

NORDIC ELECTRICITY MARKET

2.1.2024 Erik Ekström, Gasum Portfolio Services Oy

CHILLY WEATHER MEANS POSSIBILITY OF CONSUMPTION PEAKS AND PEAK PRICES AT THE END OF THE WEEK

Forecast for the week 1:	
Base Quarter Q2-2024	↔ Sideways (± 2 %)
Year product Front year 2025	↗ Bullish (> 2 %)
NP System	↗ Bullish (> 2 %)
NEDEC 2024	↔ Sideways (± 2 %)

FORECAST FOR THE WEEK 1

POWER FUTURES

Over the next two weeks, the hydro balance is forecast to continue falling towards -15 TWh compared to normal, the two-week weather is expected to be 4.2 TWh drier and around 6.2C cooler than normal. Temperatures are expected to grow cooler towards the end of week, exceptional chilly, as much as -15C below average in the Nordic countries. The electricity exchange opened on an upward note, the emission allowance was in retreat.

Front quarter

Q2-2024 opened on an upward note today (Tuesday), with a possible resistance level of around €55/MWh. The weather forecast is chillier than normal until mid-February, especially in the next few weeks, the water situation has taken a much weaker turn than normal, but the change was quite modest, however, compared to the previous week. On Sunday, gas stocks were at around 86.5% in the EU, and there is no significant concern about their sufficiency. In Germany, the weather is expected to continue to be much milder than normal in the next few days, but from next week a couple of weeks of colder than normal weather is expected, as temperatures return to normal. The difference with the corresponding price level in German was around €23/MWh on Friday, which is likely to limit upward pressure, exceeding the resistance level might bring technical interest for a continuation of the rise in the product. We started monitoring with a neutral expectation as in our opinion the fundamentals limit upward pressure. We expect reasonable volatility within the range of €45-€65/MWh.

Annual products

Regarding the 2025 product, the good situation regarding gas stocks may quell speculations about the challenges of replenishing stocks next autumn and despite small turnaround signals, there is not yet a clear picture of the economic situation for 2025. A sharp rise in the product was seen today (Tuesday) when the price briefly exceeded the local peak of around €47/MWh seen in early December. At Friday's closing prices, Germany was around €50/MWh more expensive than the Nordics, which seems reasonably neutral given the uncertainties, a narrower difference would require a clear fall in fuel prices, for example. In the longer term, we consider Nordic electricity products to be underpriced and likewise German products to be overpriced, but for 2025, we may still briefly see a clear difference in the price level, after which the differences should level out. From the aspect of product capacity investment costs, the years from 2026 onwards still seem to be underpriced. We start monitoring 2025 with a slightly higher expectation compared to last week's closing price, in the range of €45-€65/MWh. We expect later years to rise towards the same range.

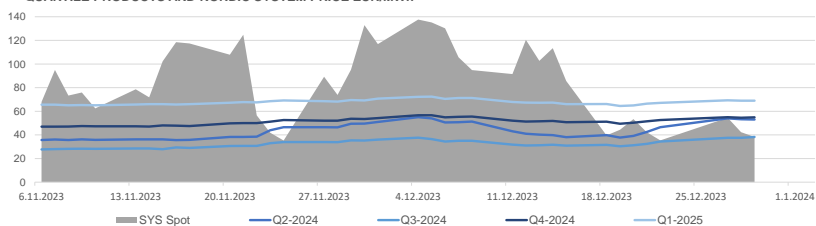
SPOT MARKET

We expect the chillier weather to result in increased consumption towards the end of the week and at its highest to reach around 70 GW in the Nordics on Friday. The difference between wind and solar power production and the consumption forecast, i.e., residual power, is expected to rise towards Saturday as wind power production drops despite the decrease in the consumption forecast. High prices in the Nordics are expected particularly on Friday and briefly on Saturday afternoon. Maintenance at Ringhals 3 and repairs at Forsmark 2 are expected to have been completed by Friday morning, with R3 ramping up to full capacity at around 13.00 CET on Friday. We expect a much higher spot price than in recent weeks and very high prices might briefly be seen especially on Friday morning.

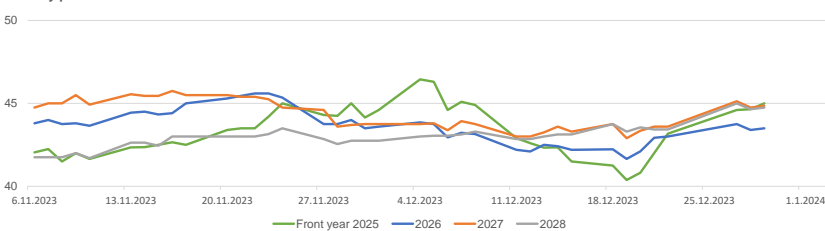
EMISSION ALLOWANCE

A sharp fall was seen on the emission allowance market today (Tuesday). The changes might be explained by changes in the positions of investment funds, even though no clear changes are seen in the fundamentals. In addition, the turn of year may change the hedging policy of operators from a tax perspective, the market is expected to level off at the start of auctions, before this when the fluctuation is significant due to speculation, despite the expected and potentially concerning delayed publication of the auction calendar. We expect sideways development for the emission allowance, in the range of €75-€85/t for the NEDEC24 product.

QUARTILE PRODUCTS AND NORDIC SYSTEM PRICE EUR/MWh



Yearly products EUR/MWh



MARKET SIGNALS

	spot	Q2-2024	2025
Hydrologic balance development		↑	→
Precipitation forecast	↑	→	→
Temperature forecast	↑	↑	→
Spot		↑	↑
Production and transmission exch.	↑	→	→
Economic outlook & EUA	→	↓	↓
Coal and Natural Gas fired production costss	→	↓	↓
German prices	↓	↓	↑
Technical analysis		↑	↑

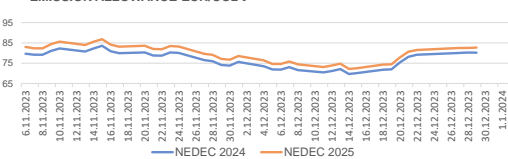
Product	Date	Value	% chg weekly	Chg (EUR)
1st Q: Q2-2024	29.12.2023	53.00	14.0 %	6.52
2nd Q: Q3-2024	29.12.2023	38.25	11.2 %	3.85
3rd Q: Q4-2024	29.12.2023	54.90	4.4 %	2.32
Q1-2025	29.12.2023	69.00	2.8 %	1.90
Front year 2025	29.12.2023	45.00	4.2 %	1.83
2026	29.12.2023	43.50	1.2 %	0.50
2027	29.12.2023	44.85	2.9 %	1.25
2028	29.12.2023	44.75	3.0 %	1.32
2029	29.12.2023	43.25	3.3 %	1.40
NEDEC 2024	29.12.2023	80.19	1.3 %	1.05
NEDEC 2025	29.12.2023	82.72	1.5 %	1.21

EPAD settlements

	29.12.2023 €/MWh	2025	2026	2027
FI - NP System		2.55	0.75	1.00
SE1-NP System		-16.00	-14.75	-10.00
SE2 - NP System		-16.00	-14.75	-10.00
SE3 - NP System		-3.60	-2.00	0.75
SE4 - NP System		8.50	16.00	16.00

SPOT week average:		50	VS.	51
Product	Week avg	% chg	Chg (EUR)	Week avg
SYS Spot	80.85	-48 %	-38.63	42.22
FI Spot	98.92	-68 %	-67.42	31.50
SE1 Spot	76.16	-60 %	-45.62	30.54
SE2 Spot	76.16	-60 %	-45.62	30.54
SE3 Spot	76.93	-60 %	-45.90	31.03
SE4 Spot	76.94	-58 %	-44.56	32.38

EMISSION ALLOWANCE EUR/CO2 t



COMMENTS ON WEEK 0 DEVELOPMENT

POWER FUTURES

Short-term weather forecasts grew much chillier, the hydro balance forecast remained as in the previous report at a level of around -13 TWh compared to normal at the end of the period. Nuclear power plants were mainly operating at full capacity apart from the turbine challenges appearing in Forsmark 2 on Friday. The week was quieter on the business news front in Europe.

Front quarter

At the end of last week, Q2-2024 returned to prices of around €55/MWh seen in the first half of December probably driven by the weather forecasts and possibly by shifts in positions. A level of around €55/MWh might be a resistance level, with a similar level also seen in late August. Correspondingly, just shy of €40/MWh might be a support level. Based on the RSI, the product turned around €50/MWh after crossing overbought.

Annual products

In year products, the second half of December saw a reasonable rise also until 2028. Only the closing prices of 2026 and year products from 2029 onwards were below the price level of €44/MWh. The 2025 product has risen steadily since the lows of December 19, 2023, from levels south of €41/MWh, its lowest since early 2022, to €45/MWh on Friday. Other years followed the rise. There was no significant news on the economic situation in Europe last week, the HCOB eurozone manufacturing purchasing managers' index published today (Tuesday) rose by two tenths from the previous one and expectations to 44.4.

SPOT MARKET

Wind power production in the Nordics was largely more or less normal last week, with only the Christmas holiday days remaining close to the average output of 10 000 MW. In Finland, on the other hand, much weaker than normal wind power production was seen right up to last Friday, with recent days rising to an average output of above 2000 MW. Nuclear power plants operated at a reasonably high utilization rate. A turbine issue detected at Forsmark 2 on December 29 has meant the plant has continued operating at undercapacity. The average temperature has continued to fall from warmer than usual on December 19 to chillier than usual, with December 22 and 29 still warmer than usual and yesterday (New Years Day) already several degrees chillier than usual. Looking back at 2019, only 2021 saw average temperatures below -10C on two days, with average temperatures today below the lowest levels of 2019. SYS spot prices remained at €30-€60/MWh in terms of daily averages, respectively €25-€70/MWh in Finland and €25-€60/MWh in SE3.

EMISSION ALLOWANCE

The Cot published last week shows that investment funds have greatly cut their short positions. The cooler weather supported prices and the EEX auction calendar finally published last week confirmed the restart of auctions on January 15. The price fluctuated towards the end of the week at the highest level since late November at around €80/t. For the Q2 period, gas condensate became much more profitable last week than coal condensate.

DETERMINANTS AFFECTING THE MARKET ON WEEK 1

RESTRICTIONS IN PRODUCTION AND TRANSMISSION CAPACITY

Olkiluoto 3 (1600 MW), limited production 3.6.2023-2.3.2024 in use 1570 MW
Forsmark Block 2 (1121 MW), fault 29.12.2023-3.1.2024, 29-30.12.2023 in use 300 MW and 30.12.2023-3.1.2024 in use 490 MW
Ringhals Block 3- G32 (537 MW), maintenance 4-5.2024, in use 0 MW

SE1-FI (1500 MW), maintenance 17.4.2023-2.3.2024 in use 1200 MW

- Nordic nuclear power plant utilization capacity was this morning (Tuesday) 95%, with only Forsmark 2 operating at 45% decreasing the average.
- RU-FI transmission has been out of use since 2022 because of payment transaction issues, average imports from Russia last week were 0% of the maximum

SPOT AVERAGES AND EPADS

Price area (€/MWh)	2016	2017	2018	2019	2020	2021	2022	2023	2024*
NP System	26.91	29.41	43.99	38.94	10.93	62.31	135.86	56.44	52.21
NP Area FI - NP System	5.53	3.78	2.81	5.10	17.09	10.03	18.18	0.03	57.20
NP Area SE1 - NP System	2.04	1.43	0.24	-1.00	3.46	-19.82	-76.80	-16.47	-3.38
NP Area SE2 - NP System	2.04	1.43	0.24	-1.00	3.46	-19.76	-73.92	-16.47	-3.38
NP Area SE3 - NP System	2.32	1.83	0.55	-0.58	10.26	3.69	-6.66	-4.74	-3.38
NP Area SE4 - NP System	2.62	2.77	2.37	0.86	14.94	18.21	16.24	8.44	-3.38

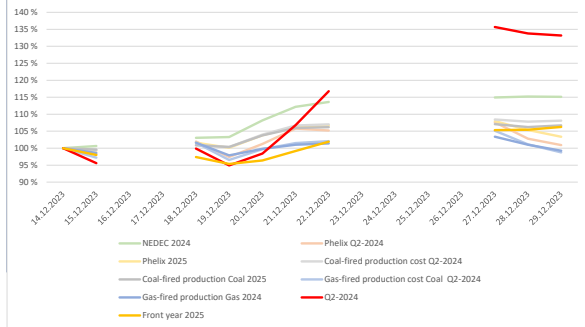
*Average of 1.1.2024-3.1.2024.

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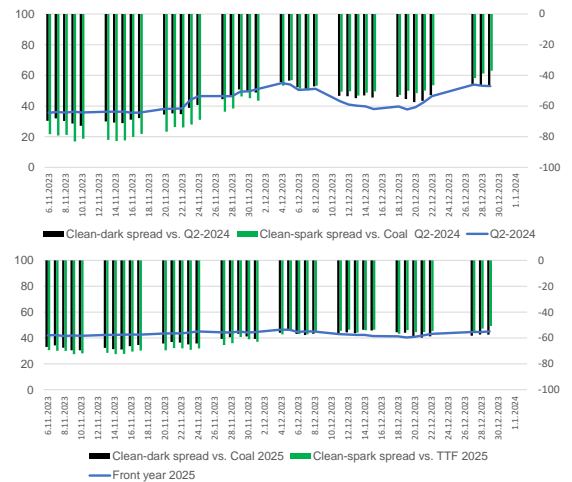
Source for data: Gasum, Tilastokeskus

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Developments past 2 weeks indexed



Forecast history	51	Chg	50	Chg
Base Quarter Q2-2024	□	14.03 %	□	22.16 %
Year product Front year 2025	□	4.24 %	□	4.02 %
NP System	↻	8.18 %	↻	-58.71 %
NEDEC 2024	↻	1.33 %	↻	12.90 %



Oil \$/bbl, Coal USD/tonne, TTF €/MWh

