

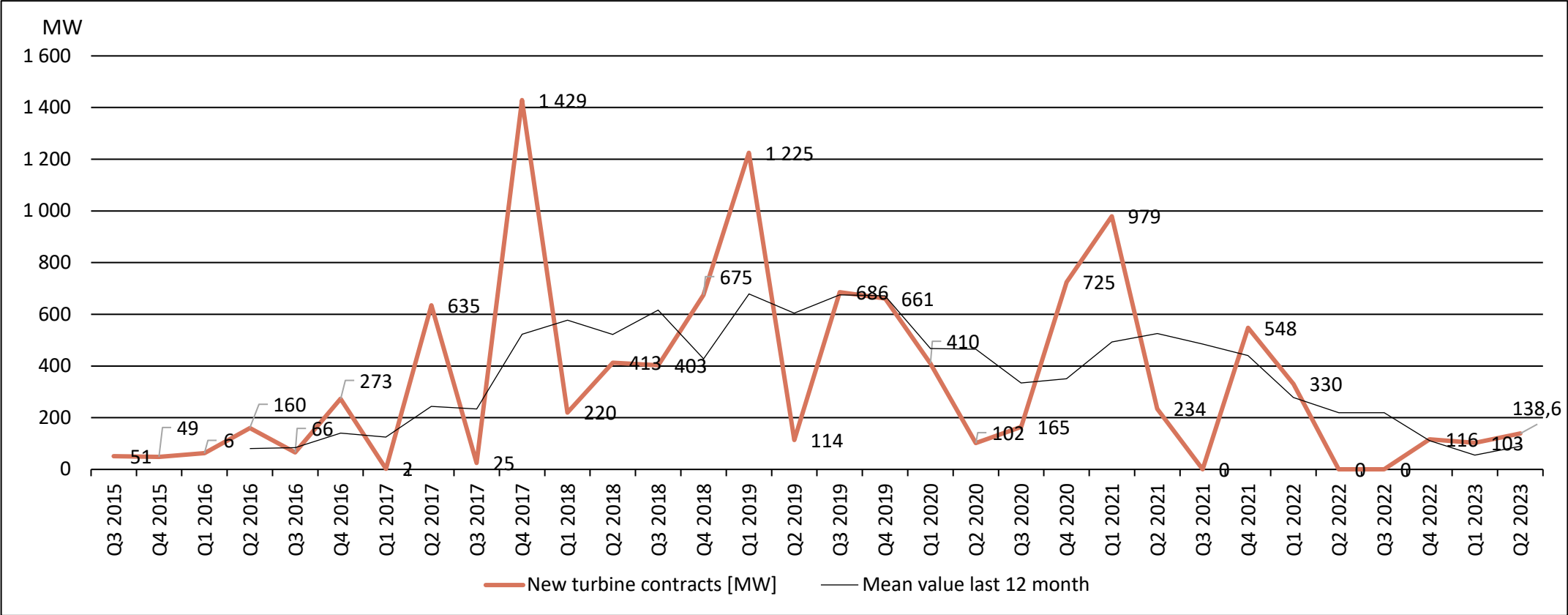
Statistics and Forecast– Q2 2023

07/07/2023

Statistics and forecast updated quarterly.

The figures are produced with data from turbine manufacturers and other market participants.

Turbine Contracts per Quarter (Megawatt, MW)

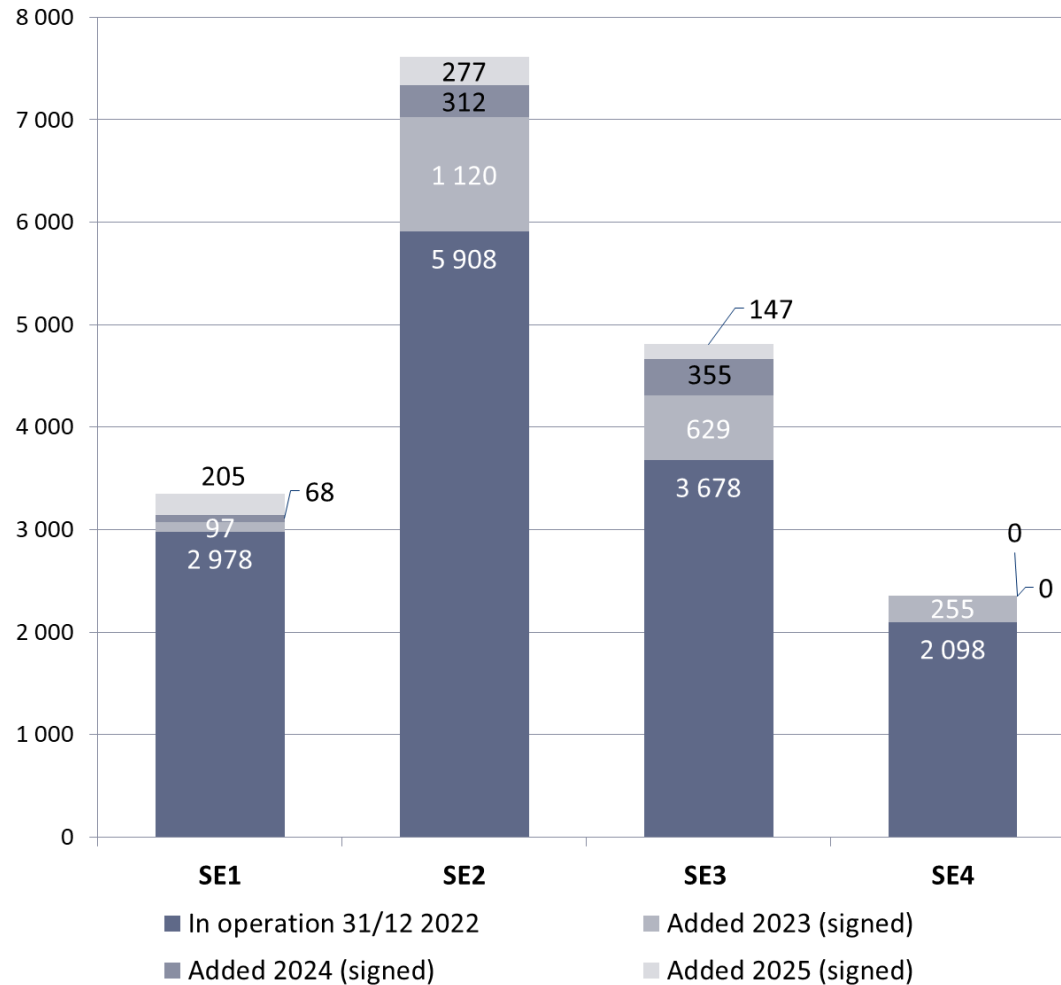


Scheduled Commissioning (Megawatt, MW)

According to turbine manufacturers order books for installations.

2022	2023 Q1	2023 Q2	2023 Q3	2023 Q4	2023 (Tot)	2024	2025
2054	132	683	727	559	2101	735	629

Scheduled Commissioning* (Megawatt, MW)

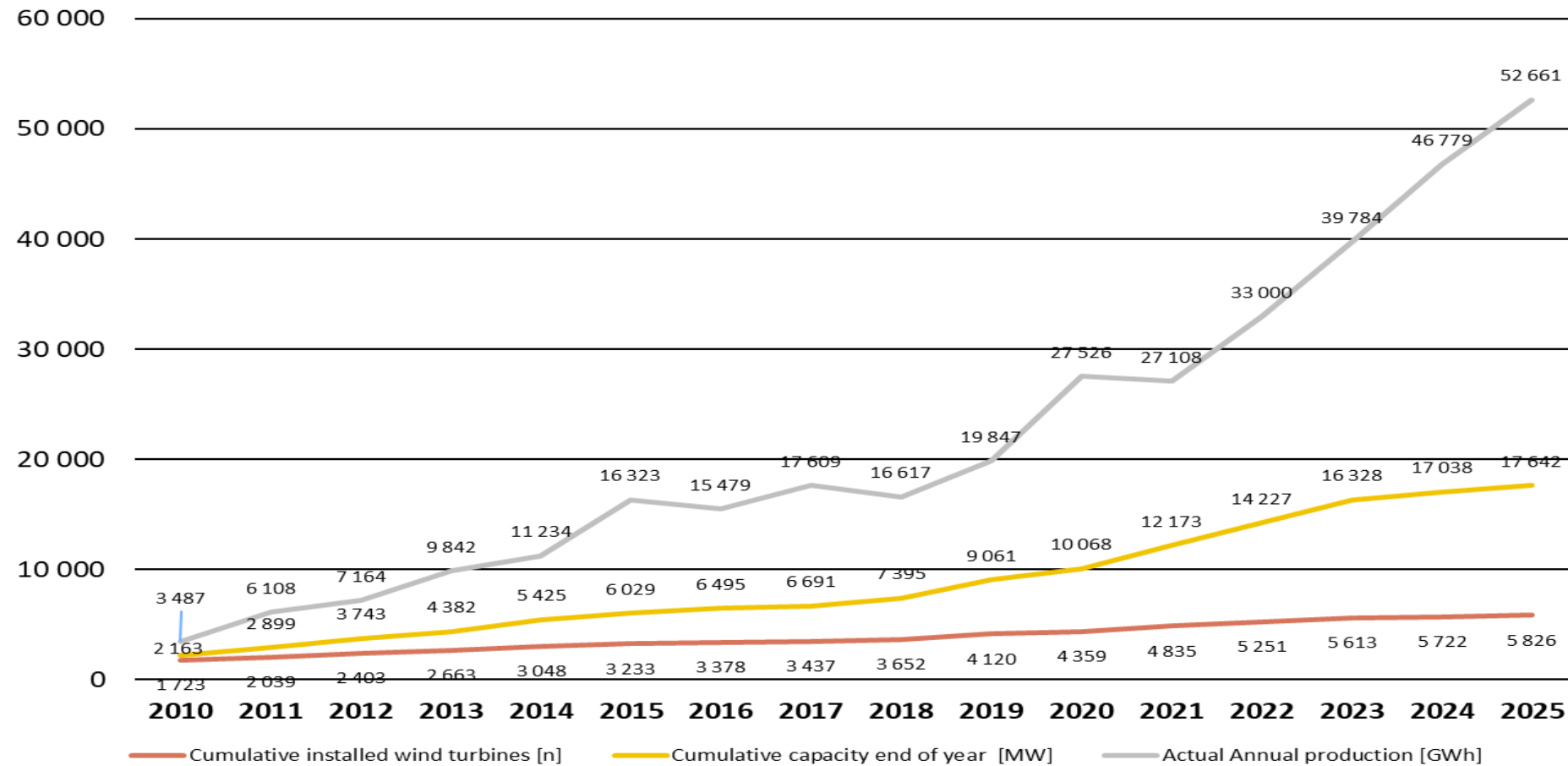


* Confirmed orders

Short Term Forecast (06/30/2023)

- Second quarter of 2023 138,6 megawatts (MW) of turbines was ordered.
- Continued high build out 2023 with only minor adjustments between quarters compared to last forecast.
- The previous high expansion is expected to slow down after 2024 but a slight increase in 2025 compared to previous quarters.
- By the end of 2025, SWEA estimates that wind power will reach an installed capacity of 17,642 megawatts (MW) and an annual production of 52.6 terawatt-hours (TWh).
- The short-term forecast is based on investment decisions and an estimate of buildable projects.

Short Term Forecast (06/30/2023)



Different Stages in the Permitting Process

- **Under construction:** Project with investment decisions taken and turbines ordered.
- **Announced:** Projects with permits and backing investors, but investment decisions have not yet been made.
 - Can be operational 2-3 years after investment decision.
- **With permits:** Projects with environmental permits, but the grid concession (electricity grid permit) remaining.
 - Can be operational 3-5 years after the grid connection is decided.
- **Projects under permit review:** Projects that have applied for an environmental permit to the County Administrative Board's Environmental Assessment Delegation or to the Government.
 - Attaining an environmental permit can take 3-7 years.
 - For onshore wind power, 45% have received environmental permits (2014-2021).
 - For offshore wind power, the figures apply to both projects in the Swedish economic zone and the territorial sea (in total).
- **Consultation:** Projects in pre-study, for which an application for an environmental permit has not yet been submitted.
- **Early-stage projects:** Projects that have not yet started the formal consultation process.

Project Portfolio (06/30/2023)*

Announced	Onshore	Offshore	Total
Projects	12	0	12
WTG's	194	0	194
Capacity (MW)	1 205	0	1 205
Annual normal production (TWh)	3,9	0,0	3,9

With permits	Onshore	Offshore	Total
Projects	50	5	55
WTG's	797	147	994
Capacity (MW)	4 797	2 154	6 951
Annual normal production (TWh)	15,2	9,6	24,8

Projects under permitting review	Onshore	Offshore	Total
Projects	60	17	77
WTG's	993	1 898	2 891
Capacity (MW)	6 518	28 254	34 772
Annual normal production (TWh)	21,8	120,6	142,4

* The data in the Swedish Wind Energy Association's project portfolio is based on reported data from SWEA members, Vindbrukskollen.se and statistics compiled by Westander Klimat och Energi on behalf of SWEA.

Additional Wind Power 2023-2035 – A Conservative Assumption

- According to the Swedish Wind Energy Association's forecast, wind power production will be 52.7 terawatt-hours (TWh) in 2025.
 - There are 19.1 TWh of onshore wind power with permits. If two-thirds of investments are decided within two years, 12.6 TWh of onshore wind could be added in 2026-2027.
 - $52,7 + 12,6 = \mathbf{65,3 \text{ TWh wind power in 2027}}$
- If 50% of the wind turbines in the onshore projects in the permitting process are authorised, investment decisions are made and construction proceeds at a steady pace, 10.9 TWh of onshore wind could be added by 2026-2029.
 - $52,7 + 12,6 + 10,9 = \mathbf{76,2 \text{ TWh of wind power in 2029}}$
- If the permitted offshore parks Kriegers Flak, Kattegat South and Galena are realised and put into operation in 2029, 9.6 TWh can be added in 2029.
 - $52,7 + 12,6 + 10,9 + 9,6 = \mathbf{85,8 \text{ TWh of wind power in 2029}}$
- If 50% of the wind turbines in the offshore projects in the permitting process are authorised, investment decisions are made and construction proceeds at a steady pace, 60.3 TWh of offshore wind could be added by 2029-2035.
 - $52,7 + 12,6 + 10,9 + 9,6 + 60,3 = \mathbf{146,1 \text{ TWh of wind power in 2035}}$
- In 2022, about 33 TWh of wind power was produced.
 - $146,1 - 33 = 113,1 \text{ TWh of wind power could be added between 2023-2035}$

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Electricity Grid and Market

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