

### NORDIC ELECTRICITY MARKET

28.6.2021 Jussi Polvi, Gasum Portfolio Services Oy

### WEATHER PICTURE AGAIN IS TURNING DAMP DURING THE CURRENT WEEK

#### Forecast to week 26:

ENOFUTBLQ3-21	📉 Bearish (<0%)
ENOFUTBLR-22	↔️ Sideways (± 0,5%)
NP System	📈 Bullish (>0%)
NEDEC21	📈 Bullish (>0%)

#### FORECAST TO WEEK 26

### POWER FUTURES

#### Front quarter

The weather forecasts have dampened during the weekend. The forecast for the current week is warm and dry but will turn rainy from the start of next week. Temperatures this week will remain high until the end of the week, when they will fall. Tomorrow, winds will rise to near normal but weaken again to much weaker than normal on Thursday. Flow rates will remain lower than normal. The hydro balance is drying out during the current week, after which it will start to rise. We expect near-term products to fall at the weekly level supported by the damper weather picture.

#### Annual products

Last week's rise meant an end to the correction movement of the annual product. We expect the emission allowance price to rise during the current week. The price spread compared to Central Europe is still very high with the existing SYS annual product. We expect annual products to seek direction at the weekly level as the damper weather picture during this week limits the rise.

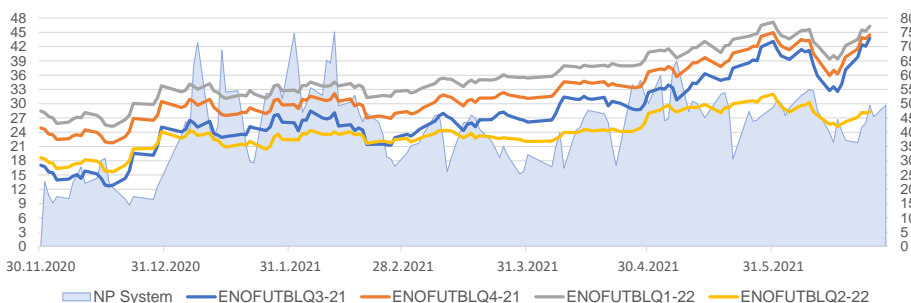
### SPOT MARKET

The weather is still very dry during the current week and even though the temperature is indeed very high, the remaining amount of snow is not enough to maintain flow rates. Flow rates have indeed fallen low and will continue falling during the current week because of the dry weather. From the end of the week, flow rates will only be about 600 GWh a day, which corresponds to less than 60% of normal. Wind power production will also be low the whole week, even though it will reach slightly closer to normal rates on Wednesday and Thursday. At the turn of the month maintenance will start on the transmission link between Russia and Finland and this will restrict import quantities from Russia to a fairly low level for the whole of July. Olkiluoto nuclear power unit 2 will be down on Tuesday because of valve maintenance. We expect the system price to rise compared to last week and to settle at a weekly level approaching €50/MWh. The Finnish area price is expected to continue to settle at higher than the system price because of maintenance at Olkiluoto and the restriction applying to the Russian transmission link. At the weekly level, the Finnish area price is expected to settle at a level of around €60/MWh.

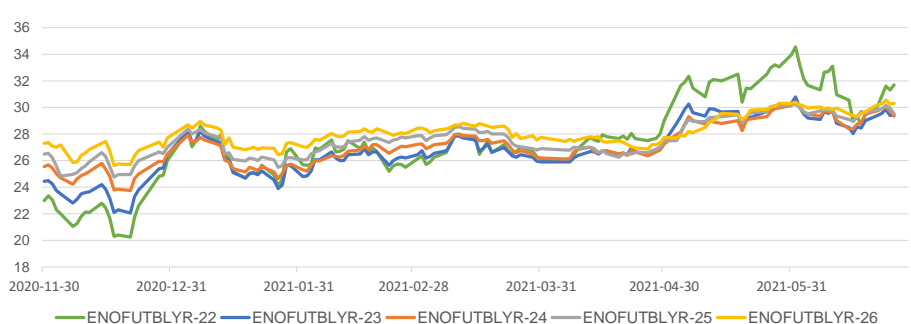
### EMISSIONS

The weather in Europe will be slightly cooler than normal during the current week but the forecast for weaker than normal wind power production could provide support. The approaching announcement of the climate law on July 14 and the outcomes preceding this may affect the market. For example, under the Commission's draft law, the MSR intake rate of excess allowances from circulation may remain at 24% and some analysts believe that this could add as much as €10/t to the EUA price. We expect the emission allowance price to rise, especially if the most recent peak of €56.90/t is broken.

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



Years EUR/MWh



#### Market signals

	spot	Q3-21	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)
ENOFUTBLQ3-21	25.6.2021	43.80	28.4%	9.70
ENOFUTBLQ4-21	25.6.2021	44.50	17.3%	6.55
ENOFUTBLQ1-22	25.6.2021	46.30	14.2%	5.75
ENOFUTBLQ2-22	25.6.2021	28.28	9.8%	2.53
ENOFUTBLYR-22	25.6.2021	31.70	7.6%	2.25
ENOFUTBLYR-23	25.6.2021	29.43	1.5%	0.43
ENOFUTBLYR-24	25.6.2021	29.35	-0.5%	-0.15
ENOFUTBLYR-25	25.6.2021	29.53	-0.2%	-0.05
ENOFUTBLYR-26	25.6.2021	30.30	2.1%	0.62
NEDEC21	25.6.2021	55.23	6.3%	3.26
NEDEC22	25.6.2021	55.70	6.4%	3.35

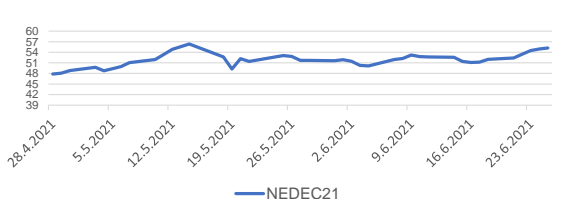
#### EPAD settlements

25.6.2021 (€/MWh)	2021	2022	2023
SYHEL	8.20	4.45	3.85
SE1- NP System	-7.00	-7.00	-7.00
SE2 - NP System	-7.00	-7.00	-7.00
SE3 - NP System	3.40	3.40	3.10
SE4 - NP System	18.50	12.50	12.50

#### Week's spot price change

Price area (€/MWh)	Date	Value	% chg	Chg (EUR)
NP System	27.6.2021	42.40	10.6%	4.08
NP Area FI	27.6.2021	50.51	-15.1%	-9.01
NP Area SE1	27.6.2021	29.72	14.4%	3.75
NP Area SE2	27.6.2021	29.72	14.4%	3.75
NP Area SE3	27.6.2021	35.48	1.4%	0.50
NP Area SE4	27.6.2021	35.48	1.4%	0.50

#### Carbon EUR/CO2 t



COMMENTS ON WEEK 25

**POWER FUTURES**

**Front quarter**

Last week saw a very sharp rise in near products driven by drier weather forecasts. The forecasts were for much drier weather than normal and showed no signs of a change in the weather type but predicted a continuation of the dry and warm weather type. Flow rates were falling and much lower than normal. Also, low wind power production was supportive of the spot price and strengthened the rise of near products. On Friday, the weather forecasts showed a possibility of damp weather at the end of the forecast period. The front quarter was up by around €10 at the weekly level and the following quarters by more than €6.

**Annual products**

Also, annual products rose earlier in the week supported by drier weather forecasts. Rising fuel prices, the emission allowance and a rise in German prices also provided support for the rise. The price spread with Germany is record wide. A rise was seen earlier in the week in electricity prices in further years, but on Friday prices returned to approach the closing levels on Friday of the previous week. At the weekly level, the nearest annual product was up by more than €2 and movements in further years very slightly up.

**SPOT MARKET**

There was very little rain last week and at the weekly level evaporation was greater than precipitation. Flow rates dropped sharply during the week and are already well below normal. Also, wind power production was very low after the early part of the week. There were no unexpected restrictions in nuclear power production last week. Maintenance work on the transmission link between Sweden and Finland was completed on Thursday last week. The system price rose last week on weekdays during the course of the week and there was no major collapse at the weekend despite low wind power production. At the weekly level, the system price was well up having settled at €42.4/MWh. The Finnish area price still settled high at the start of the week because of the transmission restriction but at Midsummer the area price spread moved into negative territory and the Finnish price showed a clear fall at the weekly level at around €50.5/MWh. The area price spread narrowed at the same time but still settled reasonably high at the weekly level.

**EMISSIONS**

Last week, the emission allowance price took an upward turn in pursuit of recent peaks. The fuel markets, in particular the strong rise in the gas market driven by tighter availability because of unexpected maintenance, provided support to the market. Also, the last affirmation in the Council of the European Union for the 55% emission reduction target for 2030 last week was supportive of the price. The emission allowance price was up €3.15 at the weekly level.

Indicator	ENOFUTBLQ3-21	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	25	Chg	24	Chg
ENOFUTBLQ3-21	↻	28.4%	↗	-10.5%
ENOFUTBLYR-22	↻	7.6%	↗	-4.8%
NP System	↻	10.6%	↗	-22.0%
NEDEC21	↘	6.3%	↗	-1.4%

DETERMINANTS AFFECTING THE MARKET ON WEEK 26

**RESTRICTIONS IN PRODUCTION AND TRANSMISSION CAPACITY**

- Olkiluoto 2 (890 MW), maintenance 28.6.-1.7.2021, in use 0-780 MW
- Forsmark 1 (984 MW), maintenance 16.6.-4.7.2021, in use 855 MW, 4.-24.7.2021 in use 0 MW
- Ringhals 3 (1074 MW), maintenance 24.5.-27.8.2021, in use 0 MW

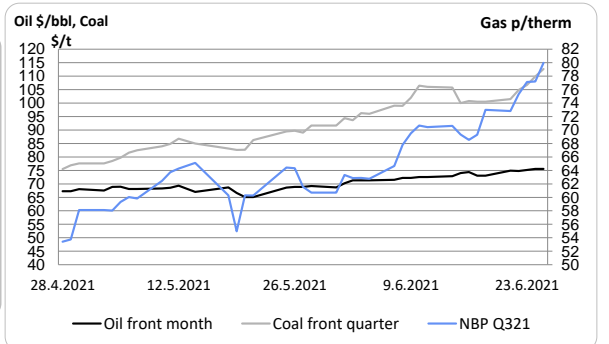
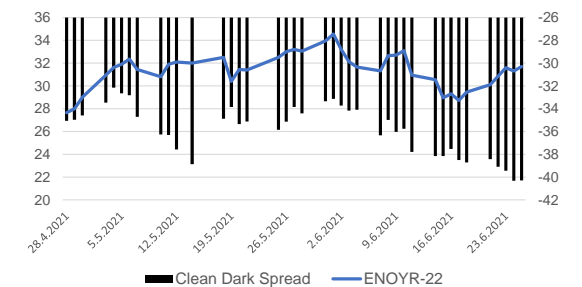
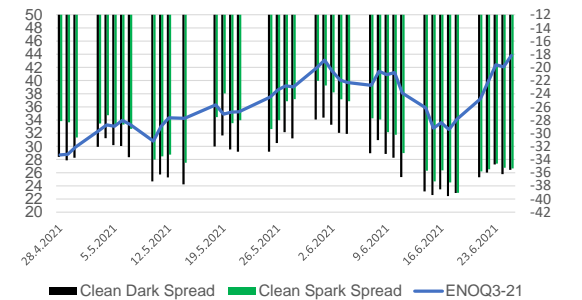
- FI-RU (320 MW), maintenance 30.6.-31.7.2021, in use 0 MW
- RU-FI (1300 MW), maintenance 30.6.-31.7.2021, in use 400 MW
- FI-SE3 (1200 MW), limitation till 15.11.2021, in use 250 MW, 4.-10.7.2021 in use 0 MW

- Nordic nuclear power plants are currently operating at a capacity utilization rate of 79 %
- RU-FI transmission profile varies due to capacity payments, average imports from Russia last week were 63 % 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	41.93
NP Area FI - NP System	3.10	6.40	8.70	5.54	3.78	2.81	5.10	17.28	5.22
NP Area SE1 - NP System	1.10	1.80	0.20	2.04	1.43	0.24	-1.00	3.60	-6.67
NP Area SE2 - NP System	1.10	1.80	1.00	2.04	1.43	0.24	-1.00	3.60	-6.68
NP Area SE3 - NP System	1.40	2.00	1.00	2.33	1.83	0.55	-0.58	10.53	0.19
NP Area SE4 - NP System	1.80	2.30	1.90	2.62	2.77	2.37	0.86	15.06	9.53

\*Average for period between 1.1.2021-28.6.2021.



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Source for data: Gasum, Tilastokeskus

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