

NORDIC ELECTRICITY MARKET

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THE WEATHER FORECASTS ARE WETTER AND MILDER

Forecast to week 4:	
ENOFUTBLQ2-19	📉 Bearish (<0%)
ENOYR-20	📉 Bearish (<0%)
NP System	📈 Bullish (>0%)
NEDEC9	📉 Bearish (<0%)

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 4  
ELECTRICITY DERIVATIVES

**The nearest quarter**  
The weather forecasts have turned wetter and warmer during the weekend. The temperatures start to rise and during the weekend the temperatures rise close to normal level. At the same time the precipitation increases to higher than normal. There is still significant uncertainty in the next week's weather outlook, but so far the weather forecasts indicate the precipitation to decrease again to slightly below the normal. However, we expect the front contracts to decrease, when last week the contracts increased sharply and the cold and dry scenario was already strongly priced in. Additionally, in the weather forecasts there are at least occasional precipitation and the extremely dry scenario seems unlikely. During the week there is a possibility for front contracts to turn bullish again, when technically the contracts are strong and if the weather forecasts indicate the return of the dry and cold weather type.

**Annual products**  
The wetter weather forecasts and decreasing front contracts cause downward pressure to annual contracts. The weather forecasts have also turned widely warmer in the Europe during the weekend, which causes downward pressure to emission and fuel prices. We expect the annual contracts to slightly decrease. The proceeding of Brexit maintains the political uncertainty and enables the strong emission price fluctuation also in the future. Fluctuation to stock market might be caused by the Europe's purchasing manager index and the ECB meeting. The fluctuation might also reflect to fuel prices. ECB meeting might also fluctuate the relation between euro and dollar and therefore fluctuate the margin price for coal condensate.

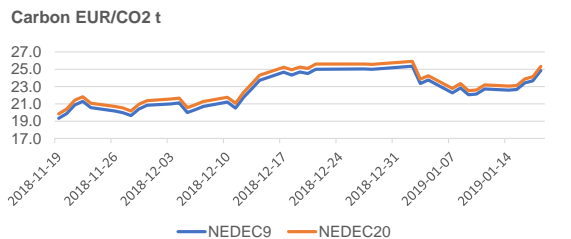
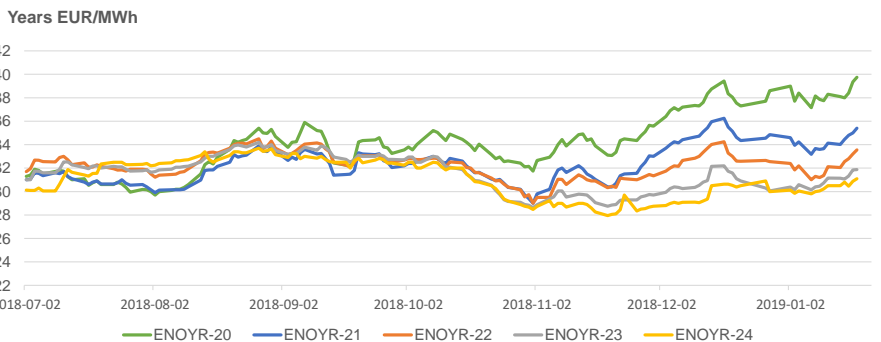
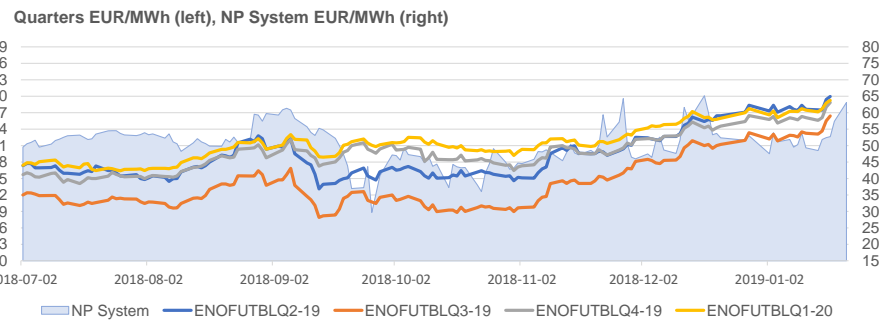
**SPOT MARKET**  
The weather is cold, dry and less windy. However, the weather turns warmer during the following days, but especially for the working week the weather still stays colder than seasonal normal. The wind power production is weak during the working week, but at the weekend the wind power production normalizes. We expect the system price to increase at the weekly level and to realize at about 59,0 €/MWh. In Finland the wind power production is also weak during the working week and the weather is cold. However, after Tuesday the weather in Finland turns warmer towards the end of the week. We expect the Finnish area price to realize at about 63,0 €/MWh at the weekly level.

**EMISSIONS**  
The emission price is technically strong and heading towards the extremely strong resistance level of 26,0 €/t. However, the weather forecasts, that have turned warmer in Europe during the weekend, cause downward pressure. Additionally, downward pressure might also be caused by the political uncertainty, when the proceeding of Brexit continues. However, the MSR and scarce auction supply maintain the support. We expect the emission price to return slightly down in the short term.

Product	Date	Value	% chg	Chg (EUR)
ENOFUTBLQ2-19	18.1.2019	49.95	3.3%	1.60
ENOFUTBLQ3-19	18.1.2019	46.40	6.7%	2.90
ENOFUTBLQ4-19	18.1.2019	48.85	5.5%	2.55
ENOFUTBLQ1-20	18.1.2019	49.25	3.1%	1.50
ENOYR-20	18.1.2019	39.75	3.8%	1.45
ENOYR-21	18.1.2019	35.40	3.7%	1.27
ENOYR-22	18.1.2019	33.55	4.5%	1.43
ENOYR-23	18.1.2019	31.88	2.3%	0.73
ENOYR-24	18.1.2019	31.10	2.0%	0.60
NEDEC9	18.1.2019	24.85	9.4%	2.13
NEDEC20	18.1.2019	25.33	9.3%	2.15

EPAD settlements	2019	2020	2021	2022
18.1.2019 (€/MWh)				
SYHEL	4.13	3.83	4.00	4.00
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	2.20	2.13	2.25	2.25
SE4 - NP System	3.28	3.28	3.35	3.35

Week's spot price change	Date	Value	% chg	Chg (EUR)
NP System	20.1.2019	53.10	5.5%	2.77
NP Area FI	20.1.2019	54.63	3.5%	1.85
NP Area SE1	20.1.2019	51.79	4.9%	2.44
NP Area SE2	20.1.2019	51.79	4.9%	2.44
NP Area SE3	20.1.2019	52.84	3.7%	1.88
NP Area SE4	20.1.2019	52.84	3.7%	1.88



COMMENTS ON WEEK 3

**ELECTRICITY DERIVATIVES**

**The nearest quarter**

At the beginning of last week the front contracts decreased, when the weather forecasts showed the normalization of the precipitation for next week. However, during the week the weather forecasts dried and the weather forecasts indicated the weather type to continue dry and cold despite of the occasional rains. Upward pressure to front contracts was strengthened by stronger coal and emission prices. Additionally, the technical outlook strengthened again, when at the end of the week the front contract increased through the resistance levels to new highest quotations.

**Annual products**

At the beginning of last week the annual contracts were bearish. Downward pressure was caused by the front contracts and additionally the emission price was bearish before the Britain's Parliament's vote on Brexit agreement. However, the emission price started to increase at the second half of the week. Additionally, the coal price turned clearly bullish. The emission price and the fuel prices were supported by the colder weather in Europe. At the weekly level the annual contracts closed clearly higher.

**SPOT MARKET**

Spot prices increased last week, when the weather turned colder and the electricity demand started to increase clearly. Still on Monday the wind power production was high, but after Monday the wind power production weakened. Spot prices increased towards the end of the working week, but the spot price increase was limited by the wind power production, that was close to normal level until Thursday. Also the Finnish area price increased, but at the weekly level the Finnish area price difference against the system price slightly narrowed.

**EMISSIONS**

At the beginning of the week the emission price fluctuated close to previous week's closing level. At the beginning of the week the market was waiting for the Britain's Parliament's vote on Brexit draft agreement. On Tuesday night the Parliament voted against the Brexit agreement. The vote result was, however, expected and therefore the effect on emission price was moderate. On Wednesday the emission price opened bearish, but finally on Wednesday the price closed clearly bullish. The increase continued at the end of the week. Widely colder weather in Europe supported the emission price.

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	3	Chg	2	Chg
ENOFUTBLQ2-19	↗	3.3%	↗	0.0%
ENOYR-20	↗	3.8%	↗	-0.3%
NP System	↗	5.5%	↗	-3.5%
NEDEC9	↻	9.4%	↗	-4.3%

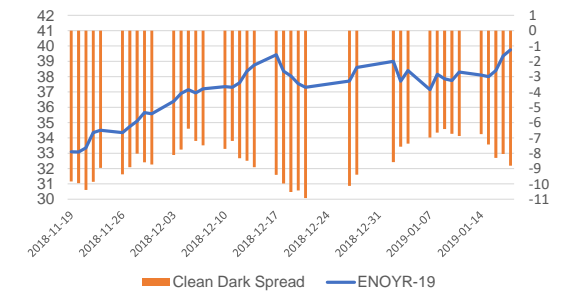
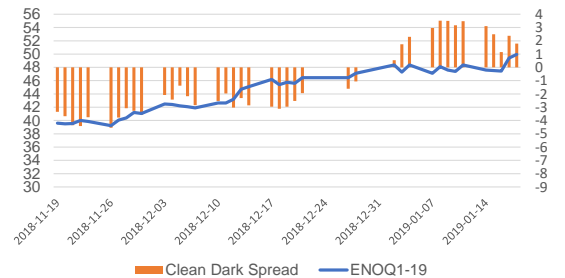
DETERMINANTS AFFECTING THE MARKET ON WEEK 4

**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%

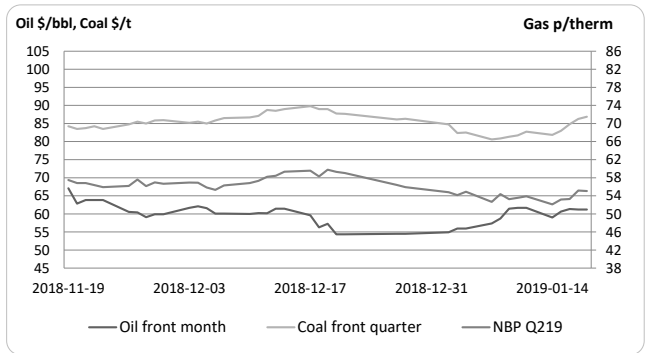
-RU-FI transfer profile varies due to capacity charges, on average imports from Russia last week were 72 % of the maximum.



**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	51.95
NP Area FI - NP System	5.50	3.10	6.40	8.70	5.54	3.78	2.81	0.48
NP Area SE1 - NP System	0.50	1.10	1.80	0.20	2.04	1.43	0.24	-1.62
NP Area SE2 - NP System	0.60	1.10	1.80	1.00	2.04	1.43	0.24	-1.62
NP Area SE3 - NP System	1.10	1.40	2.00	1.00	2.33	1.83	0.55	-0.43
NP Area SE4 - NP System	3.00	1.80	2.30	1.90	2.62	2.77	2.37	0.10

\*Average for period between 1.1.2019-21.1.2019.



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Source for data: intStream, Tilastokeskus

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