

NORDIC ELECTRICITY MARKET

19.7.2021 Jussi Polvi, Gasum Portfolio Services Oy

DAMPER WEATHER PICTURE LIMITING MARKET UPSWING

Forecast to week 29:

ENOFUTBLQ4-21	↔	Sideways (± 0,5%)
ENOFUTBLQR-22	↔	Sideways (± 0,5%)
NP System	↘	Bearish (<0%)
NEDEC21	↔	Sideways (± 0,5%)

FORECAST TO WEEK 29

POWER FUTURES

Front quarter

Last week, near products fell as the weather picture dampened on Friday. The weather forecasts had dampened further over the weekend. Temperatures will rise to higher than normal after tomorrow to reach their highest at the weekend. Rainfall amounts will remain less than normal during the current week before rising to higher than normal. Flow rates are still lower than normal. Wind power production will be more abundant than normal earlier in the week, but already on Thursday will drop to weaker than normal and remain weaker until the end of next week. Low wind power production will provide support for the spot price at the end of the week, which will keep upward pressure on near products. We expect near products to seek direction unless there are major changes in the weather picture.

Annual products

Fuels and the emission allowance price showed a slight fall last week. The EU climate package announced on Wednesday brought uncertainty to the market and the emission allowance price also sought direction, closing slightly down at the weekly level. Today, the emission allowance has been rising supported by fuel prices. The price spread compared to Central Europe is very wide with the existing SYS product. We expect annual products to seek direction along with fuels and the emission allowance.

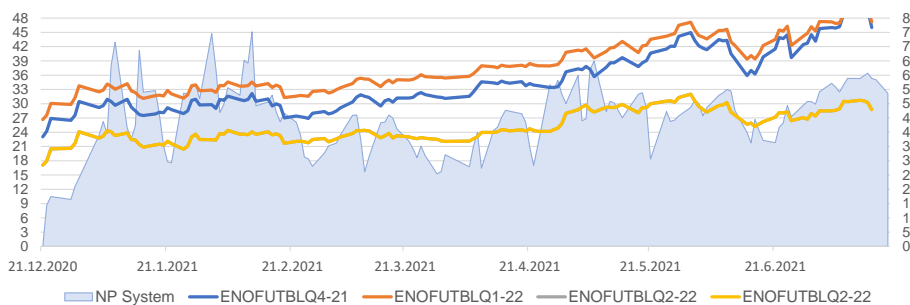
SPOT MARKET

Wind power production will be slightly more abundant than normal until Friday both at the Nordic level and in Finland. Flow rates will remain at about half of normal rates since there will be little rainfall this week. Temperatures will drop to approach normal in the early part of the week but will again rise to hot at the end of the week. The Central European price level for daytime hours is at a level of €80-€100/MWh because of high fuel prices and the price level will partly be reflected in the Nordic price. We expect the SYS price to fall slightly at the weekly level because of higher wind power production and to be around €52/MWh. The Finnish area price is expected to fall because of slightly higher wind power production but to remain well above the system price.

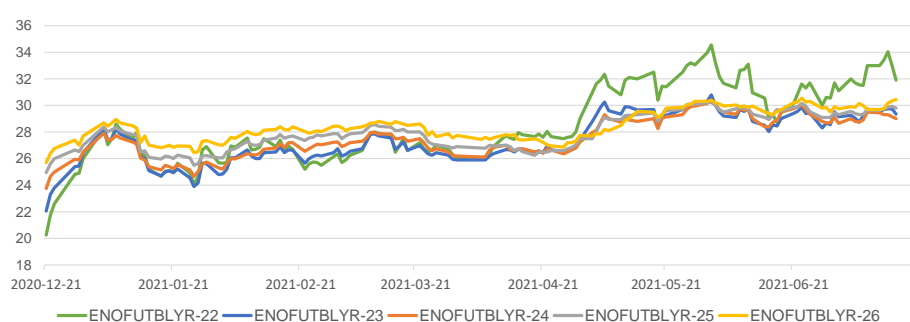
EMISSIONS

The emission allowance price opened the current week on an upward note along with rising fuel prices. The technical picture of the emissions market would strengthen if the emission allowance were to go above a level of €54.25/t. The gas price is still high, and this is maintaining the high cost of switching fuel and supporting the emission allowance price. We expect the market to rise slightly supported by strengthening fuel prices.

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



Years EUR/MWh



Market signals

	spot	Q4-21	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)
ENOFUTBLQ4-21	16.7.2021	46.00	-5.9%	-2.90
ENOFUTBLQ1-22	16.7.2021	47.23	-3.4%	-1.67
ENOFUTBLQ2-22	16.7.2021	28.75	-5.7%	-1.75
ENOFUTBLQ2-22	16.7.2021	28.75	-5.7%	-1.75
ENOFUTBLYR-22	16.7.2021	31.90	-3.3%	-1.10
ENOFUTBLYR-23	16.7.2021	29.35	-1.3%	-0.38
ENOFUTBLYR-24	16.7.2021	29.00	-1.7%	-0.50
ENOFUTBLYR-25	16.7.2021	29.80	0.5%	0.15
ENOFUTBLYR-26	16.7.2021	30.43	2.5%	0.73
NEDEC21	16.7.2021	53.20	-1.1%	-0.60
NEDEC22	16.7.2021	53.64	-1.6%	-0.89

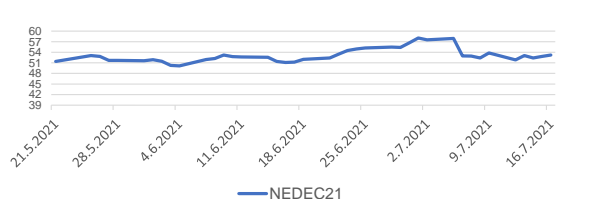
EPAD settlements

16.7.2021 (€/MWh)	2021	2022	2023
SYHEL	10.23	5.50	4.88
SE1 - NP System	-7.00	-7.00	-7.00
SE2 - NP System	-7.00	-7.00	-7.00
SE3 - NP System	3.13	3.43	3.25
SE4 - NP System	23.25	21.23	14.50

Week's spot price change

Price area (€/MWh)	Date	Value	% chg	Chg (EUR)
NP System	18.7.2021	53.64	-5.2%	-2.93
NP Area FI	18.7.2021	85.09	5.6%	4.53
NP Area SE1	18.7.2021	59.94	11.5%	6.20
NP Area SE2	18.7.2021	59.94	4.6%	2.64
NP Area SE3	18.7.2021	65.01	-1.7%	-1.11
NP Area SE4	18.7.2021	65.01	-1.7%	-1.11

Carbon EUR/CO2 t



COMMENTS ON WEEK 28

POWER FUTURES

Front quarter

Last week, near products fell on Monday as fuels and the emission allowance fell. No major changes had taken place in the weather forecasts over the weekend. The weather remained warm and dry, with rainfall rising momentarily above normal mid-week. Flow rates were decreasing and were well below normal. Low wind power production provided support for the spot price and strengthened the mid-week rise in near products. On Friday, the weather forecasts had dampened and near products started to fall sharply. At the weekly level, the front quarter was down €3 and the following quarters by almost €2.

Annual products

Also, annual products fell on Monday along with weak fuels and the emission allowance. Annual products were rising on Tuesday and Wednesday but took a clear downward turn for the rest of the week. The dampened weather picture on Friday put downward pressure on the nearest annual product. There was similar a trend in electricity prices in further years, the movements were only minor. At the weekly level, the nearest annual product was down by more than €1, the fall was about €0.50 in the further years.

SPOT MARKET

Last week, flow rates were roughly half of the normal rate as the weather was wet. Wind power production was weak earlier in the week but started to rise on Thursday and there was plenty of wind at the weekend. Brisk wind power production at the weekend put pressure on system prices. At the weekly level, the system price was down slightly since the week before last due to lower weekend prices. The Finnish area price was still linked to the Baltic and Central European price level during the daytime hours. Imports from Russia are restricted for the whole month and in addition a new restriction began on the link between North Sweden and Finland. Even though it was reasonably windy also in Finland at the weekend, the Finnish price was still linked to the Baltics for several hours. At the weekly level, the SYS price settled at about €53.6/MWh. At the weekend level, the Finnish area price rose and settled a tad north of €85/MWh, which meant the area price spread was exceptionally high.

EMISSIONS

On Monday last week, the emission allowance price fell sharply driven by fuels. On Wednesday, the emission allowance started to rise sharply following the announcement of the EU climate package, but the rise turned to a minor fall. At the end of the week, the emission allowance price sought direction and on Friday closed at a level of €53.20/t, down €0.97 at the weekly level.

Indicator	ENOFUTBLQ4-21	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 %

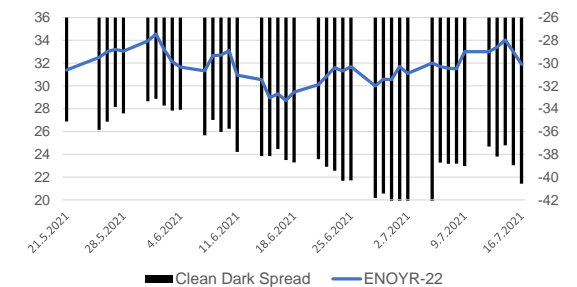
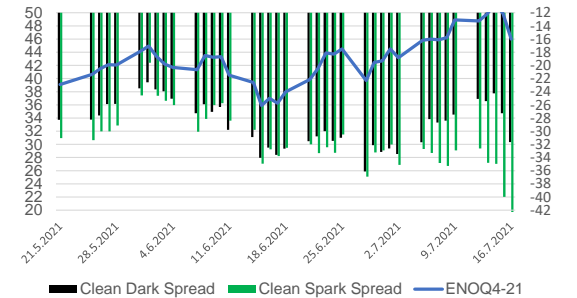
Definition
The above figures measure the ability of market determinants to describe the price changes occurred in last 6 months. The affect is measured as Coefficient of Determination*. Each variable is evaluated independently. We use a color scale to demonstrate efficacy, green (strong), yellow (moderate), red (weak)

Forecast history	28	Chg	27	Chg
ENOFUTBLQ4-21	↻	-5.9%	↗	13.3%
ENOFUTBLYR-22	↻	-3.3%	↗	6.1%
NP System	↻	-5.2%	↗	8.7%
NEDEC21	↘	-1.1%	↗	-6.5%

DETERMINANTS AFFECTING THE MARKET ON WEEK 29

RESTRICTIONS IN PRODUCTION AND TRANSMISSION CAPACITY

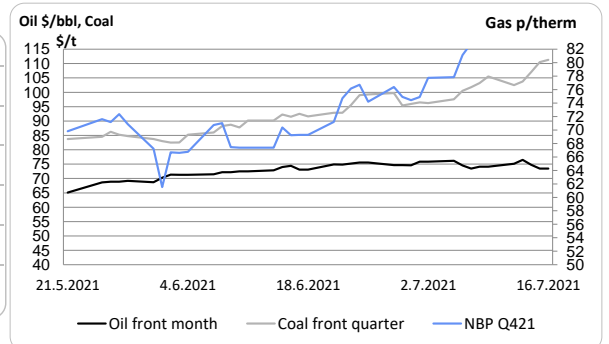
- Forsmark 1 (984 MW), maintenance 4.-24.7.2021 in use 0 MW
- Ringhals 3 (1074 MW), maintenance 24.5.-27.8.2021, in use 0 MW
- SE1-FI (1500 MW), maintenance 14.7.-4.8.2021, in use 1000 MW
- FI-RU (320 MW), maintenance 30.6.-31.7.2021, in use 0 MW
- RU-FI (1300 MW), maintenance 30.6.-31.7.2021, in use 405 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 80 %
- RU-FI transmission profile varies due to capacity payments, average imports from Russia last week were 37 % 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	43.27
NP Area FI - NP System	3.10	6.40	8.70	5.54	3.78	2.81	5.10	17.28	7.52
NP Area SE1 - NP System	1.10	1.80	0.20	2.04	1.43	0.24	-1.00	3.60	-6.22
NP Area SE2 - NP System	1.10	1.80	1.00	2.04	1.43	0.24	-1.00	3.60	-6.11
NP Area SE3 - NP System	1.40	2.00	1.00	2.33	1.83	0.55	-0.58	10.53	0.80
NP Area SE4 - NP System	1.80	2.30	1.90	2.62	2.77	2.37	0.86	15.06	10.77

*Average for period between 1.1.2021-19.7.2021.



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Source for data: Gasum, Tilastokeskus

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