

NORDIC ELECTRICITY MARKET

6.7.2020 Antti Kouvo, Gasum Portfolio Services Oy

**DRIER WEATHER FORECASTS AND STRONG RISE IN EMISSION ALLOWANCE PUSH UP ELECTRICITY PRICE**

Forecast to week 28:	
ENOFUTBLQ4-20	↗ Bullish (>0%)
ENOYR-21	↗ Bullish (>0%)
NP System	↗ Bullish (>0%)
NEDEC20	↗ Bullish (>0%)

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 28**

**POWER FUTURES**

**Front quarter**

The weather forecasts have dried up considerably during the weekend and the next few days will be fairly dry whereas today will still be very wet. Similarly, the forecast for next week has changed to almost a normal level. The drier weather is expected to result in an upswing in the nearest quarter product after last week's sharp fall. The emission allowance price is also providing support but the low spot price will continue to limit any strong rise over the next few months.

**Annual products**

Forecasts for drier weather and the rise in emission allowance prices are providing support for annual products. Additionally, the annual products in Central Europe are rising more sharply than those in the Nordic countries. Coal prices have opened with a slight downturn. Annual products are expected to rise at the weekly level.

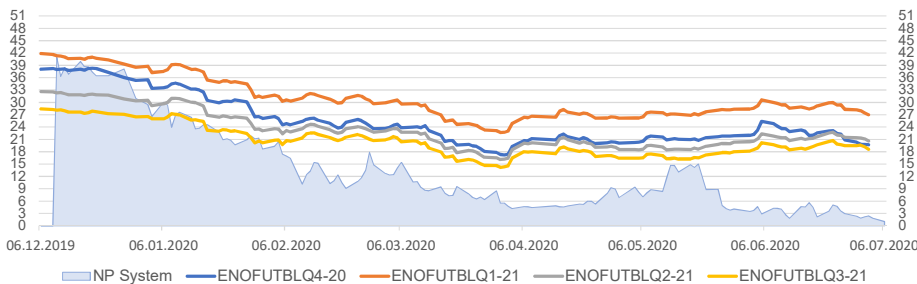
**SPOT MARKET**

The current week will be much cooler than normal for the time of year and this will slow the snow melt in the mountains. Flow rates will be high in the early part of the week following the rain at the weekend but will quickly fall to a normal level. Wind power production is very high today but will fall to almost the normal level during the week. There is the prospect of a windier spell during the weekend. Also in Finland, wind power production will fall during the week. The transmission link restriction has been extended by two weeks between South Norway and the Netherlands and also generally the transmission potential from South Norway to other areas will remain weak. We expect the system price to rise during the end of the week and at the weekend to settle notably higher than last week. Also the Finnish area price is expected to fall clearly with lower consumption last week than in previous weeks. The Finnish price will not settle at quite the level of Swedish prices but nevertheless much closer to Swedish prices than Baltic prices. At the same time, the area price difference is expected to considerably narrow. At the weekly level, the system price is expected to rise to near the €3/MW level and the Finnish area price at a level of around €12/MW.

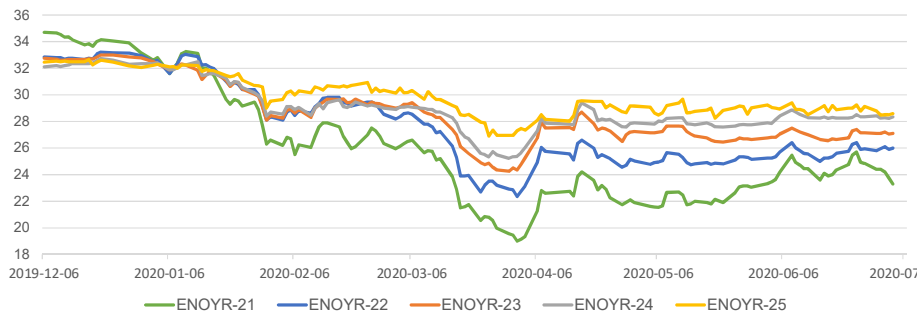
**EMISSIONS**

The emission allowance price is very strong. The product is technically rising very strongly, but on the other hand the RSI is already really high and indicates the product is overbought. The direction of the fundamentals does not seem to be giving a direction to the emission allowance price, rather the direction is being driven by sentiment and expectations of tighter political decisions. Open interest in the DEC-20 product has also been falling, which indicates interest for the product has fallen and can also predict a fall in the price. We expect the emission allowance price to remain strong but are prepared for a downward correction which, if it materialises, could also be swift.

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



Years EUR/MWh



Product	Date	Value	% chg	Chg (EUR)
ENOFUTBLQ4-20	3.7.2020	19.70	-11.5%	-2.55
ENOFUTBLQ1-21	3.7.2020	27.00	-8.2%	-2.40
ENOFUTBLQ2-21	3.7.2020	20.60	-6.4%	-1.40
ENOFUTBLQ3-21	3.7.2020	18.60	-5.6%	-1.11
ENOYR-21	3.7.2020	23.30	-6.2%	-1.54
ENOYR-22	3.7.2020	26.00	0.2%	0.05
ENOYR-23	3.7.2020	27.10	-0.2%	-0.05
ENOYR-24	3.7.2020	28.33	-0.1%	-0.02
ENOYR-25	3.7.2020	28.58	-1.9%	-0.55
NEDEC20	3.7.2020	27.96	13.2%	3.25
NEDEC20	3.7.2020	27.96	13.2%	3.25

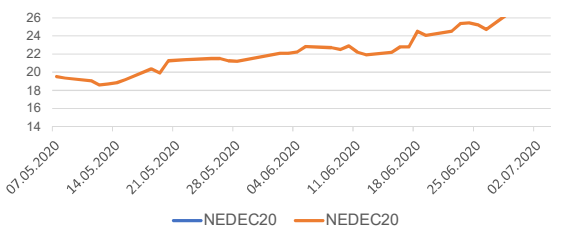
**EPAD settlements**

3.7.2020 (€/MWh)	2021	2022	2023
SYHEL	9.60	5.53	4.10
SE1 - NP System	-1.50	-2.70	-2.70
SE2 - NP System	-1.50	-2.70	-2.70
SE3 - NP System	2.23	1.95	1.95
SE4 - NP System	4.20	3.73	3.73

**Week's spot price change**

Price area (€/MWh)	Date	Value	% chg	Chg (EUR)
NP System	5.7.2020	1.85	-43.9%	-1.45
NP Area FI	5.7.2020	23.60	-47.7%	-21.49
NP Area SE1	5.7.2020	8.47	-27.2%	-3.17
NP Area SE2	5.7.2020	8.47	-27.2%	-3.17
NP Area SE3	5.7.2020	10.15	-77.2%	-34.46
NP Area SE4	5.7.2020	10.15	-77.2%	-34.46

**Carbon EUR/CO2 t**



COMMENTS ON WEEK 27

**POWER FUTURES**

**Front quarter**

With the wetter weather type, the front quarter product Q4-20 closed at a considerable fall at the weekly level with other nearest montly products also falling amply. The continuing low spot price as well as the forecast for a much higher hydro balance exerted pressure on near products despite the rise in the emission allowance price. Rain forecasts during the week grew wetter and each day saw a fall. At the end of the week, the Q4-20 undercut the €20/MWh until on Friday the price closed at around Thursday's closing price.

**Annual products**

Last week, the nearest annual product, like other near products, closed at a considerable fall and the annual product was in retreat every day. The fall was based on wet weather forecasts and technical support levels undercut €24.2/MWh and €23.6/MWh, which further drove the fall. The nearest front product failed to react in any way to the sharp rise in the emission allowance price, likewise the rise in coal. The price difference has widened sharply compared to the price level of coal condensate production. The longer annual products were flat with the exception of 2025 but even they failed to react to the rise in emission allowance prices. The price difference in the years rose in Central Europe as German annual products rose with the emission allowance.

**SPOT MARKET**

Last week, the weather turned cooler than normal and with it rainier and windier. The cooler weather slowed the snow melt but flow rates remained high in the early part of the week following heavy rain. Nuclear power production was clearly better than in the previous week. Transmission restrictions continued aplenty from South Norway to other areas but within Sweden the transmission link was better available from north to south. The spot price in South Norway again settled at a very low level at just over €1/MWh and in the southern areas of Sweden prices fell sharply. At the weekly level, the system price continued to fall, settling at a level of below €2/MWh. The Finnish area price again settled clearly higher than the Swedish SE3 price nearer to the Baltic price level on weekdays, but towards the end of the week the Finnish area price fell with consumption and at the weekend the Finnish price was fairly near the system price. At the weekly level, the Finnish area price almost halved and at the same time the area price difference narrowed.

**EMISSIONS**

Last week, the emission allowance price maintained a strong upward trend taking the price to levels not seen since August last year. At the weekly level, the emission allowance price rose 13%. Not even news of increased auction availability for the rest of the year with the addition of 50 million allowances by the EU Commission to fund the Innovation Fund brought about a major fall in the price of emission allowances.

Indicator	ENOFUTBLQ4-20	ENOYR-21
Coal-fired production	56 %	74 %
Coal price	52 %	54 %
Gas price (NBP)	63 %	64 %
German price level	6 %	85 %
Spot	70 %	59 %
Crude oil Brent	73 %	80 %
Water reservoirs	32 %	23 %
EUR/USD FX rate	7 %	10 %
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
ENOFUTBLQ4-20	📉	-11.5%	📈	1.1%
ENOYR-21	📉	-6.2%	📈	2.0%
NP System	📈	-43.9%	🔄	34.4%
NEDEC20	🔄	13.2%	📈	2.7%

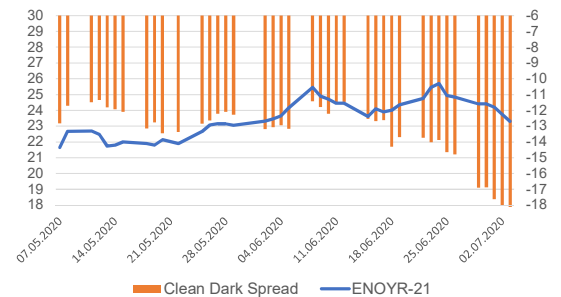
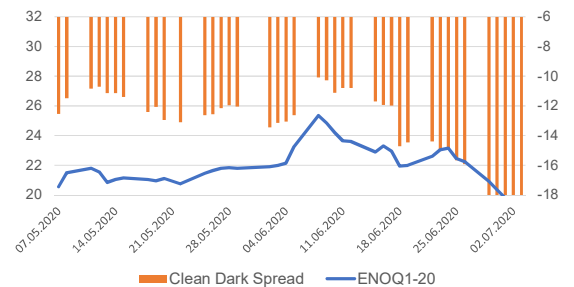
DETERMINANTS AFFECTING THE MARKET ON WEEK 28

**RESTRICTIONS IN PRODUCTION AND TRANSMISSION CAPACITY**

Ringhals 3 (1063 MW) 22.4-24.7.2020 maintenance, in use 0 MW  
Ringhals 4 (1130 MW) 5.7.-31.8.2020 maintenance, in use 0 MW

RU-FI (1300 MW), 30.6.-31.7.2020 maintenance, in use 400 MW  
FI-RU (320 MW), 30.6.-31.7.2020 maintenance, in use 0 MW

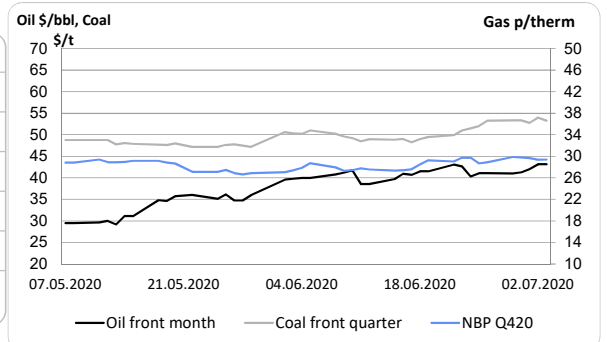
- Nordic nuclear power plants are currently operating at a capacity utilization rate of 80%
- RU-FI transmission profile varies due to capacity payments, average imports from Russia last week were 10 % of the maximum



**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	10.24
NP Area FI - NP System	5.50	3.10	6.40	8.70	5.54	3.78	2.81	5.10	12.80
NP Area SE1 - NP System	0.50	1.10	1.80	0.20	2.04	1.43	0.24	-1.00	1.45
NP Area SE2 - NP System	0.60	1.10	1.80	1.00	2.04	1.43	0.24	-1.00	1.45
NP Area SE3 - NP System	1.10	1.40	2.00	1.00	2.33	1.83	0.55	-0.58	6.32
NP Area SE4 - NP System	3.00	1.80	2.30	1.90	2.62	2.77	2.37	0.86	8.52

\*Average for period between 1.1.2020-6.7.2020.



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