

NORDIC ELECTRICITY MARKET

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HYDRO BALANCE CONTINUES ON A SLIGHT UPTREND

Forecast to week 34:	
ENOFUTBLQ4-19	📉 Bearish (<0%)
ENOYR-20	↔️ Sideways (± 0,5%)
NP System	📈 Bullish (>0%)
NEDEC9	📈 Bullish (>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 34

ELECTRICITY DERIVATIVES

Front quarter

The weather forecasts turned slightly wetter over the weekend and the signs seen last week for a drier period have vanished. The weather forecasts are mainly for slightly wetter weather than normal and the hydro balance is continuing its rise. We expect quarterly product prices to fall. The forecasts are, however, only slightly wetter than normal and the hydro balance is still at a below-normal level. Therefore we expect the decline to be moderate.

Annual products

General uncertainty and concerns about global economic growth slowing are keeping the markets nervous, which maintains uncertainty concerning fuel and emission allowance prices. However, the general sentiment is currently more confident thanks to hopes of stimulus measures, and emission allowance prices may recover. The price of coal may, however, remain under downward pressure due to the weak natural gas price and bearish technical picture. Downward pressure on the front-year product may be brought by the wetter weather forecasts. Due to the conflicting signals, we expect annual products to be seeking direction close to the current levels for the time being.

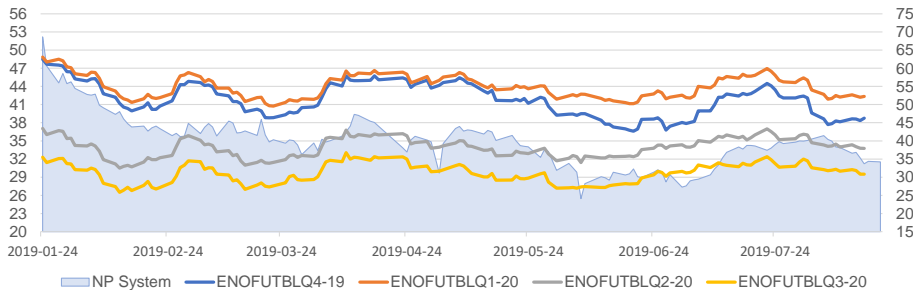
SPOT MARKET

The wetter-than-normal weather forecasts, above-normal flow rates and continuing rise of the hydro balance are maintaining downward pressure on spot prices. Nordic wind power production will, however, fall below normal after the first days of the week. Central European wind power production will decline to a low level after Monday. Because of the scant wind power production, we expect the system price to rise slightly at the weekly level and settle at an average of €35.5/MWh. Finnish wind power production will be abundant for the first days of the week but will drop to a below-normal level after Wednesday. The annual outage of the Loviisa 2 nuclear power plant unit has begun. We expect the Finnish area price to still differ considerably from the system price. We expect the Finnish area price to settle at an average of €46.5/MWh.

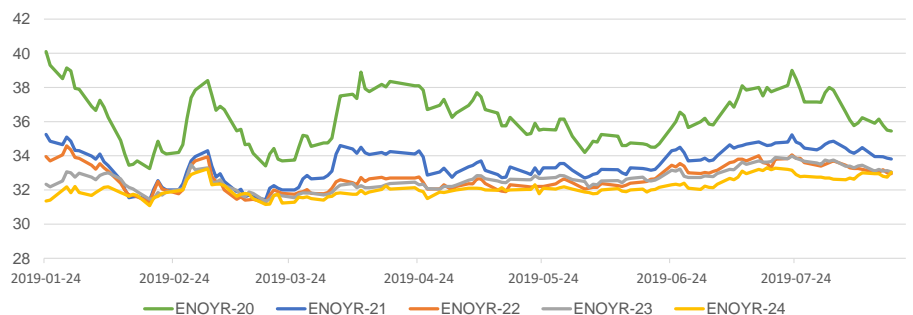
EMISSIONS

Emission allowance prices have fallen and the closest price support levels have been broken. The nervous mood and concerns about global economic growth slowing have created downward pressure on emission allowance prices. Weak fuel prices may keep the German electricity market on a downward trajectory, also creating pressure on emission allowance prices. Emission allowance prices will decline technically over the short term. The slightly calmer mood may, however, halt the decline in emission allowance prices. In addition, the support level of €25.7/t may stay strong, and the support level holding and the auction supply being halved may enable an upward correction in the prices. We expect emission allowance prices to recover slightly.

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



Years EUR/MWh



Product	Date	Value	% chg	Chg (EUR)
ENOFUTBLQ4-19	16.8.2019	38.75	1.2%	0.45
ENOFUTBLQ1-20	16.8.2019	42.35	-0.4%	-0.15
ENOFUTBLQ2-20	16.8.2019	33.75	-2.1%	-0.73
ENOFUTBLQ3-20	16.8.2019	29.50	-2.6%	-0.80
ENOYR-20	16.8.2019	35.45	-2.2%	-0.78
ENOYR-21	16.8.2019	33.81	-1.9%	-0.67
ENOYR-22	16.8.2019	32.95	-0.8%	-0.25
ENOYR-23	16.8.2019	33.05	-1.2%	-0.40
ENOYR-24	16.8.2019	33.03	0.1%	0.03
NEDEC9	16.8.2019	25.95	-7.7%	-2.17
NEDEC20	16.8.2019	26.21	-7.7%	-2.20

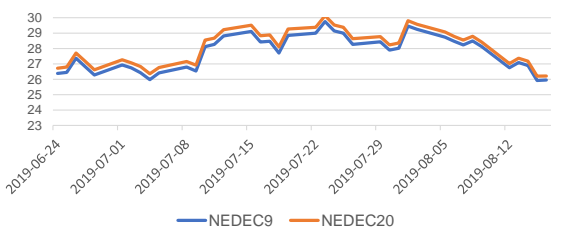
EPAD settlements

16.8.2019 (€/MWh)	2020	2021	2022	2023
SYHEL	6.35	3.80	3.50	3.75
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	1.33	1.25	1.35	1.35
SE4 - NP System	2.75	2.60	2.60	2.60

Week's spot price change

Price area (€/MWh)	Date	Value	% chg	Chg (EUR)
NP System	18.8.2019	34.43	-7.9%	-2.95
NP Area FI	18.8.2019	47.02	-4.4%	-2.16
NP Area SE1	18.8.2019	34.33	-10.0%	-3.80
NP Area SE2	18.8.2019	34.33	-10.0%	-3.80
NP Area SE3	18.8.2019	34.33	-10.0%	-3.80
NP Area SE4	18.8.2019	34.33	-10.0%	-3.80

Carbon EUR/CO2 t



COMMENTS ON WEEK 33

ELECTRICITY DERIVATIVES

Front quarter

The weather type was rainy last week and quarterly products were technically weak. However, the fall of quarterly products halted last week as weather forecasts showed signs of drier weather in the following week. In addition, support was provided by the approach of strong support levels. At the weekly level, the front quarter product ended up on a slight upward trajectory. However, the coal and emission allowance prices fell and therefore coal-fired profit margins rose clearly.

Annual products

Annual product prices fell last week. The general market mood was nervous. Concerns about global economic growth slowing and a potential recession looming created downward pressure on fuel and emission allowance prices. Annual product prices did, however, decline less than the marginal cost price of coal, resulting in an increase in coal-fired profit margins.

SPOT MARKET

Spot prices fell last week as the weather was wet and the hydro balance and flow rates were rising. Nordic wind power production was also mainly above normal and nuclear power production increased as the Forsmark 2 and Ringhals 1 units were operational again. The downward pressure on spot prices was, however, restricted by rising electricity demand as the weather turned cooler. The Finnish area price still differed considerably from the Swedish area prices and at the same time also from the system price. At the weekly level, the Finnish area price difference grew a little further.

EMISSIONS

Last week, emission allowance prices fell. Downward pressure of emission allowance prices was created by the declining electricity markets. In addition, downward pressure was created by the nervous market sentiment and concerns about global economic growth slowing. The price decline was, however, limited by the approach of the support level of July's lowest trading figures at €25.7/t.

Indicator	ENOFUTBLQ4-19	ENOYR-20
Coal-fired production	74 %	58 %
Coal price	32 %	0 %
Gas price (NBP)	52 %	8 %
German price level	16 %	64 %
Spot	38 %	9 %
Crude oil Brent	45 %	6 %
Water reservoirs	8 %	0 %
EUR/USD FX rate	4 %	7 %
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	33	Chg	32	Chg
ENOFUTBLQ4-19	↓	1.2%	↓	-9.0%
ENOYR-20	↓	-2.2%	↓	-4.3%
NP System	↓	-7.9%	↔	-5.8%
NEDEC9	↓	-7.7%	↓	-3.8%

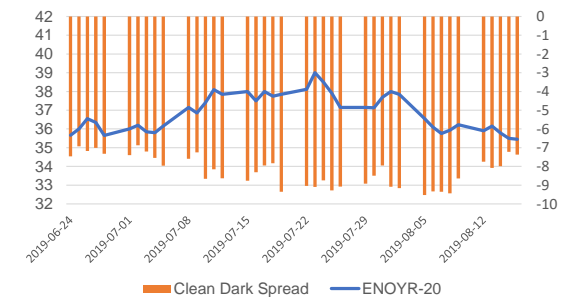
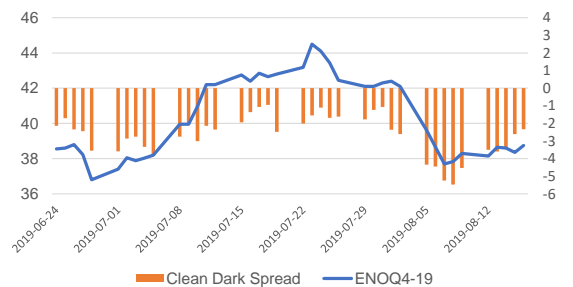
DETERMINANTS AFFECTING THE MARKET ON WEEK 34

RESTRICTIONS IN PRODUCTION AND TRANSMISSION CAPACITY

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

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 90%
- 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	40.03
NP Area FI - NP System	5.50	3.10	6.40	8.70	5.54	3.78	2.81	3.24
NP Area SE1 - NP System	0.50	1.10	1.80	0.20	2.04	1.43	0.24	-1.37
NP Area SE2 - NP System	0.60	1.10	1.80	1.00	2.04	1.43	0.24	-1.37
NP Area SE3 - NP System	1.10	1.40	2.00	1.00	2.33	1.83	0.55	-1.17
NP Area SE4 - NP System	3.00	1.80	2.30	1.90	2.62	2.77	2.37	-0.03

*Average for period between 1.1.2019-19.8.2019.

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 Source for data: intStream, Tilastokeskus

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