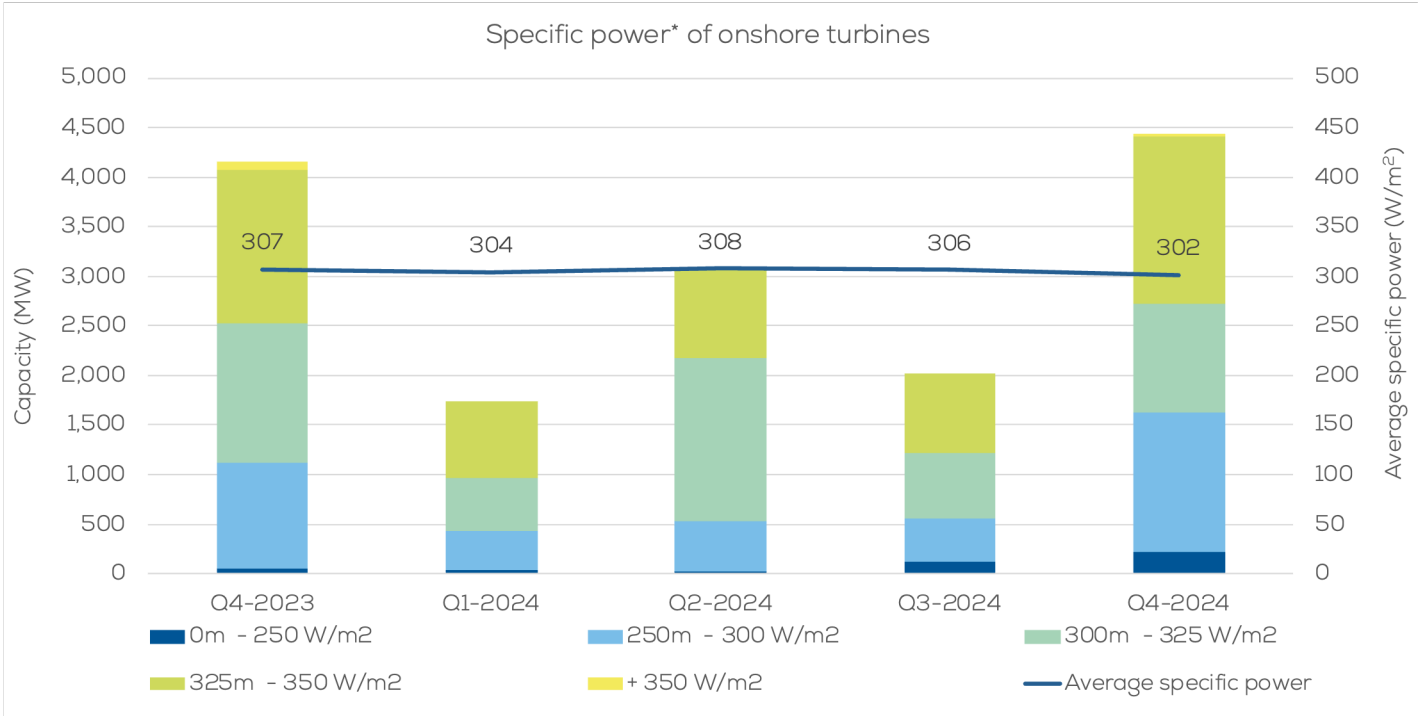


All offshore wind turbines ordered in Q4 2024 had a diameter of 236 meters, the same as in the past four quarters.



The average specific power of onshore turbines ordered in Q4 2024 was 302 W/m², the lowest in the past four quarters.

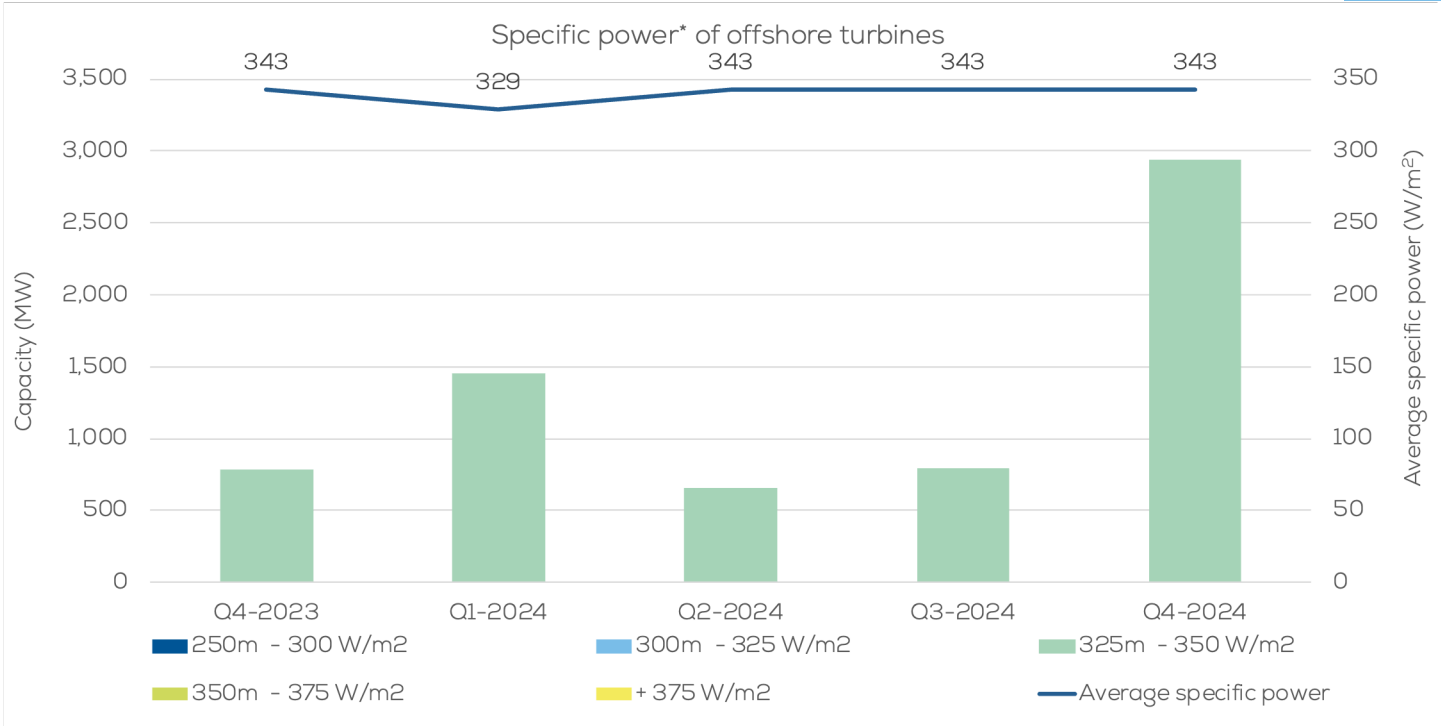
Onshore



*See Annex (slide 25) for an explanation of the concept of specific power

Source: WindEurope

The average specific power of offshore turbines ordered in Q4 2024 was 343 W/m², unchanged from Q3 2024.

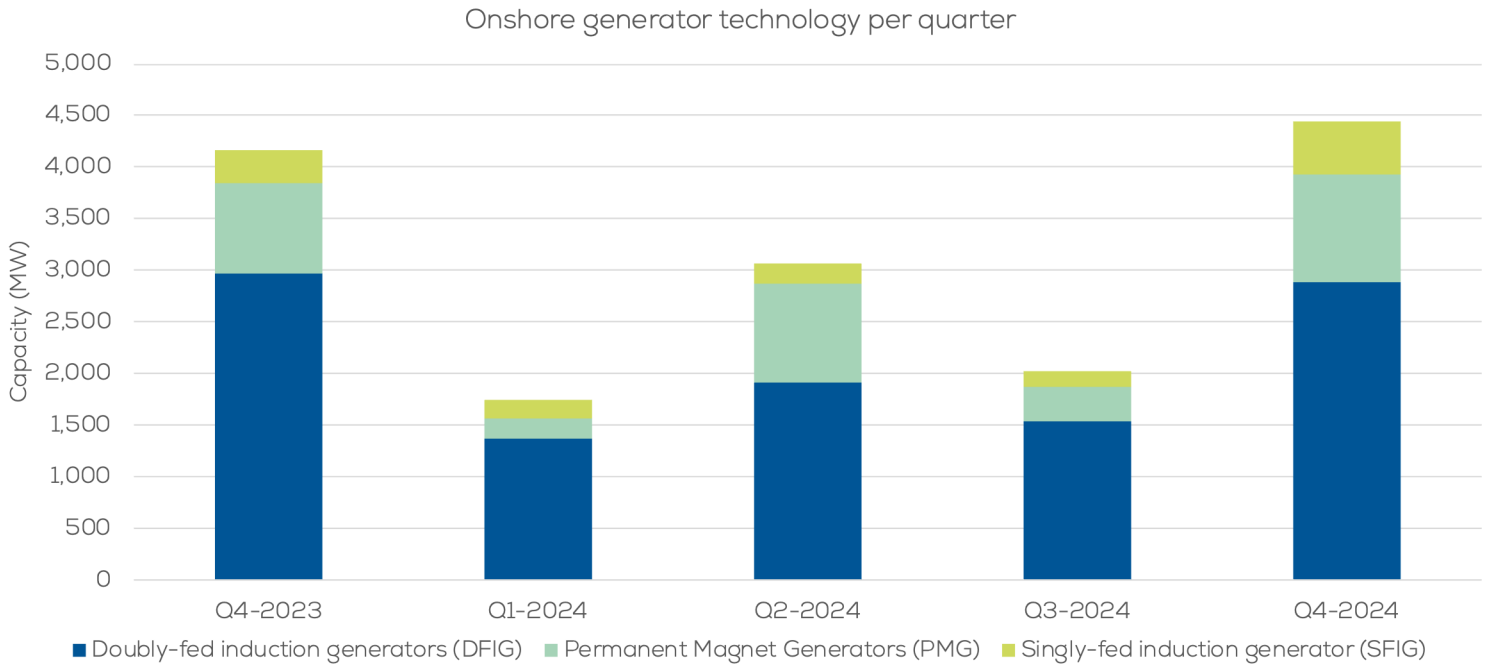


*See Annex (slide 25) for an explanation of the concept of specific power

Source: WindEurope

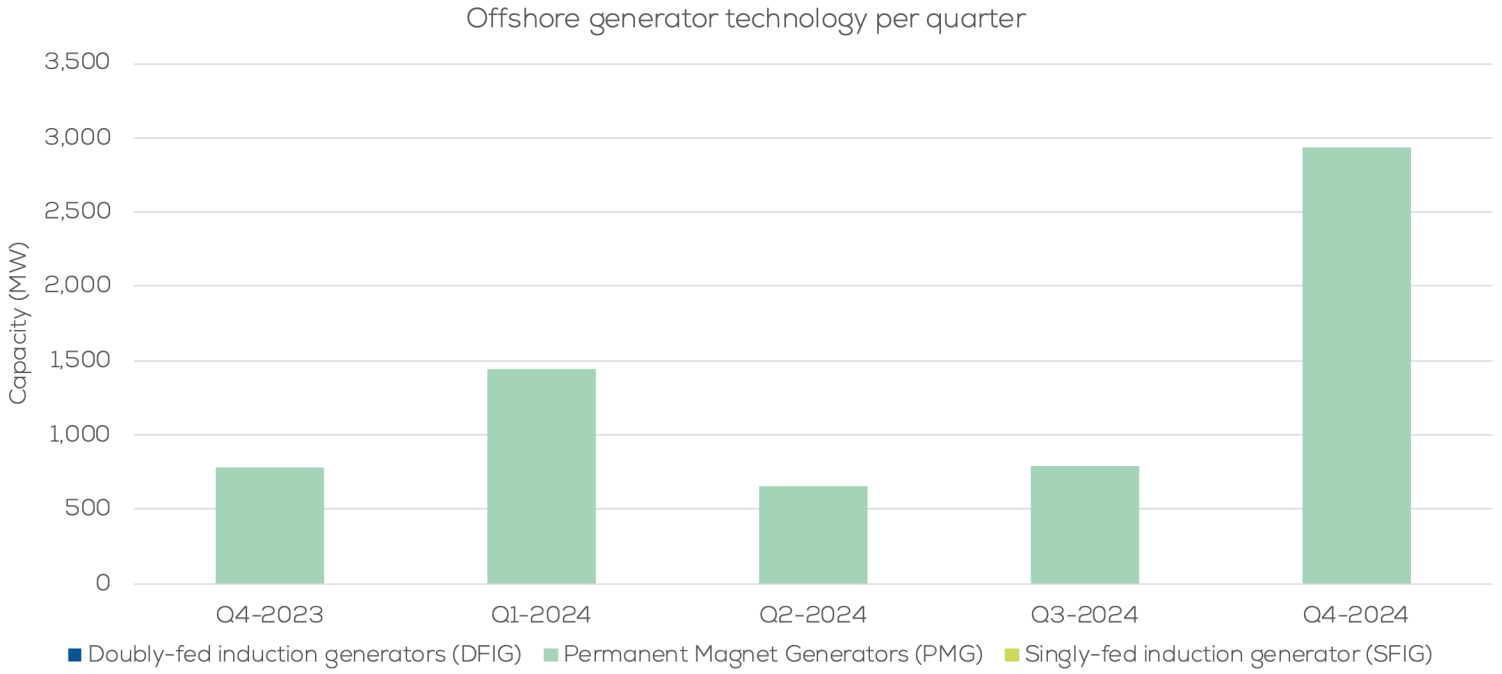
65% of disclosed onshore ordered capacity in Q4 2024 was for DFIG, down from 76% in Q3 2024.

Onshore



Source: WindEurope

All offshore ordered capacity in Q4 2024 featured permanent magnet generators, consistent with the previous four quarters.



Source: WindEurope

ANNEX - SPECIFIC POWER:

The relation between generator capacity and rotor area can be referred to as specific power (W/m^2). Lower specific powers can lead to greater capacity factors for the same wind conditions. Thus, the evolution of specific power is a factor worth monitoring.

Methodology

WindEurope counts wind turbine orders on the basis of publicly available deals and distinguishes between firm orders and conditional orders. From Q2 2022, undisclosed orders are estimated by deducting firm orders from the total capacity reaching a Final Investment Decision (FID) for the quarter. In Q4 2023 undisclosed orders were updated impacting past estimates.

All types of orders are tracked but analysis per country and company is carried out on firm orders alone, unless specified. We do not track Enercon's orders because they are not publicly available. Furthermore, we do not track small-scale turbines (i.e., those smaller than 1 MW).

Orders are tracked by relying, among others, on:

- offshorewind.biz
- rechargenews.com
- renewablesnow.com
- renews.biz
- windpowermonthly.com
- cleanenergypipeline.com

Results are then cross-checked with companies' officially released information on their websites:

- GE Vernova https://www.gevernova.com/news/#press-releases
- Goldwind www.goldwind.com/en/
- MingYang Smart Energy www.myse.com.cn/en/
- Nordex Acciona www.nordex-online.com/en
- Siemens Energy www.siemensgamesa.com/en-int
- Suzlon Wind Energy A/S www.suzlon.com/
- Vestas www.vestas.com/
- Windey Energy www.windeyenergy.com/en