

NORDIC ELECTRICITY MARKET

18.12.2023 Eerik Ekström, Gasum Portfolio Services Oy

RETURN TO DRIER IN THE WEATHER FORECAST, BUT STILL AT A STRONGER LEVEL THAN IN RECENT WEEKS

Forecast for the week 51:

Base Quarter Q1-2024	↗ Bullish (> 2 %)
Year product Front year 2024	↔ Sideways (± 2 %)
NP System	↘ Bearish (< 2 %)
NEDEC 2023	↗ Bullish (> 2 %)

FORECAST FOR THE WEEK 51

POWER FUTURES

The weakening of the hydro balance forecast from around -5 a week ago and especially to last Friday's level of around -4 TWh to the level of -9.2 TWh in Monday's update is likely to put upward pressure on the prices of electricity products. On the other hand, the materialization of significant concentrations of precipitation may deviate from the current estimate in the water storage update towards the end of the week. After the change to 0.8 TWh wetter taking place during the day, the two-week weather is expected to be 2.1 TWh rainier than usual and 1C cooler than normal.

Front quarter

In addition to the clearly drier water situation, the cooler-than-usual weather visible in the temperature forecasts will also provide support for Q1-2024, but on the other hand, the price difference with Germany for the period returned to below €20/MWh on Friday, and the profitability of condensate production, also with gas that has become more profitable than coal, has risen above the -€25/MWh level for the period. Previously, in a similar water situation, the price in Germany and the costs of condensate production were much higher. We expect the drier weather forecast to bring support to the Q1 product, especially if the updated water reserves indicates lower development than expected. However, we consider there to be quite limited room for an increase, and we expect development between €65-€76/MWh for the following week, at the time of writing the price has risen above a level of €70/MWh.

Annual products

Regarding the 2024 year product, the development in Q1 will have a big impact, with Q2 and Q3 being much more moderately priced at around €30 and €40/MWh at Friday's closing price. The is still a clear difference in price level with Germany, and the profitability of condensing production for the whole year has remained below -€40/MWh. If the costs of condensate production continue to fall, there may be room for decrease in the 2024 product, the European economic outlook shows no clear increase in the demand outlook, and the water situation for the rest of the year is not yet certain, but based on later years, 2024 is still much more expensively priced. On the other hand, we still feel that the later years are clearly underpriced, and that the construction of new production capacity does not seem directly attractive given market prices. Based on current data, we expect a neutral development for 2024 as a whole at between €45-€55/MWh, with targets for later year in the same range and a bullish expectation, possibly due to new capacity to be completed and the acute economic situation with 2025 being justifiably cheaper than other years.

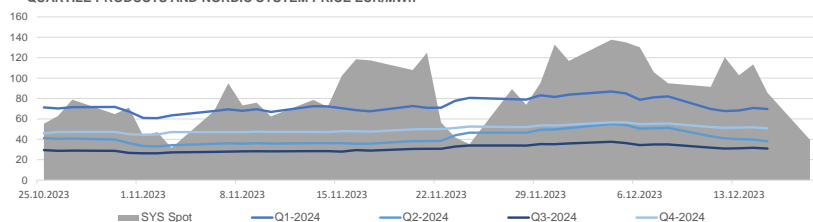
SPOT MARKET

Strong wind power production is expected on several days, the weather is clearly milder compared to last week, and there are no major usability threats in sight. In addition, the approaching holiday season is likely to reduce consumption, especially on Friday. As a whole, we expect this week to be much cheaper than last week in terms of spot price.

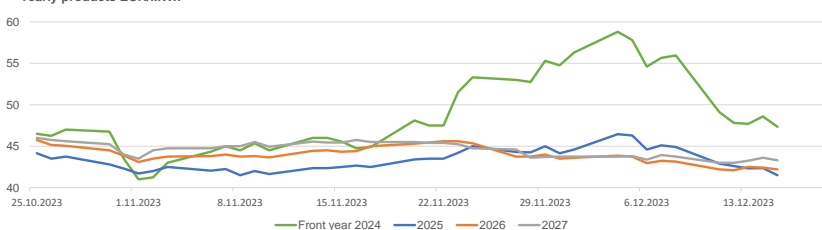
EMISSION ALLOWANCE

The expected rise on the emission allowance market for the rest of the year has yet to be clearly seen, and the price of the product has fluctuated below €70/t in recent days as investment funds hold a record-high short position. The break in auctions preliminarily until January 15, 2024 may change market dynamics, as due to relatively weak actual auction demand, the fundamental demand picture is still weak, and the room for a rise mainly comes from changes in position, for example by the end of the year. When DEC23 products expire, we expect DEC24 products to be between €67-€75/t.

QUARTILE PRODUCTS AND NORDIC SYSTEM PRICE EUR/MWh



Yearly products EUR/MWh



MARKET SIGNALS

	spot	Q1-2024	2024
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		→	→

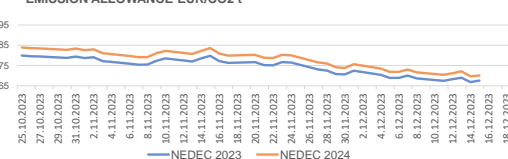
Product	Date	Value	% chg weekly	Chg (EUR)
1st Q: Q1-2024	15.12.2023	69.73	-15.0 %	-12.27
2nd Q: Q2-2024	15.12.2023	38.05	-25.8 %	-13.20
3rd Q: Q3-2024	15.12.2023	30.95	-11.6 %	-4.05
Q4-2024	15.12.2023	50.75	-8.6 %	-4.75
Front year 2024	15.12.2023	47.35	-15.4 %	-8.60
2025	15.12.2023	41.50	-7.6 %	-3.40
2026	15.12.2023	42.20	-2.2 %	-0.95
2027	15.12.2023	43.30	-1.0 %	-0.45
2028	15.12.2023	43.13	-0.4 %	-0.17
NEDEC 2023	15.12.2023	67.57	-1.5 %	-1.05
NEDEC 2024	15.12.2023	70.10	-2.1 %	-1.51

EPAD settlements

	15.12.2023 €/MWh	2024	2025	2026
FI - NP System	8.00	1.75	0.75	
SE1-NP System	-19.90	-16.00	-14.75	
SE2 - NP System	-19.90	-16.00	-14.75	
SE3 - NP System	-6.50	-3.85	-1.50	
SE4 - NP System	3.25	9.00	18.00	

SPOT week average:		49	VS.	50
Product	Week avg	% chg	Chg (EUR)	Week avg
SYS Spot	105.96	-24 %	-25.10	80.85
FI Spot	115.62	-14 %	-16.71	98.92
SE1 Spot	107.21	-29 %	-31.05	76.16
SE2 Spot	107.21	-29 %	-31.05	76.16
SE3 Spot	112.13	-31 %	-35.20	76.93
SE4 Spot	113.39	-32 %	-36.45	76.94

EMISSION ALLOWANCE EUR/CO2 t



COMMENTS ON WEEK 50 DEVELOPMENT

POWER FUTURES

Electricity derivatives opened the week on a strong downward note, with the hydro balance around 8 TWh wetter. Compared to this, the outlook for the water situation improved slightly towards the end of the week, while the costs of condensate production and electricity in Germany, which is strongly linked to them, fell.

Front quarter

During Monday, the Q1-2024 product fell sharply with the change in the water situation outlook. The last time in a similar water situation, the German electricity price was significantly lower in the wake of the gas price, which we thought would put more downward pressure on the price of the product. The product fell further during Tuesday, then dropped to Monday's levels. Temperature forecasts for January were followed with interest during the week, no significant change from slightly cooler than usual was seen.

Annual products

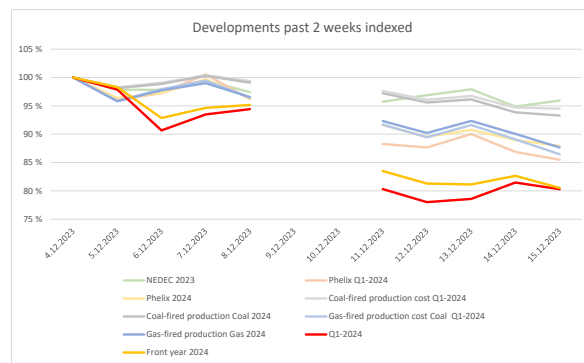
The 2024 product followed development of the Q1 product, falling slightly more moderately on Monday, but on the other hand, continuing to retreat during the week in line with the costs of condensate production and the price level in Germany. Nor did the Purchasing Managers' indices for the euro area create a promising picture for electricity demand for the next few years.

SPOT MARKET

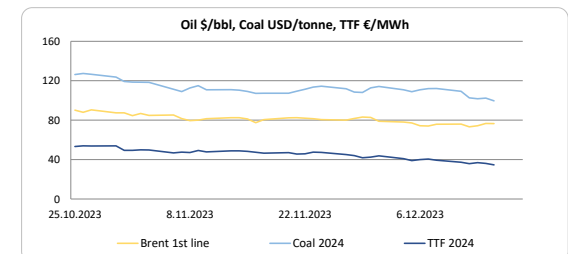
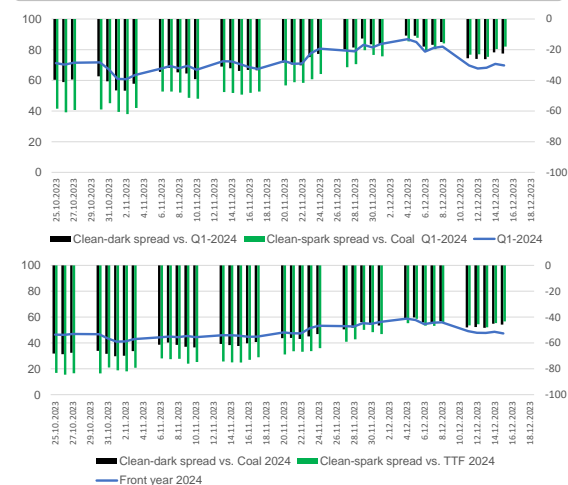
The first half of the week until Friday was lower in terms of wind power production, which is why prices also increased, peak prices in Finland were repeatedly north of €150/MWh, and earlier in the week, the system price remained above €85/MWh. On Saturday, wind power production increased, and prices plummeted quite low for the weekend. The availability of nuclear power remained at a good level during the week, and the weekend saw some flexibility in both Finland and Sweden, presumably due to low prices.

EMISSION ALLOWANCE

The downward trend in the price of emission allowances continued, with the CoT showing that the short-sold position of mutual funds again increased to a new record. Within a week of Monday's bearish opening, the price rose slightly above €69/t towards Thursday's opening, then fell below €67/t to Friday's opening and recovered slightly above €67/t. The moving 10-, 20- and 50-day exponential averages continued to fall, with the RSI hovering around the oversold 30, the open interest DEC23 product continuing to decline and the DEC23 product steadily rising, both reaching the 250k level on Friday.



Forecast history	50	Chg	49	Chg
Base Quarter Q1-2024	📉	-14.96 %	📉	-2.15 %
Year product Front year 2024	📉	-15.37 %	📉	-0.62 %
NP System	📉	-9.70 %	📉	-18.77 %
NEDEC 2023	📉	-1.53 %	📈	-5.25 %



DETERMINANTS AFFECTING THE MARKET ON WEEK 51

RESTRICTIONS IN PRODUCTION AND TRANSMISSION CAPACITY

Okiluoto 3 (1600 MW), limited production 3.6.2023-2.3.2024 in use 1570 MW, 110 MW limit imposed by the grid on December 18.

FI-EE (1016 MW), fault 26.9.-31.12.2023 in use 1001 MW
 EE-FI (1016 MW), fault 26.9.-31.12.2023 in use 1001 MW
 SE1-FI (1500 MW), maintenance 17.4.2023-2.3.2024 in use 1200 MW
 RU-FI (1300 MW) 14.5.2022-31.12.2023, in use 0 MW
 FI-RU (320 MW) 14.5.2022-31.12.2023, in use 0 MW

- Nordic nuclear power plant utilization capacity is 100%
 - 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)	2015	2016	2017	2018	2019	2020	2021	2022	2023*
NP System	20.98	26.91	29.41	43.99	38.94	10.93	62.31	135.86	56.90
NP Area FI - NP System	8.68	5.53	3.78	2.81	5.10	17.09	10.03	18.18	0.18
NP Area SE1 - NP System	0.19	2.04	1.43	0.24	-1.00	3.46	-19.82	-76.80	-16.74
NP Area SE2 - NP System	0.20	2.04	1.43	0.24	-1.00	3.46	-19.76	-73.92	-16.73
NP Area SE3 - NP System	1.03	2.32	1.83	0.55	-0.58	10.26	3.69	-6.66	-4.64
NP Area SE4 - NP System	1.92	2.62	2.77	2.37	0.86	14.94	18.21	16.24	9.00

*Average of 1.1.2023-19.12.2023.

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Source for data: Gasum, Tilastokeskus

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