

NORDIC ELECTRICITY MARKET

10.2.2020 Markus Herranen, Gasum Portfolio Services Oy

WEATHER PICTURE STILL REMAINS WET AND MILD

Forecast to week 7:

ENOFUTBLQ2-20	📉 Bearish (<0%)
ENOYR-21	📉 Bearish (<0%)
NP System	📉 Bearish (<0%)
NEDEC20	📉 Bearish (<0%)

FORECAST TO WEEK 7

POWER FUTURES

Front quarter

The weather will get momentarily drier after the start of the week, and temperatures will also take a downturn during the days ahead. The drier and slightly cooler weather type will, however, be short-lived. Towards the end of the week and next week, conditions will become rainy and considerably milder than normal for the time of year again. There are no signs of dry or cold weather in the weather type. Quarterly products have already plummeted to a very low level, but so far both fundamentals and technical analysis are pointing to a continued downtrend.

Annual products

The rising hydro balance and weak quarterly products are creating downward pressure on the front-year product. The broad European weather picture is very mild and windy, maintaining a subdued demand outlook for fuels and emission allowances. Annual products are technically weak. We expect a fall in annual product prices.

SPOT MARKET

The week gets off to a very mild and windy start. In the days ahead, temperatures will fall and at the same time wind power production will weaken. Friday's temperatures will be close to the normal level for the time of year and wild power output will also fall momentarily below normal. The weekend will, however, see the weather turn mild, windy and rainy again. The hydro balance will continue its increase and the weather forecasts indicate continued rainy and mild conditions. We expect the system price to fall at the weekly level and to settle at an average of €12.5/MWh. Finnish wind power production will be abundant in the early part of the week but weak on Thursday and Friday. We expect the Finnish area price to settle higher than the system price on Thursday and Friday. At the weekly level, however, we expect the Finnish area price to fall and to settle at an average of €16.5/MWh.

EMISSIONS

The broad European weather picture is very windy and mild and the short-term emission allowance demand outlook is subdued. The short-term technical picture is also weak as the €23.3/MWh price support level was broken. Germany's power market is also still on a strong downtrend. We expect a fall in emission allowance prices.

Market signals

	spot	Q2-20	YR-21
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)
ENOFUTBLQ2-20	7.2.2020	13.65	-19.2%	-3.25
ENOFUTBLQ3-20	7.2.2020	13.85	-15.0%	-2.44
ENOFUTBLQ4-20	7.2.2020	24.80	-6.6%	-1.75
ENOFUTBLQ1-21	7.2.2020	30.60	-3.0%	-0.95
ENOYR-21	7.2.2020	26.25	-1.3%	-0.35
ENOYR-22	7.2.2020	28.80	1.6%	0.45
ENOYR-23	7.2.2020	28.90	1.6%	0.45
ENOYR-24	7.2.2020	29.05	1.2%	0.35
ENOYR-25	7.2.2020	30.30	2.6%	0.77
NEDEC20	7.2.2020	23.30	-2.6%	-0.61
NEDEC20	7.2.2020	23.30	-2.6%	-0.61

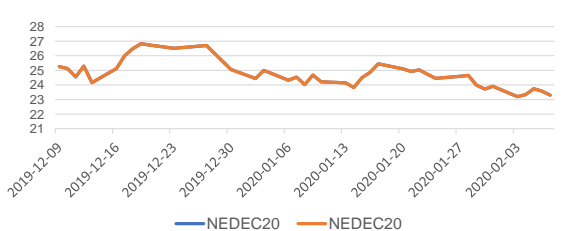
EPAD settlements

7.2.2020 (€/MWh)	2021	2022	2023
SYHEL	9.35	5.13	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

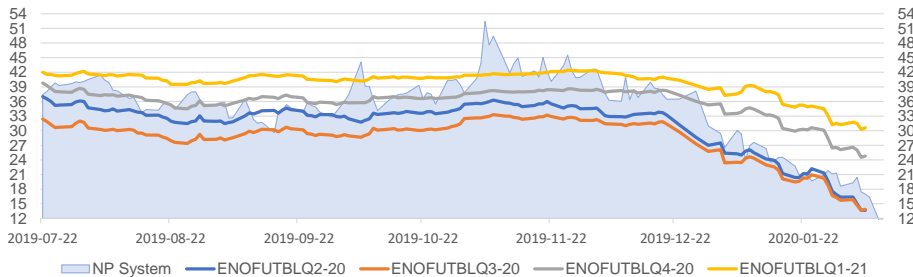
Week's spot price change

Price area (€/MWh)	Date	Value	% chg	Chg (EUR)
NP System	9.2.2020	16.32	-15.2%	-2.92
NP Area FI	9.2.2020	23.90	-8.8%	-2.29
NP Area SE1	9.2.2020	15.87	-16.6%	-3.16
NP Area SE2	9.2.2020	15.87	-16.6%	-3.16
NP Area SE3	9.2.2020	19.64	2.5%	0.47
NP Area SE4	9.2.2020	19.64	2.5%	0.47

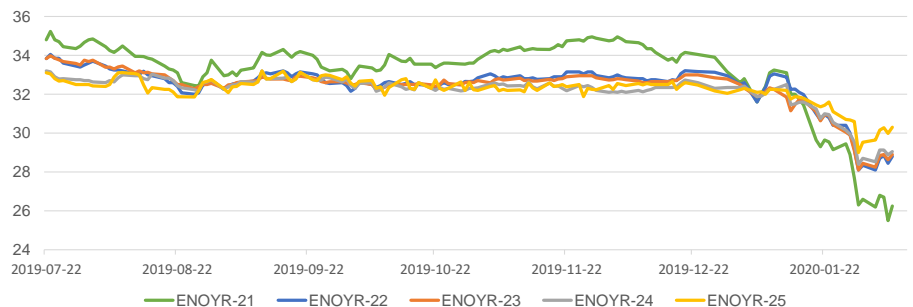
Carbon EUR/CO2 t



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



Years EUR/MWh



COMMENTS ON WEEK 6

POWER FUTURES

Front quarter

Last week got off to a dry start and temperatures were close to normal for the time of year. The colder and drier spell was, however, very short-lived and the weather forecasts were showing a turn in the weather type to wet and mild conditions again. The weather forecasts indicated the continuation of a wet and mild weather type, with no signs of new cold or dry periods. The hydro balance forecast was climbing to new highs again. Quarterly products continued on a steep downtrend.

Annual products

Last week the front-year product dropped in the wake of quarterly products and continued rise of the hydro balance. The downward pressure on the front-year product eased, however, and products further ahead from the front-year product turned bullish at the weekly level. Annual products were supported by the market sentiment calming as concerns about the coronavirus epidemic eased. Stock indices recovered considerably, lending support to fuel, emission allowance and annual product prices.

SPOT MARKET

In the first half of the week, the weather was dry with slightly lower wind rates than normal for a while. Temperatures were also close to normal for the time of year. The climb of the system price was, however, restricted by the high hydro balance and the mild and rainy weather forecasts. Towards the end of the week, the system price dropped as temperatures and wind power production took an upturn. During the weekend, wind power output rose to a high level. Due to the high wind power output, Finnish, Swedish and Danish spot prices turned negative during the night between Sunday and Monday. During the business days, the Finnish area price settled higher than the system price. The Finnish area price rose slightly less than the system price at the weekly level.

EMISSIONS

Emission allowance prices were supported last week by the stock indices having turned bullish. Fuel prices and the German power market also took an upturn. However, towards the end of the week there was another downturn in the German power market and fuel prices. Consequently, emission allowances also turned bearish towards the end of the week and were down at the weekly level.

Indicator	ENOFUTBLQ2-20	ENOYR-21
Coal-fired production	61 %	46 %
Coal price	62 %	45 %
Gas price (NBP)	65 %	46 %
German price level	43 %	59 %
Spot	77 %	64 %
Crude oil Brent	4 %	16 %
Water reservoirs	81 %	81 %
EUR/USD FX rate	0 %	1 %
Temperature	8 %	5 %
Precipitation	16 %	13 %

Definition

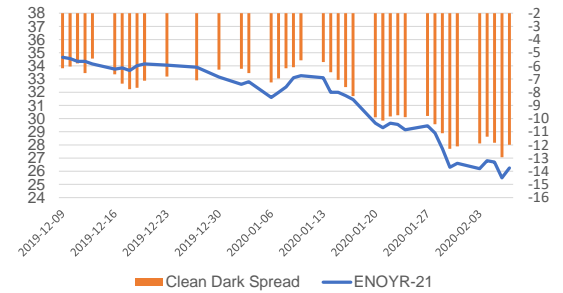
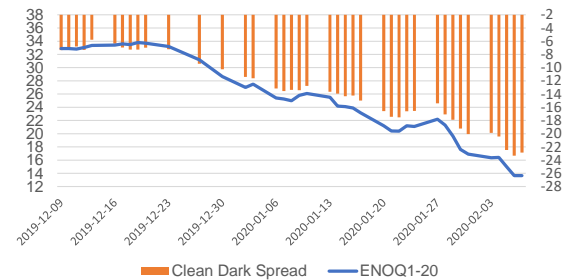
The above figures measure the ability of market determinants to describe the price changes occurred in last 6 months. The affect is measured as Coefficient of Determination*. Each variable is evaluated independently. We use a color scale to demonstrate efficacy, green (strong), yellow (moderate), red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

Forecast history	6	Chg	5	Chg
ENOFUTBLQ2-20	📉	-19.2%	📈	-19.9%
ENOYR-21	📉	-1.3%	📈	-8.7%
NP System	📉	-15.2%	📈	-5.4%
NEDEC20	📉	-2.6%	📉	-2.2%

DETERMINANTS AFFECTING THE MARKET ON WEEK 7

RESTRICTIONS IN PRODUCTION AND TRANSMISSION CAPACITY

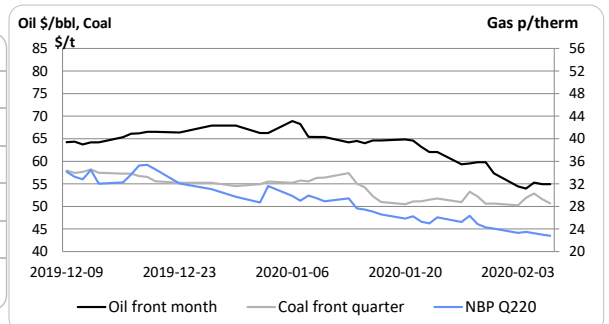
- Nordic nuclear power plants are currently operating at a capacity utilization rate of 100%
- RU-FI transmission profile varies due to capacity payments, average imports from Russia last week were 24% of the maximum



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	22.01
NP Area FI - NP System	5.50	3.10	6.40	8.70	5.54	3.78	2.81	5.10	4.67
NP Area SE1 - NP System	0.50	1.10	1.80	0.20	2.04	1.43	0.24	-1.00	-0.77
NP Area SE2 - NP System	0.60	1.10	1.80	1.00	2.04	1.43	0.24	-1.00	-0.77
NP Area SE3 - NP System	1.10	1.40	2.00	1.00	2.33	1.83	0.55	-0.58	0.23
NP Area SE4 - NP System	3.00	1.80	2.30	1.90	2.62	2.77	2.37	0.86	2.30

*Average for period between 1.1.2020-10.2.2020.



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Source for data: intStream, Tilastokeskus

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