

NORDIC ELECTRICITY MARKET

4.1.2021 Markus Herranen, Gasum Portfolio Services Oy

COLD, DRY WEATHER TYPE BRINGS STRONG UPWARD PRESSURE

Forecast to week 1:

ENOFUTBLQ2-21	↗ Bullish (>0%)
ENOYR-22	↗ Bullish (>0%)
NP System	↗ Bullish (>0%)
NEDEC21	↗ Bullish (>0%)

FORECAST TO WEEK 1

POWER FUTURES

Front quarter

The weather type has turned dry and also colder than normal for the time of year. Precipitation amounts will rise momentarily towards the end of this week and early next week, but for the time being the weather type will not turn wet or mild. Instead, temperatures will fall to lower than normal in the latter half of next week. In the second half of next week, the weather will possibly turn very cold but there is still considerable uncertainty about temperatures. For the time being the cold, dry weather type is maintaining strong upward pressure. Also, strongly risen spot prices and a strong technical upward trend will be supportive. We expect near products to show a clear rise.

Annual products

We expect annual products to rise with the dry, cold weather picture and strong near products. Also fuel prices are experiencing a strong upward trend and there is a very strong upward trend in the emission allowance price, too. Also, annual products have turned to strong technical upward trends. Both the fundamentals and the technical analysis are supportive of a rise for now.

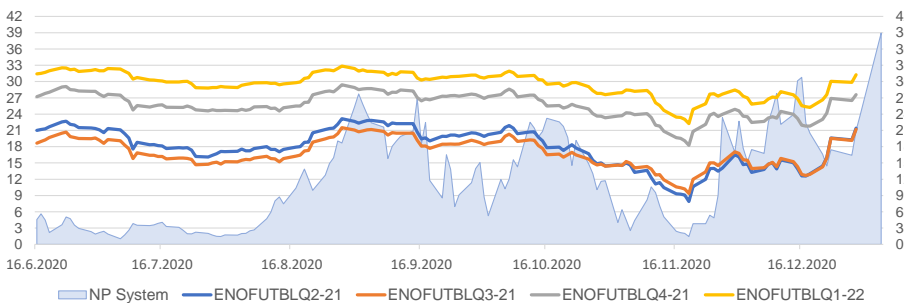
SPOT MARKET

Temperatures have fallen to lower than normal and the weather will remain cold for the time being. The cold weather will greatly increase demand for electricity, but Wednesday January 6, Epiphany, is a public holiday and will lower demand for electricity. The cold and dry weather picture is strongly supportive of spot prices. Nordic wind power production will be weaker than normal and will be at its weakest between Thursday and Saturday. Flow rates have fallen to near normal levels and will continue to fall over the following days. We expect the system price to show a clear rise and to settle at an average level of €41.0/MWh. In Finland, wind power production will largely be very scant and also demand for electricity has risen significantly. However, abundant imports of electricity from Russia to Finland will limit the rise in the Finnish area price this week. We expect the Finnish area price to settle at an average level of €43.5/MWh.

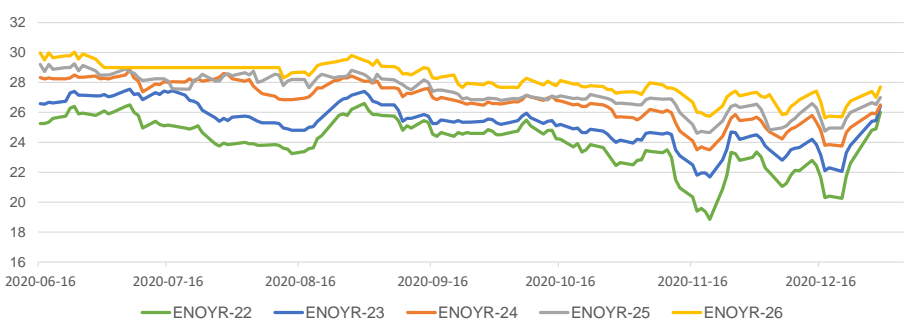
EMISSIONS

The emission allowance price is technically very strong. In addition to a strong technical picture, the break in emission allowance auctions is also maintaining upward price pressure. Also, general market sentiment is optimistic and stock prices are rising. Colder weather across most of Europe and weaker than normal wind power production will boost demand for emission allowances.

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	30.12.2020	21.40	33.8%	5.40
ENOFUTBLQ3-21	30.12.2020	21.20	33.3%	5.30
ENOFUTBLQ4-21	30.12.2020	27.60	14.0%	3.40
ENOFUTBLQ1-22	30.12.2020	31.25	13.2%	3.65
ENOYR-22	30.12.2020	26.00	15.0%	3.40
ENOYR-23	30.12.2020	26.45	11.1%	2.65
ENOYR-24	30.12.2020	26.50	6.0%	1.51
ENOYR-25	30.12.2020	27.00	3.9%	1.01
ENOYR-26	30.12.2020	27.70	3.5%	0.94
NEDEC21	30.12.2020	32.21	0.9%	0.28
NEDEC22	30.12.2020	32.45	0.9%	0.30

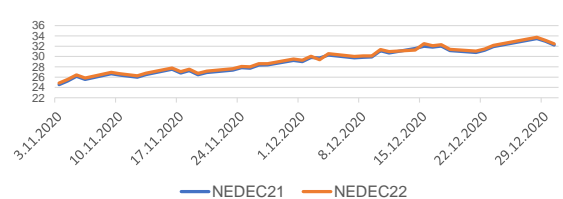
EPAD settlements

30.12.2020 (€/MWh)	2021	2022	2023
SYHEL	11.80	5.75	5.75
SE1-NP System	-2.50	-2.50	-2.50
SE2 - NP System	-2.50	-2.50	-2.50
SE3 - NP System	3.63	2.75	3.50
SE4 - NP System	8.85	7.50	8.33

Week's spot price change

Price area (€/MWh)	Date	Value	% chg	Chg (EUR)
NP System	3.1.2021	24.50	65.3%	9.68
NP Area FI	3.1.2021	30.64	41.1%	8.92
NP Area SE1	3.1.2021	22.73	61.2%	8.63
NP Area SE2	3.1.2021	22.73	61.2%	8.63
NP Area SE3	3.1.2021	24.28	52.4%	8.35
NP Area SE4	3.1.2021	24.28	52.4%	8.35

Carbon EUR/CO2 t



COMMENTS ON WEEK 53

POWER FUTURES

Front quarter

Last week saw a very strong rise in near products. The strong rise on the market is being driven by weather forecasts showing the weather type turning cold and dry during the following week. Near products rose sharply on the back of a weakening hydro balance and the outlook for a clear rise in demand for electricity. Technically near products showed a sharp rise.

Annual products

Last week also saw a sharp rise in annual products. The turn in the weather type and strongly risen near-term products brought upward pressure on annual products. Also fuel prices remained robust and the emission allowances reached new record prices. There was also a considerable strengthening in the technical picture as products rose above strong resistance levels.

SPOT MARKET

Temperatures fell last week but the weather still remained mostly mild for the time of year. Demand for electricity rose compared to the previous week, but the impact of the new year limited the rise in demand for electricity. After the early part of the week, Nordic wind power production was again weak. Dry, cold weather the following week was supportive of spot prices, which were clearly up at the weekly level. Also, the Finnish area price rose amply at the weekly level, but on average the Finnish area price rose a touch less than the system price.

EMISSIONS

Last week saw a rise in the emission allowance price as the trade deal between the EU and the UK reduced general uncertainty. Support for the emission allowance price was also driven by scant availability as the break in emission allowance auctions continued. In turn, colder weather in most of Europe increased demand outlook.

Indicator	ENOFUTBLQ2-21	ENOYR-22
Coal-fired production	11 %	12 %
Coal price	1 %	1 %
Gas price (NBP)	6 %	51 %
German price level	5 %	6 %
Spot	0 %	0 %
Crude oil Brent	0 %	0 %
Water reservoirs	53 %	58 %
EUR/USD FX rate	12 %	13 %
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)

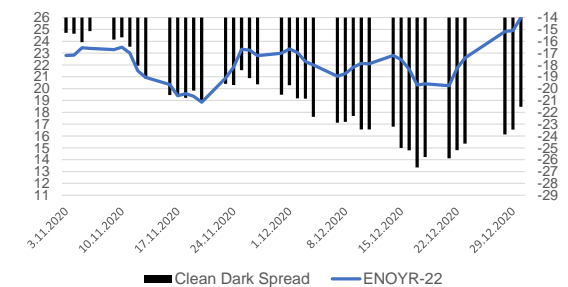
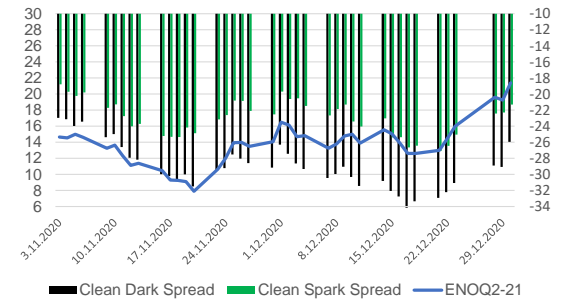
Forecast history	53	Chg	52	Chg
ENOFUTBLQ2-21	↗	33.8%	↗	27.0%
ENOYR-22	↗	15.0%	↗	10.8%
NP System	↗	65.3%	↘	-14.8%
NEDEC21	↗	0.9%	↗	2.5%

DETERMINANTS AFFECTING THE MARKET ON WEEK 1

RESTRICTIONS IN PRODUCTION AND TRANSMISSION CAPACITY

Forsmark 1 (988 MW), 23.12.-13.1.2021, failure, in use 821 MW

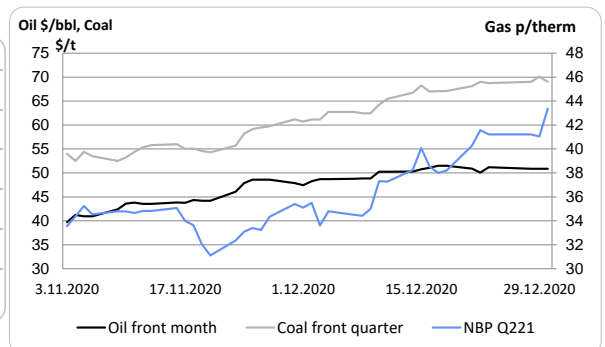
- Nordic nuclear power plants are currently operating at a capacity utilization rate of 98%
- RU-FI transmission profile varies due to capacity payments, average imports from Russia last week were 58 % of the maximum



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	30.52
NP Area FI - NP System	3.10	6.40	8.70	5.54	3.78	2.81	5.10	17.28	1.54
NP Area SE1 - NP System	1.10	1.80	0.20	2.04	1.43	0.24	-1.00	3.60	0.91
NP Area SE2 - NP System	1.10	1.80	1.00	2.04	1.43	0.24	-1.00	3.60	0.91
NP Area SE3 - NP System	1.40	2.00	1.00	2.33	1.83	0.55	-0.58	10.53	0.91
NP Area SE4 - NP System	1.80	2.30	1.90	2.62	2.77	2.37	0.86	15.06	7.13

*Average for period between 1.1.2021-4.1.2021.



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Source for data: intStream, Tilastokeskus

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