

NORDIC ELECTRICITY MARKET

22.2.2021 Markus Herranen, Gasum Portfolio Services Oy

WETTER AND MILDER WEATHER PICTURE THAN NORMAL MAINTAINS DOWNWARD PRESSURE

Forecast to week 8:	
ENOFUTBLQ2-21	📉 Bearish (<0%)
ENOYR-22	📉 Bearish (<0%)
NP System	📉 Bearish (<0%)
NEDEC21	📉 Bearish (<0%)

FORECAST TO WEEK 8

POWER FUTURES

Front quarter

The weather type has turned wetter and milder than normal. Weather forecasts dampened during the weekend and the weather type will continue wet and mild for the time being with no clear signs of a turn to dry or cold. Near products have clearly weakened technically and have in the short-term turned to a downward trend. We expect near products to fall.

Annual products

The wet and mild weather picture and weak near-term products are bringing downward pressure, especially on the nearest annual products. Also, the emission allowance price has softened, and fuel prices have mostly continued falling. The broad weather picture in Europe is mild and with it the short-term demand outlook for fuels and emission allowances is subdued. We expect the prices of annual products to fall.

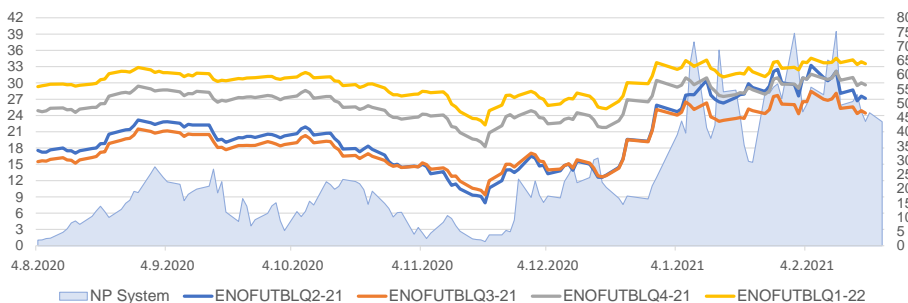
SPOT MARKET

Temperatures have risen to near normal for the time of year and will continue to rise towards Thursday, when the weather will be considerably milder than normal. Demand for electricity will fall over the following days and will be much lower than the level a week earlier. Nordic wind power production will rise to a high level after the early part of the week. Flow rates have started to rise, and wetter and milder weather than normal will see flow rates rise over the following days. We expect spot prices to fall. We expect the system price to settle at an average level of €38.0/MWh at the weekly level. Imports of electricity from Russia to Finland will be abundant in the early part of the week because of public holidays in Russia. After Tuesday, electricity imports from Russia to Finland will again fall. In Finland, wind power production will mostly be more slightly more plentiful than normal. We expect the Finnish area price to fall and to settle at an average level of €43.5/MWh.

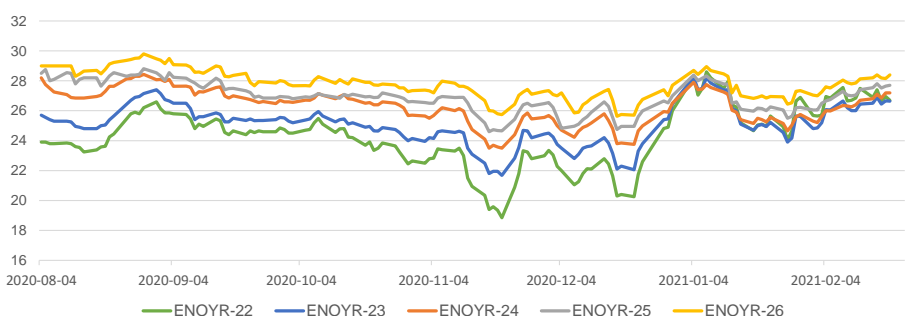
EMISSIONS

The current week opened with a fall in the emission allowance price. Technically, the price has room to fall before reaching the previous bottom. Temperatures will remain mild this week and the forecasts show no signs of an actual cold spell. The position of investment funds on the market has grown, which may still support the price if it starts to test €40/t levels again. In addition to this, deadlines are approaching for the surrender of emission allowances. We expect the emission allowance to still slightly weaken but the fall will be limited by speculative demand and actual demand and technical levels ahead of surrenders.

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



Years EUR/MWh



Market signals

	spot	Q2-21	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)
ENOFUTBLQ2-21	19.2.2021	27.15	-15.6%	-5.00
ENOFUTBLQ3-21	19.2.2021	24.45	-13.0%	-3.65
ENOFUTBLQ4-21	19.2.2021	29.63	-7.8%	-2.52
ENOFUTBLQ1-22	19.2.2021	33.55	-2.9%	-1.00
ENOYR-22	19.2.2021	26.70	-2.9%	-0.80
ENOYR-23	19.2.2021	26.64	0.7%	0.19
ENOYR-24	19.2.2021	27.20	1.9%	0.50
ENOYR-25	19.2.2021	27.70	1.1%	0.30
ENOYR-26	19.2.2021	28.40	1.0%	0.27
NEDEC21	19.2.2021	37.40	-7.0%	-2.82
NEDEC22	19.2.2021	37.71	-6.9%	-2.79

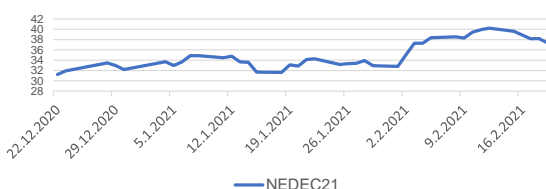
EPAD settlements

19.2.2021 (€/MWh)	2021	2022	2023
SYHEL	11.80	5.15	4.75
SE1- NP System	-2.50	-3.50	-3.50
SE2 - NP System	-2.50	-3.50	-3.50
SE3 - NP System	3.63	3.13	2.75
SE4 - NP System	8.85	7.65	8.00

Week's spot price change

Price area (€/MWh)	Date	Value	% chg	Chg (EUR)
NP System	21.2.2021	44.63	-21.6%	-12.32
NP Area FI	21.2.2021	60.44	-13.0%	-9.04
NP Area SE1	21.2.2021	41.08	-15.1%	-7.30
NP Area SE2	21.2.2021	41.08	-15.1%	-7.30
NP Area SE3	21.2.2021	48.49	-28.8%	-19.63
NP Area SE4	21.2.2021	48.49	-28.8%	-19.63

Carbon EUR/CO2 t



COMMENTS ON WEEK 7

POWER FUTURES

Front quarter

Last week saw a clear fall in near products when the weather forecasts confirmed the end of the cold, dry weather type. The turn in the weather type to wetter than normal and with it the rise in the hydro balance triggered a clear fall in near products. There were no clear signs in the weather forecasts during the week of new cold or dry periods. Also, the weakened emission allowance price and retreating fuel prices strengthened the downward pressure. Near products weakened technically and the products turned to a downward trend in the short term.

Annual products

Last week, a turn in the weather type to wet and milder than normal put downward pressure on the nearest annual products. Also, the rise in the emission allowance price came to a halt and the prices of coal and natural gas fell during the early part of week. Towards the end of the week, coal and natural gas prices recovered, which led to an upturn in longer annual products. The nearest annual product ultimately closed the week down at the weekly level, but longer annual products rose slightly despite the weakened emission allowance price.

SPOT MARKET

Last week, temperatures rose, but the weather was still colder than normal in the first half of the week. At the end of the week, temperatures rose and demand for electricity fell. However, the weather in Finland remained much colder than in the other Nordic countries. Nordic wind power production was weak on Tuesday but rose to higher than normal at the end of the week. Spot prices fell at the weekly level. The system price fell at the weekly level, however, more than the Finnish area price.

EMISSIONS

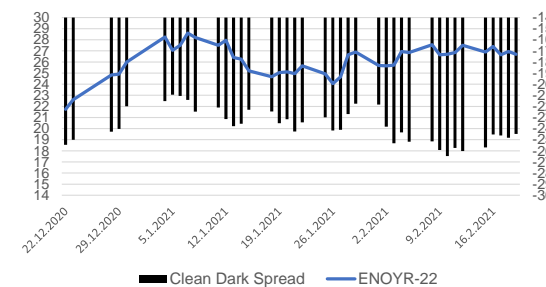
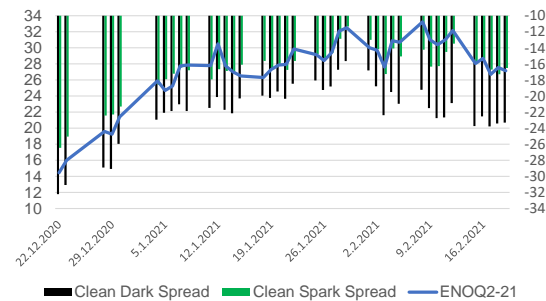
Last week, the emission allowance price fell having first reached a historically high peak of €40.64/t on Monday. The market fell every trading day except for Thursday. Last week, auctions mainly settled at lower than the secondary market. A softening was also seen on the European stock markets last week. The weather picture turned mild and oil and gas prices took a downward turn. On Friday, the emission allowance price closed at a level of €37.40, down €2.62 at the weekly level.

Indicator	ENOFUTBLQ2-21	ENOYR-22
Coal-fired production	28 %	8 %
Coal price	35 %	15 %
Gas price (NBP)	6 %	85 %
German price level	59 %	33 %
Spot	0 %	0 %
Crude oil Brent	39 %	18 %
Water reservoirs	56 %	50 %
EUR/USD FX rate	9 %	2 %
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	7	Chg	6	Chg
ENOFUTBLQ2-21	↓	-15.6%	↑	4.7%
ENOYR-22	↓	-2.9%	↑	2.4%
NP System	↓	-21.6%	↑	-11.4%
NEDEC21	↑	-7.0%	↑	4.9%



DETERMINANTS AFFECTING THE MARKET ON WEEK 8

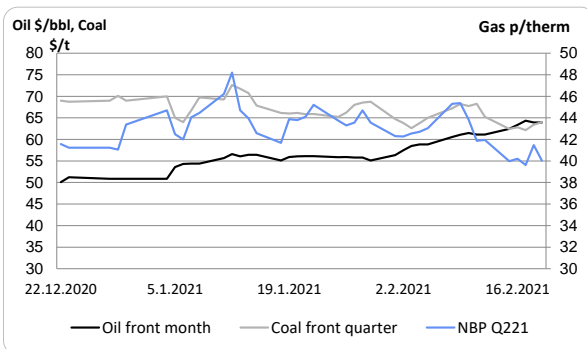
RESTRICTIONS IN PRODUCTION AND TRANSMISSION CAPACITY

- Nordic nuclear power plants are currently operating at a capacity utilization rate of 100%
- RU-FI transmission profile varies due to capacity payments, average imports from Russia last week were 78 % 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	47.99
NP Area FI - NP System	3.10	6.40	8.70	5.54	3.78	2.81	5.10	17.28	8.22
NP Area SE1 - NP System	1.10	1.80	0.20	2.04	1.43	0.24	-1.00	3.60	-2.31
NP Area SE2 - NP System	1.10	1.80	1.00	2.04	1.43	0.24	-1.00	3.60	-2.31
NP Area SE3 - NP System	1.40	2.00	1.00	2.33	1.83	0.55	-0.58	10.53	4.82
NP Area SE4 - NP System	1.80	2.30	1.90	2.62	2.77	2.37	0.86	15.06	5.61

*Average for period between 1.1.2021-22.2.2021.



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