The future of the prices and the power balance in the power market

Winterwind
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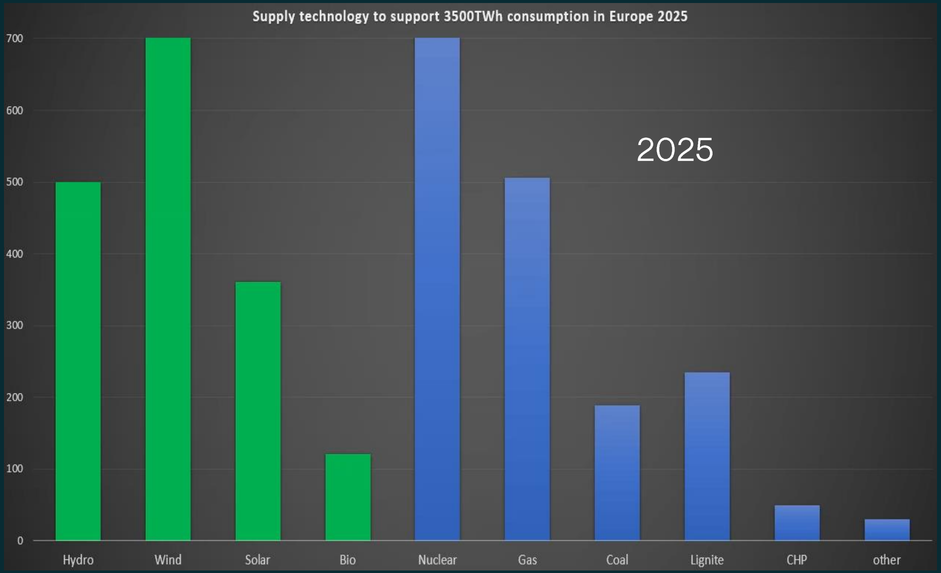
European power Balance 2025:

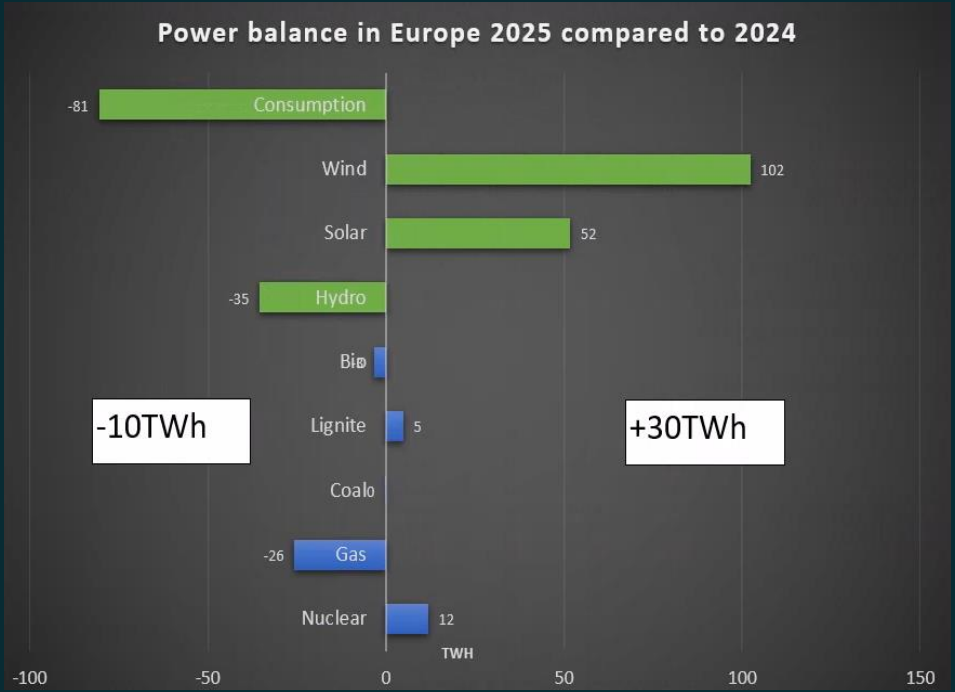
The green shift will soon reach 50% new renewable share!



Supply in Europe:

- Renewable production might exceed 1700TWh in 2025 and cover close to 50% of total consumption
- Wind production might challenge nuclear generation to be the highest contributor in Europe in 2025 with more than 700TWh production
- Solar production has the highest % growth increase of almost 15% from last year
- We still see 400TWh coal/lignite production left.
- Gas is a strong contributor and very important for flexible production and will be one of the most important price signals in the future

What about the European power balance in 2025?
The green shift will continue, and consumption will be the key factor!



2025 will be different from 2024 in some ways

- Consumption will be an essential factor, and the major question is how much will it increase.
- New renewables will continue to grow with expectations of 22000MW new wind power capacity and 42000MWp new solar power installations
- Lignite and coal production are almost unchanged this year
- Further reduction in gas production
- Nuclear power with stable availability
- Even with a significant consumption increase and less hydro, the support from wind and solar will more than cover it, and we might need lower thermal production this year as well

- This will continue to pressure the gas and CO_2 markets this year. Coal is more dependent on Asian demand.

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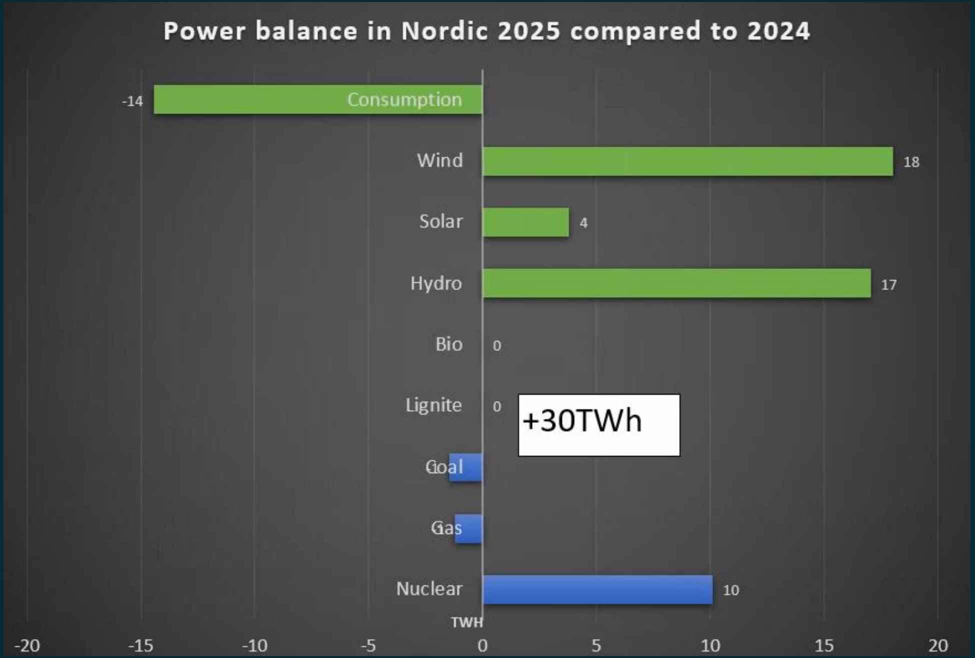
What about the Nordic power balance in 2025?

The surplus in 2025 will be extreme, and we need to look at the northern part!



2024

- 2024 did deliver 12TWh below normal assumptions for the power balance
- High temperatures and low wind

2025

- 14 TWh consumption increase (6TWh temperature adjusted)
- New renewables will continue to grow with expectations of 2500MW new wind power capacity and 3500MWp new solar power installations
- Hydro with a significant surplus in the snow and hydro reservoirs (+15TWh in the northern part)
- Nuclear with higher availability and less maintenance

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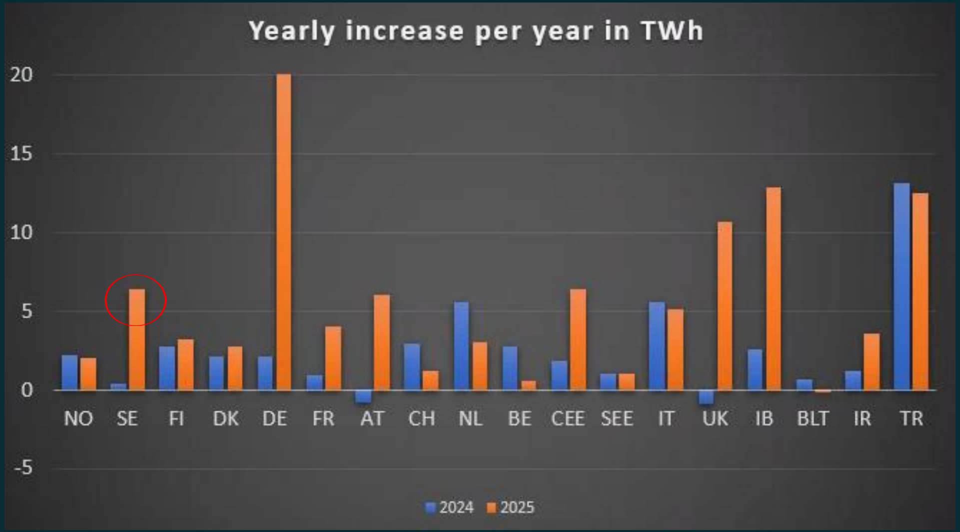
The increase in Nordic power is approaching!

Will we see a 14TWh increase in consumption this year?



	NO	SE	FI	DK
Yearly 2025	2,0	6,4	3,3	2,8
jan.25	-0,5	-0,7	-0,7	0,0
feb.25	0,5	0,5	0,1	0,3
mar.25	0,6	0,9	0,8	0,3
apr.25	0,2	0,4	0,3	0,1
mai.25	0,7	0,9	0,3	0,3
jun.25	-0,3	0,6	0,1	0,2
jul.25	-0,6	0,3	0,1	0,3
aug.25	-0,6	0,3	0,2	0,3
sep.25	-0,1	0,6	0,6	0,3
okt.25	0,3	0,8	0,6	0,3
nov.25	0,5	0,6	0,5	0,2
des.25	1,2	1,2	0,4	0,3

Temperature. Sweden. Degrees C

		Normal	Diff from Normal
2021	6,7	6,3	0,4
2022	7,4	6,3	1,1
2023	6,8	6,3	0,6
2024	7,5	6,2	1,3

- Very high temperatures compared to normal in Feb/March and several other months last year
- 2024 did anyway see a 9 TWh increase
- 2025: Normal assumptions account for half of the increase, and the rest comes mainly from data centers, EV, battery production, heat pumps and electrification offshore in Norway

Volue's assumptions to Nordic power balance front years:

A lot more consumption than production in the next 5 years!

Year	Hydro-power	Nuclear	Wind onshore	Wind offshore	Solar power	CHP	Thermal	Consumption	Net exports
2018	212.7	88.1	40.4	2.3	1.3	47.4	11.1	404.6	-1.3
2019	214.3	86.8	44.8	4.6	2.1	47.8	8.7	402.1	7.0
2020	216.0	69.7	51.6	5.3	2.3	44.1	3.9	398.6	-5.7
2021	217.8	74.0	57.8	6.5	2.9	43.7	6.6	403.3	6.1
2022	218.6	74.2	70.6	7.9	4.6	39.3	7.4	389.4	33.3
2023	219.1	79.4	82.5	10.0	6.9	31.4	7.5	382.9	53.9
2024	219.3 217	85.2 79	91.3 85	11.1 10	10.0 9,5	23.2	5.9	394.5 392	51.6 40
2025	219.5	88.1	96.8	11.3	12.8	25.0	4.4	410.1	47.7 70?
2026	221.1	86.2	102.3	11.3	15.6	25.6	3.8	428.7	37.1
2027	221.4	86.7	106.5	11.3	18.5	24.6	2.7	449.9	21.9
2028	222.2	87.9	110.5	15.3	21.4	23.1	2.8	471.9	11.3

The numbers in the table are normal assumptions for wind, solar and hydro

- We didn't reach normal assumptions in 2024 (-12TWh)
- This might surprise us a bit in 2025 if we experience normal conditions
- Notice: The increase in surplus in 2025 is all about northern Norway(+6) and Sweden (+55), with a 60TWh surplus in total in a normal assumption. Adding another 15TWh surplus of hydro in 2025, we might reach a 75TWh surplus in this region alone.
- Southern Norway (+13), southern Sweden (-22), Finland (+4) and Denmark (-4). Show a small deficit of -9TWh in total.
- Huge transport of power from the north to the south and further to the Continent

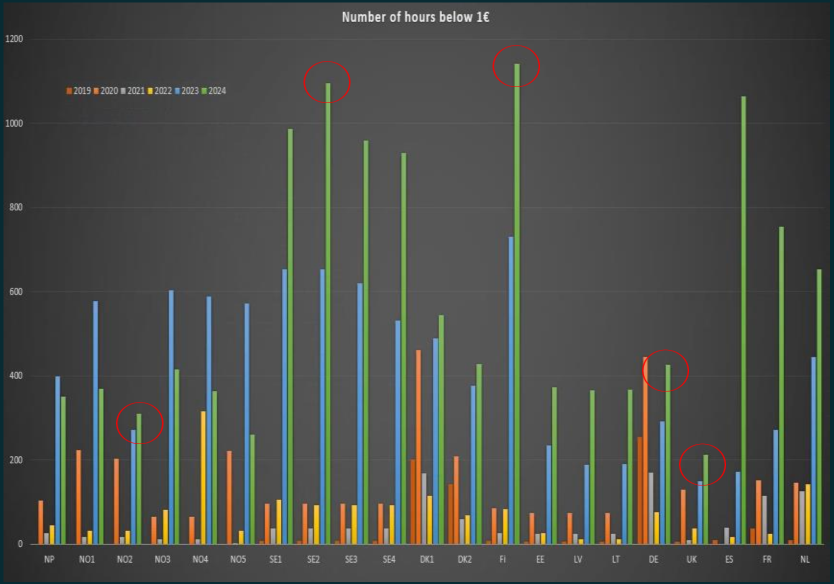
Inntekter:
Simulerte Europeiske områdepriser: 'Basis' scenario, Des 2024, €/MWh (2024)

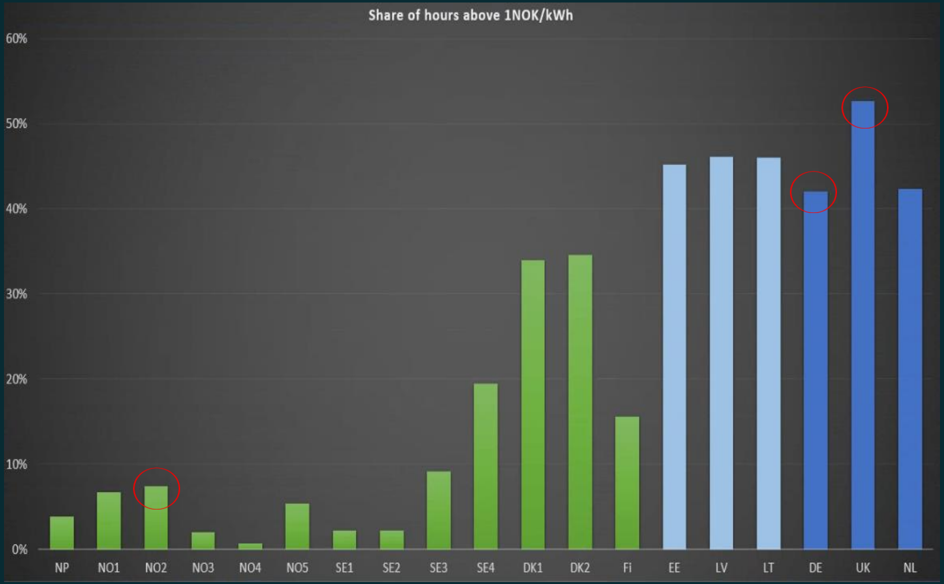
Lavest pris
(til ~2026)

Year	System	NO1	NO2	NO5	NO3	NO4	SE1	SE2	SE3	SE4	Finland	Jutland	Zealand	Germany	Netherlands	UK	Estonia	Latvia	Lithuania	Poland
2021	62.3	74.7	75.1	74.6	41.1	35.0	42.5	42.6	66.0	80.5	72.3	88.1	87.9	96.8	103.0	137.6	70.5	71.7	72.6	68.0
2022	135.9	192.5	211.3	192.1	41.9	24.5	59.1	62.0	129.2	152.1	154.0	219.0	210.2	235.5	241.9	240.0	195.0	230.0	235.0	135.0
2023	56.4	66.9	81.0	70.0	29.9	29.9	39.9	39.9	51.7	64.8	56.4	86.7	90.2	95.2	95.8	113.0	97.0	98.0	98.0	117.0
2024	37.9	43.1	50.8	42.9	29.4	25.3	27.0	26.1	37.7	51.2	47.4	70.6	71.1	80.0	76.9	85.3	90.3	90.0	90.0	98.0
2025	40.4	49.4	50.4	49.1	21.6	19.7	21.1	21.2	43.6	45.9	48.9	75.3	76.7	78.2	75.7	87.5	71.9	72.3	72.0	105.2
2026	49.0	52.7	53.8	52.5	42.3	35.2	38.7	38.8	49.6	49.8	47.2	73.1	74.2	74.9	73.5	84.7	63.4	63.9	63.6	105.6
2027	52.1	54.3	54.7	54.2	49.3	44.4	46.5	46.5	52.8	52.9	51.5	64.2	65.7	64.7	63.7	71.3	60.6	61.0	60.1	102.7
2028	53.8	55.7	55.7	55.7	51.5	47.3	50.8	50.8	56.0	56.0	56.2	57.3	61.4	56.8	56.0	62.0	64.1	64.5	63.1	98.2
2029	54.2	55.4	55.2	55.5	52.9	52.1	54.2	54.1	56.6	56.7	59.2	54.8	60.2	53.1	52.9	58.5	67.3	67.6	65.9	97.0
2030	52.3	53.1	53.1	53.1	52.1	51.5	52.9	52.8	54.8	54.9	59.3	52.1	56.5	50.5	49.1	52.0	67.7	69.3	66.8	95.5

The number of hours around zero and below vs. highly high prices!

Some countries have experienced an exponential increase in the past 2 years, while other areas are more stable!

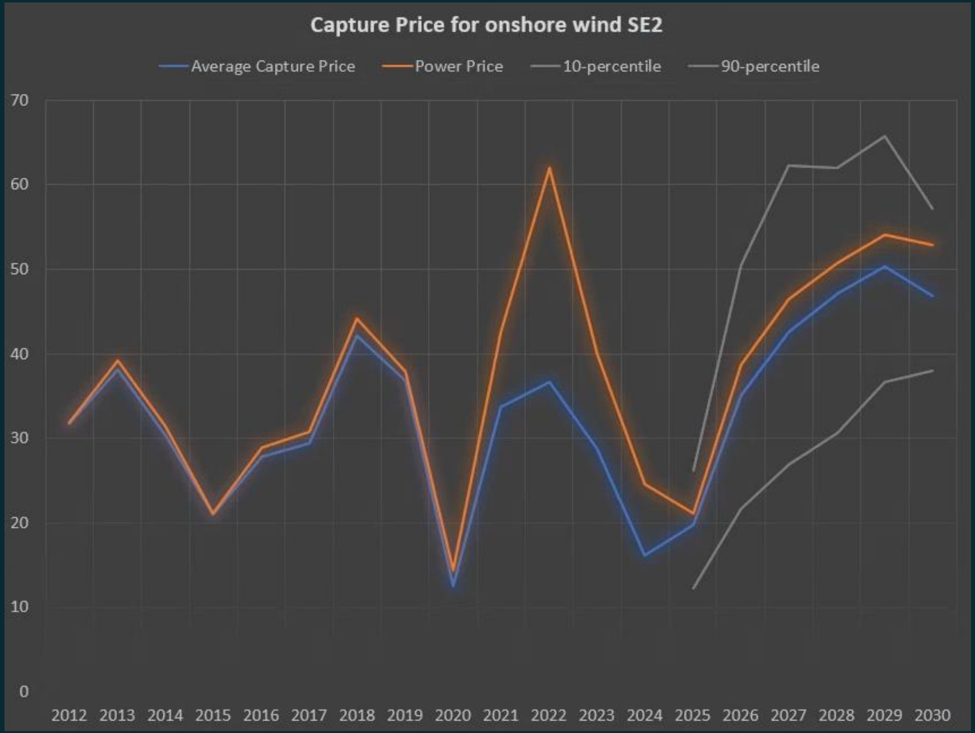




- Finland is dominating in the Nordic and has an effect on Swedish prices in particular
- UK, DE, which is the main exchange out of NO2, is not that dominating areas on the negative prices
- DE, UK and NL have a high share at around 50% above 1 NOK/MWh and show a low level of common prices above this level
- The average price level is not that affected by extreme prices, for example, 90% of the prices in NO2 are between 1 and 86€/MWh (1NOK/MWh) even though the media focus on the other 10%.

Capture price for onshore wind – SE2

- Capture rates expected 5-10% lower than base prices
- Large spread in the weather scenarios – spread in hydrological- and wind years



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Thank you for your attention!

Let’s talk

Q&A