

NORDIC ELECTRICITY MARKET

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FUNDAMENTALS SUPPORT CONTINUED RISE

Forecast to week 28:	
ENOFUTBLQ4-19	↗ Bullish (>0%)
ENOYR-20	↗ Bullish (>0%)
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 28

ELECTRICITY DERIVATIVES

Front quarter

The weather during the current week is very dry and noticeably cooler than normal for the time of year. There is still considerable uncertainty surrounding next week's weather picture, although the forecasts show signs of a return to normal amounts of rain and temperatures. However, the forecasts indicate a turn of the weather type to a more prolonged damp spell to be unlikely. The hydro balance will fall considerably during the current week. The market will also be supported by rising emission allowance prices as well as stronger fuel prices. We expect front quarter products to rise.

Annual products

Rising emission allowance prices, strong fuel prices, rising front product prices as well as a strengthened technical picture are exerting upward pressure on annual products and so we expect annual product prices to rise. However, the emission allowance price is approaching a very strong resistance level, which may restrict upward pressure. Also a return to normal of amounts of rain may restrict upward pressure largely on the annual product.

SPOT MARKET

The weather is rather cool for the time of year. Temperatures will rise after the early part of the week, but the weather will also remain cooler than normal for the remainder of the week. Nordic wind power production is likely to tail off to weaker than normal during the next few days and be very weak on Thursday and Friday. Flow rates will be lower than normal and continue falling over the following days. In Finland, there will be plenty of wind power production during the first half of the week, but production will tail off to a low level in the second half of the week. Electricity imports from Russia into Finland will be scant during July because of maintenance work on the transmission link between Russia and Finland. We expect spot prices to be higher than last week. We expect the system price to settle at a weekly level averaging €32.0 €/MWh. We expect the Finnish area price to settle at an average of €39.5 €/MWh.

EMISSIONS

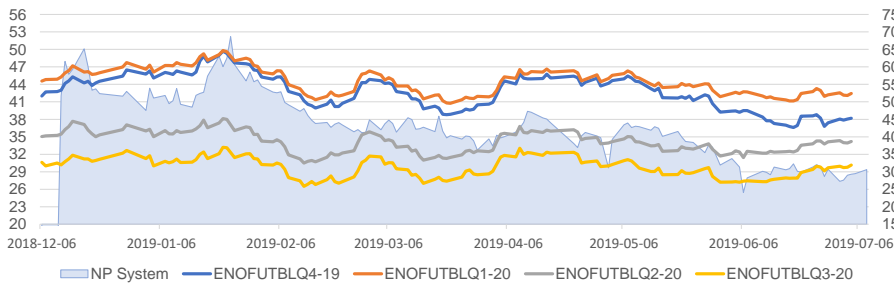
Very weak wind conditions across most of Europe will support emission allowance prices over the following days. Also weaker nuclear power production in France will add support, but on the other hand cooler than normal weather for the time of year in Europe will limit the need for cooling. Recent weeks have seen less availability in auctions and also actors may well have their sights on the halved auction amounts in August, which will be reflected in strong demand at auctions. We expect a slight rise in emission allowance prices.

Product	Date	Value	% chg	Chg (EUR)
ENOFUTBLQ4-19	5.7.2019	38.20	3.8%	1.40
ENOFUTBLQ1-20	5.7.2019	42.45	1.2%	0.50
ENOFUTBLQ2-20	5.7.2019	34.20	1.3%	0.45
ENOFUTBLQ3-20	5.7.2019	30.15	3.4%	0.98
ENOYR-20	5.7.2019	36.15	1.4%	0.50
ENOYR-21	5.7.2019	34.00	0.9%	0.30
ENOYR-22	5.7.2019	33.15	0.5%	0.15
ENOYR-23	5.7.2019	32.96	0.7%	0.23
ENOYR-24	5.7.2019	32.33	0.7%	0.23
NEDEC9	5.7.2019	26.41	0.5%	0.13
NEDEC20	5.7.2019	26.76	0.6%	0.15

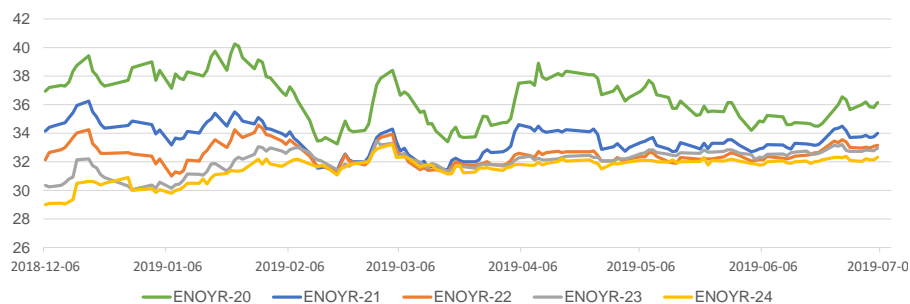
EPAD settlements				
5.7.2019 (€/MWh)	2019	2020	2021	2022
SYHEL	4.45	3.08	2.75	2.75
SE1-NP System	-2.65	-1.50	-2.25	-2.25
SE2 - NP System	-2.65	-1.50	-2.25	-2.25
SE3 - NP System	1.25	1.25	1.35	1.35
SE4 - NP System	2.50	2.60	2.60	2.60

Week's spot price change				
Price area (€/MWh)	Date	Value	% chg	Chg (EUR)
NP System	7.7.2019	28.41	-1.7%	-0.50
NP Area FI	7.7.2019	36.94	10.7%	3.58
NP Area SE1	7.7.2019	28.11	1.9%	0.53
NP Area SE2	7.7.2019	28.11	1.9%	0.53
NP Area SE3	7.7.2019	28.11	1.9%	0.53
NP Area SE4	7.7.2019	28.11	1.9%	0.53

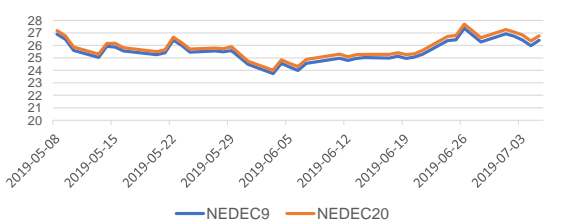
Quarters EUR/MWh (left), NP System EUR/MWh (right)



Years EUR/MWh



Carbon EUR/CO2 t



COMMENTS ON WEEK 27

ELECTRICITY DERIVATIVES

Front quarter

Last week front products rose at the start of the week as the forecasts indicated a considerably drier weekend. However, the end of the forecast anticipated a return to normal precipitation rates and so the dry spell was expected to remain brief, which prevented a broader rise during the week. The hydro balance forecast, however, weakened compared to the figure of more than 5 TWh for the previous Friday. The Q4-19 product continued on an upward note on Friday and was up €1.40/MWh on the week.

Annual products

The closest annual product started the week on an upward note, but the movement was considerably more modest than for front products. The fall in the price of coal and emission allowances after the close of the Nordic electricity market on Tuesday provided for a fall in annual products on Wednesday. Coal returned to an upward trend on Wednesday and on Thursday and Friday climbed to above the peaks seen in June. However, electricity had still not reacted to this on Thursday because emission allowance prices continued falling on Wednesday and Thursday. On Friday, however, annual products were again showing an upward trend as also emission allowances were on an upward trajectory. The closest annual product ended the week up €0.50/MWh.

SPOT MARKET

Abundant Nordic wind power production last week exerted downward pressure on spot prices. Wind power production was very plentiful especially in the early part of the week. After the early part of the week, the system price rose slightly as falling flow rates, reduced wind power production and dry weather forecasts gave support to spot prices. However, the system price remained down on the week as maintenance work on the transmission link between Russia and Finland saw electricity imports from Russia fall to a low level.

EMISSIONS

Last week, emission allowance prices were seeking direction. Plenty of auction availability exerted downward pressure, but on the other hand there was strong demand at auctions. In addition, halved auction amounts in August are already supporting the market. The receding heat wave retreats and reduced cooling needs lowered the demand for emission allowances.

DETERMINANTS AFFECTING THE MARKET ON WEEK 28

RESTRICTIONS IN PRODUCTION AND TRANSMISSION CAPACITY

Ringhals 4 (1103 MW), maintenance 6 July – 27 August 2019, 680 MW in use
 Forsmark 2 (1118 MW), maintenance 8 – 28 July 2019, 998 MW in use
 Forsmark 3 (1167 MW), annual maintenance 30 June – 16 July 2019, 0 MW in use
 Ringhals 1 (881 MW), maintenance 18 June – 20 July 2019, 750 MW in use

RU-FI (1300 MW), annual maintenance 30 June – 31 July 2019, 400 MW in use

- Nordic nuclear power plants are currently operating at a capacity utilization rate of 85%
- RU-FI transmission profile varies due to capacity payments, average imports from Russia last week were 13% 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	40.69
NP Area FI - NP System	5.50	3.10	6.40	8.70	5.54	3.78	2.81	2.67
NP Area SE1 - NP System	0.50	1.10	1.80	0.20	2.04	1.43	0.24	-1.68
NP Area SE2 - NP System	0.60	1.10	1.80	1.00	2.04	1.43	0.24	-1.68
NP Area SE3 - NP System	1.10	1.40	2.00	1.00	2.33	1.83	0.55	-1.47
NP Area SE4 - NP System	3.00	1.80	2.30	1.90	2.62	2.77	2.37	-0.51

*Average for period between 1.1.2019-8.7.2019.

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 Source for data: intStream, Tilastokeskus

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Indicator	ENOFUTBLQ4-19	ENOYR-20
Coal-fired production	88 %	64 %
Coal price	52 %	18 %
Gas price (NBP)	72 %	39 %
German price level	62 %	70 %
Spot	61 %	31 %
Crude oil Brent	1 %	0 %
Water reservoirs	24 %	4 %
EUR/USD FX rate	5 %	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	27	Chg	26	Chg
ENOFUTBLQ4-19	↗	3.8%	↗	-0.4%
ENOYR-20	↗	1.4%	↗	2.7%
NP System	↘	-1.7%	↗	2.7%
NEDEC9	↗	0.5%	↗	3.9%

