

NORDIC ELECTRICITY MARKET

27.4.2020 Markus Herranen, Gasum Portfolio Services Oy

## DRIER WEATHER FORECASTS

Forecast to week 18:	
ENOFUTBLQ3-20	↗ Bullish (>0%)
ENOYR-21	↗ Bullish (>0%)
NP System	↗ Bullish (>0%)
NEDEC20	↔ Sideways (± 0,5%)

### Market signals

	spot	Q3-20	YR-21
Hydrologic balance	↑	↑	↑
Precipitation forecast	↑	↑	↑
Temperature forecast	↑	↑	→
Spot	↓	↑	→
Production and transmission exch.	↑	↓	→
Emissions allowance	→	→	→
Coal price	→	→	↓
German prices	→	→	↓
Technical analysis	↓	↑	↑

## FORECAST TO WEEK 18

### POWER FUTURES

#### Front quarter

The weather will grow dry after Monday and remain dry for the rest of the week. The weather forecasts for the current week are considerably drier compared to last Friday. Drier weather forecasts have supported front products. Spot prices are also rising. The hydro balance will fall but is still high. In addition, next week there will be slightly higher amounts of rain than normal. We expect a modest rise in front products.

#### Annual products

Drier weather forecasts and a falling hydro balance will bring support to the closest annual product. General market sentiment is again more confident with recent news of recovery and expectations that restrictions will be dismantled. Share markets started the week on an upward note. The ECB and Fed will meet during the week and decisions and comments by central banks can bring movement to the forex and share markets. Fuel prices remain very weak. We expect the closest annual product to show a slight rise. We expect further annual products to move close to the closing levels of the previous week.

### SPOT MARKET

After Monday, the weather will again be dry and remain dry for the rest of the week. Temperatures have fallen to below normal for the time of year and melting is slowing. Cool, dry weather means a decrease in flow rates towards the end of the week. Nordic wind power production will be largely weaker than normal apart from on Thursday. We expect the system price to rise at the weekly level and to settle at a level averaging €7.5/MWh. Earlier in the week wind power production in Finland will be near the normal level but weaker than normal in the second half of the week. We expect the Finnish area price to rise at the weekly level and to settle at a level averaging €23.5/MWh.

### EMISSIONS

Emission allowance prices are showing partly ambivalent signals. Upward share prices bring support yet weak fuel prices are exerting downward pressure on the German electricity market and emission allowance prices. Support provided by the surrender date for emission allowances at the end of April is drawing to an end. Technically emission allowance prices have been without any clear direction in the short-term. €22 is a strong resistance level and any breakthrough of this would significantly strengthen the technical picture. On the other hand, any breakthrough of the €18.90 support level would send the trend downwards. For the time being, we expect emission allowance prices to seek a direction.

Product	Date	Value	% chg	Chg (EUR)
ENOFUTBLQ3-20	24.4.2020	8.10	-19.6%	-1.97
ENOFUTBLQ4-20	24.4.2020	20.30	-9.0%	-2.00
ENOFUTBLQ1-21	24.4.2020	26.75	-5.3%	-1.50
ENOFUTBLQ2-21	24.4.2020	19.90	-7.4%	-1.60
ENOYR-21	24.4.2020	22.28	-7.9%	-1.92
ENOYR-22	24.4.2020	25.20	-5.3%	-1.40
ENOYR-23	24.4.2020	27.28	-4.9%	-1.42
ENOYR-24	24.4.2020	28.15	-4.3%	-1.25
ENOYR-25	24.4.2020	29.25	-1.0%	-0.30
NEDEC20	24.4.2020	20.71	-4.6%	-0.99
NEDEC20	24.4.2020	20.71	-4.6%	-0.99

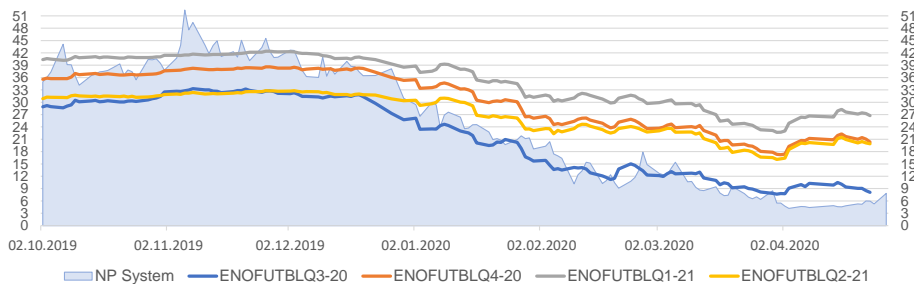
### EPAD settlements

24.4.2020 (€/MWh)	2021	2022	2023
SYHEL	9.00	5.40	4.25
SE1- NP System	-1.50	-2.25	-2.25
SE2 - NP System	-1.50	-2.25	-2.25
SE3 - NP System	1.25	1.35	1.35
SE4 - NP System	2.60	2.60	2.60

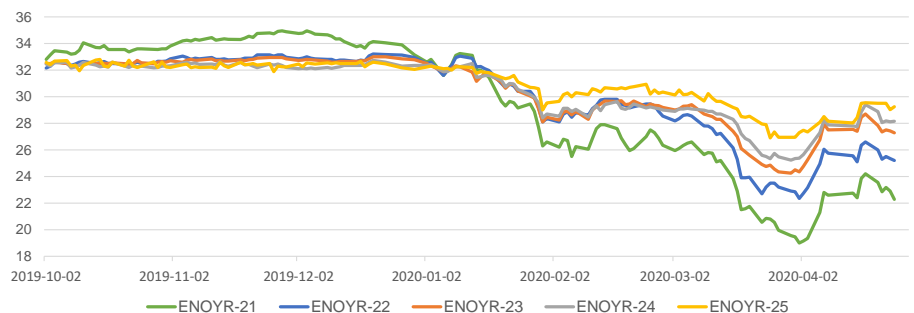
### Week's spot price change

Price area (€/MWh)	Date	Value	% chg	Chg (EUR)
NP System	26.4.2020	5.45	23.3%	1.03
NP Area FI	26.4.2020	21.72	-2.0%	-0.45
NP Area SE1	26.4.2020	5.14	35.2%	1.34
NP Area SE2	26.4.2020	5.14	35.2%	1.34
NP Area SE3	26.4.2020	9.25	31.9%	2.24
NP Area SE4	26.4.2020	9.25	31.9%	2.24

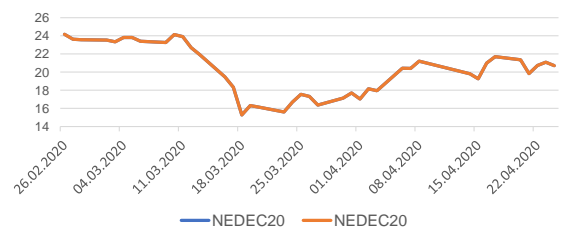
Quarters EUR/MWh (left), NP System EUR/MWh (right)



Years EUR/MWh



Carbon EUR/CO2 t



COMMENTS ON WEEK 17

**POWER FUTURES**

**Front quarter**

Last week the weather type was warm and dry. The hydro balance fell but front products fell since the weather forecasts showed an end to the dry weather type the following week and the hydro balance remained very high. Spot prices rose on the weekly level but continued to settle at a very low level, thereby maintaining the downward pressure on front products.

**Annual products**

Last week, oil prices were very weak, exerting downward pressure on natural gas and coal prices, and on the German electricity market. Similarly, emission allowance prices retreated and annual products took a downward direction. The damper weather picture for the following week and lower near-term products fuelled the downward pressure on the nearest annual product.

**SPOT MARKET**

The weather last week was dry but clearly warmer than normal for the time of year. Rising temperatures accelerated melting and flow rates rose. However, Nordic wind power production was weaker than normal and the system price rose at the weekly level. The transmission link between Northern Sweden and Finland was returned to use and the Finnish area price contracted at the weekly level. Wind power production in Finland varied close to the normal level during the week.

**EMISSIONS**

Last week, emission allowance prices took a downward turn in line with weaker fuel prices and the German electricity market. The rise in share indexes also came to a halt. Support provided by the surrender date for emissions allowances at the end of April also began to gradually wane.

Indicator	ENOFUTBLQ3-20	ENOYR-21
Coal-fired production	85 %	91 %
Coal price	87 %	74 %
Gas price (NBP)	91 %	82 %
German price level	6 %	85 %
Spot	97 %	88 %
Crude oil Brent	64 %	80 %
Water reservoirs	92 %	81 %
EUR/USD FX rate	21 %	25 %
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)

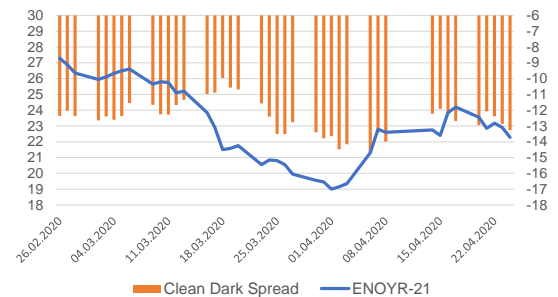
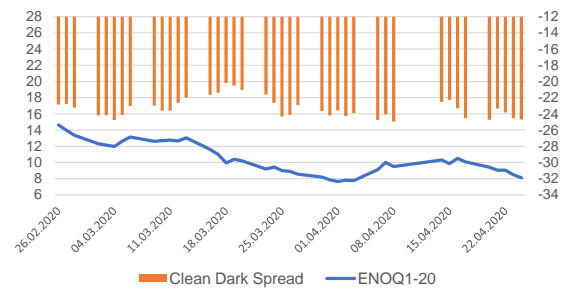
Forecast history	17	Chg	16	Chg
ENOFUTBLQ3-20	⬇️	-19.6%	⬆️	6.0%
ENOYR-21	⬇️	-7.9%	↔️	7.1%
NP System	⬆️	23.3%	⬆️	9.3%
NEDEC20	⬇️	-4.6%	⬇️	2.3%

DETERMINANTS AFFECTING THE MARKET ON WEEK 18

**RESTRICTIONS IN PRODUCTION AND TRANSMISSION CAPACITY**

Forsmark 2 (1120 MW), 3.5.-26.6.2020, maintenance, in use 0 MW  
 Olkiluoto 1 (890 MW) 8.4.-24.5.2020 failure, in use 836 MW  
 Ringhals 3 (1063 MW) 5.4-4.6.2020 maintenance, in use 0 MW  
 Ringhals 1 (881 MW), 13.3.-30.9.2020 maintenance, in use 0 MW

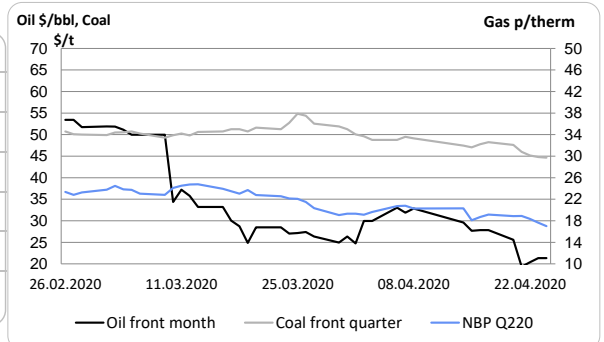
- Nordic nuclear power plants are currently operating at a capacity utilization rate of 82%
- RU-FI transmission profile varies due to capacity payments, average imports from Russia last week were 5 % of the maximum



**AVERAGE SPOT PRICE AND EPAD**

Price area (€/MWh)	2012	2013	2014	2015	2016	2017	2018	2019	2020*
NP System	31.20	38.10	29.60	21.00	26.91	29.41	43.99	38.94	13.04
NP Area FI - NP System	5.50	3.10	6.40	8.70	5.54	3.78	2.81	5.10	9.79
NP Area SE1 - NP System	0.50	1.10	1.80	0.20	2.04	1.43	0.24	-1.00	0.01
NP Area SE2 - NP System	0.60	1.10	1.80	1.00	2.04	1.43	0.24	-1.00	0.01
NP Area SE3 - NP System	1.10	1.40	2.00	1.00	2.33	1.83	0.55	-0.58	3.20
NP Area SE4 - NP System	3.00	1.80	2.30	1.90	2.62	2.77	2.37	0.86	5.58

\*Average for period between 1.1.2020-27.4.2020.



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 Source for data: intStream, Tilastokeskus

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