

NORDIC ELECTRICITY MARKET

21.6.2021 Jussi Polvi, Gasum Portfolio Services Oy

SLIGHTLY DRIER AND WARMER THAN NORMAL WEATHER PICTURE FOR THE FORECAST PERIOD

Forecast to week 25:	
ENOFUTBLQ3-21	↗ Bullish (>0%)
ENOFUTBLR-22	↗ Bullish (>0%)
NP System	↔ Sideways (± 0,5%)
NEDEC21	↔ Sideways (± 0,5%)

FORECAST TO WEEK 25

POWER FUTURES

Front quarter

The weather forecasts have dried slightly over the weekend. The forecast for the whole forecast period is for slightly drier than normal. Temperatures will remain much higher than normal until the end of the current week, when they will drop to normal. Tomorrow, winds will drop to below normal and not return to normal until the weekend. Flow rates have taken a sharp downward turn and are falling to much lower than normal. The hydro balance has dried up strongly in the latest forecasts. We expect near-term products to rise at the weekly level supported by the drier weather picture and falling hydro balance and flow rates.

Annual products

Because of last week's fall, the nearest annual product fell through the floors seen in May. We expect the emission allowance price to seek direction this week. The price spread between Central Europe and the current system annual product is still very wide. We expect annual products to rise at the weekly level during this week.

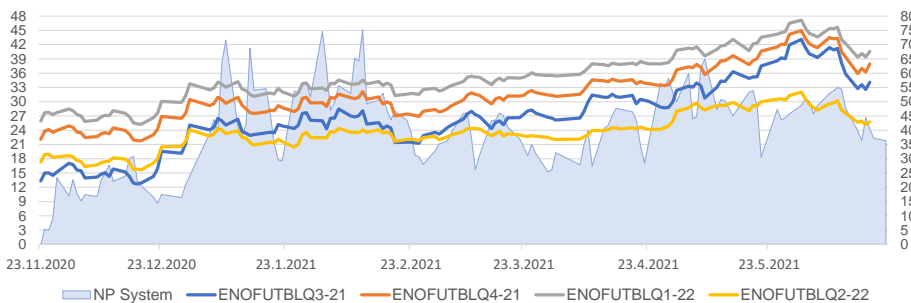
SPOT MARKET

Following the rain on Monday, the weather will turn drier, and the weather will mostly be drier than normal for the rest of the week. Even though the temperature is notably high, and this supports snow melt, there is already little snow remaining in the mountains. Flow rates will drop considerably after Monday and remain lower than normal for the rest of the week. Wind power production will be normal until Tuesday, after which it will weaken to very low before returning to the normal level at the weekend. Nuclear power output is expected to remain unchanged during the current week. Regarding transmission restrictions, maintenance work until Thursday on the transmission link between Finland and Sweden will maintain a reasonably large price spread between northern and southern areas. Also, low wind power production in Germany will maintain exports from South Norway to Germany. We expect the system price to remain in place or to show a slight rise at the weekly level. Even though the price on weekdays is expected to settle at higher than last week, low consumption during the Midsummer public holiday will push the weekend price down to lower than last week. The Finnish area price is expected to remain much higher than the system price in the early part of the week because of the transmission restriction between Sweden and Finland. Also, wind power production in Finland will be low. At the weekly level, however, the Finnish area price is expected to show a marked fall and to settle at a level of around €50/MWh.

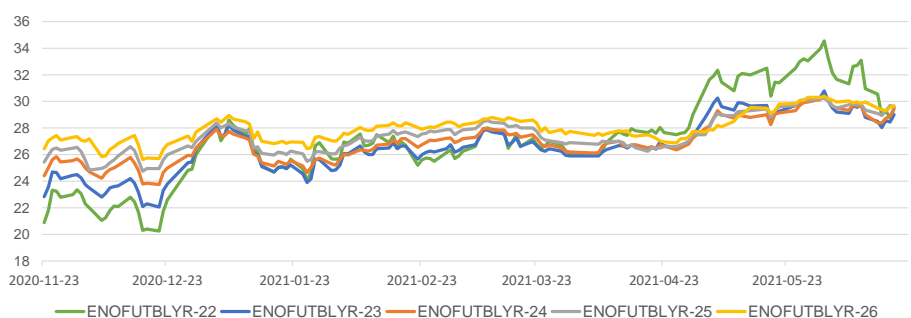
EMISSIONS

The weather will be normal in terms of temperatures during the current week and greater than normal photovoltaic energy production will offset weaker than normal wind power production. The tight storage situation and low availability have supported the gas market, and this has also been supportive of the emission allowance price. A fall has been seen on the stock markets and if it continues, this could also be seen on the fuel markets. News about the number of free allocations is expected and this could affect the emission market. We expect the market to still seek direction at between €50 – €55/t.

Quarters EUR/MWh (left), NP System EUR/MWh (right)



Years EUR/MWh



Market signals

	spot	Q3-21	YR-22
Hydrologic balance	↑	↑	↑
Precipitation forecast	→	→	→
Temperature forecast	↓	→	→
Spot	↓	↑	↑
Production and transmission exch.	↑	→	→
Emissions allowance	→	→	→
Coal price	↑	↑	→
German prices	↑	↑	↑
Technical analysis	↓	↓	↓

Product	Date	Value	% chg	Chg (EUR)
ENOFUTBLQ3-21	18.6.2021	34.10	-10.5%	-4.00
ENOFUTBLQ4-21	18.6.2021	37.95	-6.3%	-2.55
ENOFUTBLQ1-22	18.6.2021	40.55	-5.7%	-2.45
ENOFUTBLQ2-22	18.6.2021	25.75	-8.8%	-2.50
ENOFUTBLYR-22	18.6.2021	29.45	-4.8%	-1.50
ENOFUTBLYR-23	18.6.2021	29.00	0.7%	0.20
ENOFUTBLYR-24	18.6.2021	29.50	1.7%	0.50
ENOFUTBLYR-25	18.6.2021	29.58	0.8%	0.23
ENOFUTBLYR-26	18.6.2021	29.68	-0.9%	-0.27
NEDEC21	18.6.2021	51.97	-1.4%	-0.73
NEDEC22	18.6.2021	52.35	-1.4%	-0.75

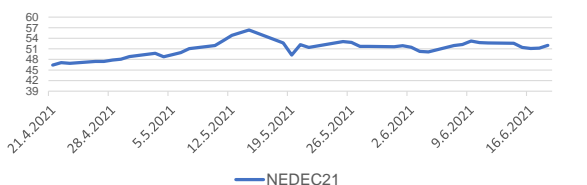
EPAD settlements

18.6.2021 (€/MWh)	2021	2022	2023
SYHEL	8.90	4.05	3.68
SE1- NP System	-7.00	-7.00	-6.25
SE2 - NP System	-7.00	-7.00	-6.25
SE3 - NP System	3.23	3.25	3.13
SE4 - NP System	15.48	12.00	11.50

Week's spot price change

Price area (€/MWh)	Date	Value	% chg	Chg (EUR)
NP System	20.6.2021	38.33	-11.4%	-4.94
NP Area FI	20.6.2021	59.52	11.6%	6.20
NP Area SE1	20.6.2021	25.97	-35.0%	-13.98
NP Area SE2	20.6.2021	25.97	-35.0%	-13.98
NP Area SE3	20.6.2021	34.98	-15.9%	-6.61
NP Area SE4	20.6.2021	34.98	-15.9%	-6.61

Carbon EUR/CO2 t



COMMENTS ON WEEK 24

POWER FUTURES

Front quarter

Last week, near products fell sharply in the earlier part of the week driven by rainier weather forecasts. The forecasts were for much rainier weather than normal and showed no signs of a change in the weather type but that the warm, wet weather would continue. Flow rates remained at a good level and the strong winds in the early part of the week also softened spot prices and strengthened the fall in near products. On Friday, the weather forecasts started to dry out even if they were still showing rainier weather than normal. At the weekly level, the front quarter was around €4 down and the following quarters two were €2.50 down.

Annual products

Also, the prices of annual products fell on Monday under the pressure of wetter weather forecasts. Prices continued falling on Tuesday driven by the weather forecast and the downward price correction in fuels and in Germany. At the end of the week, Germany, the emission allowance and natural gas continued rising. The price spread with Germany is record wide. Electricity prices in further years recovered from the fall in the early part of the week as the week progressed and on Friday, the rise concurred with the nearest year with support provided by both the weather forecast and fuels. At the weekly level, the nearest annual product was €1.50 down and further years were slightly up.

SPOT MARKET

Last week, after very heavy rain on Monday, the rain was momentarily more moderate until again heavy rain starting at the end of the week. Flow rates fell to below normal after the early part of the week. Also, wind power production was at its highest in the early part of the week, after which Wednesday and the weekend were the periods with the least wind. Nuclear power plant unit maintenance was delayed to the end of the week. The spot price was at its highest on Wednesday, but transmission restrictions meant that the northern areas were quite low throughout the week. On weekdays, the price settled at both sides of €40/MWh, which was much lower than the previous week, but on the other hand the spot price did not collapse as was the case a week earlier. All the same, the price was well down at the weekly level having settled at around €38.30/MWh. Maintenance work on the transmission link between Sweden and Finland and the delay of annual maintenance at Olkiluoto until Friday increased the Finnish area price. Peak hours rose high in Finland on weekdays and on Wednesday the spot price was at its highest since February. At the weekly level, the price settled at almost €60/MWh and the area price spread rose in the same context.

EMISSIONS

Last week saw a fall in the emission allowance price. The upward gas market was supportive earlier in the week but then the price started to fall. The fall was due to the weak UK ETS auction result as well as Germany's announcement of the amount of free emission allowances, which was much higher than expected for 2021-2025. The UK ETS market price has fallen, and trading is at the same levels as on the EU ETS. Technical levels again brought support at the end of the week. The emission allowance price was down €0.77 at the weekly level.

DETERMINANTS AFFECTING THE MARKET ON WEEK 25

RESTRICTIONS IN PRODUCTION AND TRANSMISSION CAPACITY

- Forsmark 1 (990 MW), maintenance 16.6.-4.7.2021, in use 855 MW
- Ringhals 3 (1074 MW), maintenance 24.5.-27.8.2021, in use 0 MW
- SE1-FI (1500 MW), maintenance 14.-24.6.2021, in use 400 MW
- FI-SE3 (1200 MW), limitation till 15.11.2021, in use 250 MW

- Nordic nuclear power plants are currently operating at a capacity utilization rate of 88 %
- RU-FI transmission profile varies due to capacity payments, average imports from Russia last week were 86 % of the maximum

AVERAGE SPOT PRICE AND EPAD

Price area (€/MWh)	2013	2014	2015	2016	2017	2018	2019	2020	2021*
NP System	38.1	29.6	21	26.91	29.41	43.99	38.94	10.93	41.83
NP Area FI - NP System	3.10	6.40	8.70	5.54	3.78	2.81	5.10	17.28	5.05
NP Area SE1 - NP System	1.10	1.80	0.20	2.04	1.43	0.24	-1.00	3.60	-6.42
NP Area SE2 - NP System	1.10	1.80	1.00	2.04	1.43	0.24	-1.00	3.60	-6.43
NP Area SE3 - NP System	1.40	2.00	1.00	2.33	1.83	0.55	-0.58	10.53	0.49
NP Area SE4 - NP System	1.80	2.30	1.90	2.62	2.77	2.37	0.86	15.06	8.26

*Average for period between 1.1.2021-21.6.2021.

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Source for data: Gasum, Tilastokeskus

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Indicator	ENOFUTBLQ3-21	ENOFUTBLYR-22
Coal-fired production	57 %	53 %
Coal price	81 %	79 %
Gas price (NBP)	6 %	85 %
German price level	20 %	19 %
Spot	70 %	65 %
Crude oil Brent	81 %	80 %
Water reservoirs	59 %	59 %
EUR/USD FX rate	0 %	1 %
Temperature	8 %	5 %
Precipitation	16 %	13 %

Definition

The above figures measure the ability of market determinants to describe the price changes occurred in last 6 months. The affect is measured as Coefficient of Determination*. Each variable is evaluated independently. We use a color scale to demonstrate efficacy, green (strong), yellow (moderate), red (weak)

Forecast history	24	Chg	23	Chg
ENOFUTBLQ3-21	↻	-10.5%	↗	-4.0%
ENOFUTBLYR-22	↻	-4.8%	↗	-2.2%
NP System	↻	-11.4%	↗	-2.0%
NEDEC21	↘	-1.4%	↗	5.1%

