

NORDIC ELECTRICITY MARKET

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THE WEATHER TURNS COLD AND DRY, BUT THE POLITICAL UNCERTAINTY ENABLES THE STRONG EMISSION PRICE FLUCTUATIONS

Forecast to week 3:	
ENOFUTBLQ2-19	↗ Bullish (>0%)
ENOYR-20	↗ Bullish (>0%)
NP System	↗ Bullish (>0%)
NEDEC9	↔ Sideways (± 0,5%)

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	↑	↑	↑

FORECAST TO WEEK 3

ELECTRICITY DERIVATIVES

The nearest quarter

The weather is still during the first half of this week wetter than normal, but the weather type turns drier and colder than normal after the first half of the week. The weather type stays colder and drier than normal and there are no clear signs of the weather type change to milder and wetter. The latest forecasts, however, indicate the precipitation to normalize at the end of next week. The market has turned bearish on Monday with the latest weather forecasts, when the cold and dry scenario is already priced in. Despite of this, we expect the price increase to be more likely, when the weather type probably continues to be dry and cold despite of the occasional rains. During the following days the increasing spot prices support, but the spot prices are expected to be clearly higher only at the beginning of next week.

Annual products

The significant uncertainty in the annual contract prices is caused by the emission price, where we expect the strong fluctuation to continue further. The strong fluctuation in the emission price in the short term is caused by the Britain's Parliament's vote on Brexit on Tuesday. The coal price recovered last week, but so far the coal price is in the bearish trend. However, the colder weather in Europe supports both the emission price and the coal price. The closest annual contract is again supported by decreasing hydro balance. Despite of the price decrease on Monday and the strong uncertainty on emission price, our view for the this week is slightly bullish.

SPOT MARKET

During the following days the weather turns colder than seasonal normal and the electricity demand starts to increase clearly. However, still for the weekdays the weather turns only slightly colder than normal and only during the weekend the weather is clearly colder than seasonal normal. The wind power production on Monday is extremely high. The wind power production starts to decrease, but for the weekdays the wind power production is still close to normal level. We expect the system price to increase at the weekly level and to realize at about 52,5 €/MWh. In Finland the wind power production weakens on Wednesday and on weekend to low level. We expect the Finnish area price to realize at the weekly level at about 55,0 €/MWh.

EMISSIONS

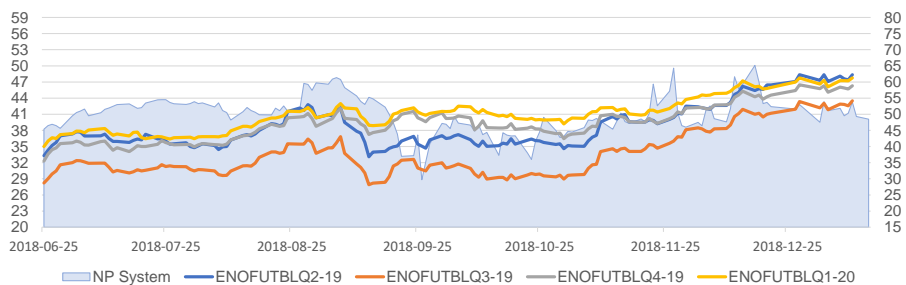
We expect the strong price fluctuation to continue in emission price due to the political uncertainty. The market is waiting for Britain's vote on Brexit on Tuesday. The approval of the agreement draft seems very unlikely and therefore the vote result is decreasing for the price. However, the rejection of the agreement draft is already very expected and therefore the potential price decrease should be limited. The emission price is supported by the weather in Europe, that is turning colder. At the same time the wind situation weakens clearly to weaker than normal.

Product	Date	Value	% chg	Chg (EUR)
ENOFUTBLQ2-19	11.1.2019	48.35	0.0%	0.00
ENOFUTBLQ3-19	11.1.2019	43.50	1.0%	0.45
ENOFUTBLQ4-19	11.1.2019	46.30	0.0%	0.00
ENOFUTBLQ1-20	11.1.2019	47.75	1.0%	0.45
ENOYR-20	11.1.2019	38.30	-0.3%	-0.10
ENOYR-21	11.1.2019	34.13	-0.3%	-0.11
ENOYR-22	11.1.2019	32.12	-0.2%	-0.08
ENOYR-23	11.1.2019	31.15	1.9%	0.57
ENOYR-24	11.1.2019	30.50	1.5%	0.45
NEDEC9	11.1.2019	22.72	-4.3%	-1.03
NEDEC20	11.1.2019	23.18	-4.4%	-1.07

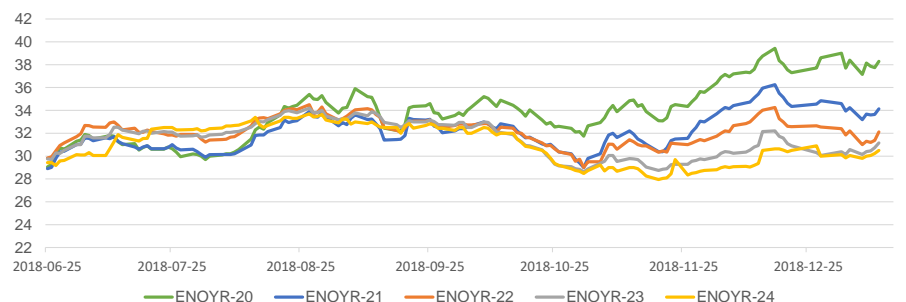
EPAD settlements				
11.1.2019 (€/MWh)	2019	2020	2021	2022
SYHEL	4.60	4.33	4.55	4.55
SE1 - NP System	-1.15	-1.15	-1.15	-1.15
SE2 - NP System	-1.15	-1.15	-1.15	-1.15
SE3 - NP System	2.25	2.25	2.25	2.25
SE4 - NP System	3.40	3.40	3.50	3.50

Week's spot price change				
Price area (€/MWh)	Date	Value	% chg	Chg (EUR)
NP System	13.1.2019	50.33	2.2%	1.10
NP Area FI	13.1.2019	52.78	12.7%	5.95
NP Area SE1	13.1.2019	49.35	8.9%	4.05
NP Area SE2	13.1.2019	49.35	8.9%	4.05
NP Area SE3	13.1.2019	50.96	10.6%	4.88
NP Area SE4	13.1.2019	50.96	10.6%	4.88

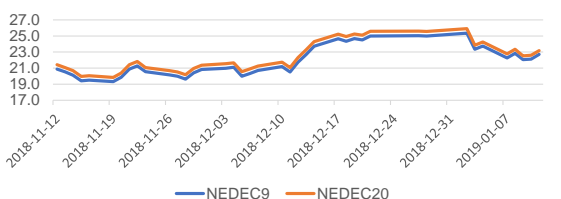
Quarters EUR/MWh (left), NP System EUR/MWh (right)



Years EUR/MWh



Carbon EUR/CO2 t



COMMENTS ON WEEK 2

ELECTRICITY DERIVATIVES

The nearest quarter

Last week the front contracts were looking for direction. Last week was wetter than normal and also at the beginning of the following week the weather forecasts were slightly wetter than normal. Downward pressure was also caused by weaker emission price. However, the weather forecasts showed dry and cold starting from the second half of the following week. The weather type change to cold and dry seemed permanent, that supported the front contracts. Also the coal price turned bullish after the beginning of the week. At the weekly level the closest quarter contract finally closed sideways.

Annual products

Last week also the annual contracts were looking for direction. At the beginning of the week the downward pressure to annual contracts was caused by sharply decreased emission price and bearish coal price. However, after the beginning of the week the downward pressure in emission price eased and the coal price started to increase. Additionally, support to the closest annual contract was caused by the weather outlook, that turned dry. At the weekly level there were no significant changes in the annual contract prices.

SPOT MARKET

Spot prices increased last week when the activity increased after the Christmas and New Year's holidays. However, last week the upward pressure in spot prices was limited by milder, wetter and windier weather. The electricity import from Russia to Finland was still at the beginning of the week very high, but the Russian holidays ended after Tuesday and the electricity import from Russia to Finland decreased. At the same time the Finnish area price difference against the system price increased. At the weekly level the Finnish area price realized, however, only moderately higher than the system price.

EMISSIONS

The emission price decreased last week, when the auction break ended and the demand in the first auction of the year was weak. Downward pressure was also caused by the uncertainty on Brexit, when the Great Britain's Parliament's vote on Brexit agreement approached. At the end of the week the emission price was supported by the German power market, that had turned bullish, and the weather, that is turning colder in Europe.

Indicator	ENOFUTBLQ2-19	ENOYR-20
Coal-fired production	7%	38%
Coal price	20%	0%
Gas price (NBP)	1%	9%
German price level	2%	25%
Spot	14%	0%
Crude oil Brent	63%	33%
Water reservoirs	4%	20%
EUR/USD FX rate	20%	22%
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	2	Chg	1	Chg
ENOFUTBLQ2-19	↗	0.0%	↗	2.7%
ENOYR-20	↗	-0.3%	↗	-0.5%
NP System	↗	2.2%	↘	-3.6%
NEDEC9	↗	-4.3%	↗	-5.0%

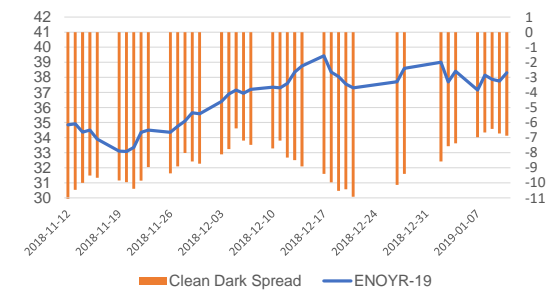
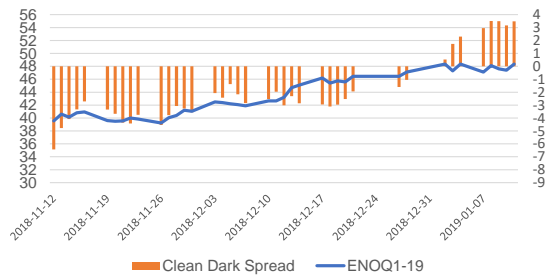
DETERMINANTS AFFECTING THE MARKET ON WEEK 3

RESTRICTIONS IN PRODUCTION AND TRANSMISSION CAPACITY

- Ringhals 2 (904 MW), failure 27.12.-31.3.2019, available 452 MW

Nordic nuclear power plants are currently operating at 96%

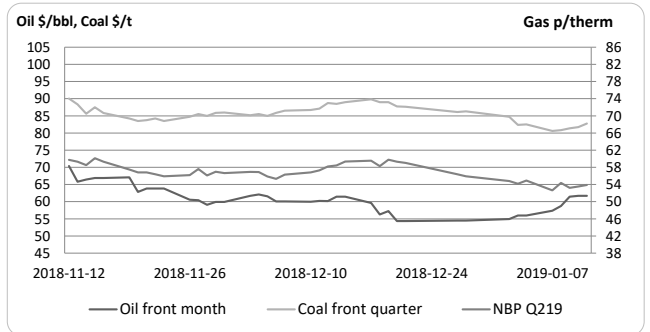
-RU-FI transfer profile varies due to capacity charges, on average imports from Russia last week were 82 % of the maximum.



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	49.76
NP Area FI - NP System	5.50	3.10	6.40	8.70	5.54	3.78	2.81	0.11
NP Area SE1 - NP System	0.50	1.10	1.80	0.20	2.04	1.43	0.24	-2.68
NP Area SE2 - NP System	0.60	1.10	1.80	1.00	2.04	1.43	0.24	-2.68
NP Area SE3 - NP System	1.10	1.40	2.00	1.00	2.33	1.83	0.55	-1.49
NP Area SE4 - NP System	3.00	1.80	2.30	1.90	2.62	2.77	2.37	-0.72

*Average for period between 1.1.2019-14.1.2019.



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