

NORDIC ELECTRICITY MARKET

18.2.2019 Markus Herranen, Gasum Portfolio Services Oy

THE WEATHER FORECAST MAINTAINS DOWNWARD PRESSURE, BUT STRONGER FUELS PROVIDE SUPPORT

Forecast to week 8:	
ENOFUTBLQ2-19	📉 Bearish (<0%)
ENOYR-20	↔️ Sideways (± 0,5%)
NP System	📉 Bearish (<0%)
NEDEC9	↔️ Sideways (± 0,5%)

FORECAST TO WEEK 8

ELECTRICITY DERIVATIVES

The nearest quarter

There have been no significant changes in weather forecasts over the weekend. However, the weather type will continue to be mostly moist and milder than normal, without any obvious signs of a change of the weather type. The hydrobalance continues to improve, spot prices continue to fall, and the market is also technically weak. We are expecting the downward pressure on near term products to continue. However, the decline has already been very strong, and an upward correction is already possible if the weather forecasts show signs of drier weather during the week.

Annual products

Moist and mild weather forecasts, as well as a weak technical image, maintain the downward pressure on annual products. The price of emission allowances is also technically weak. However, the strong price of oil has caused the price of coal to rise, which limits the downward pressure on annual products. The general market sentiment is also confident as China and the United States progress in trade negotiations. This week, negotiations are continuing. Due to conflicting signals, we expect the downward pressure of the annual products to ease, and we expect annual products to seek short-term directions close to last week's decision levels.

SPOT MARKET

The weather is mild and rainy, but the weather gets colder after Tuesday. On Thursday, temperatures will temporarily drop to near normal levels, but again at the end of the week, the weather will warm up to a milder level than the normal level. Discharges have risen to be higher than normal, and the discharges remain higher than normal. Nordic wind production is higher than normal in the first half of the week, but in the second half, it will be weaker than normal. Mild and rainy weather forecasts keep downward pressure on spot prices. We expect the system price on a weekly level to continue to fall and to realize at an average of 43.0 €/MWh. Wind production in Finland varies. Most of the wind production in Finland is abundant, but on Thursday, wind production in Finland will fall to a low level. On Monday, Wednesday and after Thursday, during the end of the week, wind production in Finland will be correspondingly quite high. We expect the Finnish regional price to remain at the weekly level close to the system price and to reach an average of 44.0 €/MWh.

EMISSIONS

The emission allowances trend started to decline last week, and technically, the price of the emission allowances is going toward the lowest trading levels of December, i.e., 18.35 €/t. Downward pressure is also caused by the widespread mild weather in Europe. However, the price of emission allowances is supported by a strong oil price, which in turn also supports the German electricity market. The optimistic market sentiment with regard to the trade negotiations between the US and China also brings support. This week, the auction volumes are also slightly smaller. So far, we are expecting the price of the emission allowances to go in the direction of the current level, but strong price fluctuations may continue.

Market signals

	spot	Q2-19	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)
ENOFUTBLQ2-19	15.2.2019	37.50	-14.6%	-6.40
ENOFUTBLQ3-19	15.2.2019	36.25	-12.8%	-5.33
ENOFUTBLQ4-19	15.2.2019	40.35	-9.1%	-4.05
ENOFUTBLQ1-20	15.2.2019	41.75	-7.9%	-3.60
ENOYR-20	15.2.2019	33.70	-7.0%	-2.55
ENOYR-21	15.2.2019	31.63	-5.4%	-1.80
ENOYR-22	15.2.2019	31.60	-4.5%	-1.50
ENOYR-23	15.2.2019	31.90	-3.3%	-1.10
ENOYR-24	15.2.2019	31.68	-1.6%	-0.50
NEDEC9	15.2.2019	20.42	-8.7%	-1.94
NEDEC20	15.2.2019	20.87	-8.4%	-1.91

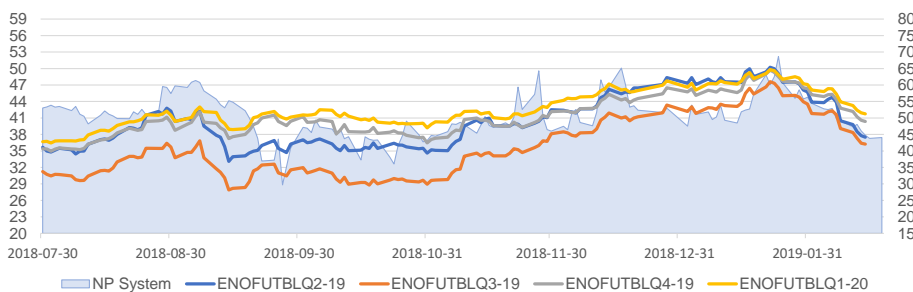
EPAD settlements

15.2.2019 (€/MWh)	2019	2020	2021	2022
SYHEL	4.55	4.00	3.75	3.75
SE1-NP System	-1.10	-1.10	-1.10	-1.10
SE2 - NP System	-1.10	-1.10	-1.10	-1.10
SE3 - NP System	2.20	2.00	2.25	2.25
SE4 - NP System	2.80	2.80	2.80	2.80

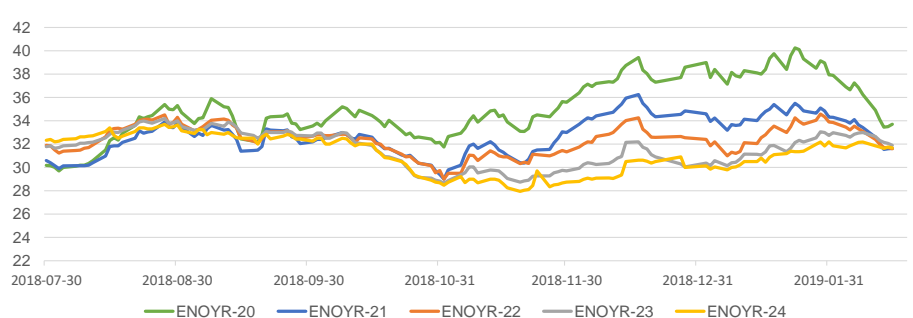
Week's spot price change

Price area (€/MWh)	Date	Value	% chg	Chg (EUR)
NP System	17.2.2019	44.82	-10.5%	-5.28
NP Area FI	17.2.2019	45.71	-11.5%	-5.92
NP Area SE1	17.2.2019	43.90	-11.9%	-5.95
NP Area SE2	17.2.2019	43.90	-11.9%	-5.95
NP Area SE3	17.2.2019	44.33	-11.5%	-5.77
NP Area SE4	17.2.2019	44.33	-11.5%	-5.77

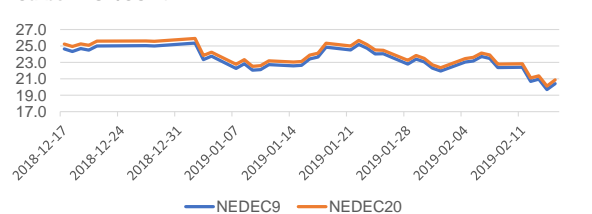
Quarters EUR/MWh (left), NP System EUR/MWh (right)



Years EUR/MWh



Carbon EUR/CO2 t



COMMENTS ON WEEK 7

ELECTRICITY DERIVATIVES

The nearest quarter

Last week, near term products continued to decline very strongly. The downward pressure continued as weather forecasts showed that the more humid and milder weather type seemed to continue without signs of a turn of the weather type. Downward pressure was also boosted by the sharp drop in the price of the emission allowances and the weak technical picture.

Annual products

Last week, prices for annual products continued to fall sharply. The downward pressure was maintained by wet weather forecasts, a weak technical picture, and a sharp drop in the price of emission allowances. However, the downward pressure on fuel prices eased. Support for the price of coal was brought about by the increased price of oil, which in turn was supported by a smaller supply and a positive overall market sentiment. The market was optimistic about trade negotiations between the United States and China.

SPOT MARKET

Last week, except for Tuesday, the weather was mild, and especially during the rest of the week, the weather was quite mild for the period. At the same time, wind production rose to a high level at the end of the week. Spot prices should decline towards the end of the week. Wet and mild weather forecasts increased downward pressure on spot prices. The Finnish area price was realized on a weekly basis near the system price.

EMISSIONS

The price of emission allowances continued to fall sharply last week. Downward pressure was sustained by the weak development of the electricity market. In addition, Brexit uncertainty and the technical picture has turned weak, intensified by the downward pressure. In the price of the emissions permits, a very strong level of support of 21.3 €/t failed. At the same time, this level of support was the lowest trading rate of the year. Britain announced that the country would not auction any more emission allowances until the country's role in the continuation of emissions trading is clear.

Indicator	ENOFUTBLQ2-19	ENOYR-20
Coal-fired production	0 %	1 %
Coal price	41 %	25 %
Gas price (NBP)	32 %	21 %
German price level	29 %	18 %
Spot	32 %	21 %
Crude oil Brent	65 %	53 %
Water reservoirs	6 %	6 %
EUR/USD FX rate	14 %	9 %
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	7	Chg	6	Chg
ENOFUTBLQ2-19	📉	-14.6%	📉	-4.0%
ENOYR-20	📉	-7.0%	📉	-4.4%
NP System	📉	-10.5%	📉	-9.7%
NEDEC9	📉	-8.7%	📈	1.9%

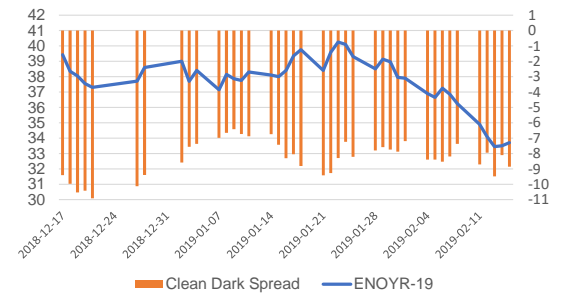
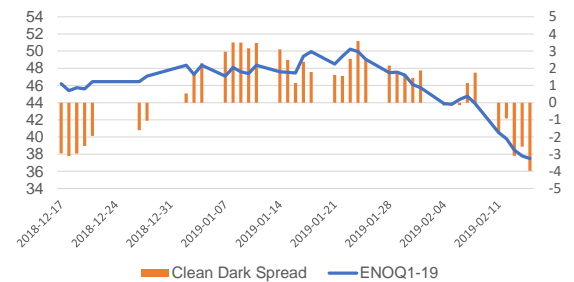
DETERMINANTS AFFECTING THE MARKET ON WEEK 8

RESTRICTIONS IN PRODUCTION AND TRANSMISSION CAPACITY

- Ringhals 2 (904 MW), failure 27.12.-30.4.2019, available 452 MW

- Nordic nuclear power plants are currently operating at 96%

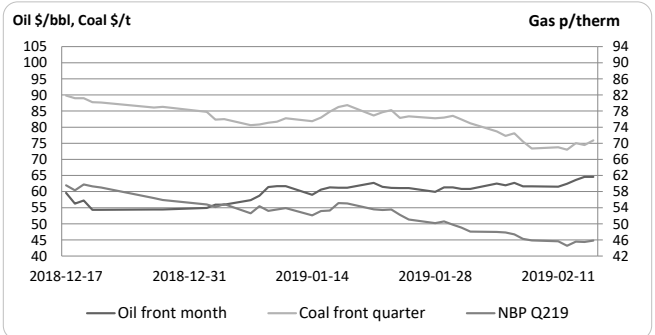
-RU-FI transfer profile varies due to capacity charges, on average imports from Russia last week were 72 % of the maximum.



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	51.66
NP Area FI - NP System	5.50	3.10	6.40	8.70	5.54	3.78	2.81	3.09
NP Area SE1 - NP System	0.50	1.10	1.80	0.20	2.04	1.43	0.24	-0.36
NP Area SE2 - NP System	0.60	1.10	1.80	1.00	2.04	1.43	0.24	-0.36
NP Area SE3 - NP System	1.10	1.40	2.00	1.00	2.33	1.83	0.55	0.28
NP Area SE4 - NP System	3.00	1.80	2.30	1.90	2.62	2.77	2.37	0.81

*Average for period between 1.1.2019-18.2.2019.



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