

NORDIC ELECTRICITY MARKET

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DOWNWARD PRESSURE CREATED BY WETTER WEATHER FORECASTS

Forecast to week 42:	
ENOFUTBLQ1-20	⬇️ Bearish (<0%)
ENOYR-20	⬇️ Bearish (<0%)
NP System	⬇️ Bearish (<0%)
NEDEC9	↔️ Sideways (± 0,5%)

FORECAST TO WEEK 42

ELECTRICITY DERIVATIVES

Front quarter

The weather forecasts turned slightly wetter over the weekend. Precipitation rates will rise above normal after Monday and at the same time the weather will become warmer than normal for the time of year. The warmer-than-normal weather type will continue further. Next week's precipitation rates still involve uncertainty, but the weather type is likely to remain mainly wetter than normal. We expect quarterly product prices to fall slightly.

Annual products

Annual products have been supported by optimism surrounding Brexit and the easing of trade tensions between the U.S. and China. Quite a lot of uncertainty still remains, however, and the market has been more skeptical on Monday. The second half of the current week will see the start of negotiations potentially bringing more clarity concerning Brexit. This means that there may be major swings in annual product prices towards the end of the week depending on the outcome of the negotiations. However, as the weather picture is wetter than normal, we regard a bearish trend for the front-year product slightly more probable than a bullish one.

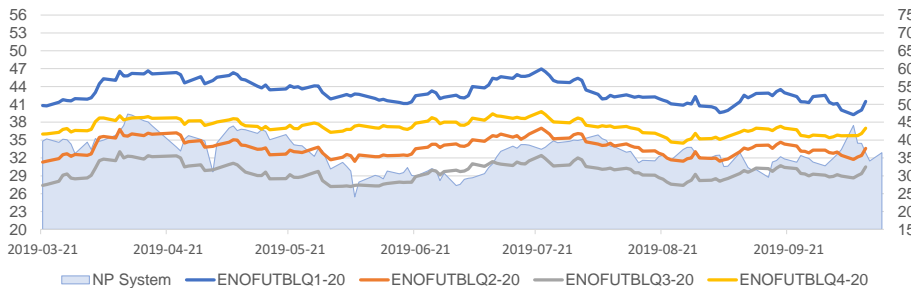
SPOT MARKET

Nordic wind power production will be clearly scunter than normal this week. Precipitation rates will increase and flow rates rise above the normal level. Nuclear output will increase as the Forsmark 3 and Ringhals 4 units will be operational again. Temperatures will climb above normal for the time of year after the first days of the week and the weather will be considerably warmer than last week. We expect the system price to fall at the weekly level and to settle at an average of €36.0/MWh. Finnish wind power production will mainly be scarce. The interconnection between Finland and Northern Sweden will be closed for maintenance again on Thursday. We expect the Finnish area price to rise slightly and to settle at an average of €51.0/MWh.

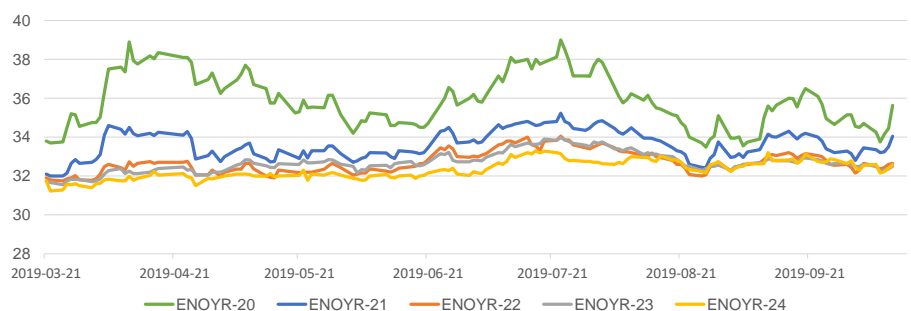
EMISSIONS

Emission allowance prices took a strong upturn towards the end of last week and, technically, the strong rise of last week indicates an upturn in the short trend. Over the longer term, however, the trend is still weak. There is a great deal of uncertainty, and the Brexit negotiations scheduled for the second half of this week may result in major swings in emission allowance prices.

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



Years EUR/MWh



Market signals

	spot	Q1-20	YR-20
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)
ENOFUTBLQ1-20	11.10.2019	41.50	0.9%	0.35
ENOFUTBLQ2-20	11.10.2019	33.60	1.8%	0.60
ENOFUTBLQ3-20	11.10.2019	30.50	4.5%	1.30
ENOFUTBLQ4-20	11.10.2019	37.00	3.2%	1.15
ENOYR-20	11.10.2019	35.63	2.7%	0.93
ENOYR-21	11.10.2019	34.05	1.8%	0.60
ENOYR-22	11.10.2019	32.65	0.0%	0.00
ENOYR-23	11.10.2019	32.50	-0.3%	-0.10
ENOYR-24	11.10.2019	32.58	0.1%	0.03
NEDEC9	11.10.2019	24.51	6.5%	1.50
NEDEC20	11.10.2019	24.70	6.4%	1.48

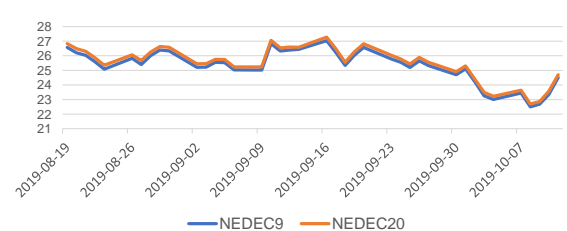
EPAD settlements

11.10.2019 (€/MWh)	2020	2021	2022	2023
SYHEL	8.28	4.90	4.20	4.25
SE1-NP System	-0.50	-1.50	-2.25	-2.25
SE2 - NP System	-0.50	-1.50	-2.25	-2.25
SE3 - NP System	2.20	1.25	1.35	1.35
SE4 - NP System	3.25	2.60	2.60	2.60

Week's spot price change

Price area (€/MWh)	Date	Value	% chg	Chg (EUR)
NP System	13.10.2019	37.34	6.0%	2.11
NP Area FI	13.10.2019	49.68	12.0%	5.31
NP Area SE1	13.10.2019	35.75	2.1%	0.73
NP Area SE2	13.10.2019	35.75	2.1%	0.73
NP Area SE3	13.10.2019	37.01	5.6%	1.95
NP Area SE4	13.10.2019	37.01	5.6%	1.95

Carbon EUR/CO2 t



COMMENTS ON WEEK 41

ELECTRICITY DERIVATIVES

Front quarter

There were major swings in quarterly products last week. The products plummeted in the first days of the week as the weather forecasts were wet and emission allowances also continued to be weak. The downward pressure eased on Wednesday and quarterly products surged for the rest of the week. The market turn was caused by drier weather forecasts. Emission allowance prices also surged during the last days of the week. At the weekly level, quarterly products showed a slight increase.

Annual products

During the first half of last week, annual products fell in the wake of continuously weak emission allowance prices, wet weather forecasts and weak quarterly products. Towards the end of the week, however, annual products took a strong upturn as a corrective upward move was seen in emission allowance prices. Emission allowance prices were supported by optimism concerning Brexit negotiations. In addition, market hopes were high regarding the U.S.-China trade talks. This resulted in a rise in emission allowance and fuel prices and a strong rise in annual products on Friday. Annual products were up at the weekly level.

SPOT MARKET

The system price rose last week. Nordic wind production was weak during the business week and flow rates were below normal. The weather was also considerably cooler than normal for the time of year, especially during the first days of the week. Finnish wind power production was mainly rather weak. The interconnection between Finland and Northern Sweden was closed for maintenance on Tuesday, increasing the gap between the Finnish area price and Swedish area prices. At the same time the Finnish area price rose more at the weekly level than the system price.

EMISSIONS

The weak trend for emission allowance prices continued last week, but a corrective upwards move was seen in the prices in the second half of the week. The corrective move began when steps forward were seen in the Brexit process. In addition, the general market sentiment turned quite positive following rumors about a partial trade deal between the U.S. and China. This optimism was also reflected in emission allowance prices, which ended being up at the weekly level.

Indicator	ENOFUTBLQ1-20	ENOYR-20
Coal-fired production	72 %	76 %
Coal price	47 %	35 %
Gas price (NBP)	69 %	51 %
German price level	15 %	30 %
Spot	20 %	17 %
Crude oil Brent	48 %	30 %
Water reservoirs	6 %	1 %
EUR/USD FX rate	15 %	14 %
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	41	Chg	40	Chg
ENOFUTBLQ1-20	↘	0.9%	↗	-0.4%
ENOYR-20	↘	2.7%	↗	0.1%
NP System	↗	6.0%	↻	10.3%
NEDEC9	↘	6.5%	↻	-9.2%

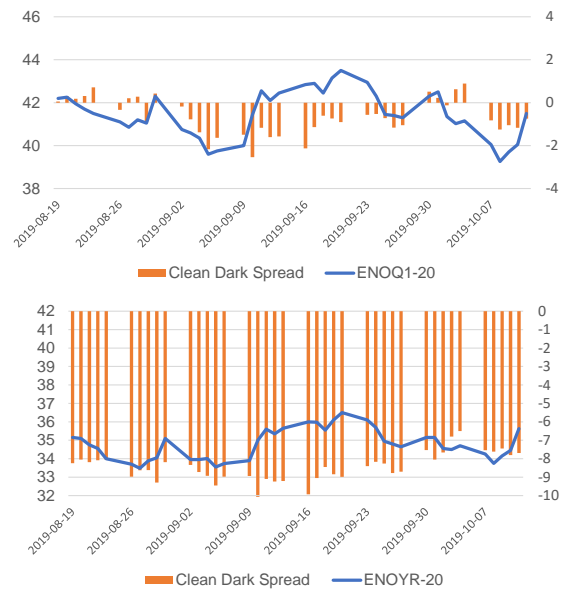
DETERMINANTS AFFECTING THE MARKET ON WEEK 42

RESTRICTIONS IN PRODUCTION AND TRANSMISSION CAPACITY

Forsmark 3 (1172 MW), failure 12.-16.10.2019 in use 0 MW
 Ringhals 2 (852 MW), maintenance 7.9.-30.12.2019, in use 300 MW
 Ringhals 4 (1103 MW), maintenance 28.8.-15.10.2019, 0 MW in use

SE1-FI (1500 MW), maintenance 17.-20.10.2019, in use 400-1500 MW
 NO1-SE3 (2145 MW), maintenance 30.7. – 18.10.2019, 1845 MW in use

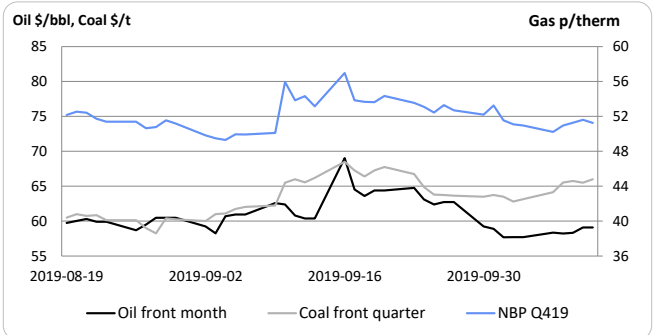
- Nordic nuclear power plants are currently operating at a capacity utilization rate of 76%
- RU-FI transmission profile varies due to capacity payments, average imports from Russia last week were 67% of the maximum



AVERAGE SPOT PRICE AND EPAD

Price area (€/MWh)	2012	2013	2014	2015	2016	2017	2018	2019*
NP System	31.20	38.10	29.60	21.00	26.91	29.41	43.99	38.92
NP Area FI - NP System	5.50	3.10	6.40	8.70	5.54	3.78	2.81	5.35
NP Area SE1 - NP System	0.50	1.10	1.80	0.20	2.04	1.43	0.24	-0.96
NP Area SE2 - NP System	0.60	1.10	1.80	1.00	2.04	1.43	0.24	-0.96
NP Area SE3 - NP System	1.10	1.40	2.00	1.00	2.33	1.83	0.55	-0.67
NP Area SE4 - NP System	3.00	1.80	2.30	1.90	2.62	2.77	2.37	0.85

*Average for period between 1.1.2019-14.10.2019.



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