

NORDIC ELECTRICITY MARKET

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DOWNWARD PRESSURE MAINTAINED BY RISING HYDRO BALANCE AND WEAK TECHNICAL PICTURE

Forecast to week 33:

ENOFUTBLQ4-19	📉 Bearish (<0%)
ENOYR-20	📉 Bearish (<0%)
NP System	📉 Bearish (<0%)
NEDEC9	📉 Bearish (<0%)

Market signals

	spot	Q4-19	YR-20
Hydrologic balance	↓	↓	↓
Precipitation forecast	↓	↓	↓
Temperature forecast	↑	→	→
Spot	↓	↓	↓
Production and transmission exch.	→	→	→
Emissions allowance	↓	↓	↓
Coal price	↓	↓	↓
German prices	→	→	→
Technical analysis	↓	↓	↓

FORECAST TO WEEK 33

ELECTRICITY DERIVATIVES

Front quarter

The weather type is wet and cool for the time of year and this weather type will persist for the time being. Quarterly products are also technically weak. The hydro balance is rising over the two-week forecast period to a level close to the long-term normal. Products have, however, declined close to the lowest trading figures of June. This means the approach of strong support levels may already be restricting the downward pressure. Weather forecasts for the last week of August show cautious signs of drier and warmer weather, which may lend support to products. The signs are, however, still very uncertain and there are no clear signs of any more permanent high pressure. We expect the downtrend of quarterly product prices to continue for the time being.

Annual products

The wet weather forecasts and rising hydro balance are maintaining downward pressure on the front-year product. The trend for fuel prices is also bearish and emission allowance prices are weaker. Uncertainty may also continue in the stock markets. We expect the downtrend of annual product prices to continue.

SPOT MARKET

The wet weather, rising hydro balance and increasing flow rates are creating downward pressure on spot prices. Nordic wind power production will also be mostly above normal and, at the weekend in particular, wind power production levels will rise high. Nuclear power production will increase as the Forsmark 2 and Ringhals 1 units will be operational again. The downward pressure on spot prices will, however, be restricted by the cooling weather and increasing electricity demand. In Finland wind power production will mainly stay close to the normal level until the weekend when Finnish wind power production will also rise high. The Finnish area price will differ considerably from the system price during the business days of the week. We expect the system price to fall at the weekly level and to settle at an average of €33.5/MWh. We expect the Finnish area price to settle at an average of €47/MWh.

EMISSIONS

The weak fuel prices, declining electricity market and uncertainty in the stock markets create downward pressure on emission allowance prices. Emission allowances are also technically weaker as the €27.7/t support level was broken on Monday. We expect a continuing fall in emission allowance prices. However, we expect the downward pressure to be moderate as the market is supported by the auction supply being scant.

Product	Date	Value	% chg	Chg (EUR)
ENOFUTBLQ4-19	9.8.2019	38.30	-9.0%	-3.80
ENOFUTBLQ1-20	9.8.2019	42.50	-5.7%	-2.55
ENOFUTBLQ2-20	9.8.2019	34.48	-4.2%	-1.52
ENOFUTBLQ3-20	9.8.2019	30.30	-4.4%	-1.40
ENOYR-20	9.8.2019	36.23	-4.3%	-1.62
ENOYR-21	9.8.2019	34.48	-1.1%	-0.37
ENOYR-22	9.8.2019	33.20	-1.5%	-0.50
ENOYR-23	9.8.2019	33.45	-0.9%	-0.30
ENOYR-24	9.8.2019	33.00	1.1%	0.37
NEDEC9	9.8.2019	28.12	-3.8%	-1.12
NEDEC20	9.8.2019	28.41	-3.9%	-1.16

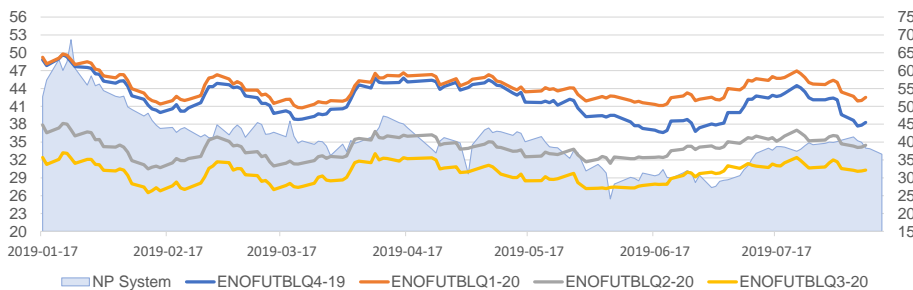
EPAD settlements

9.8.2019 (€/MWh)	2020	2021	2022	2023
SYHEL	5.78	3.45	3.30	3.40
SE1-NP System	-1.25	-1.50	-2.25	-2.25
SE2 - NP System	-1.25	-1.50	-2.25	-2.25
SE3 - NP System	1.55	1.25	1.35	1.35
SE4 - NP System	2.80	2.60	2.60	2.60

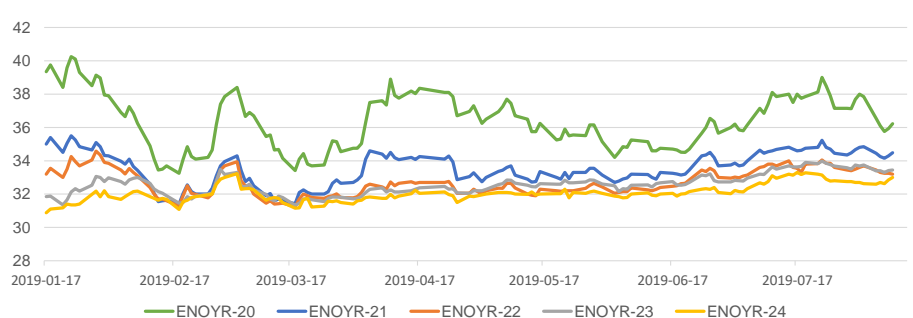
Week's spot price change

Price area (€/MWh)	Date	Value	% chg	Chg (EUR)
NP System	11.8.2019	37.37	-6.1%	-2.41
NP Area FI	11.8.2019	49.18	1.9%	0.91
NP Area SE1	11.8.2019	38.13	-5.1%	-2.03
NP Area SE2	11.8.2019	38.13	-5.1%	-2.03
NP Area SE3	11.8.2019	38.13	-5.8%	-2.36
NP Area SE4	11.8.2019	38.13	-5.8%	-2.36

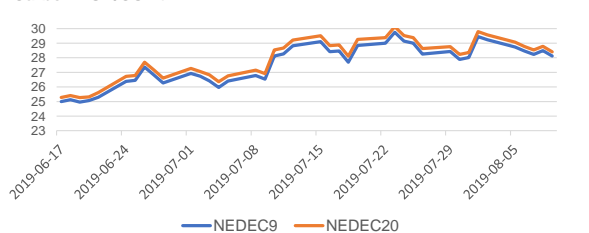
Quarters EUR/MWh (left), NP System EUR/MWh (right)



Years EUR/MWh



Carbon EUR/CO2 t



COMMENTS ON WEEK 32

ELECTRICITY DERIVATIVES

Front quarter

Quarterly products plummeted last week as the turn towards a wet weather type was confirmed by weather forecasts. The weather forecasts did not show any signs of the wet weather type ending, either. A clear level correction could therefore be seen in the hydro balance. The downward pressure was strengthened by the falling fuel prices and the weaker emission allowance prices.

Annual products

Annual products fell last week in the wake of fuel prices. Emission allowance prices also declined. The general market mood was nervous as concerns about trade tensions between the U.S. and China and about global economic growth slowing were core issues again. The downward pressure on the front-year product was the strongest among the annual products due to the rainy weather forecast and weak quarterly products.

SPOT MARKET

Spot prices fell last week as the weather turned wet and the rising hydro balance created downward pressure on spot prices. The downward pressure was, however, restricted by the cool weather and weaker-than-normal wind power production. Flow rates also remained at a low level for the business days of the week. The Finnish area price increased although electricity imports from Russia to Finland were higher than during the week before. Finnish wind power production was mainly very scant and the Finnish area price was strongly linked to the Baltic price level. The Finnish area price rose slightly at the weekly level and therefore the gap between the area price and the system price grew further.

EMISSIONS

Last week, emission allowance prices took a downturn. Downward pressure on emission allowance prices was created by the lower fuel prices and the German electricity market declining in their wake. The general nervous sentiment also generated downward pressure. The decline was, however, restricted by August's scant auction supply, so the change at the weekly level ended up being moderate.

Indicator	ENOFUTBLQ4-19	ENOYR-20
Coal-fired production	73 %	50 %
Coal price	23 %	1 %
Gas price (NBP)	40 %	2 %
German price level	20 %	63 %
Spot	34 %	4 %
Crude oil Brent	42 %	6 %
Water reservoirs	8 %	0 %
EUR/USD FX rate	7 %	10 %
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	32	Chg	31	Chg
ENOFUTBLQ4-19	📉	-9.0%	🔄	-0.8%
ENOYR-20	📉	-4.3%	📈	1.9%
NP System	🔄	-6.1%	📈	3.1%
NEDEC9	📉	-3.8%	📈	3.5%

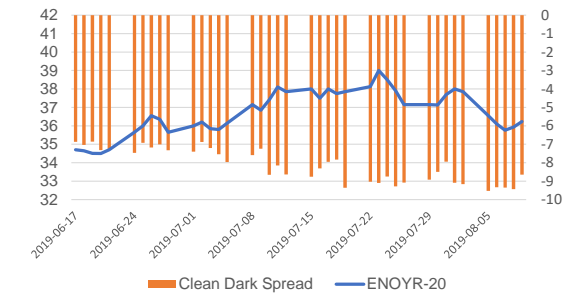
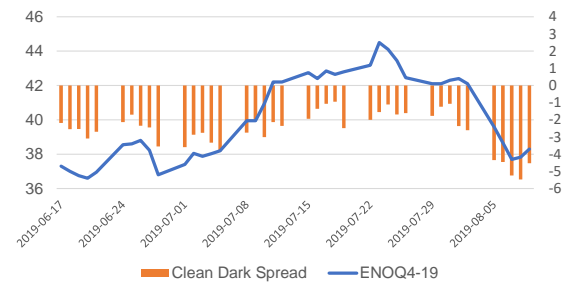
DETERMINANTS AFFECTING THE MARKET ON WEEK 33

RESTRICTIONS IN PRODUCTION AND TRANSMISSION CAPACITY

Loviisa 2 (507 MW), maintenance 18 August - 4 September 2019, 0 MW in use
 Ringhals 1 (881 MW), maintenance 18 July - 15 August 2019, 0 MW in use
 Ringhals 4 (1103 MW), maintenance 6 July - 27 August 2019, 680 MW in use
 Forsmark 2 (1120 MW), maintenance 28 July - 13 August 2019, 0 MW in use
 Oskarshamn 3 (1400 MW), maintenance 6 - 30 August 2019, in use 1165 MW

SE1-FI (1500 MW), maintenance 13 - 15 August, 1100 MW in use
 NO1-SE3 (2145 MW), maintenance 30 July - 18 October 2019, 1645-1945 MW in use

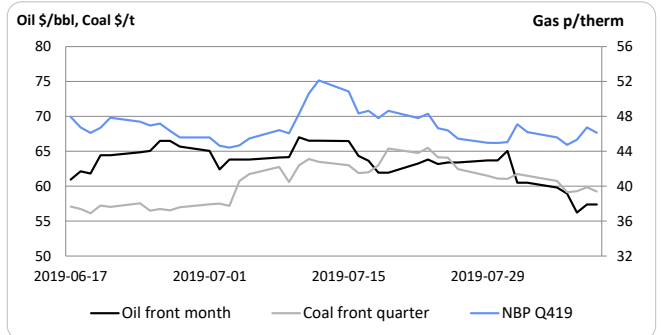
- Nordic nuclear power plants are currently operating at a capacity utilization rate of 78%
- RU-FI transmission profile varies due to capacity payments, average imports from Russia last week were 63% of the maximum



AVERAGE SPOT PRICE AND EPAD

Price area (€/MWh)	2012	2013	2014	2015	2016	2017	2018	2019*
NP System	31.20	38.10	29.60	21.00	26.91	29.41	43.99	40.22
NP Area FI - NP System	5.50	3.10	6.40	8.70	5.54	3.78	2.81	2.85
NP Area SE1 - NP System	0.50	1.10	1.80	0.20	2.04	1.43	0.24	-1.41
NP Area SE2 - NP System	0.60	1.10	1.80	1.00	2.04	1.43	0.24	-1.41
NP Area SE3 - NP System	1.10	1.40	2.00	1.00	2.33	1.83	0.55	-1.21
NP Area SE4 - NP System	3.00	1.80	2.30	1.90	2.62	2.77	2.37	-0.07

*Average for period between 1.1.2019-12.8.2019.



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 Source for data: intStream, Tilastokeskus

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