

NORDIC ELECTRICITY MARKET

11.1.2021 Markus Herranen, Gasum Portfolio Services Oy

WEATHER TYPE WILL CONTINUE MOSTLY COLD AND DRY FOR THE TIME BEING

Forecast to week 2:	
ENOFUTBLQ2-21	↗ Bullish (>0%)
ENOYR-22	↗ Bullish (>0%)
NP System	↗ Bullish (>0%)
NEDEC21	↗ Bullish (>0%)

FORECAST TO WEEK 2

POWER FUTURES

Front quarter

Temperatures have momentarily risen to an almost normal level and the week is starting slightly wetter than normal. However, the weather will again turn colder and precipitation amounts will decrease. The weather type will continue to be mostly drier and much colder than normal with no clear signs of a turn to a wetter or milder weather type. The hydro balance will continue to fall and technically near products are strong. We expect near-term products to continue to rise for the time being.

Annual products

The cold, dry weather picture and strong near-term products are supportive in the prices of annual products. The broad weather picture is colder than normal not just in the Nordics but also across Europe, and this, together with a strong technical trend, is maintaining support in fuel and emission allowance prices. We expect the prices of annual products to continue rising.

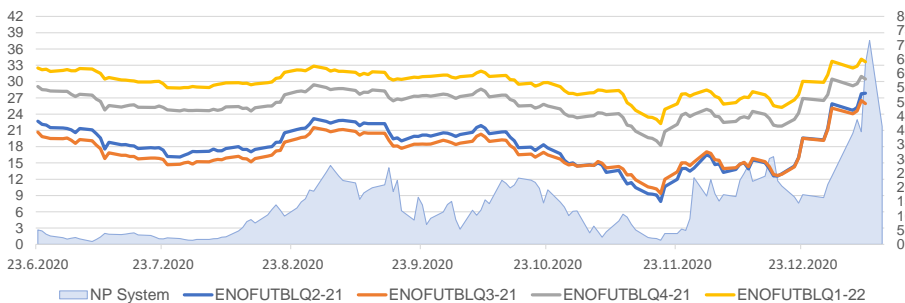
SPOT MARKET

Temperatures have momentarily risen to an almost normal level but will fall towards Friday. Temperatures in the Nordics will fall to much lower than normal between Wednesday and Friday and this will exert strong upward pressure on spot prices. Nordic wind power production will be more abundant than normal in the first half of the week but will fall to a low level between Thursday and Saturday. In Finland, wind power production will also be plentiful in the early part of the week but also in Finland will weaken to a low level. Imports of electricity from Russia have fallen compared to last week, but electricity is still imported from Russia to Finland also during the daytime. We expect the system price to rise and to settle at an average level of €54.0/MWh. Temperatures in South Finland, especially on Thursday and Friday, are further bringing uncertainty to spot prices in Finland. There is a possibility of high peaks in spot prices in Finland on Thursday and Friday. We expect the Finnish area price to settle at an average level of €68.0/MWh, but there is plenty of uncertainty.

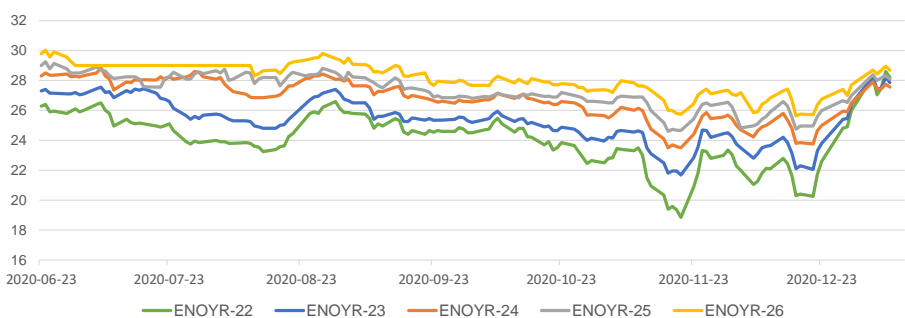
EMISSIONS

This week, temperatures in Europe will fall from normal temperatures in the early part of the week and also wind power production will weaken from levels seen in the early part of the week. The break in emission allowance auctions continues for around three more weeks, in addition to which the outlook for higher prices supported by tighter future EU emissions is also supportive of market sentiment. Technically, the emission allowance price is enjoying a very robust upward trend, but RSI indicates that the emission allowance price is approaching the overbought threshold, which means a potential risk of price correction. We expect the emission allowance price to continue rising.

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	8.1.2021	27.85	30.1%	6.45
ENOFUTBLQ3-21	8.1.2021	25.95	22.4%	4.75
ENOFUTBLQ4-21	8.1.2021	30.45	10.3%	2.85
ENOFUTBLQ1-22	8.1.2021	33.65	7.7%	2.40
ENOYR-22	8.1.2021	28.20	8.5%	2.20
ENOYR-23	8.1.2021	27.85	5.3%	1.40
ENOYR-24	8.1.2021	27.55	4.0%	1.05
ENOYR-25	8.1.2021	28.08	4.0%	1.08
ENOYR-26	8.1.2021	28.68	3.5%	0.98
NEDEC21	8.1.2021	34.87	8.3%	2.66
NEDEC22	8.1.2021	35.10	8.2%	2.65

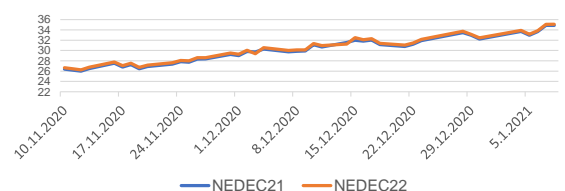
EPAD settlements

8.1.2021 (€/MWh)	2021	2022	2023
SYHEL	11.80	4.63	4.30
SE1-NP System	-2.50	-2.75	-2.75
SE2 - NP System	-2.50	-2.75	-2.75
SE3 - NP System	3.63	2.13	2.58
SE4 - NP System	8.85	8.00	8.25

Week's spot price change

Price area (€/MWh)	Date	Value	% chg	Chg (EUR)
NP System	10.1.2021	50.02	104.2%	25.52
NP Area FI	10.1.2021	53.35	74.1%	22.72
NP Area SE1	10.1.2021	52.70	131.9%	29.97
NP Area SE2	10.1.2021	52.70	131.9%	29.97
NP Area SE3	10.1.2021	53.18	119.0%	28.90
NP Area SE4	10.1.2021	53.18	119.0%	28.90

Carbon EUR/CO2 t



COMMENTS ON WEEK 1

POWER FUTURES

Front quarter

Last week, near products rose very robustly with the cold, dry weather type maintaining strong upward pressure. The weather forecasts showed no sign of a turn in the weather type and the hydro balance continued to show a clear fall. Strongly-risen spot prices and further strengthened fuel and emission allowance prices provided support for near products.

Annual products

Last week saw a strong rise in the prices of annual products. The dry, cold weather type and near-term products that continued rising very strongly also put upward pressure on annual products. General market sentiment was also very confident and share indexes rose. Confident market sentiment also lifted fuel prices, which were also supported by a colder weather picture across most of Europe.

SPOT MARKET

Temperatures fell last week and there was an abundant increase in the demand for electricity. However, the impact of the Epiphany public holiday limited the increase in demand for electricity. Also mostly scant wind power production was strongly supportive of spot prices. Also, flow rates were also falling. In Finland, wind power production was also mostly scant, but abundant imports of electricity from Russia to Finland significantly limited the rise in the Finnish area price. Spot prices rose significantly at the weekly level, but the spread between the Finnish area price and system price narrowed.

EMISSIONS

Last week, the emission allowance price continued rising. The price was still supported by the break in emission allowance auctions and the strength of fuel markets. Forecasts for cold weather supported the price of gas in particular. The emission allowance price was also supported by the reaction of the stock markets to expectations concerning the US Senate. During Friday, the emission allowance price rose to north of €35/t, its historic highest level.

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)

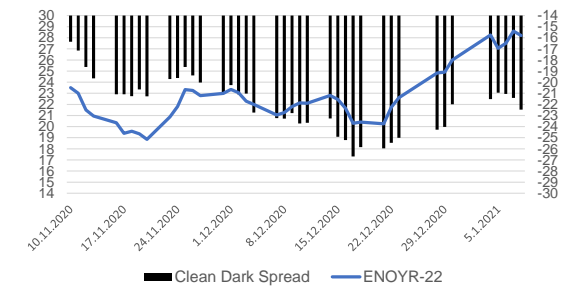
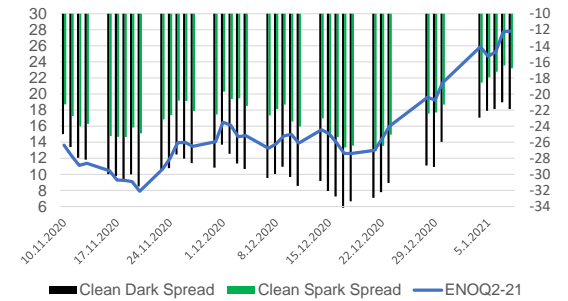
Forecast history	1	Chg	52	Chg
ENOFUTBLQ2-21	↗	30.1%	↗	#N/A
ENOYR-22	↗	8.5%	↗	#N/A
NP System	↗	104.2%	↘	32.0%
NEDEC21	↗	8.3%	↗	#N/A

DETERMINANTS AFFECTING THE MARKET ON WEEK 2

RESTRICTIONS IN PRODUCTION AND TRANSMISSION CAPACITY

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

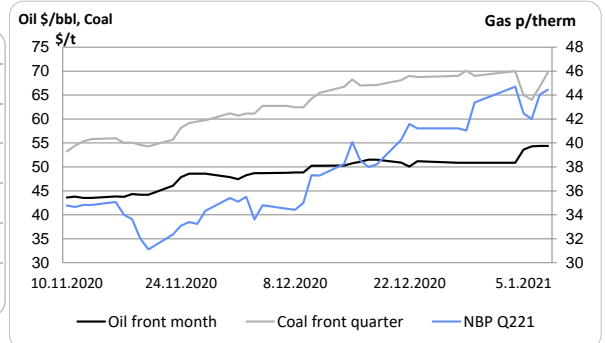
- Nordic nuclear power plants are currently operating at a capacity utilization rate of 98%
- RU-FI transmission profile varies due to capacity payments, average imports from Russia last week were 98 % of the maximum



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	43.15
NP Area FI - NP System	3.10	6.40	8.70	5.54	3.78	2.81	5.10	17.28	2.42
NP Area SE1 - NP System	1.10	1.80	0.20	2.04	1.43	0.24	-1.00	3.60	1.72
NP Area SE2 - NP System	1.10	1.80	1.00	2.04	1.43	0.24	-1.00	3.60	1.72
NP Area SE3 - NP System	1.40	2.00	1.00	2.33	1.83	0.55	-0.58	10.53	2.06
NP Area SE4 - NP System	1.80	2.30	1.90	2.62	2.77	2.37	0.86	15.06	4.55

*Average for period between 1.1.2021-11.1.2021.



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Source for data: intStream, Tilastokeskus

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