

# Wind Turbine Orders Monitoring

*Q3 2024 statistics*



# Scope

This report summarises wind turbine orders that were placed between 1 July 2024 and 30 September 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.

Neither WindEurope nor its members, nor their related entities are, by means of this publication, rendering professional advice or services. Neither WindEurope nor its members shall be responsible for any loss whatsoever sustained by any person who relies on this publication.

## **TEXT AND ANALYSIS:**

WindEurope Market Intelligence

Giuseppe Costanzo

## **MORE INFORMATION:**

[policy@windeurope.org](mailto:policy@windeurope.org)

+32 2 213 18 11

# Content

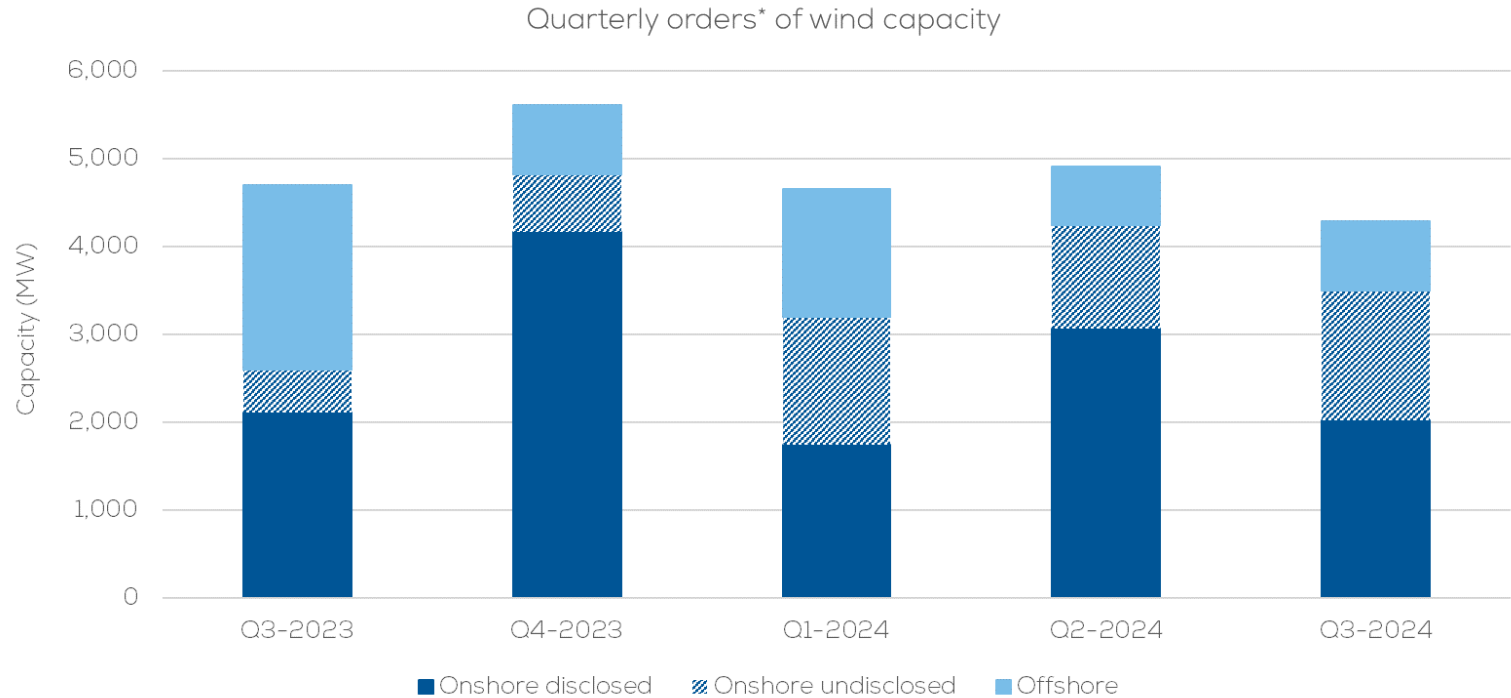
	Page
Highlights.....	4
Country overview.....	6
OEMs.....	9
Technology trends.....	17

# Q3 2024 HIGHLIGHTS

- There were orders for a total of 4.3 GW (of which 1.5 GW undisclosed) across 13 countries. There was one order for offshore wind turbines in the Netherlands (795 MW).
- The total ordered capacity was down 13% on Q2 2024 and 9% year-on-year.
- The Netherlands led ordered capacity with 810 MW, followed by Germany (592 MW) and Spain (387 MW).
- Vestas had the highest share of disclosed ordered capacity (46%), followed by Nordex (43%), and GE (11%).
- All but four of the disclosed orders in Q3 2024 reported the inclusion of an Operation & Maintenance (O&M) contract.
- We tracked firm orders for 56 wind farms in Q3 2024.

With 4.3 GW of orders, Q3 2024 was 13% down on the previous quarter and 9% down year-on-year.

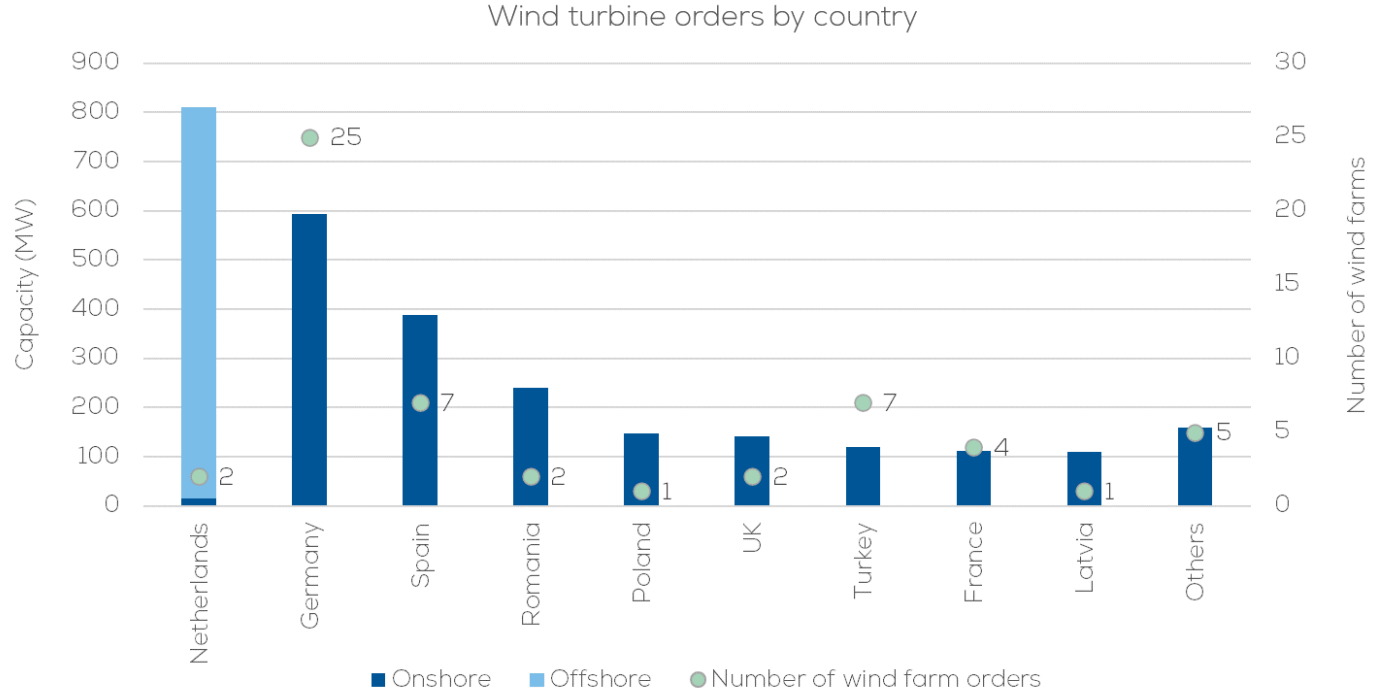
Onshore + Offshore



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

# The Netherlands led ordered capacity with 810 MW, followed by Germany (592 MW) and Spain (387 MW).

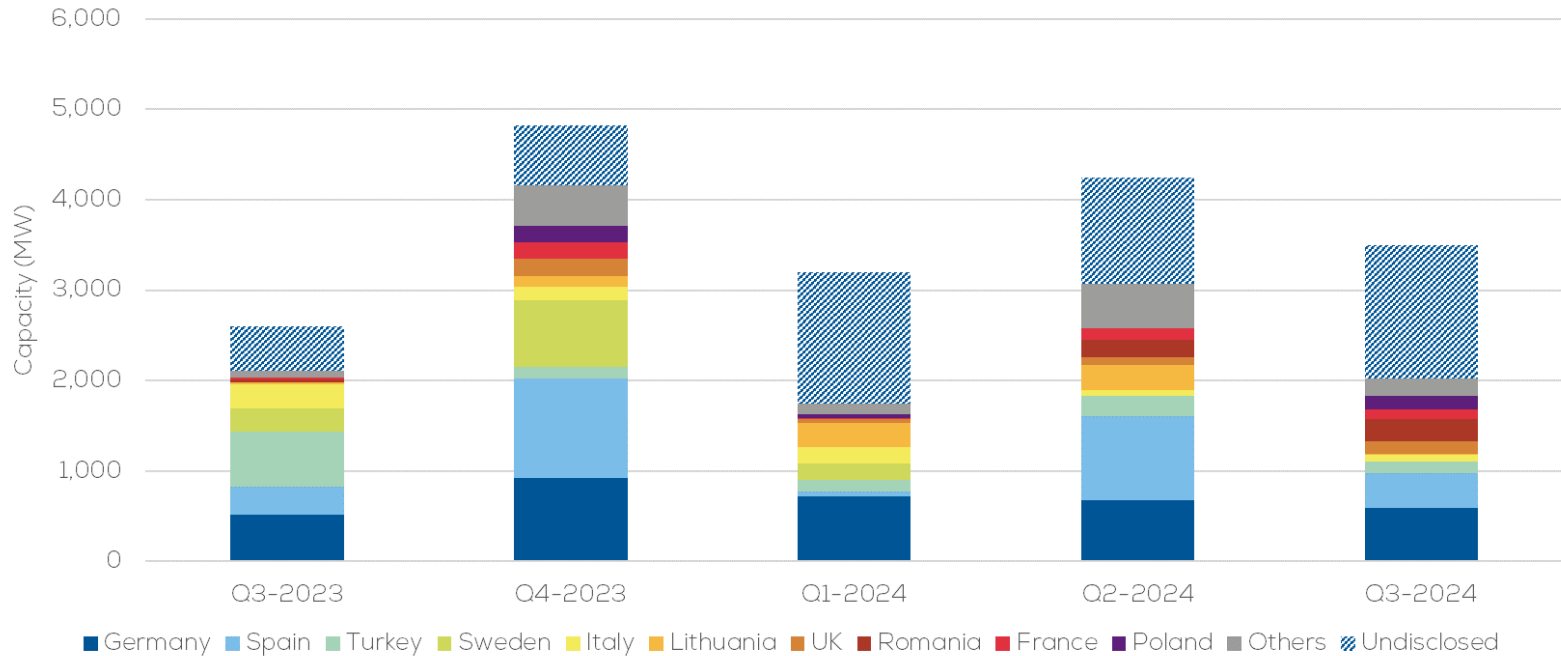
Onshore + Offshore



# Onshore orders were down 18% on Q2 2024 and 6% on the average of the previous four quarters.

Onshore

Quarterly onshore wind orders\* by country

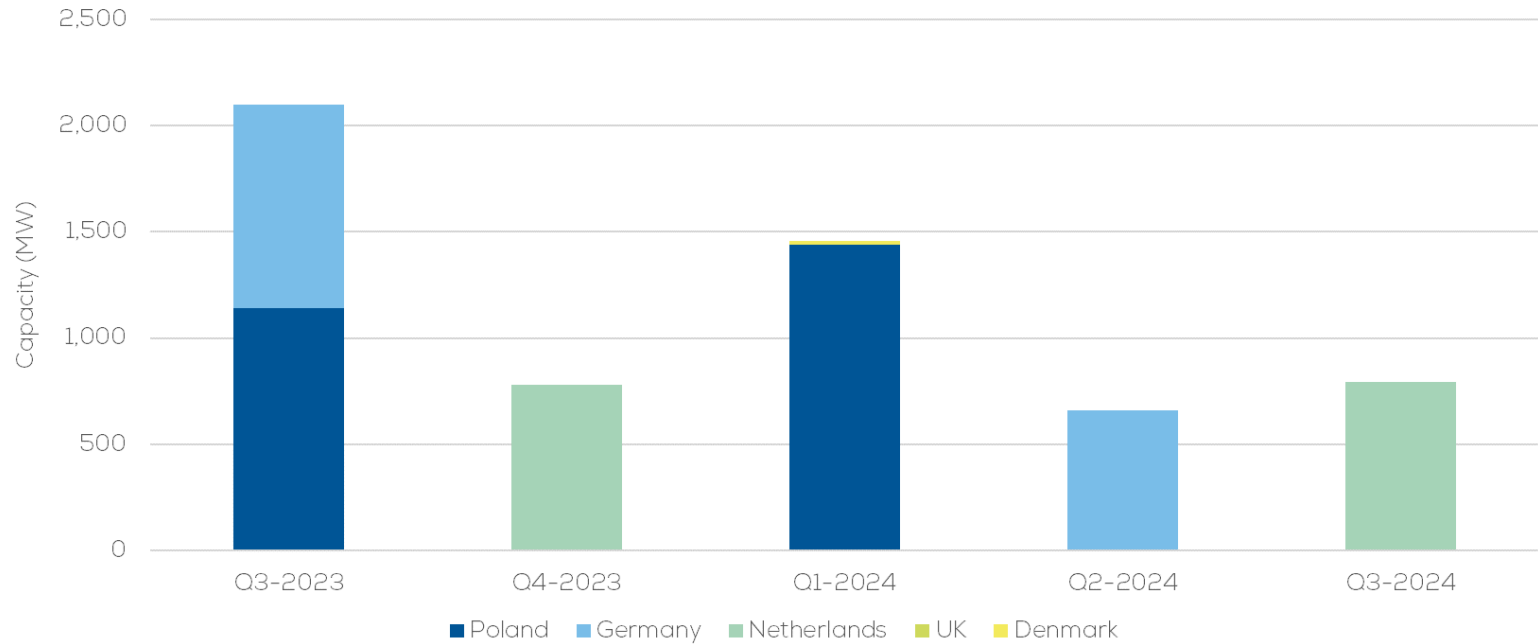


\*See Methodology (slide 26) for an explanation of undisclosed orders

# There was one firm order for offshore wind turbines, for the OranjeWind wind farm in the Netherlands (795 MW).

Offshore

Quarterly Offshore wind orders\* by country

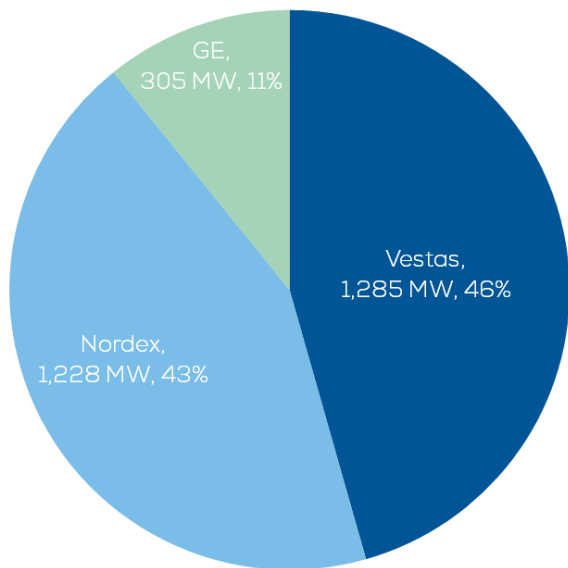




# Vestas had the highest share of disclosed ordered capacity, followed by Nordex, and GE.

Onshore + Offshore

Wind turbine orders by OEM

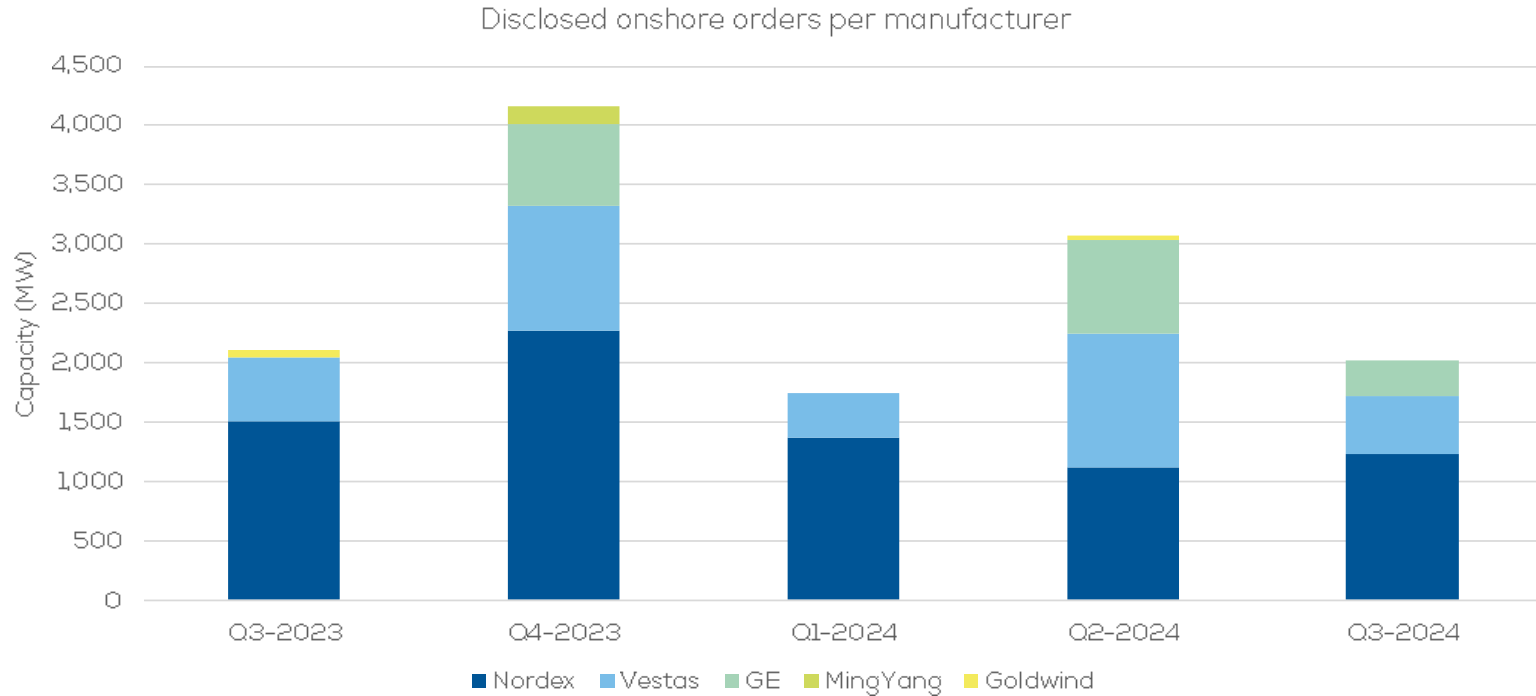


Top 5 ordered turbines

Turbine model	Ordered capacity	Number of turbines	Power rating configuration	
			Power rating	Configuration
V236-15.0 MW	795 MW	53	15 MW	53 (100%)
N149/5.X	365 MW	64	5.5 MW	13 (20%)
			5.7 MW	38 (60%)
			5.9 MW	13 (20%)
GE 6.1-158	305 MW	50	6.1 MW	50 (100%)
V162-6.2 MW	200 MW	32	6.2 MW	25 (78%)
			6.4 MW	7 (22%)
N163/5.X	199 MW	34	5.7 MW	10 (29%)
			5.9 MW	24 (71%)

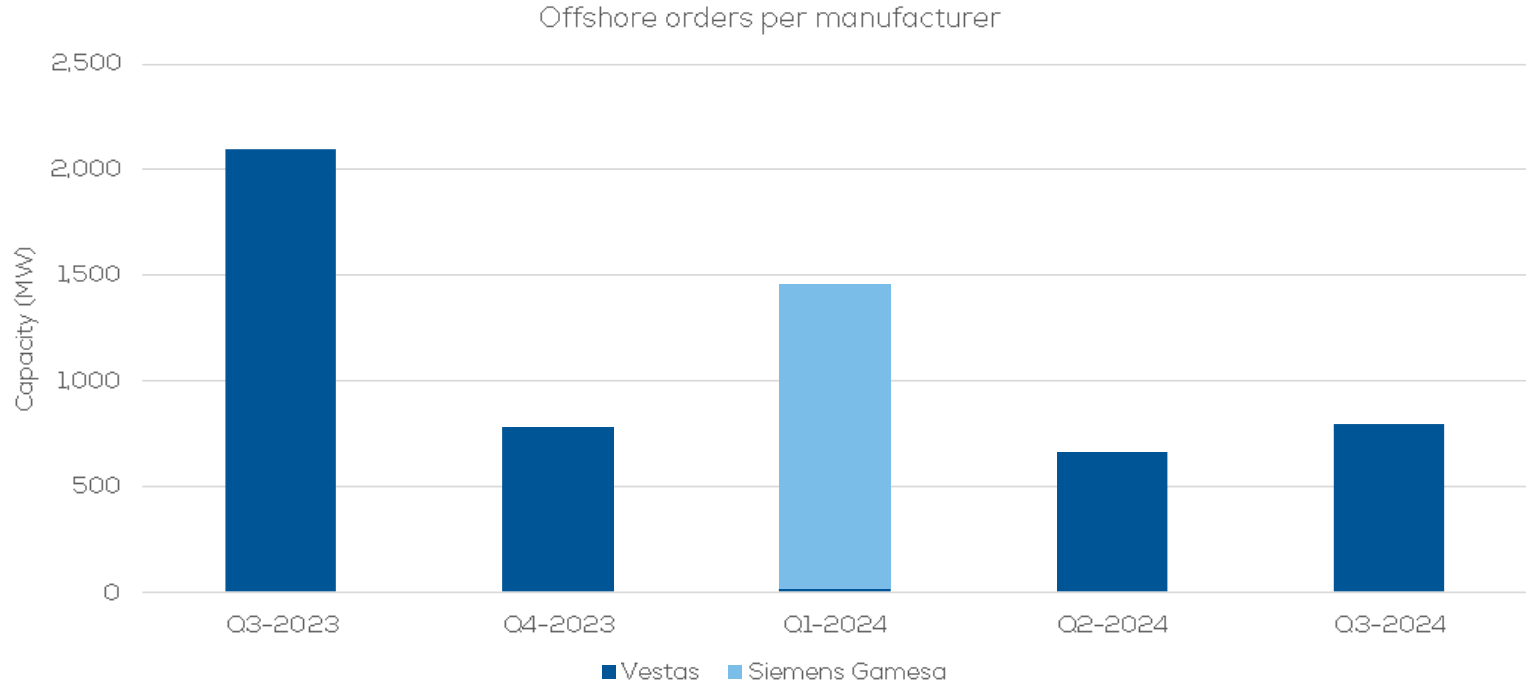
In Q3 2024 three OEMs disclosed onshore orders totaling 2 GW, 34% less than in the previous quarter.

Onshore



In Q3 2024 one OEMs disclosed a firm order for offshore wind turbines totaling 795 MW, up 20% on Q2 2024.

Offshore



# The top five disclosed buyers accounted for 47% of the disclosed ordered capacity for Q3 2024.

Onshore + Offshore

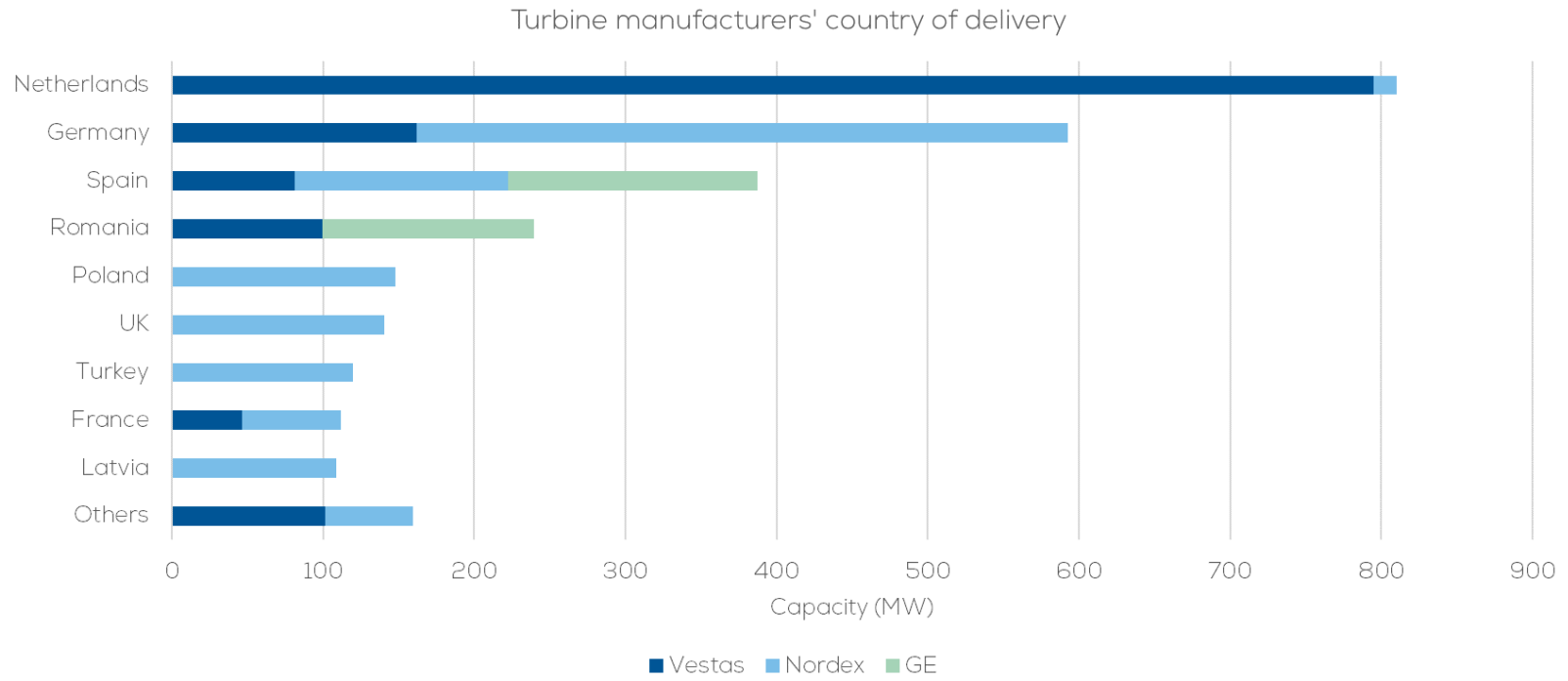
Top 5 buyers of disclosed orders

Buyer	Ordered Capacity
RWE, TotalEnergies	795 MW
VSB	148 MW
Aquila Capital	142 MW
Public Power Corporation Renewables	140 MW
SIA LAFLORA ENERGY	109 MW

■ Offshore      ■ Onshore

# Nordex disclosed orders in ten countries, Vestas in seven, and GE in two.

Onshore + Offshore



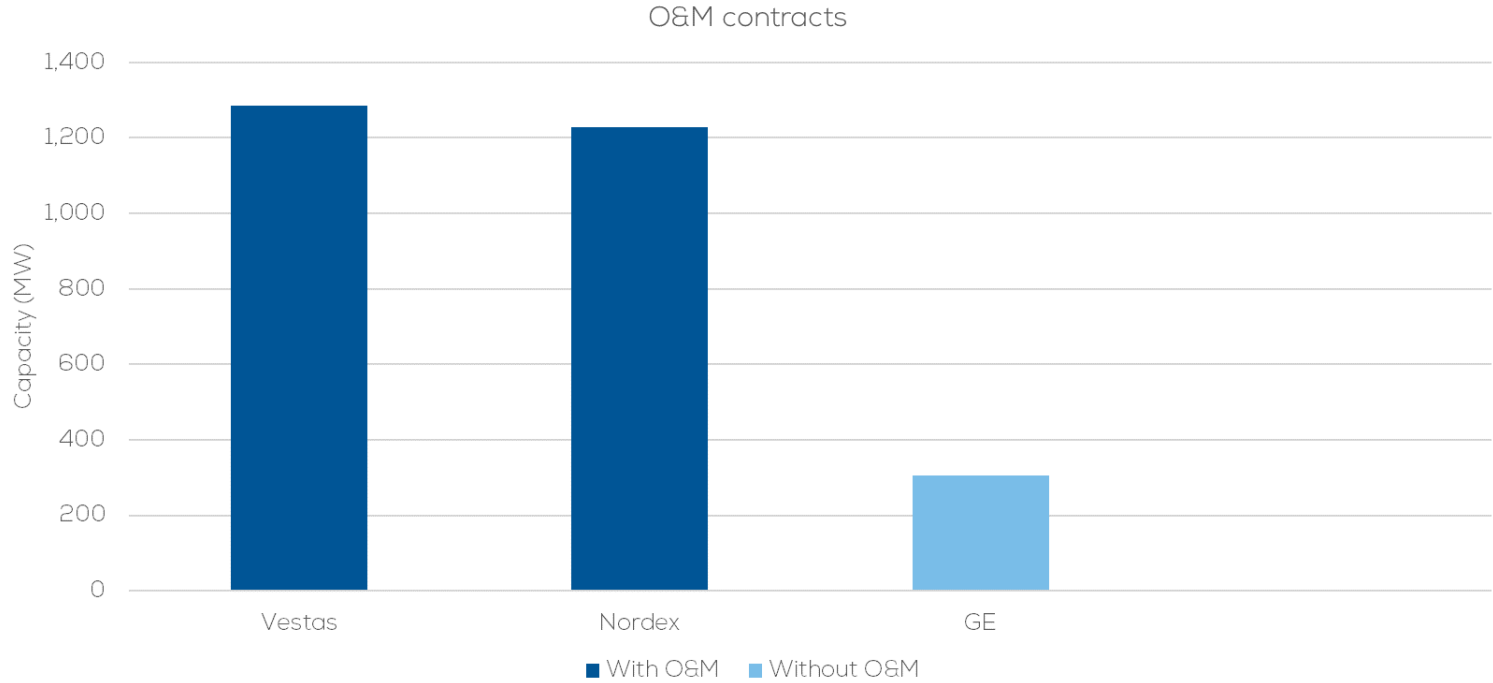
66% of ordered onshore wind turbines had a power rating above 5 MW; all offshore turbines ordered were 15 MW.

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
Netherlands			3 turbines			53 turbines
Germany		23 turbines	26 turbines	26 turbines	23 turbines	
Spain		18 turbines	24 turbines	27 turbines		
Romania				39 turbines		
Poland	41 turbines					
UK			25 turbines			
Turkey		9 turbines	13 turbines			
France	21 turbines	2 turbines	10 turbines			
Latvia				16 turbines		
Italy			2 turbines	10 turbines		
Ireland		9 turbines				
Greece		6 turbines				
Lithuania			3 turbines			
<b>Total</b>	<b>62 turbines</b>	<b>67 turbines</b>	<b>106 turbines</b>	<b>118 turbines</b>	<b>23 turbines</b>	<b>53 turbines</b>

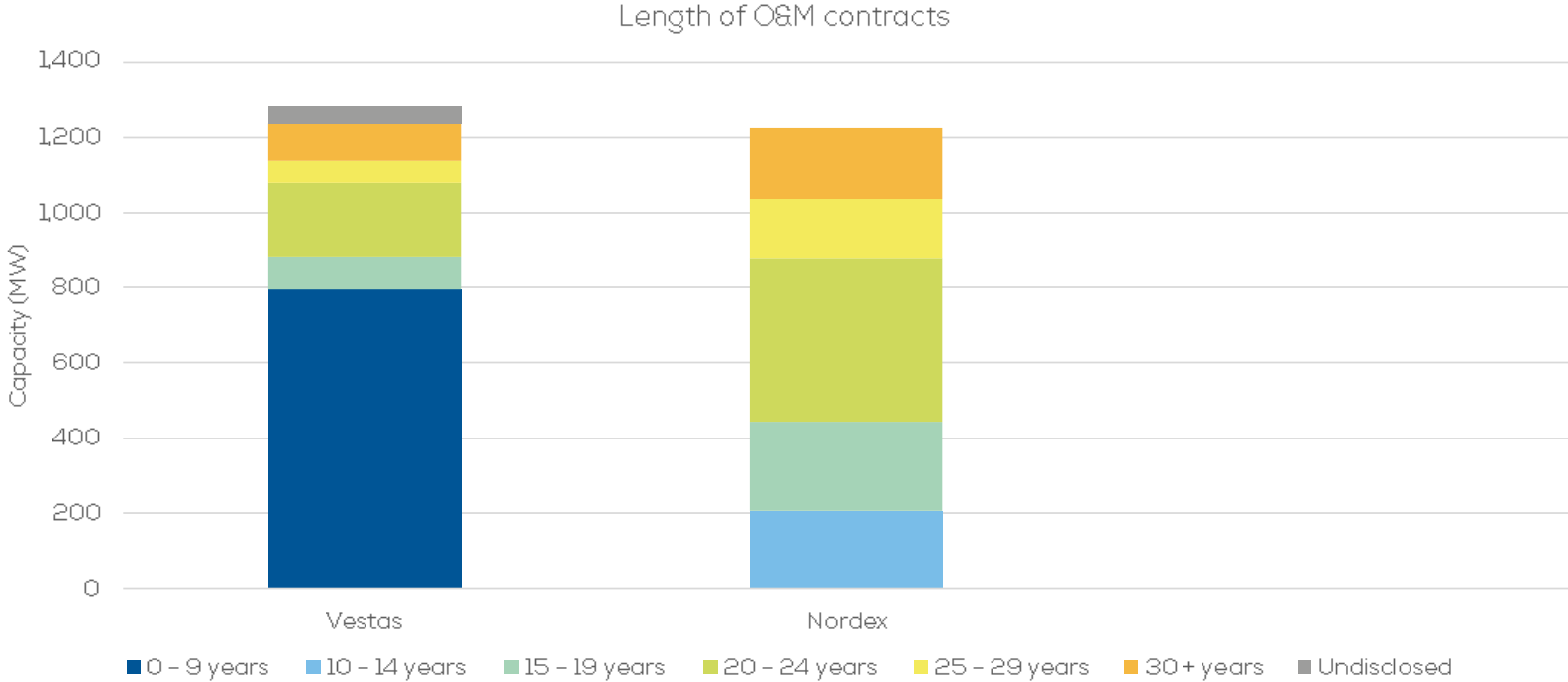
# All but four disclosed orders reported the inclusion of an Operation & Maintenance (O&M) contract.

Onshore + Offshore



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

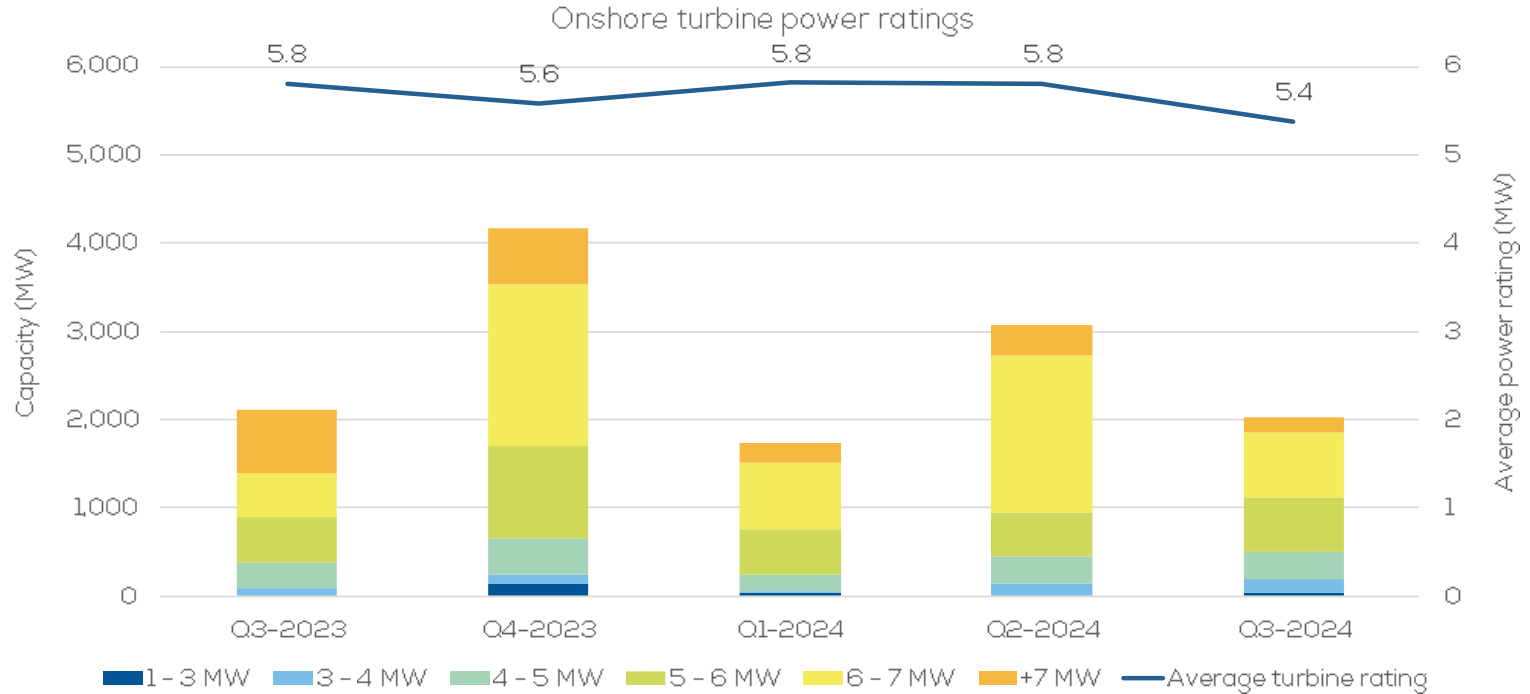
Onshore + Offshore





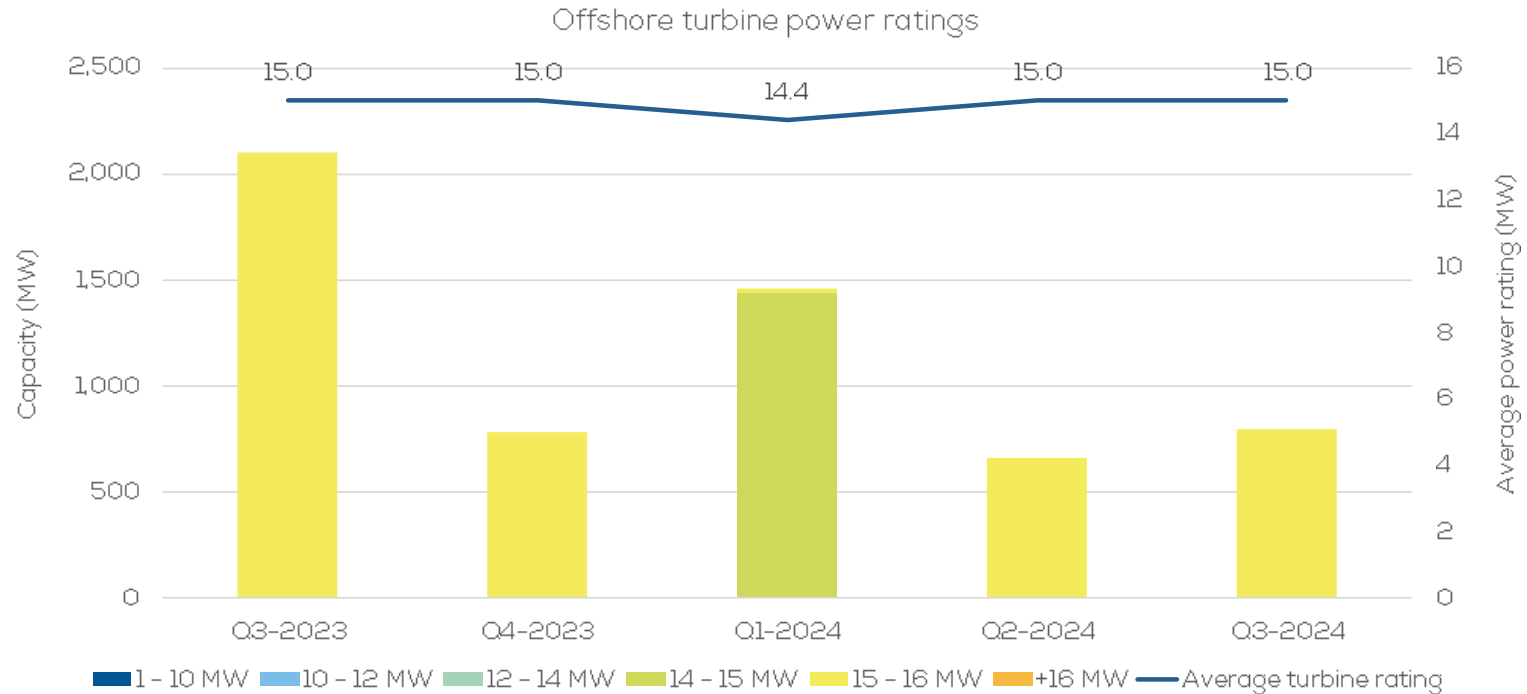
# The average onshore turbine size ordered in Q3 2024 was 5.4 MW, 7% less than in Q2 2024.

Onshore



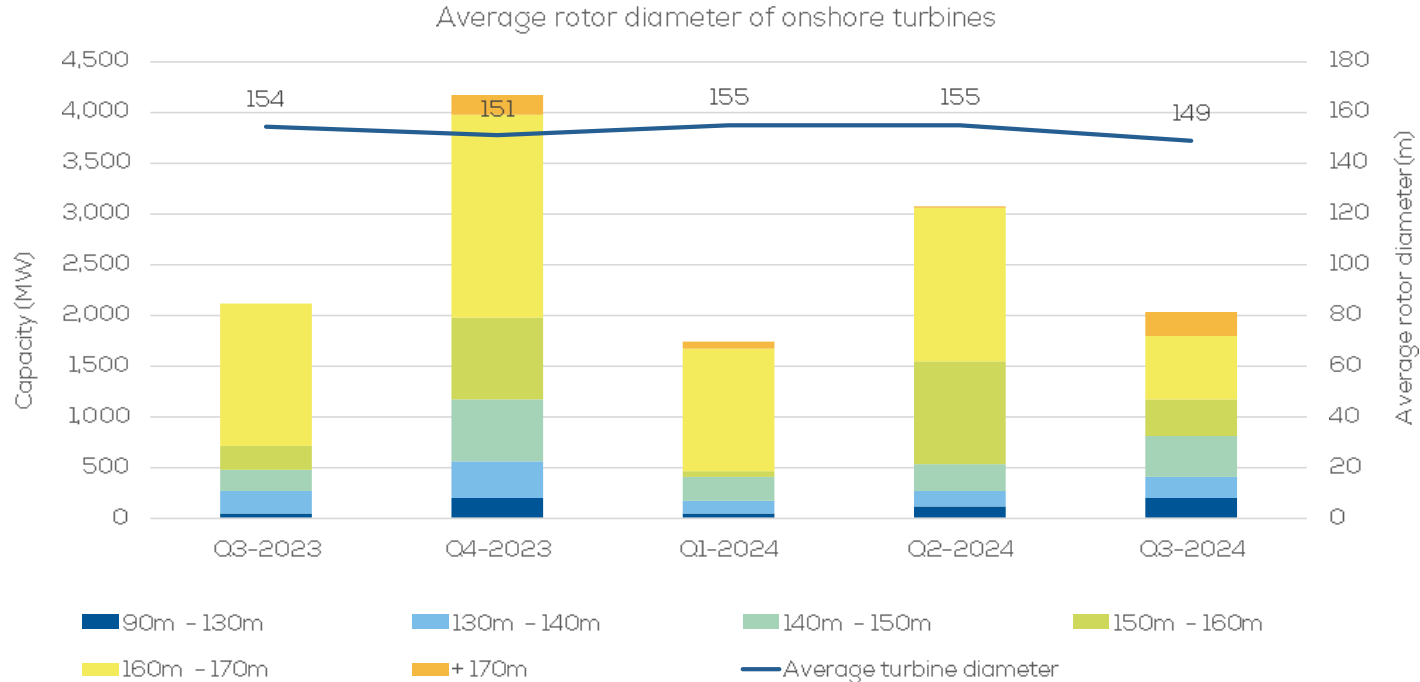
# The average offshore turbine size ordered in Q3 2024 was 15 MW, matching the size ordered in Q2 2024.

Offshore



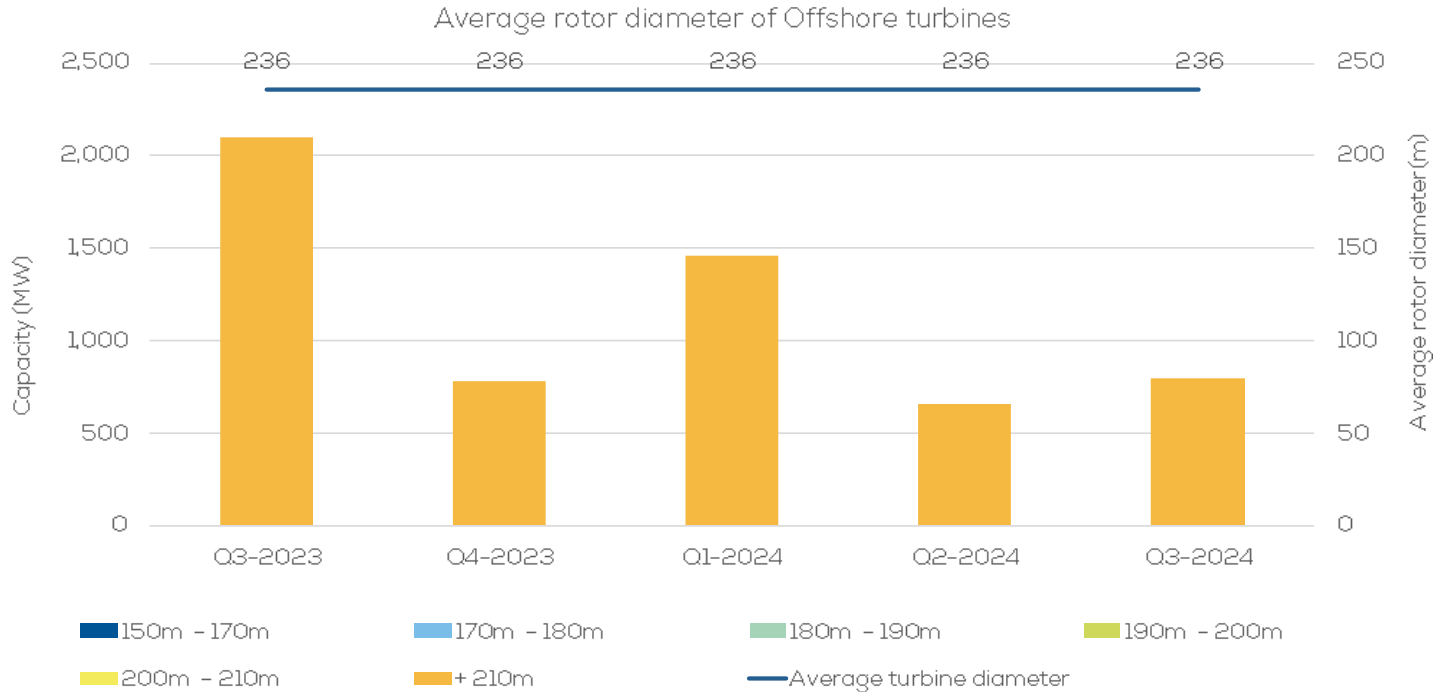
# The average rotor diameter of onshore turbine orders in Q3 2024 was 149m, down from 155m in Q2 2024.

Onshore

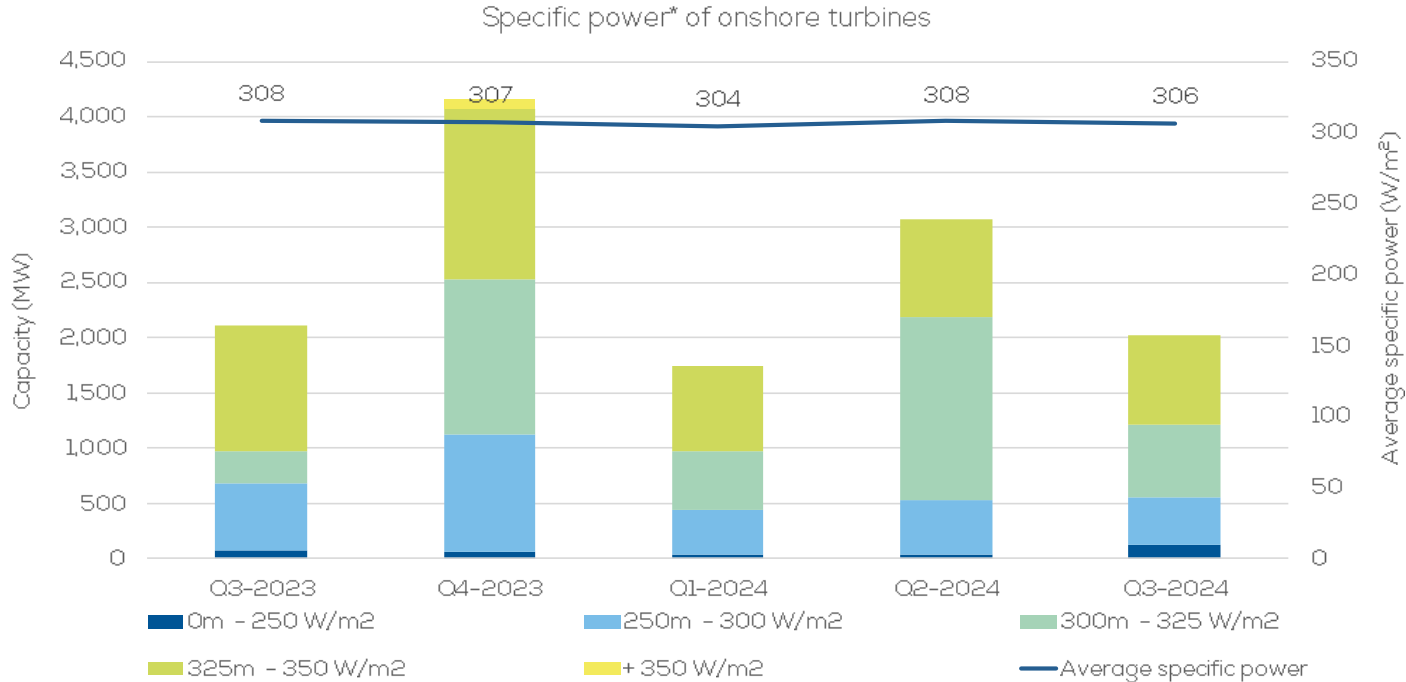


All offshore wind turbines ordered in Q3 2024 had a diameter of 236 meters, the same as in the past four quarters.

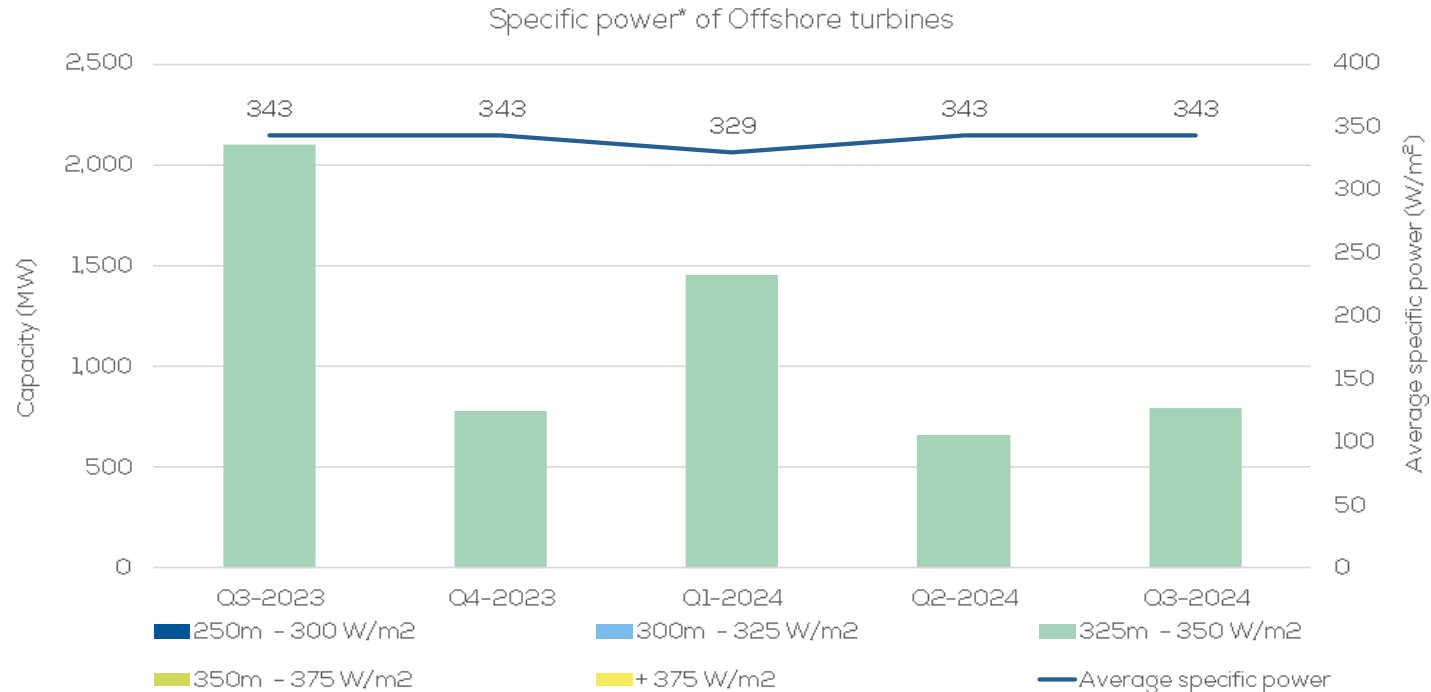
Offshore



The average specific power of onshore turbines ordered in Q3 2024 was 306 W/m<sup>2</sup>, similar to that in the past four quarters.

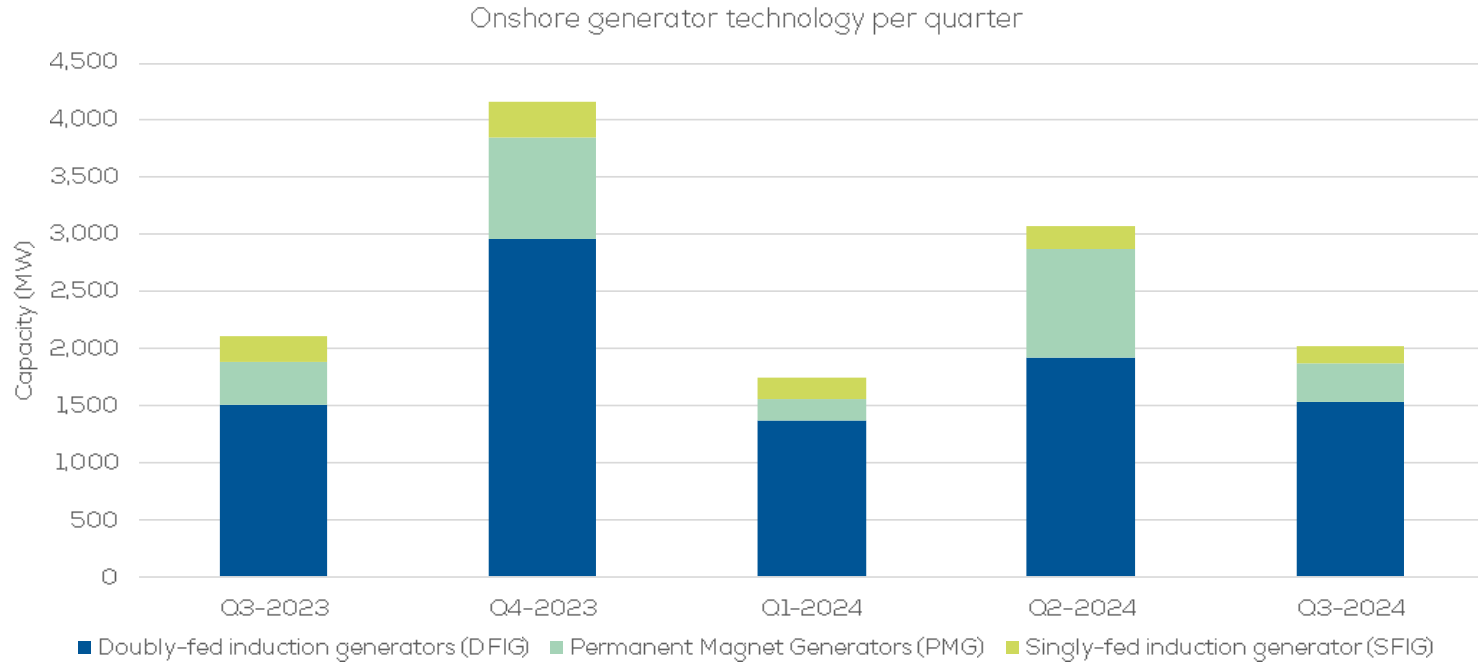


# The average specific power of offshore turbines ordered in Q3 2024 was 343 W/m<sup>2</sup>, unchanged from Q2 2024.



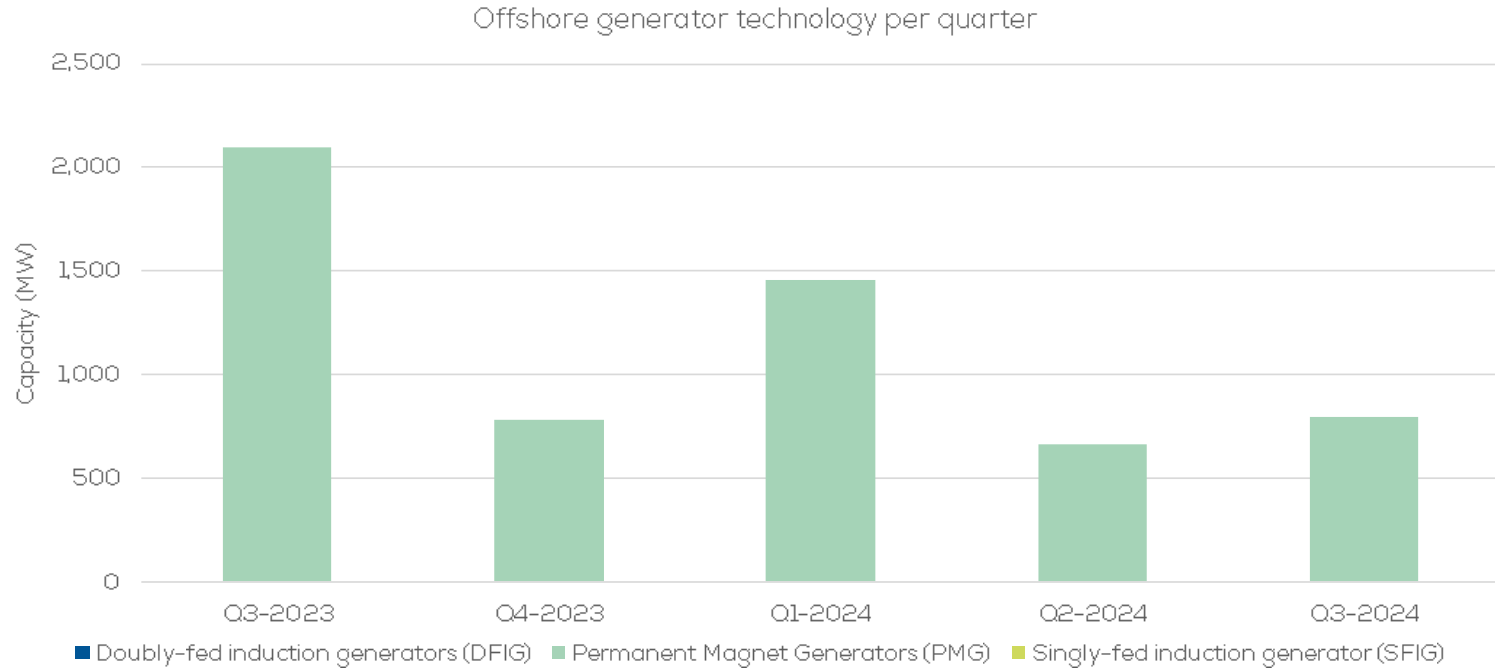
76% of disclosed onshore ordered capacity in Q3 2024 was for doubly-fed induction generators, 17% for permanent magnet generators.

Onshore



All offshore ordered capacity in Q3 2024 featured permanent magnet generators, consistent with the previous four quarters.

Offshore





# ANNEX – SPECIFIC POWER:

The relation between generator capacity and rotor area can be referred to as specific power ( $\text{W}/\text{m}^2$ ). 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](https://offshorewind.biz)
- [rechargenews.com](https://rechargenews.com)
- [renewablesnow.com](https://renewablesnow.com)
- [renews.biz](https://renews.biz)
- [windpowermonthly.com](https://windpowermonthly.com)
- [cleanenergypipeline.com](https://cleanenergypipeline.com)

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

- GE [www.ge.com/renewableenergy](https://www.ge.com/renewableenergy)
- Goldwind [www.goldwind.com/en/](https://www.goldwind.com/en/)
- MingYang Smart Energy [www.myse.com.cn/en/](https://www.myse.com.cn/en/)
- Nordex Acciona [www.nordex-online.com/en](https://www.nordex-online.com/en)
- Siemens Gamesa Renewable Energy [www.siemensgamesa.com/en-int](https://www.siemensgamesa.com/en-int)
- Suzlon Wind Energy A/S [www.suzlon.com/](https://www.suzlon.com/)
- Vestas [www.vestas.com/](https://www.vestas.com/)
- Windey Energy [www.windeyenergy.com/en](https://www.windeyenergy.com/en)