

NORDIC ELECTRICITY MARKET

14.6.2021 Antti Kouvo, Gasum Portfolio Services Oy

WEATHER FORECASTS STILL RAINY, BUT THE WEATHER IS AGAIN TURNING WARMER AND WITH LITTLE WIND

Forecast to week 24:	
ENOFUTBLQ3-21	↗ Bullish (>0%)
ENOFUTBLR-22	↗ Bullish (>0%)
NP System	↘ Bearish (<0%)
NEDEC21	↗ Bullish (>0%)

FORECAST TO WEEK 24

POWER FUTURES

Front quarter

The weather forecasts have slightly dampened over the weekend. However, the forecasts show the wettest day is the present day and even though the overall forecast is much rainier than normal, already from the end of the week the weather type will again be warmer than normal and with little wind. The rainfall amounts are expected to fall to the normal level towards the end of the forecast period, but the temperature and wind forecast will be supportive of the weather drying already earlier. Despite the fall today, we expect near-term products to rise at the weekly level. Support for the rise is expected to come from the spot price during the end of the week, once the spell of strong wind earlier in the week passes.

Annual products

The fall on Friday last week meant that the nearest annual product dropped close to floors seen in May. During the current week, the emission allowance price will, however, be upwards, which at the same time will lift German annual products. The price spread with Central Europe has grown very wide compared to the current SYS annual product. We expect annual products to rise at the weekly level this week.

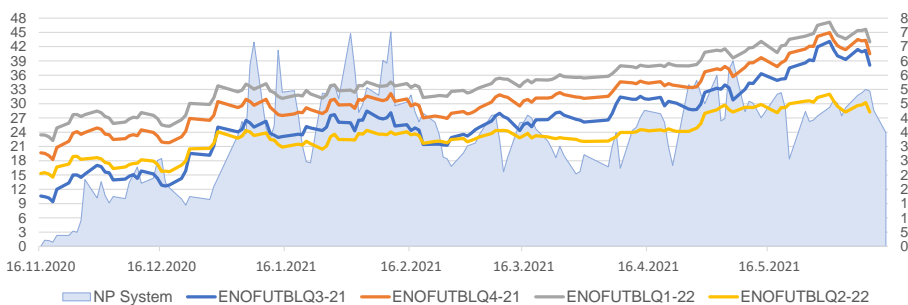
SPOT MARKET

On Monday, after a day of very heavy rain, the weather will be slightly drier until it again turns wet from Friday. From Wednesday, flow rates will fall to below the normal level but will momentarily rise to above the normal level after the heavy rains. Wind power production will be high in the early part of the week but after Tuesday wind power production will, however, weaken towards Wednesday and again from the weekend. There will still be much nuclear power capacity out of production earlier in the week. We expect the system price to settle on weekdays at lower than last week at between €40-50/MWh and to rise towards the end of the week as the wind drops. The weekend is expected to be much higher than last weekend. The spot price is expected to fall at the weekly level. The Finnish area price is expected to settle at considerably higher than the system price in the early part of the week because of annual maintenance at the Olkiluoto nuclear power plant and the transmission restriction between Sweden and Finland, even though wind production will be much higher than last week. The Finnish area price is expected to show a slight fall at the weekly level.

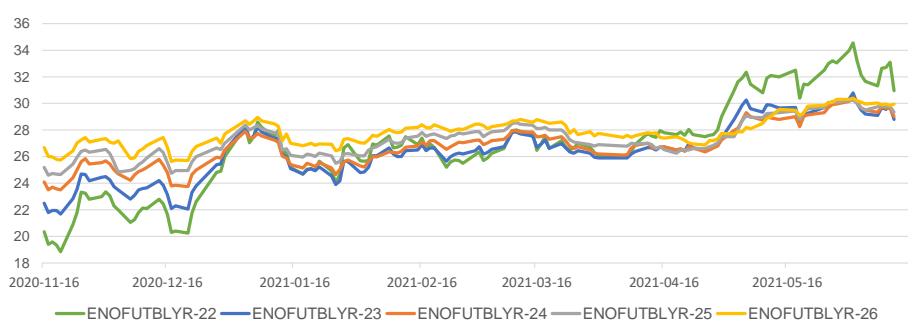
EMISSIONS

The weather in Europe will be warmer than normal during the current week and this may increase the need for cooling and demand for emission allowances. Weaker than normal wind power production will be offset by greater than normal photovoltaic energy production. Movements on the gas and thermal coal markets may bring direction to the market, in addition to which Wednesday's UK ETS auction could also bring movement to the EU ETS market. The market also has strong technical support levels supporting the price. We expect the emission allowance price to rise but technical resistance levels will limit the rise before last month's peak.

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	11.6.2021	38.10	-4.0%	-1.60
ENOFUTBLQ4-21	11.6.2021	40.50	-2.9%	-1.20
ENOFUTBLQ1-22	11.6.2021	43.00	-2.3%	-1.00
ENOFUTBLQ2-22	11.6.2021	28.25	-1.9%	-0.55
ENOFUTBLR-22	11.6.2021	30.95	-2.2%	-0.70
ENOFUTBLR-23	11.6.2021	28.80	-1.4%	-0.40
ENOFUTBLR-24	11.6.2021	29.00	-1.7%	-0.50
ENOFUTBLR-25	11.6.2021	29.35	-0.5%	-0.15
ENOFUTBLR-26	11.6.2021	29.95	0.0%	0.00
NEDEC21	11.6.2021	52.70	5.1%	2.56
NEDEC22	11.6.2021	53.10	4.9%	2.46

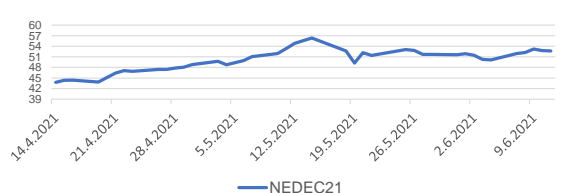
EPAD settlements

11.6.2021 (€/MWh)	2021	2022	2023
SYHEL	7.53	3.63	3.73
SE1- NP System	-7.00	-7.00	-7.25
SE2 - NP System	-7.00	-7.00	-7.25
SE3 - NP System	2.80	3.00	2.85
SE4 - NP System	12.00	9.50	9.38

Week's spot price change

Price area (€/MWh)	Date	Value	% chg	Chg (EUR)
NP System	13.6.2021	43.27	-9.8%	-4.73
NP Area FI	13.6.2021	53.31	0.0%	0.00
NP Area SE1	13.6.2021	39.95	-5.1%	-2.14
NP Area SE2	13.6.2021	39.95	-5.1%	-2.14
NP Area SE3	13.6.2021	41.59	-9.8%	-4.51
NP Area SE4	13.6.2021	41.59	-9.8%	-4.51

Carbon EUR/CO2 t



COMMENTS ON WEEK 23

POWER FUTURES

Front quarter

Last week, near products fell on Monday on the back of slightly rainier weather forecasts. The uncertainty in the weather forecasts and the strong rise on the German and fuel markets made prices rise strongly on Tuesday, however. The market remained almost unchanged over the following days even though the weather forecasts promised more rain than normal. On Friday, the weather forecasts are again dampening, and the spot price collapsed on Saturday and near products fell sharply. At the weekly level, the front quarter closed at just over a euro down.

Annual products

Also, the prices of annual products fell on Monday under the pressure of slightly rainier weather forecasts. On Tuesday, prices rose sharply driven by Germany, the emission allowance and fuels. The following days, price movements were very minor also on other markets. Germany, the emission allowance, natural gas and coal were rising at the weekly level. On Friday, however, also annual products fell sharply as the weather forecasts turned to rainier and spot prices fell on Saturday. The price spread with Germany rose to a record high. The nearest annual products were down around €0.50 at the weekly level.

SPOT MARKET

Last week started off very dry and warm. The warm weather kept flow rates high as the snow melted in the mountains. High pressure meant that wind power production was very low earlier in the week and spot prices settled high. However, wind power production started to rise from Friday onwards and this pushed spot prices down to a very low level for the weekend. This is why spot prices fell clearly at the weekly level despite the high prices earlier in the week. The system price fell to €43.3/MWh. Annual maintenance at Olkiluoto and low wind power production meant that the Finnish area price settled at much higher than the system price on weekdays. The Finnish price fell clearly towards at the weekend but on this occasion did not settle at more favorable than the system price as Russia restricted imports at the weekend because of the low price outlook. At the weekly level, the Finnish area price settled at €10/MWh higher than the system price.

EMISSIONS

Last week, the emission allowance price was upward. Monday saw an upward correction of the previous close and the technical level and this direction continued until Wednesday. On Thursday, the price rose at the daily level but showed signs of softness and Friday saw a slight downward correction. The emission allowance price was up €2.70 at the weekly level. A strong fuel market brought support to the market, later in the week technical sales and a weaker auction result saw the market retreat.

DETERMINANTS AFFECTING THE MARKET ON WEEK 24

RESTRICTIONS IN PRODUCTION AND TRANSMISSION CAPACITY

- Forsmark 1 (990 MW), maintenance 16.6.-4.7.2021, in use 855 MW
- Forsmark 2 (1118 MW), test 19.-20.6.2021, in use 300 MW
- Ringhals 3 (1074 MW), maintenance 24.5.-27.8.2021, in use 0 MW
- Oskarshamn 3 (1400 MW), maintenance 22.5.-15.6.2021, in use 0 MW
- Olkiluoto 2 (890 MW), maintenance 16.5.-17.6.2021, 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 67 %
- RU-FI transmission profile varies due to capacity payments, average imports from Russia last week were 67 % 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	42.00
NP Area FI - NP System	3.10	6.40	8.70	5.54	3.78	2.81	5.10	17.28	4.45
NP Area SE1 - NP System	1.10	1.80	0.20	2.04	1.43	0.24	-1.00	3.60	-6.15
NP Area SE2 - NP System	1.10	1.80	1.00	2.04	1.43	0.24	-1.00	3.60	-6.16
NP Area SE3 - NP System	1.40	2.00	1.00	2.33	1.83	0.55	-0.58	10.53	0.62
NP Area SE4 - NP System	1.80	2.30	1.90	2.62	2.77	2.37	0.86	15.06	7.07

*Average for period between 1.1.2021-14.6.2021.

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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	23	Chg	22	Chg
ENOFUTBLQ3-21	↻	-4.0%	↗	1.7%
ENOFUTBLYR-22	↻	-2.2%	↗	-4.2%
NP System	↻	-9.8%	↗	6.4%
NEDEC21	↘	5.1%	↗	-3.0%

