

NORDIC ELECTRICITY MARKET

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MILDER AND RAINIER WEATHER PICTURE

Forecast to week 44:

ENOFUTBLQ1-20	📉 Bearish (<0%)
ENOYR-20	📉 Bearish (<0%)
NP System	📈 Bullish (>0%)
NEDEC9	📉 Bearish (<0%)

FORECAST TO WEEK 44

ELECTRICITY DERIVATIVES

Front quarter

During the current week, the weather will be dry and, for the time of year, cold, but the weather forecasts got wetter and drier during the weekend. The dry and cold weather type appears to be short-lived and precipitation rates and temperatures will rise above normal next week. However, precipitation rates will rise only slightly above normal and, on the whole, will still remain slightly below normal over the two-week forecast period. With the weather type changing and fuel prices being weak, we expect quarterly products to fall, however.

Annual products

The wetter and milder outlook provided by forecasts and the sliding prices of quarterly products are exerting downward pressure on the front-year product, too. Downward pressure on annual products is also created by the falling fuel prices and the consequently weak German electricity market. We expect a fall in annual product prices.

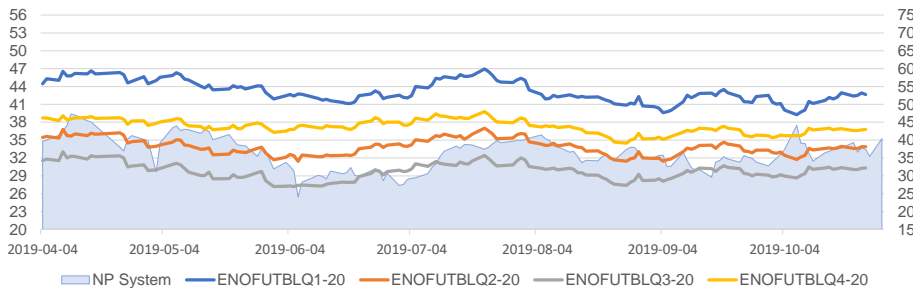
SPOT MARKET

During the current week, the weather type will be cold for the time of year, with low winds and dry conditions. Nordic wind power production will be at its weakest on Thursday and Friday. After the business days of the week, temperatures will take an upturn and on Sunday rise close to the normal level again. Flow rates will decrease towards the end of the week. We expect the system price to rise at the weekly level and to settle at an average of €39.5/MWh. Finnish wind power production will be variable over the week. On Monday, Wednesday and Friday, Finnish wind power output will be scant but, otherwise will be close to the normal level. Electricity imports from Russia to Finland are likely to rise in November as regards the afternoon hours when there is a gap in capacity hours. We expect the Finnish area price to settle at an average of €44.0/MWh.

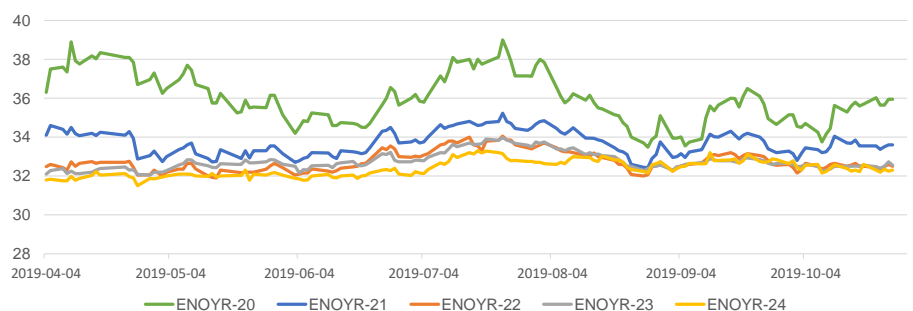
EMISSIONS

The Brexit situation has brought volatility to emission allowance prices and Brexit news may still cause price swings. Immediate uncertainty concerning Brexit has, however, waned as on Monday the EU agreed to a Brexit extension to the end of January 2020. In the current week, auction supply will be slightly scarser. The German electricity market has, however, continued its decline in the wake of weak fuel prices. We expect a slight fall 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	25.10.2019	42.65	1.1%	0.45
ENOFUTBLQ2-20	25.10.2019	33.90	0.6%	0.20
ENOFUTBLQ3-20	25.10.2019	30.33	0.4%	0.13
ENOFUTBLQ4-20	25.10.2019	36.80	-0.1%	-0.05
ENOYR-20	25.10.2019	35.95	0.7%	0.25
ENOYR-21	25.10.2019	33.60	0.1%	0.05
ENOYR-22	25.10.2019	32.50	0.0%	0.00
ENOYR-23	25.10.2019	32.55	0.0%	0.00
ENOYR-24	25.10.2019	32.30	-0.9%	-0.30
NEDEC9	25.10.2019	24.92	-3.6%	-0.94
NEDEC20	25.10.2019	25.09	-3.6%	-0.95

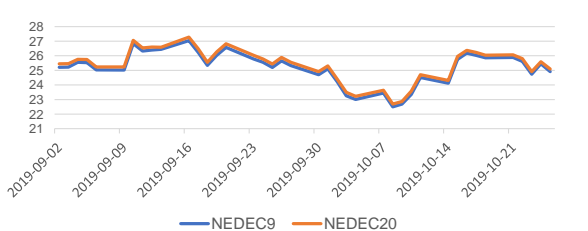
EPAD settlements

25.10.2019 (€/MWh)	2020	2021	2022	2023
SYHEL	6.93	5.00	3.90	4.00
SE1-NP System	-0.50	-1.50	-2.25	-2.25
SE2 - NP System	-0.55	-1.50	-2.25	-2.25
SE3 - NP System	2.10	1.25	1.35	1.35
SE4 - NP System	3.35	2.60	2.60	2.60

Week's spot price change

Price area (€/MWh)	Date	Value	% chg	Chg (EUR)
NP System	27.10.2019	36.64	-0.5%	-0.19
NP Area FI	27.10.2019	41.82	-13.0%	-6.26
NP Area SE1	27.10.2019	34.95	-6.7%	-2.52
NP Area SE2	27.10.2019	34.95	-6.7%	-2.52
NP Area SE3	27.10.2019	35.19	-15.7%	-6.55
NP Area SE4	27.10.2019	35.19	-15.7%	-6.55

Carbon EUR/CO2 t



COMMENTS ON WEEK 43

ELECTRICITY DERIVATIVES

Front quarter

Last week, quarterly products took a clear upturn on Monday as the weather forecasts got drier and cooler after the weekend. Last week was wet, but the weather type showed a turn for dry and cold weather for the following week. After Monday, quarterly products were seeking direction as, on the whole, precipitation rates were close to normal over the two-week forecast period and, consequently, there were no major changes in sight for the hydro balance. The support provided by the following week's dry weather picture was restricted by the drop of the marginal cost price of coal-fired production. At the weekly level, quarterly products were down slightly, resulting in an increase in coal-fired profit margins.

Annual products

Last week, the front-year product ended up on a slight upward trajectory in the wake of quarterly products. However, coal and emission allowance prices fell and therefore the marginal cost price of coal-fired production dropped. Correspondingly, coal-fired profit margins increased. Downward pressure on coal price was exerted by the continued weakness of natural gas price. Annual products further out from the front-year product closed sideways at the weekly level. In the German electricity market, annual products fell and annual product price difference compared with the German electricity market narrowed.

SPOT MARKET

Last week, Nordic wind power production and spot prices fluctuated over the week. On Monday, wind power production was weak, around the middle of the week slightly weaker than normal, and on Tuesday and Friday and at the weekend abundant. After Monday, temperatures rose higher than what is normal for the time of year and flow rates also increased towards the end of the week. The system price settled at the weekly level close to the previous week's level. The Finnish area price dropped at the weekly level as the interconnection between Finland and Northern Sweden was back in use and Finnish wind power production was mainly more abundant than normal. The narrowing of the difference between the Finnish area price and system price created clear downward pressure on Finnish area price difference products.

EMISSIONS

Last week, emission allowance prices took a downturn due to Brexit uncertainty. The decline of the German electricity market also exerted downward pressure on emission allowance prices.

Indicator	ENOFUTBLQ1-20	ENOYR-20
Coal-fired production	65 %	71 %
Coal price	35 %	25 %
Gas price (NBP)	49 %	30 %
German price level	15 %	30 %
Spot	11 %	9 %
Crude oil Brent	37 %	18 %
Water reservoirs	5 %	0 %
EUR/USD FX rate	13 %	11 %
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	43	Chg	42	Chg
ENOFUTBLQ1-20	↗	1.1%	↘	1.7%
ENOYR-20	↗	0.7%	↘	0.2%
NP System	↻	-0.5%	↘	10.4%
NEDEC9	↗	-3.6%	↻	5.5%

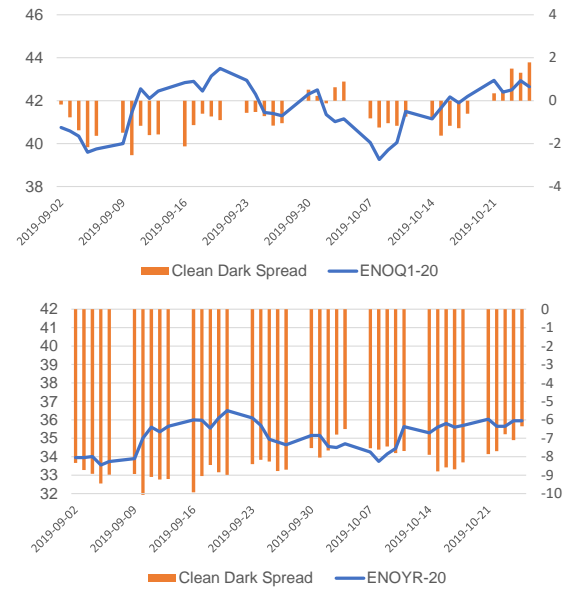
DETERMINANTS AFFECTING THE MARKET ON WEEK 44

RESTRICTIONS IN PRODUCTION AND TRANSMISSION CAPACITY

Ringhals 2 (852 MW), maintenance 7.9.-30.12.2019, in use 300 MW

RU-FI (1300 MW), maintenance 29.-30.10.2019, 1100-1300 MW in use

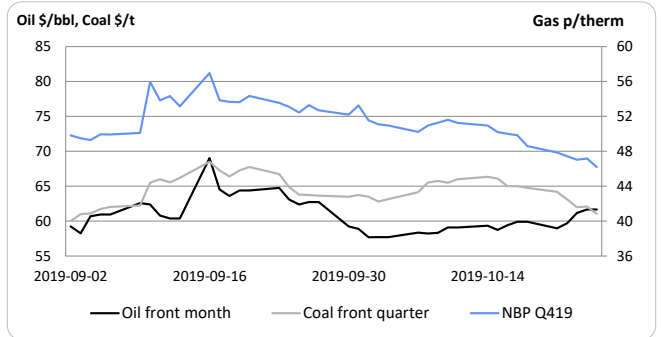
- Nordic nuclear power plants are currently operating at a capacity utilization rate of 95%
- RU-FI transmission profile varies due to capacity payments, average imports from Russia last week were 52% of the maximum



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	38.87
NP Area FI - NP System	5.50	3.10	6.40	8.70	5.54	3.78	2.81	5.59
NP Area SE1 - NP System	0.50	1.10	1.80	0.20	2.04	1.43	0.24	-0.92
NP Area SE2 - NP System	0.60	1.10	1.80	1.00	2.04	1.43	0.24	-0.92
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 1.1.2019-28.10.2019.



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Source for data: intStream, Tilastokeskus

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