

Statistics and Forecast

Q1 2025

2025-04-29

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Summary Q1 2025:

Turbine orders and expansion declining

- No new turbine orders were made in the 2025 first quarter. During the previous full year 2024, turbines with a total capacity equaling 446 megawatts (MW) were ordered.
- In recent years, there has been a consistent decline in turbine orders, with market signals indicating that making profitable investments has become increasingly challenging. The current market environment is difficult, marked by low electricity prices and global instability.
- Although market conditions are challenging, the installed capacity of wind power continues to grow. In total, approximately 1 gigawatt (GW) was commissioned during 2024. Most of this additional capacity stems from older investment decisions.
- Thus, wind power continues to grow but primarily doing so based on earlier investment decisions. Wind power has the potential to grow further in the short-time perspective. There are projects amounting to about 1,815 MW with all necessary permits, where investment decisions have not yet been made. With improved market conditions, these wind farms could be operational before 2030.
- During the first quarter of 2025, wind power produced about 12 terawatt hours (TWh). This means that wind power accounted for roughly 26 percent of the total electricity production in Sweden.

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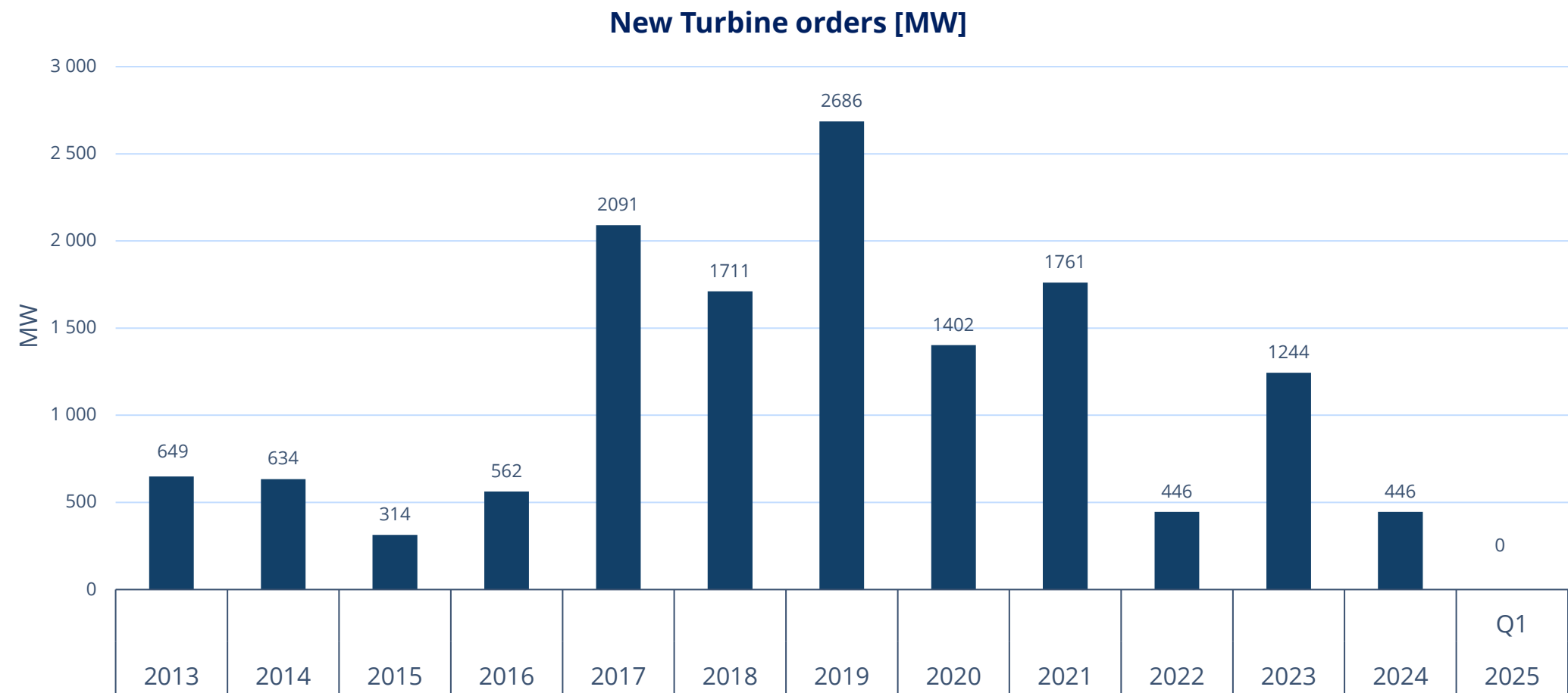
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No new turbine orders (Q1 2025)



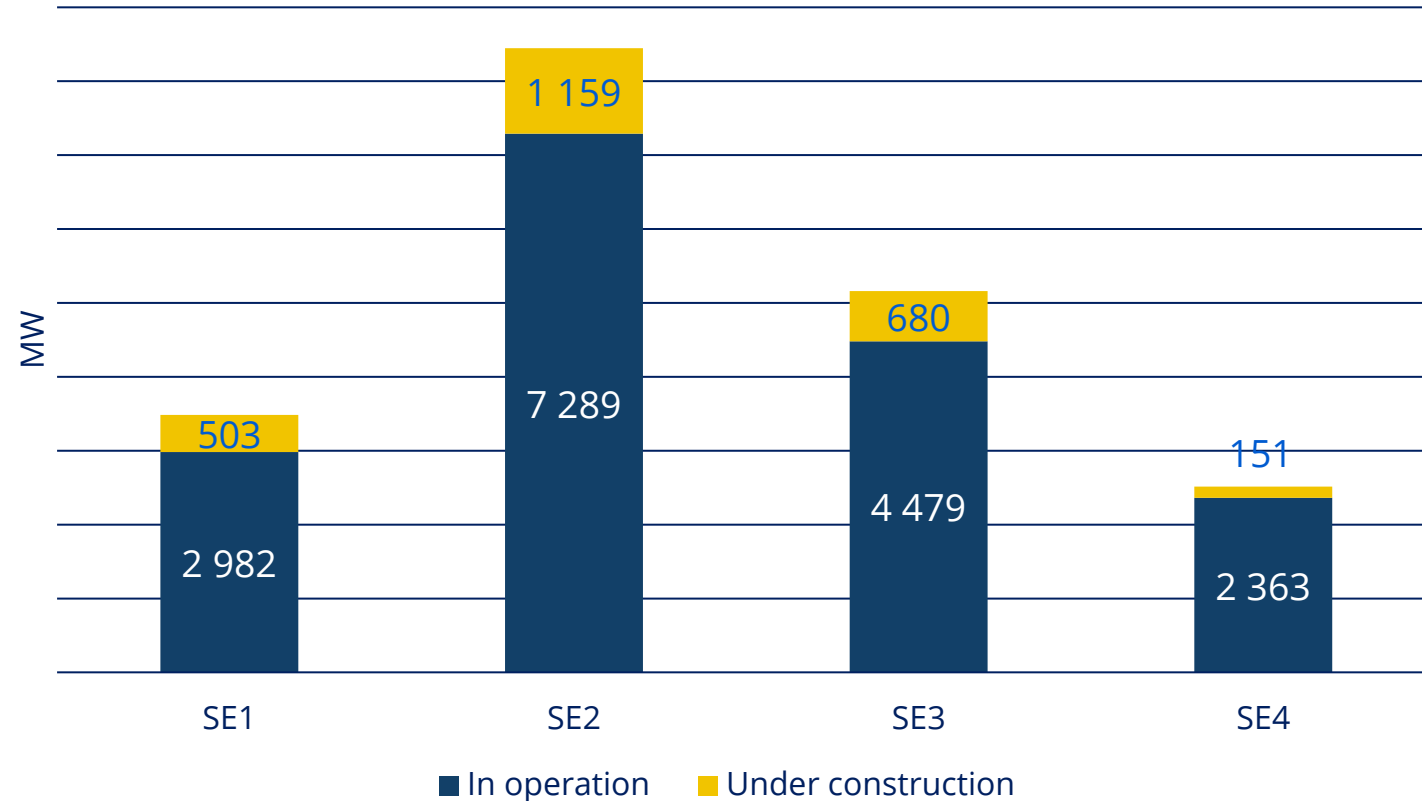
Continued expansion, but at a slower pace

Commissioning of wind power 2024–2027,
megawatts (MW)

In Commission 2024-12-31	2024 Q2	2024 Q3	2024 Q4	2025 Q1	2025	2026	2027	In Commission 2027-12-31
17 008	340	59	421	70	1 437	370	520	19 605

The wind power expansion continues, but at a slower pace. In addition to projects under construction, there are 1 815 MW in announced projects that could be operational before 2030.

Expansion per bidding zone until 2027



The diagram showcases projects in operation and under construction, divided by bidding zone. Projects under construction are estimated to be done by the year 2027.

Apart from projects shown in the diagram there are also 1 815 MW in announced projects.

Wind power under construction in Sweden

Project name	Start-year	MW	WTG	Bidding zone	County	Municipality
Kölvallen	2025	277	42	SE2	Gävleborg	Ljusdal
Bruzaholm	2025	139	21	SE3	Jönköping	Eksjö
Knäsjöberget	2025	98	14	SE2	Västernorrland	Kramfors
Sörlidberget	2025	147	21	SE2	Västernorrland	Sollefteå/Kramfors
Vitberget	2025	161	23	SE2	Västernorrland	Kramfors
Storhöjden	2025	149	22	SE2	Västernorrland	Kramfors
Blisterliden	2025	98	14	SE1	Västerbotten	Skellefteå
Fasikan	2025	102	15	SE2	Västernorrland	Sollefteå
Trelleborg	2025	5	2	SE4	Skåne	Trelleborg
MB South	2027	405	97	SE1	Norrbottn	Piteå
Boarp	2025	25	4	SE3	Västra Götaland	Vaggeryd
Dållebo	2025	18	4	SE3	Västra Götaland	Ulricehamn
Fågelås	2025	45	7	SE3	Västra Götaland	Hjo
Velinga	2025	67	12	SE3	Västra Götaland	Tidaholm
Fröskog	2025	37	6	SE3	Västra Götaland	Åmål
Horshaga	2026	124	20	SE4	Kronoberg	Uppvidinge
Horshaga	2026	22	5	SE4	Kronoberg	Uppvidinge
Vinliden	2026	70	11	SE2	Västerbotten	Lycksele
Fjällberg	2026	154	24	SE2	Västerbotten	Lycksele
Ånglarna	2027	115	18	SE3	Dalarna	Falun
Bäckagård - repowering	2025	4	2	SE3	Halland	Varberg
Fageråsen	2027	230	33	SE3	Dalarna	Malung-Sälen
		2493	417			

Swedish wind power project portfolio

Under construction: All permits ready, and turbines ordered.

Announced: Projects with permits and investors, but where investment decisions have not been made.

Permitted*: Projects with an environmental permit, where the grid concession (electricity grid permit) is pending.

Under permitting review: Projects that have applied for an environmental permit to the County Council or the Government.

Consultation: The consultation procedure under the Environmental Code is underway.

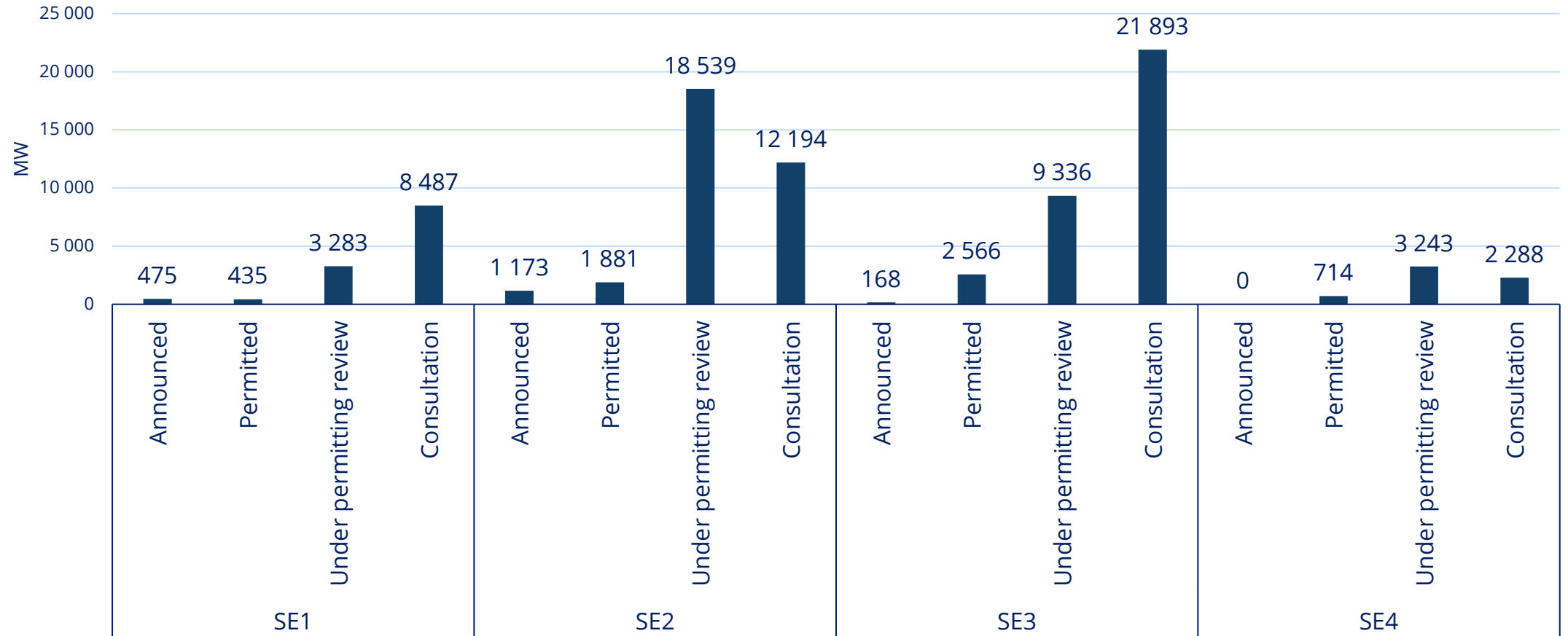
"The Swedish Wind Power Project Portfolio" is a weighted assessment based on:

- Data from Swedish Wind Energy Association's member companies
- Media Reporting
- Vindbrukskollen
- Statistics on Onshore Wind Power 2014-2023 (Westander Klimat & Energi)
- Permitting Time Onshore Wind Power 2014-2023 (Westander Klimat & Energi)
- Status Report Offshore Wind Power 2024 (Westander Klimat & Energi)

*Even if a park has acquired environmental permits there can be permits missing

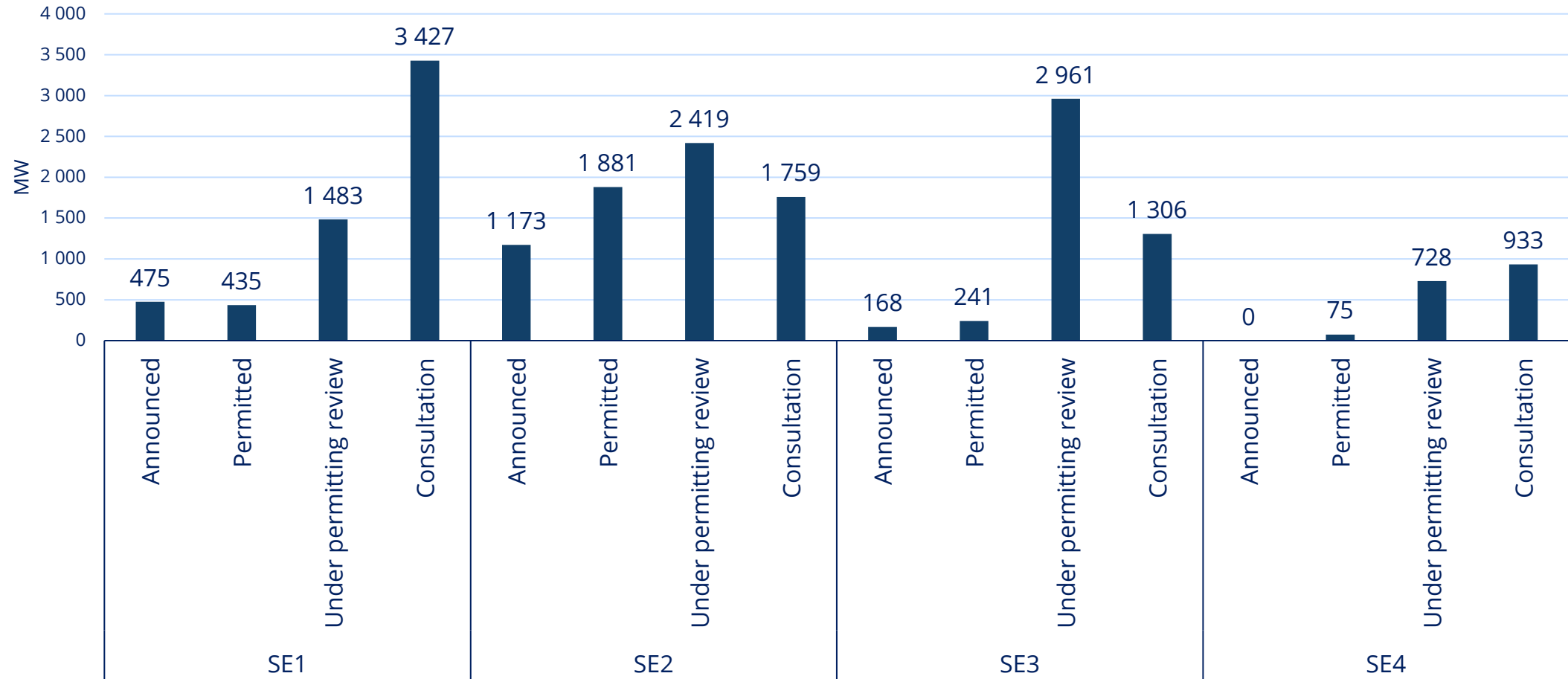
Summary project portfolio (Q1 2025)

Onshore and offshore wind



Summary project portfolio (Q1 2025)

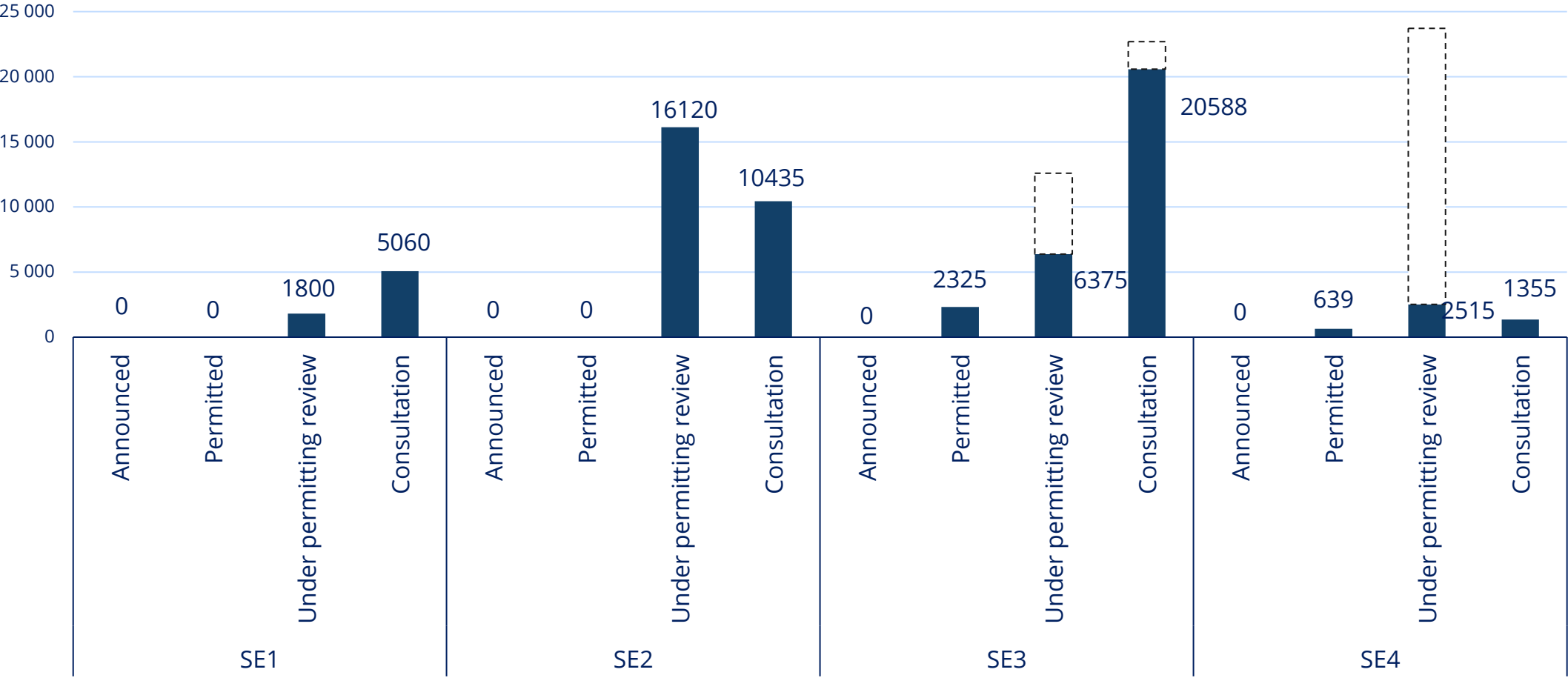
Onshore wind



Summary project portfolio (Q1 2025)

Offshore wind

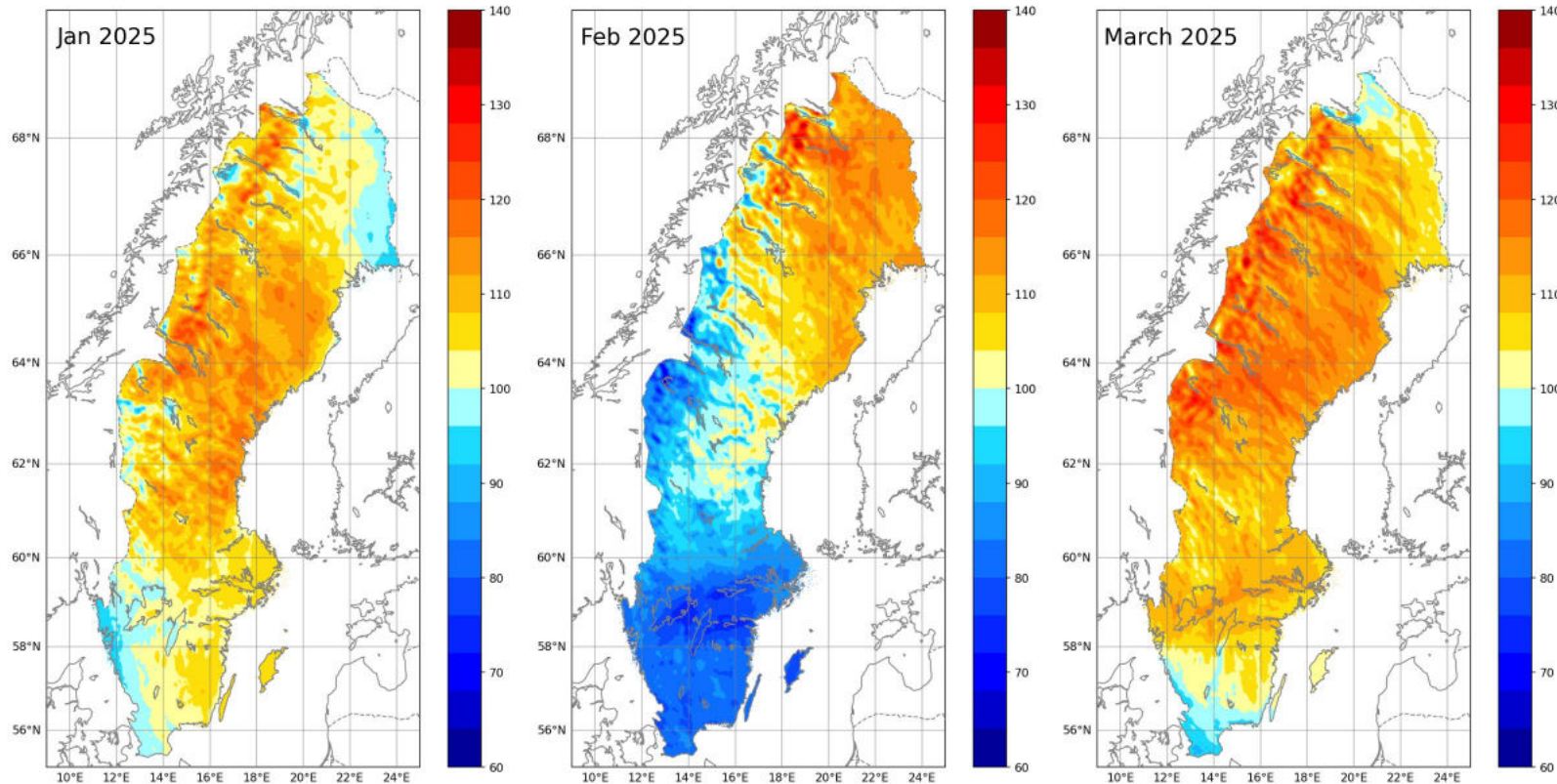
Dashed lines visualize the government's rejection of 13 offshore projects in the Baltic Sea on November 4, 2024.



Windindex January - March 2025



KVT Monthly wind index [%]



Kjeller Vindteknikk Wind Index

Average wind speed per month compared to the reference period 2000–2019.
Red colors = higher average wind speed, blue colors = lower average wind speed.

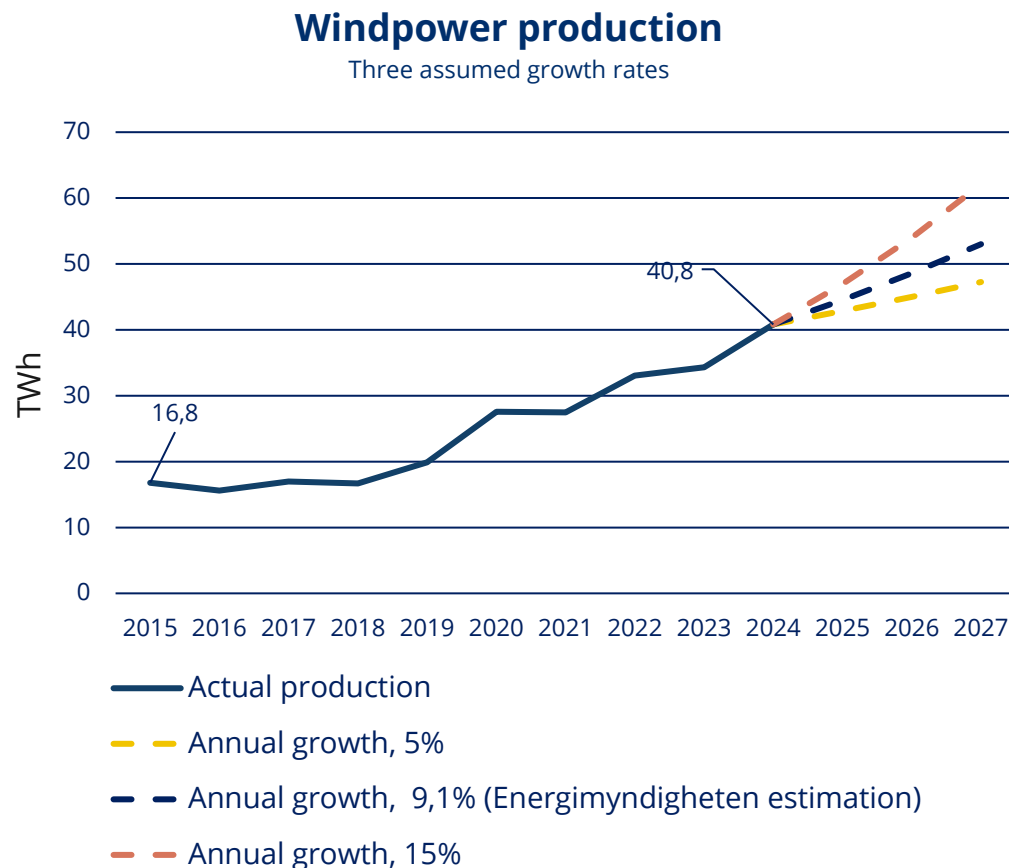
The year began with mild weather, and mild winter months often bring windy conditions as deep low-pressure systems move in and push warmer air northward.

As usual, the mountain regions experienced the strongest winds. In the most exposed areas, hurricane-force gusts were recorded during January, February, and March.

In the southern half of the country, low-pressure activity subsided somewhat in February, as a high-pressure system settled over the region for much of the month. However, in March, low-pressure systems returned, sweeping across the entire country.

Compared to normal, only parts of Götaland experienced less wind than usual during the first quarter. The most significant deviations from typical wind conditions were noted in the mountain regions and central Norrland.

Prognosis electricity generation from wind power between 2025-2027



- Historical production growth between 2015 and 2024 has averaged approximately 10.4 percent per year. The total increase in production over this period amounts to around 143 percent.
- The production forecast illustrates three potential scenarios with varying growth rates.
- Future production will be highly dependent on market developments in the coming years. Key influencing factors include electricity demand, electricity prices, incentive structures, and the global economic and political environment.
- During Q1 2025, approximately 1,300 MW in announced projects were added. If these projects are completed and brought online, production could increase significantly.

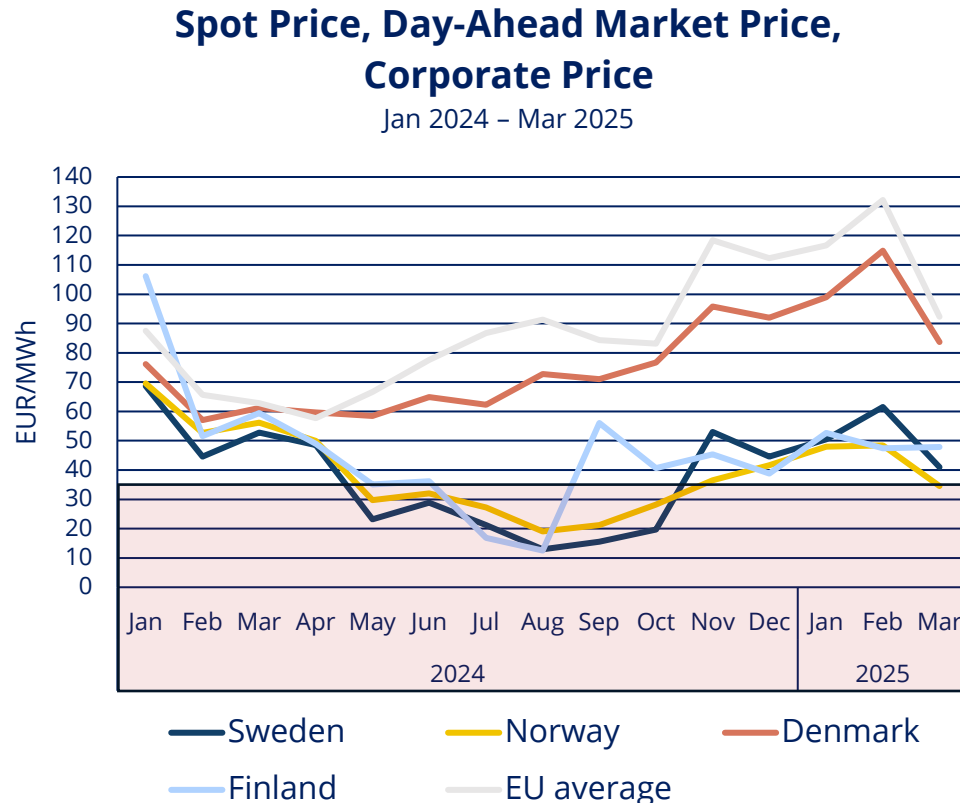
An overview of electricity price developments

In Sweden and Europe during 2024 and 2025

Challenging market conditions with increasing obstacles

- This chapter summarizes and illustrates how electricity prices developed over the full year of 2024 and the first quarter of 2025. The aim is both to highlight price differences at the national level and to place Swedish prices in a Nordic and international context.
- Electricity prices, determined by supply and demand models, have remained low in Sweden for an extended period compared to other European countries. Sweden's low electricity prices provide strong incentives for energy-intensive companies to establish operations in the country.
- However, if demand does not increase as expected, the low price of electricity reduces the attractiveness of investing in more additional electricity generation, making it harder to recoup the investment. In Sweden, negative electricity prices have also grown at a record pace in recent years, a result of the mismatch between supply and demand in the market. Large electricity-intensive projects have been delayed, depressing demand and contributing to a large surplus of electricity.
- The pricing challenges are further exacerbated by limitations in Sweden's electricity grid, which restricts the amount of electricity that can be transferred between different electricity areas. High-production areas (SE1 & SE2) are unable to transfer their production surpluses to high-consumption areas (SE3 & SE4) at the rate needed to help stabilize prices.
- Overall, the industry needs clear signals from both policymakers and electricity consumers—signals that can accelerate electrification and secure national demand. If the current trend continues, Sweden will not require additional electricity production.

The Competitiveness of Electricity Prices



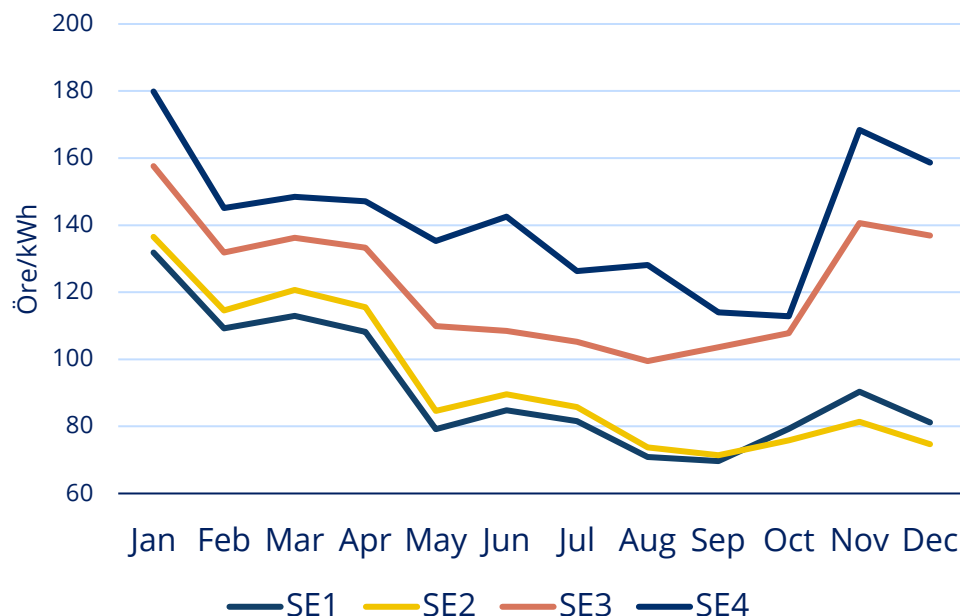
Source: EMBER, European Wholesale Electricity Price Data | Ember

- A lower electricity price helps to increase a country's competitiveness, as energy-intensive companies and industries have incentives to establish their operations in areas with lower electricity costs.
- Both Swedish and Nordic electricity prices have been significantly lower than the European average over the past 15 months. The figure shows the spot price (corporate price) on the day-ahead market.
- An electricity price of 35 EUR/MWh is generally seen as the profitability threshold for onshore wind power, one of the energy sources with the lowest marginal cost.

Electricity prices – a national perspective

Consumer Electricity Prices in Sweden's Different Electricity Areas

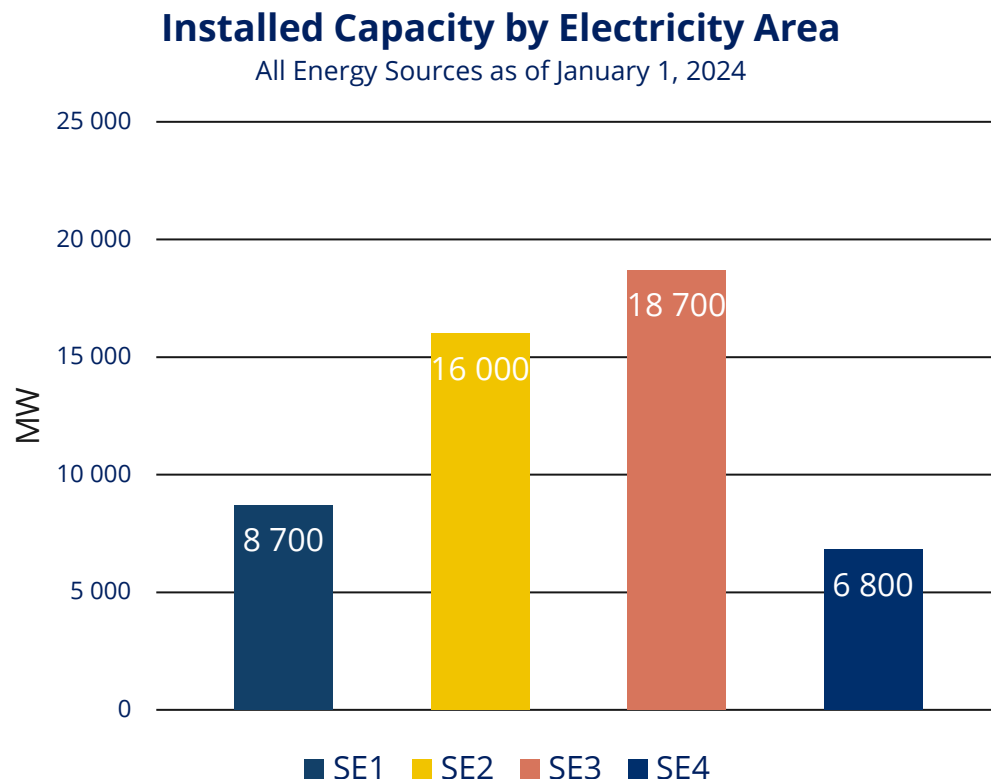
Year 2024, Reference Apartment with 2,000 kWh Annual Consumption



Source: Energimarknadsinspektionen, Historiska jämförpriser på avtal - elhandel - Energimarknadsinspektionen

- Sweden currently has four electricity areas, but an ongoing review may potentially change this.
- The figure to the left illustrates price fluctuations for consumer electricity prices (including tax and tariff) over the past year (2024).
- Electricity prices in Sweden are highest during the coldest months of the year, as demand for electricity increases when temperatures drop.
- There are clear price differences between Sweden's bidding zones. Consumers in southern Sweden (SE4), pay the highest price.

Why are prices different on a national scale?



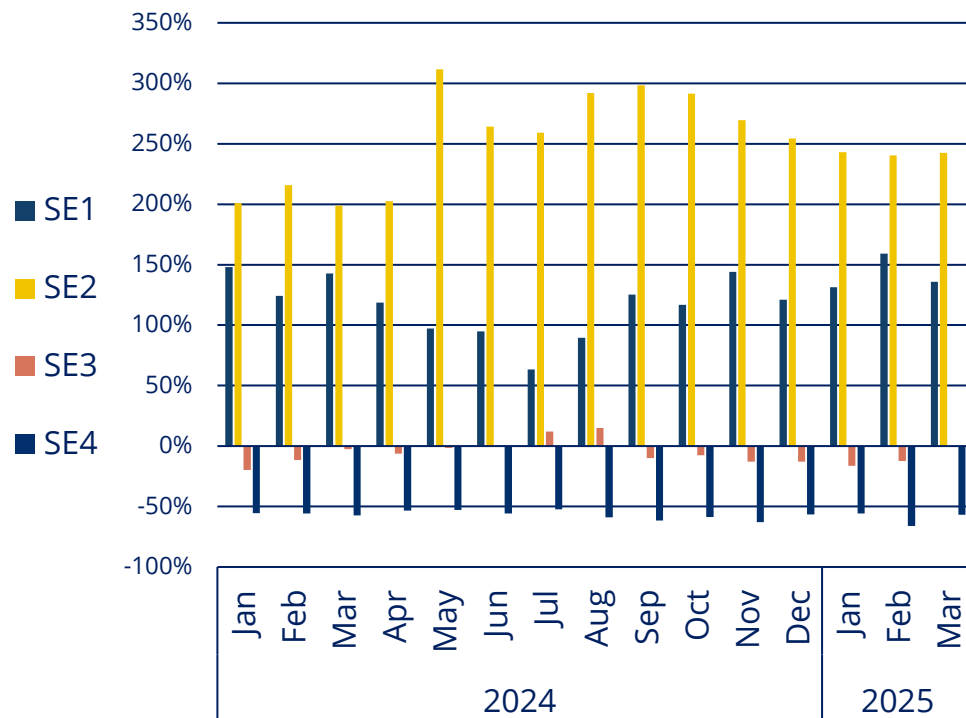
Source: Elhandelsavtal, Elproduktion i Sverige | [Elhandelsavtal.se](https://elhandelsavtal.se)

- One contributing factor to price differences between bidding zones is that installed capacity varies, while demand also differs depending on factors such as population density and industrial presence.
- Northern Sweden (SE1 & SE2) is characterized by low consumption and relatively high installed capacity, meaning they do not consume at the same level as they produce.
- SE3 (which includes Stockholm and Gothenburg) is characterized by high consumption but also high production. The area fluctuates between self-sufficiency and slight import/export.
- The southernmost parts of the country, SE4, stand out, with low production and high consumption. This electricity area is almost always dependent on imports.

Self-sufficiency affects price

Electricity Self-Sufficiency by bidding zone

January 2024 – March 2025



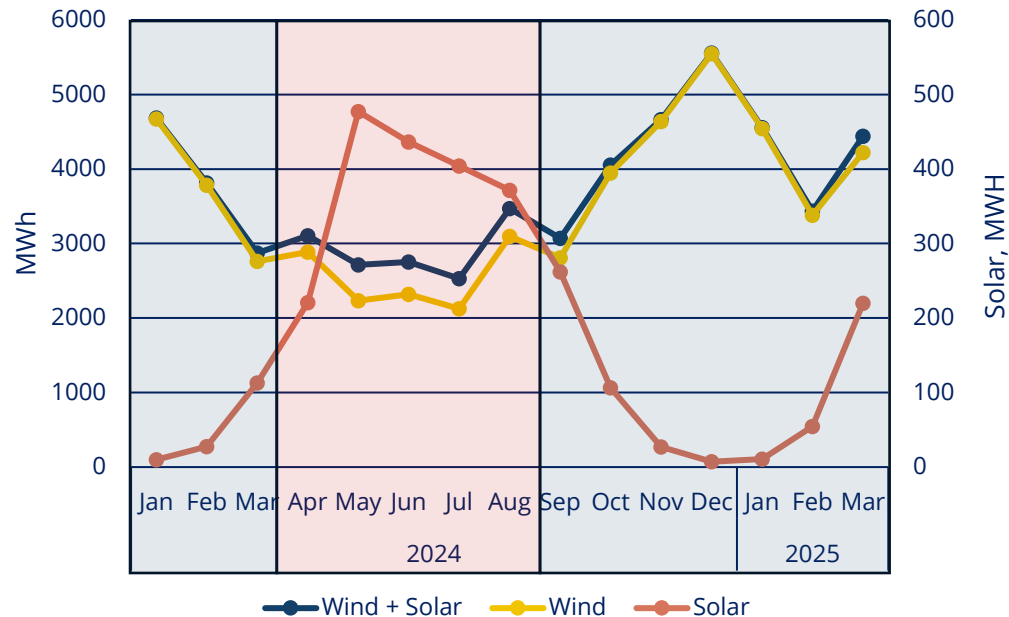
Source: eSett, Main | eSett Open Data

- The figure shows the level of electricity self-sufficiency, i.e., total consumption divided by total production, broken down by bidding zone.
- If an area has a self-sufficiency level above 0%, it means production exceeds consumption and electricity needs to be exported. If an area has a level below 0%, it means the area needs to import electricity.
- The transmission between high-producing and high-consuming areas is currently limited by the power grid, due to so-called bottlenecks.
- Additionally, nearly 9% of our total electricity production is lost through transmission losses.

Production profile and technical innovation

Actual Production January 2024 – March 2025

Wind and Solar Power, Blue areas represent colder months, red areas represent warmer months



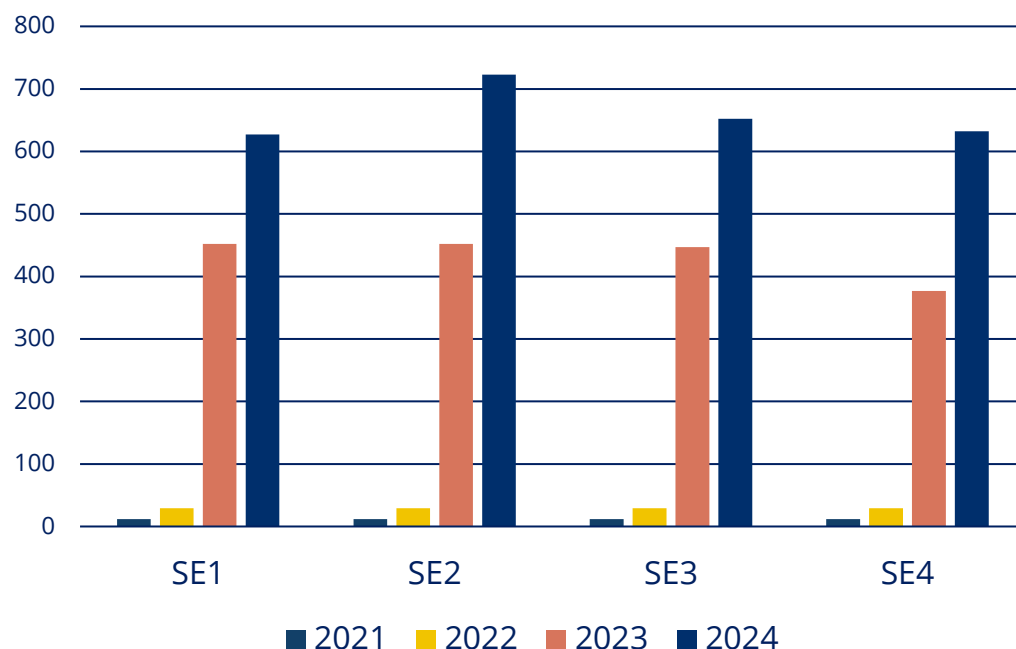
Source: eSett, Main | eSett Open Data

- Most of the new electricity generation added in the last decade is located in the northernmost parts of Sweden. This has led to a sharp drop in electricity prices as the expected increase in consumption has been delayed.
- An important perspective now is to take advantage of the opportunity created by the expansion and accelerate the industry's transition. It reduces import/export between electricity areas and harmonizes the price.
- As a response to the increasingly challenging investment cases for individual energy sources, the market has increasingly begun to combine different sources into so-called hybrid parks.
- A hybrid park is a combination of wind and solar power. Such a park offers a more balanced production profile with greater flexibility. Adding batteries further increases flexibility and potential profitability.

Negative electricity prices challenge expansion

Number of Hours with Negative Electricity Prices 2021-2024

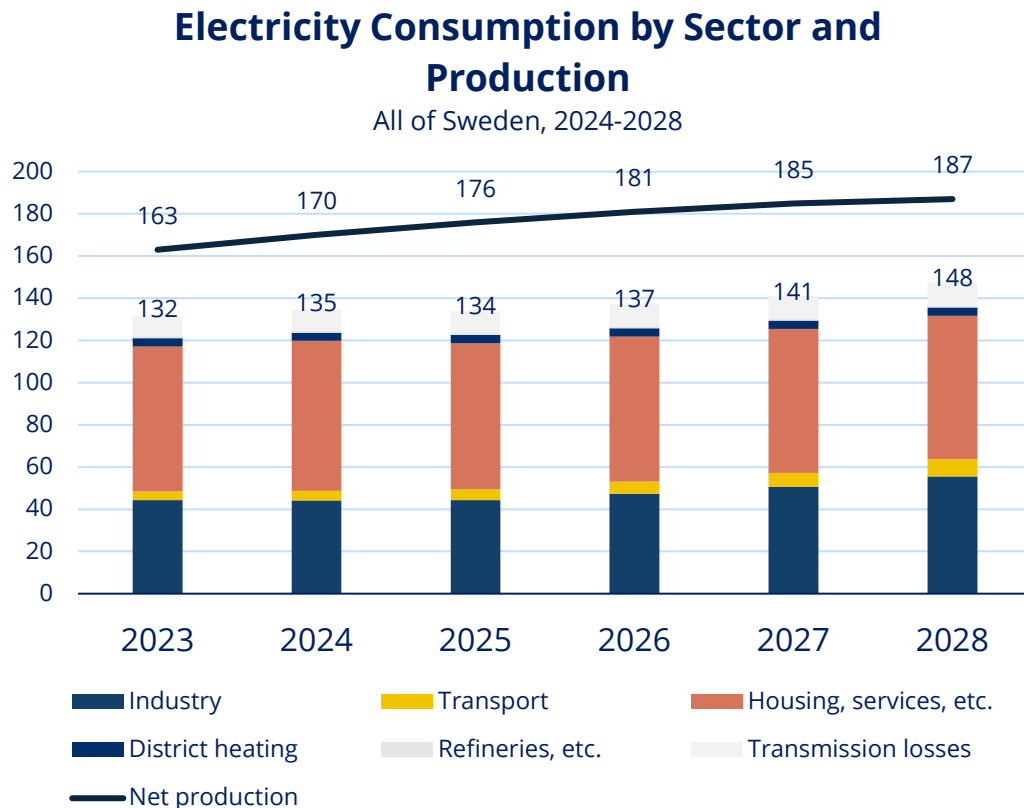
Number of hours in reference year: 8760



Source: Elbruk Negativa elpriser i Sverige

- Since 2021, the number of hours with negative electricity prices has increased significantly in Sweden.
- In 2024, there were a total of 784 hours with negative prices, compared to just 12 hours in 2021. This represents an increase of over 6,000% in three years.
- A large part of the explanation is the rapid expansion of electricity production, while electricity consumption has stagnated.
- Negative electricity prices create favorable conditions for energy-intensive industrial investments. However, over time, low or negative electricity prices create an unsustainable market situation for both current and potentially new electricity producers.

Consumption is increasing, but not fast enough



Source: Energimyndigheten, Kortsiktiga prognoser

- The figure shows that Swedish consumption will increase, but it is still far below production.
- An increase in consumption is necessary for the expansion of electricity production to continue. A large surplus of electricity pushes prices down nationally and reduces the incentives for new electricity production.
- For society to transition and electrify, authorities, politics, and industry must work together. If this collaboration does not take place, we will not need to expand electricity production further.
- To establish and maintain a competitive electricity price, both the expansion of electricity production and consumption are required.

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