

NORDIC ELECTRICITY MARKET

8.3.2021 Markus Herranen, Gasum Portfolio Services Oy

MOMENTARILY DRY AND COLD BUT WETTER AND MILDER IN SIGHT

Forecast to week 10:	
ENOFUTBLQ2-21	↗ Bullish (>0%)
ENOYR-22	↗ Bullish (>0%)
NP System	↗ Bullish (>0%)
NEDEC21	↔ Sideways (± 0,5%)

FORECAST TO WEEK 10

POWER FUTURES

Front quarter

No significant changes took place in the weather forecasts during the weekend. The week is getting off to a dry and cold start, but in the second half of the week temperatures will rise to approach normal for the time of year. Precipitation amounts will reach high on Thursday. Next week, both temperatures and precipitation amounts will approach normal and the two-week forecast period shows no major changes are to be expected in the hydro balance. High spot prices in the early part of the week are supportive of near products but spot prices will fall towards the end of the week. At the weekly level, we expect near products to move close to last week's emission levels or continue to show a slight rise.

Annual products

The oil price showed a clear rise last week and attacks on Saudi Arabian production facilities this week strengthened upward pressure. The rise in the price of oil has provided support for the price of natural gas, but on the other hand the price of coal has been weak against the strengthening oil price. The progress of the United States' stimulation package and better-than-expected US employment figures on Friday are providing support for general market sentiment and share indexes. On the other hand, concerns about accelerating inflation remain. We expect annual products to continue to show a slight rise.

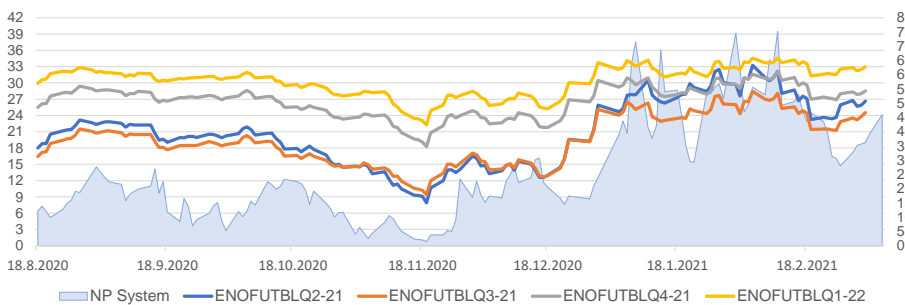
SPOT MARKET

The first half of the week will be cold for the time of year and also dry. Nordic wind power production will be weak in the early part of the week, but after Tuesday will show a sharp rise and reach very high on Thursday. At the end of the week, wind power production will fall to almost normal levels. Temperatures will rise in the second half of the week and at the end of the week the weather will turn slightly milder than normal. Scant wind power production and colder than normal weather in the early part of the week will support spot prices, but especially on Thursday we expect spot prices to show a clear fall. However, we expect spot prices to rise at the weekly level. We expect the system price to settle at an average level of €36.0/MWh. Wind power production in Finland will be weak in the early part of the week but will be high on Thursday and Friday. We expect the Finnish area price to settle at an average level of €41.5/MWh.

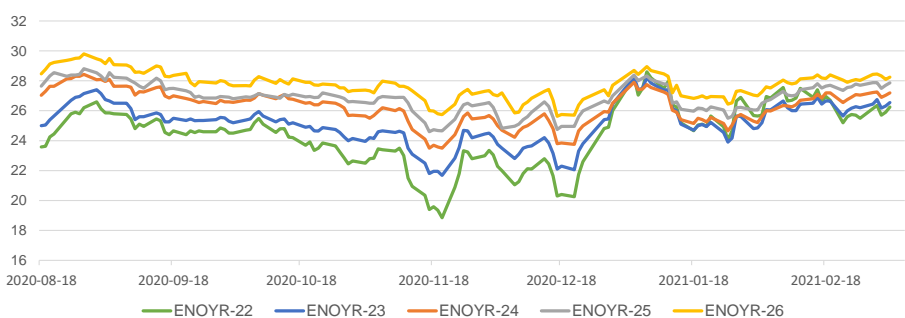
EMISSIONS

Temperatures in Europe will be mostly close to normal during the current week and wind power production will be high at the end of the week. This week, the European Parliament will vote on the carbon border tax proposal, which in calm market conditions like the current ones could give direction also to the emission allowance price. The rise in the price of oil, as well as stock market volatility could also provide support for the emission allowance price. Technical support at a level of €36.50/t prevented the market from falling last week and the same level continues to support the price. We expect the emission allowance price to continue trading between €36.50 - €40/t, with the possibility of a rise.

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	5.3.2021	26.65	12.7%	3.00
ENOFUTBLQ3-21	5.3.2021	24.55	15.5%	3.30
ENOFUTBLQ4-21	5.3.2021	28.50	5.9%	1.60
ENOFUTBLQ1-22	5.3.2021	32.98	4.5%	1.43
ENOYR-22	5.3.2021	26.25	2.9%	0.75
ENOYR-23	5.3.2021	26.55	1.3%	0.35
ENOYR-24	5.3.2021	27.20	0.6%	0.15
ENOYR-25	5.3.2021	27.86	0.6%	0.16
ENOYR-26	5.3.2021	28.25	0.8%	0.22
NEDEC21	5.3.2021	38.93	4.4%	1.63
NEDEC22	5.3.2021	39.28	4.4%	1.66

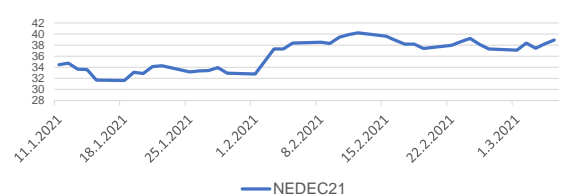
EPAD settlements

5.3.2021 (€/MWh)	2021	2022	2023
SYHEL	11.03	5.30	4.95
SE1- NP System	-4.00	-4.00	-4.00
SE2 - NP System	-4.00	-4.00	-4.00
SE3 - NP System	3.80	3.50	2.88
SE4 - NP System	8.13	8.00	8.00

Week's spot price change

Price area (€/MWh)	Date	Value	% chg	Chg (EUR)
NP System	7.3.2021	33.86	2.3%	0.77
NP Area FI	7.3.2021	37.67	3.7%	1.35
NP Area SE1	7.3.2021	25.16	-19.3%	-6.01
NP Area SE2	7.3.2021	25.16	-19.3%	-6.01
NP Area SE3	7.3.2021	36.47	5.9%	2.03
NP Area SE4	7.3.2021	36.47	5.9%	2.03

Carbon EUR/CO2 t



COMMENTS ON WEEK 9

POWER FUTURES

Front quarter

Last week started off wet and mild, but the forecasts showed signs of drier, colder weather after the end of the early part of the week. Both precipitation amounts and temperatures were seeking close to normal levels and the rise in the hydro balance was coming to an end. This being the case, near products turned to a clear rise on Monday. At the end of the week, the weather forecasts also showed signs of the weather type turning cold, which provided added support for the prices of near products. However, there was considerable uncertainty and any turn to cold seemed likely to remain short-lived, which in part limited upward pressure. Near products closed well up at the weekly level.

Annual products

Last week, prices of annual products rose slightly. Higher near-term products provided support for the prices of annual products. Also, the emission allowance price strengthened. Regarding fuels, the price of oil was well up on news of OPEC rolling over production cuts into April. Despite the stronger price of oil, the price of oil fell at the end of the week, but on the other hand the price of natural gas rose. The nearest annual product rose clearly at the weekly level, but with longer annual products the rise was very moderate.

SPOT MARKET

Last week started on a mild note, windy and wet. Flow rates were also high for the time of year in the early part of the week. After the early part of the week, temperatures took a downturn and temperatures during the second half of the week dropped to near normal. Wind power production normalized after Monday. After the early part of the week, precipitation amounts decreased and flow rates fell towards the end of the week. Spot prices rose towards the end of the working week and both the system price and the Finnish area price rose slightly at the weekly level.

EMISSIONS

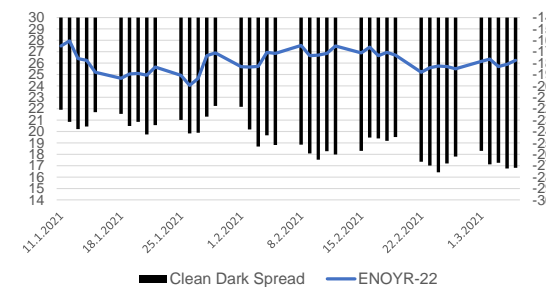
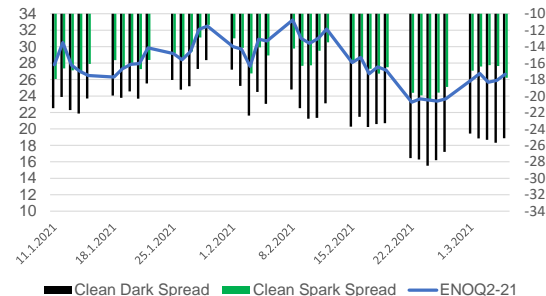
Last week, the emission allowance traded at between €37 - €39/t, up €1.74 at the weekly level. Compared to the volatile market in January, the emission allowance market has calmed. Monday tested the support level of €37/t, from where the emission allowance price recovered having maintained the level on Tuesday. On Wednesday, the emission allowance took direction from the fall in the European energy markets. Commodity markets and optimistic financial data supported the market on Thursday and Friday. Auction results were slightly weaker than in the previous week.

Indicator	ENOFUTBLQ2-21	ENOYR-22
Coal-fired production	41 %	26 %
Coal price	54 %	32 %
Gas price (NBP)	6 %	37 %
German price level	68 %	47 %
Spot	35 %	23 %
Crude oil Brent	56 %	37 %
Water reservoirs	66 %	59 %
EUR/USD FX rate	15 %	8 %
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	9	Chg	8	Chg
ENOFUTBLQ2-21	↗	12.7%	↘	-12.9%
ENOYR-22	↗	2.9%	↘	-4.5%
NP System	↗	2.3%	↘	-39.9%
NEDEC21	↔	4.4%	↗	-0.3%



DETERMINANTS AFFECTING THE MARKET ON WEEK 10

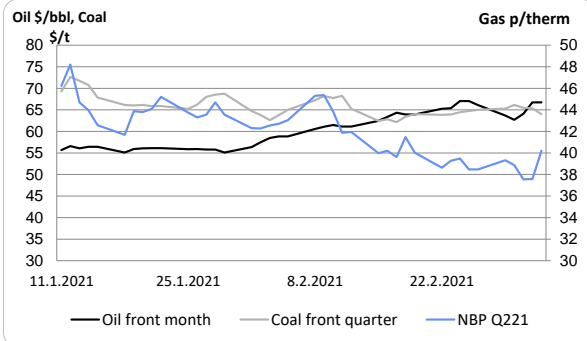
RESTRICTIONS IN PRODUCTION AND TRANSMISSION CAPACITY

- Ringhals 4 (1130 MW), failure 3.-10.3.2021, in use 565 MW
- EE-FI (1016 MW), maintenance 8.-14.3.2021, in use 750-958 MW
- FI-SE3 (1200 MW), maintenance 3.-10.3.2021, in use 840 MW
- Nordic nuclear power plants are currently operating at a capacity utilization rate of 94%
- RU-FI transmission profile varies due to capacity payments, average imports from Russia last week were 57 % 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	45.00
NP Area FI - NP System	3.10	6.40	8.70	5.54	3.78	2.81	5.10	17.28	7.35
NP Area SE1 - NP System	1.10	1.80	0.20	2.04	1.43	0.24	-1.00	3.60	-3.21
NP Area SE2 - NP System	1.10	1.80	1.00	2.04	1.43	0.24	-1.00	3.60	-3.21
NP Area SE3 - NP System	1.40	2.00	1.00	2.33	1.83	0.55	-0.58	10.53	4.34
NP Area SE4 - NP System	1.80	2.30	1.90	2.62	2.77	2.37	0.86	15.06	6.22

*Average for period between 1.1.2021-8.3.2021.



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Source for data: intStream, Tilastokeskus

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