

NORDIC ELECTRICITY MARKET

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UPWARD PRESSURE BROUGHT BY FALLING HYDRO BALANCE AND STRONG EMISSION ALLOWANCE PRICES

Forecast to week 22:	
ENOFUTBLQ3-20	↗ Bullish (>0%)
ENOYR-21	↗ Bullish (>0%)
NP System	↘ Bearish (<0%)
NEDEC20	↗ Bullish (>0%)

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 22

POWER FUTURES

Front quarter

The current week will be very dry. Except for Wednesday and Thursday, any precipitation will be subject to a high rate of evaporation. The rate of melting will be high in the north and on the mountains. The hydro balance will fall strongly this week. We expect quarterly product prices to rise. However, the downward pressure will be limited by spot prices being low due to high flow rates. In addition, weather forecasts are showing signs of precipitation rates normalizing during the following week, but the weather type appears unlikely to turn wet.

Annual products

The falling hydro balance will also lend support to the front-year product. Annual products are also supported by the clearly stronger emission allowance prices. The general market sentiment is positive as many European countries are gradually relaxing their lockdown rules. The stronger stock indices and general market sentiment will also lend support to fuel prices. We expect annual products to rise.

SPOT MARKET

The weather has turned warmer than normal for the time of year, and the weather type will mainly remain warmer than normal. The higher temperatures have speeded up melting, and flow rates have already risen above normal. Flow rates will already be very high towards the end of the week. The abundant supply of hydropower will exert strong downward pressure on spot prices, but the impact is restricted by wind power output being mostly weak. Wind power production will be weak, except for Wednesday and Thursday. We expect the system price to fall at the weekly level and to settle at an average of €7.0/MWh. The annual outage of the Olkiluoto 1 nuclear power plant unit has begun. Except for Thursday, Finnish wind power production will be weaker than normal. We expect the Finnish area price at the weekly level to remain close to last week's level.

EMISSIONS

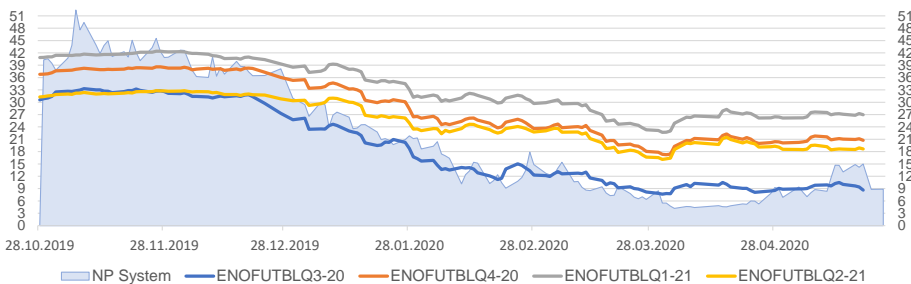
Emission allowance prices are supported by rising stock indices and the general market sentiment. Prices are also supported by the stronger technical picture. We expect a hike in emission allowance prices. The upward pressure may be limited by April's highest trading figures (€22.55/t), but the possible breaking of the level would strengthen the technical picture, enabling a significant further increase.

Product	Date	Value	% chg	Chg (EUR)
ENOFUTBLQ3-20	22.5.2020	8.65	-17.6%	-1.85
ENOFUTBLQ4-20	22.5.2020	20.75	-1.9%	-0.40
ENOFUTBLQ1-21	22.5.2020	26.95	-0.9%	-0.25
ENOFUTBLQ2-21	22.5.2020	18.65	0.0%	0.00
ENOYR-21	22.5.2020	21.90	-0.5%	-0.10
ENOYR-22	22.5.2020	24.80	0.0%	0.00
ENOYR-23	22.5.2020	26.45	-1.7%	-0.45
ENOYR-24	22.5.2020	27.58	-0.6%	-0.17
ENOYR-25	22.5.2020	28.83	0.3%	0.08
NEDEC20	22.5.2020	21.40	11.5%	2.21
NEDEC20	22.5.2020	21.40	11.5%	2.21

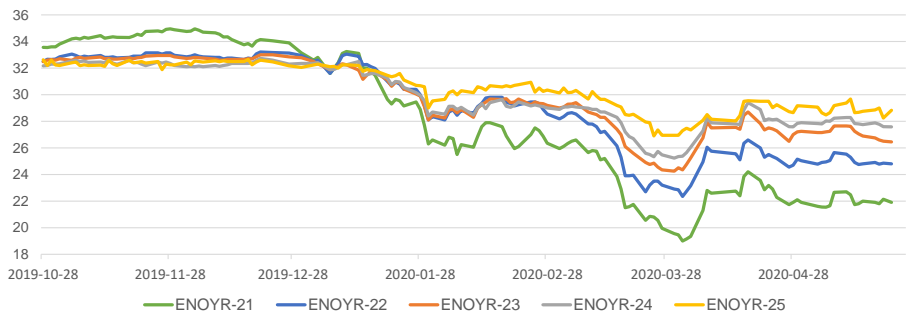
EPAD settlements			
22.5.2020 (€/MWh)	2021	2022	2023
SYHEL	8.80	5.05	4.00
SE1- NP System	-1.50	-2.25	-2.25
SE2 - NP System	-1.50	-2.25	-2.25
SE3 - NP System	1.25	1.35	1.35
SE4 - NP System	2.60	2.60	2.60

Week's spot price change				
Price area (€/MWh)	Date	Value	% chg	Chg (EUR)
NP System	24.5.2020	10.02	-13.7%	-1.59
NP Area FI	24.5.2020	21.67	-3.7%	-0.83
NP Area SE1	24.5.2020	12.42	11.9%	1.32
NP Area SE2	24.5.2020	12.42	11.9%	1.32
NP Area SE3	24.5.2020	13.47	-10.8%	-1.63
NP Area SE4	24.5.2020	13.47	-10.8%	-1.63

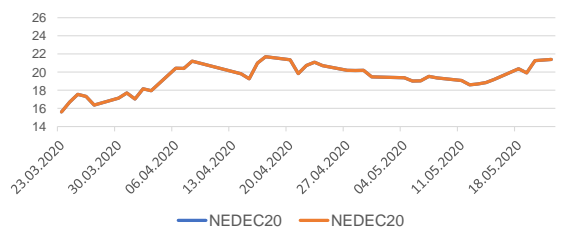
Quarters EUR/MWh (left), NP System EUR/MWh (right)



Years EUR/MWh



Carbon EUR/CO2 t



COMMENTS ON WEEK 21

POWER FUTURES

Front quarter

Last week got off to a very dry start, but the weather forecasts were indicating the end of the dry weather type and the normalization of precipitation rates. The weather forecasts were also showing a rise in temperatures and over the week the forecasts got warmer. With the weather forecasts getting warmer, flow rates were also expected to take a clear upturn, lending downward pressure on quarterly products. Quarterly products dropped at the weekly level.

Annual products

Last week, annual products still continued to move within a narrow range. Coal and natural gas prices remained weak, but emission allowance prices surged at the weekly level. The marginal cost price of coal-fired production rose due to the strong emission allowance prices and, consequently, coal-fired profit margins dropped for annual products.

SPOT MARKET

Last week was still cooler than normal for the time of year, and flow rates were still below normal for the time of year during the business week. Nordic wind power production was also mainly weaker than normal. Towards the end of the week, however, temperatures began to rise and the warmer weather also resulted in a clear rise in flow rates at the weekend. The higher flow rates pushed spot prices lower at the weekend and at the same time the system price dropped at the weekly level. The annual maintenance of the Olkiluoto 2 nuclear power plant unit was prolonged, and in the early part of the week the Finnish area price settled considerably higher than the system price. Finnish wind power production was also weak in the early part of the week. In the second half of the week, Finnish wind and nuclear power output increased. At the weekend, the Finnish area price settled at a low level and at the weekly level the Finnish area price fell.

EMISSIONS

Last week, emission allowance prices rose, supported by the thin auction supply. The upward pressure was also strengthened by the stronger technical picture. In addition, the emission allowance demand outlook was improved by expectations of coronavirus-related restrictions being eased. At the weekly level, emission allowance prices rose sharply.

Indicator	ENOFUTBLQ3-20	ENOYR-21
Coal-fired production	82 %	92 %
Coal price	83 %	77 %
Gas price (NBP)	87 %	85 %
German price level	6 %	85 %
Spot	96 %	87 %
Crude oil Brent	70 %	83 %
Water reservoirs	32 %	23 %
EUR/USD FX rate	30 %	34 %
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)

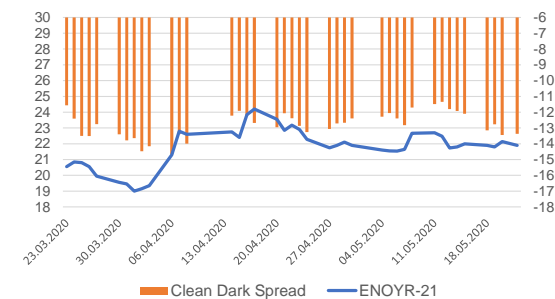
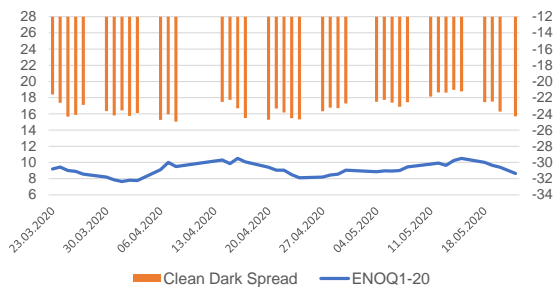
Forecast history	21	Chg	20	Chg
ENOFUTBLQ3-20	↗	-17.6%	↗	11.1%
ENOYR-21	↗	-0.5%	↔	-2.9%
NP System	↗	-13.7%	↗	49.0%
NEDEC20	↗	11.5%	↘	-0.9%

DETERMINANTS AFFECTING THE MARKET ON WEEK 22

RESTRICTIONS IN PRODUCTION AND TRANSMISSION CAPACITY

Forsmark 2 (1120 MW), 3.5.-26.6.2020, maintenance, in use 0 MW
 Olkiluoto 1 (890 MW) maintenance 24.5-7.6.2020, in use 0 MW
 Ringhals 3 (1063 MW) 22.4-22.6.2020 maintenance, in use 0 MW
 Ringhals 1 (881 MW), 13.3.-30.9.2020 maintenance, in use 0 MW

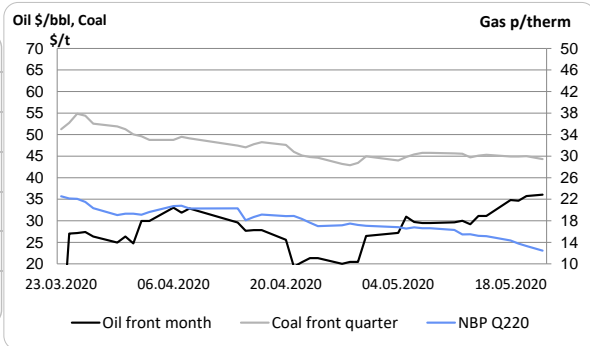
- Nordic nuclear power plants are currently operating at a capacity utilization rate of 64%
- RU-FI transmission profile varies due to capacity payments, average imports from Russia last week were 4 % of the maximum



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	12.33
NP Area FI - NP System	5.50	3.10	6.40	8.70	5.54	3.78	2.81	5.10	9.98
NP Area SE1 - NP System	0.50	1.10	1.80	0.20	2.04	1.43	0.24	-1.00	0.20
NP Area SE2 - NP System	0.60	1.10	1.80	1.00	2.04	1.43	0.24	-1.00	0.20
NP Area SE3 - NP System	1.10	1.40	2.00	1.00	2.33	1.83	0.55	-0.58	3.40
NP Area SE4 - NP System	3.00	1.80	2.30	1.90	2.62	2.77	2.37	0.86	5.49

*Average for period between 1.1.2020-25.5.2020.



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 Source for data: intStream, Tilastokeskus

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