

### NORDIC ELECTRICITY MARKET

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### HYDRO BALANCE TOOK AN UPWARD TURN AND SPOT PRICES FELL

#### Forecast to week 37:

ENOFUTBLQ4-20	📉 Bearish (<0%)
ENOYR-21	📉 Bearish (<0%)
NP System	📉 Bearish (<0%)
NEDEC20	↔ Sideways (± 0,5%)

#### Market signals

	spot	Q4-20	YR-21
Hydrologic balance	↓	↓	↓
Precipitation forecast	→	→	→
Temperature forecast	→	→	→
Spot	↓	↓	↓
Production and transmission exch.	↑	→	→
Emissions allowance	→	↓	↓
Coal price	→	↓	↓
German prices	↑	↑	↑
Technical analysis	↔	↑	↑

### FORECAST TO WEEK 37

#### POWER FUTURES

##### Front quarter

The current week will be wetter than normal, and the hydro balance will take an upward turn. Spot prices will retreat because of plentiful wind power production. Falling spot prices and a rising hydro balance will exert downward pressure on near products. However, the forecasts show signs of the weather type turning drier after next week and this will provide support for near products. This reversal to dry weather is, however, still very uncertain. We consider a downward trend more likely than an upward one.

##### Annual products

The emission allowance price has retreated from the highest figures and also fuel prices have softened. The rising hydro balance will put pressure on the nearest annual product but there is still considerable uncertainty in the weather picture for next week. Annual products are technically strong, but in the short term we expect a slight fall in the prices of annual products.

#### SPOT MARKET

Flow rates have risen to almost normal for the time of year and after the early part of the week will be slightly higher than normal. Nordic wind power production will be particularly plentiful after Monday and this will exert a clear downward pressure on spot prices. Nuclear power output has increased in Sweden but is still much lower than normal. The Ringhals 4 unit is scheduled to step up output after the early part of the week and the Forsmark 3 unit is scheduled to re-start on Sunday. We expect the system price to turn downwards at the weekly level and to settle at an average level of €16.50/MWh. The transmission link between Finland and North Sweden again saw a restriction but a relatively minor one. In Finland, wind power production is weak on Monday but plentiful on Tuesday. On Wednesday, wind power production in Finland will be weak until at the end of the week it will fluctuate at close to the normal level. We expect the Finnish area price to fall slightly at the weekly level and to settle at an average level of €39.0/MWh.

#### EMISSIONS

During the current week auction availability will increase to 20.85 million tonnes following the end of the holiday season and auctions return to the normal rhythm and as fewer emission allowances from the market are placed in the MSR (Market Stability Reserve) during the rest of the year. The price at Monday's auction settled at slightly lower than the aftermarket price at the time and the auctions this week may give a market direction. Last week the resistance level of €30.80/t held and pushed the emission allowance price down. However, in the longer term the technical trend is strong but the MACD has given a sell signal for emission allowances. We expect the emission allowance price to move in the short term between €26-€29/t.

Product	Date	Value	% chg	Chg (EUR)
ENOFUTBLQ4-20	4.9.2020	25.85	4.0%	1.00
ENOFUTBLQ1-21	4.9.2020	29.90	1.8%	0.52
ENOFUTBLQ2-21	4.9.2020	22.80	3.0%	0.66
ENOFUTBLQ3-21	4.9.2020	21.10	3.4%	0.70
ENOYR-21	4.9.2020	25.62	1.9%	0.47
ENOYR-22	4.9.2020	25.80	-1.5%	-0.40
ENOYR-23	4.9.2020	26.50	-2.4%	-0.65
ENOYR-24	4.9.2020	27.63	-2.8%	-0.80
ENOYR-25	4.9.2020	28.23	-2.0%	-0.58
NEDEC20	4.9.2020	27.33	-7.3%	-2.14
NEDEC20	4.9.2020	27.33	-7.3%	-2.14

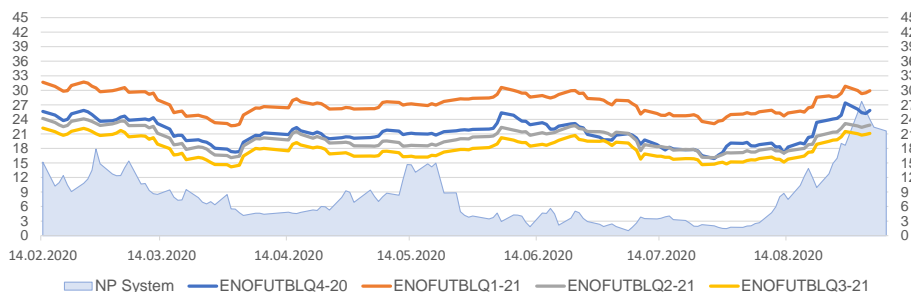
#### EPAD settlements

4.9.2020 (€/MWh)	2021	2022	2023
SYHEL	13.38	7.10	4.08
SE1- NP System	-1.50	-2.70	-2.50
SE2 - NP System	-1.50	-2.70	-2.50
SE3 - NP System	2.48	2.25	2.05
SE4 - NP System	4.75	3.75	3.75

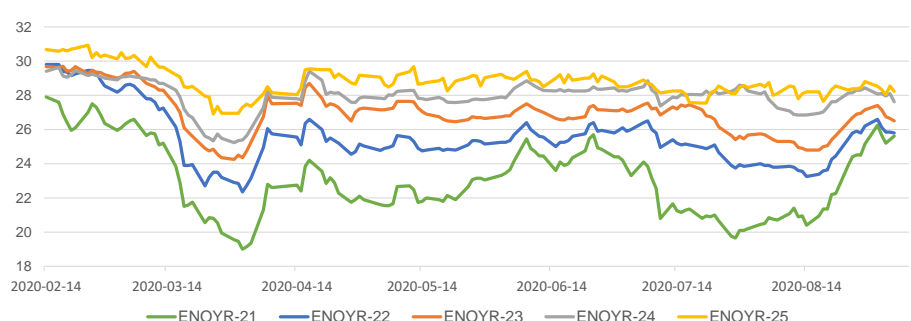
#### Week's spot price change

Price area (€/MWh)	Date	Value	% chg	Chg (EUR)
NP System	6.9.2020	22.70	40.9%	6.59
NP Area FI	6.9.2020	42.10	-3.4%	-1.48
NP Area SE1	6.9.2020	35.80	37.0%	9.67
NP Area SE2	6.9.2020	35.80	36.9%	9.64
NP Area SE3	6.9.2020	41.03	-1.6%	-0.65
NP Area SE4	6.9.2020	41.03	-1.6%	-0.65

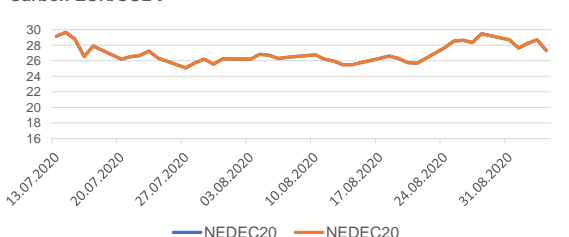
Quarters EUR/MWh (left), NP System EUR/MWh (right)



Years EUR/MWh



Carbon EUR/CO2 t



COMMENTS ON WEEK 36

**POWER FUTURES**

**Front quarter**

Last week, near products rose very strongly supported by strong spot prices. However, after Monday, near products took a downward turn with the end of the dry weather type. Near products fell until Thursday, but on Friday they took an upward turn as potential signs of drier weather after the following week brought support for the products. Near products closed up at the weekly level.

**Annual products**

Last week the front annual product moved with near products to close up at the weekly level. However, products longer than the front annual product closed down at the weekly level. The downward turn in the emission allowance price and the softer price of coal brought downward pressure on annual products. The downward turn in share indexes put downward pressure on the emission allowance price and fuel prices.

**SPOT MARKET**

Last week got off to a dry start and flow rates were very low. At the same time, wind power production was very low early in the week and spot prices continued to show a clear rise. However, rainfall amounts rose after the early part of the week and flow rates started to rise. At the same time, wind power production rose to higher than normal already later in the week. In Sweden, the return of the Ringhals 4 unit was delayed until the end of the week. Spot prices fell after the early part of the week, but the system price continued to show a clear rise at the weekly level. In Finland, wind power production was lower than normal in the first half of the week but approached the normal level at the end of the week. The transmission link between Finland and Sweden was restored to almost full capacity. The Finnish area price fell at the weekly level and the spread between the Finnish area price and system price narrowed.

**EMISSIONS**

Last week saw a softening in the emission allowance price. On Monday, levels north of €30/t were tested but prices retreated from these levels to close the day at a level of south of €29/t. The fall spilled into Tuesday, but hope was seen on Wednesday and Thursday. On Wednesday, the first auction offering normal availability to the market went without a hitch and the price recovered slightly. On Friday, the price fell again along with slightly softer fuel and financial markets, in addition to which rising auction availability could have affected the market. On Friday, the emission allowance price closed at a level of €27.33/t, down €2.14 at the weekly level.

DETERMINANTS AFFECTING THE MARKET ON WEEK 37

**RESTRICTIONS IN PRODUCTION AND TRANSMISSION CAPACITY**

Loviisa 1 (507 MW), 29.8.-13.10.2020 maintenance, in use 0 MW  
 Forsmark 3 (1167 MW), 16.8.-13.9.2020, maintenance, in use 0 MW  
 Oskarshamn 3 (1400 MW) 1.8.-26.10.2020 maintenance, in use 0 MW  
 Ringhals 4 (1130MW) 6.-7.9.2020 maintenance, in use 370 MW

RU-FI (1300 MW, 30.8.-19.9.2020 maintenance, in use 910 MW  
 EE-FI (1016 MW) 9.-10.9.2020, maintenance, in use 808 MW  
 SE1-FI ( 1500 MW) 7.-18.9.2020, maintenance, in use 1300-1500 MW  
 FI-SE3 (1200 MW) 26.8.-15.9.2020 maintenance, in use 0 MW  
 FI-SE1 (1100 MW) 10.-27.9.2020, in use 750 MW

- Nordic nuclear power plants are currently operating at a capacity utilization rate of 65%
- RU-FI transmission profile varies due to capacity payments, average imports from Russia last week were 37 % of the maximum

**AVERAGE SPOT PRICE AND EPAD**

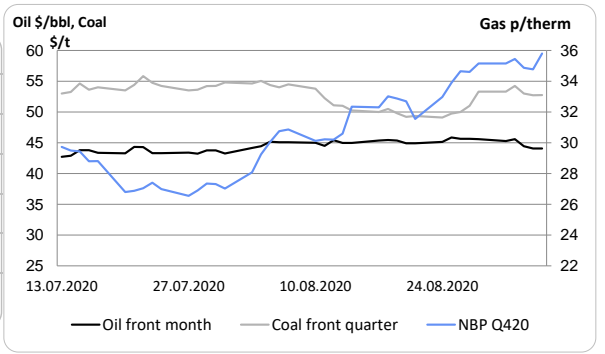
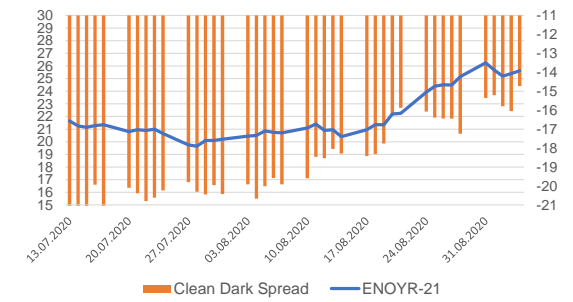
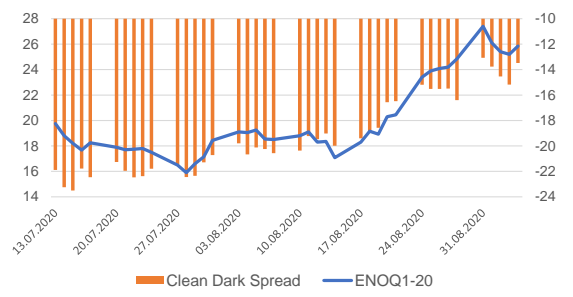
Price area (€/MWh)	2012	2013	2014	2015	2016	2017	2018	2019	2020*
NP System	31.20	38.10	29.60	21.00	26.91	29.41	43.99	38.94	9.63
NP Area FI - NP System	5.50	3.10	6.40	8.70	5.54	3.78	2.81	5.10	15.53
NP Area SE1 - NP System	0.50	1.10	1.80	0.20	2.04	1.43	0.24	-1.00	2.97
NP Area SE2 - NP System	0.60	1.10	1.80	1.00	2.04	1.43	0.24	-1.00	2.97
NP Area SE3 - NP System	1.10	1.40	2.00	1.00	2.33	1.83	0.55	-0.58	8.80
NP Area SE4 - NP System	3.00	1.80	2.30	1.90	2.62	2.77	2.37	0.86	12.86

\*Average for period between 1.1.2020-7.9.2020.

Indicator	ENOFUTBLQ4-20	ENOYR-21
Coal-fired production	2 %	2 %
Coal price	10 %	2 %
Gas price (NBP)	10 %	11 %
German price level	6 %	85 %
Spot	14 %	6 %
Crude oil Brent	0 %	6 %
Water reservoirs	10 %	3 %
EUR/USD FX rate	3 %	0 %
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	36	Chg	35	Chg
ENOFUTBLQ4-20	↗	4.0%	↗	21.5%
ENOYR-21	↗	1.9%	↗	13.0%
NP System	↗	40.9%	↗	87.7%
NEDEC20	↗	-7.3%	↗	14.8%



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