

NORDIC ELECTRICITY MARKET

31.5.2021 Jussi Polvi, Gasum Portfolio Services Oy

DRIER THAN NORMAL WEATHER FORECASTS

Forecast to week 22:	
ENOFUTBLQ3-21	↗ Bullish (>0%)
ENOFUTBLR-22	↗ Bullish (>0%)
NP System	↗ Bullish (>0%)
NEDEC21	↗ Bullish (>0%)

FORECAST TO WEEK 22

POWER FUTURES

Front quarter

The weather forecasts have dried up over the weekend and the weather will stay dry until the end of the week. Rainfall amounts will rise after this week but probably only to approach normal levels and the weather is not turning wet. The weather forecasts are also clearly warmer than normal. The clearly drier weather and falling hydro balance means we expect near products to rise.

Annual products

The drier weather picture and falling hydro balance will maintain upward pressure on the prices of annual products. The correction movement in natural gas and emission allowance price last week has ended and prices have moved sideways, but the longer-term trend in prices is strongly upwards. We expect the prices of annual products to rise.

SPOT MARKET

The high pressure means the weather will be dry and remain so in net terms the whole week by evaporation. At the same time, the temperature will be above normal, and this will maintain flow rates during the current week as the snow rapidly melts. Wind power production will be generally weak in the Nordic countries, Finland and also in Germany. However, there will be a windier spell on and around Thursday. There is still plenty of nuclear power undergoing annual maintenance. We expect the system price to continue to show a slight rise at the weekly level and to settle at a level of around €45/MWh. Because of nuclear power outages, the Finnish area price will remain higher than the system price and rise to around €50/MWh at the weekly level.

EMISSIONS

There was no auction on Monday this week and this will reduce availability entering the market through auctions. The weather in Europe will be warmer than normal during the current week and photovoltaic energy production will be higher than normal. The UK ETS auction on Wednesday could also give direction to the EU ETS market. Broader market sentiment may affect investor risk-taking on the emission market. Movements on the gas market will continue to give direction to the emission market. We expect the emission allowance price to seek direction between €50 - €55/t.

Market signals

	spot	Q3-21	YR-22
Hydrologic balance	↑	↑	↑
Precipitation forecast	↑	↑	↑
Temperature forecast	↓	→	→
Spot	↓	↑	→
Production and transmission exch.	→	→	→
Emissions allowance	↑	↑	↑
Coal price	↑	↑	↑
German prices	↑	↑	↑
Technical analysis	↓	↑	↑

Product	Date	Value	% chg	Chg (EUR)
ENOFUTBLQ3-21	28.5.2021	39.05	10.8%	3.80
ENOFUTBLQ4-21	28.5.2021	42.05	7.6%	2.97
ENOFUTBLQ1-22	28.5.2021	44.75	5.8%	2.45
ENOFUTBLQ2-22	28.5.2021	30.30	3.9%	1.15
ENOFUTBLR-22	28.5.2021	33.05	5.3%	1.65
ENOFUTBLR-23	28.5.2021	30.00	2.6%	0.75
ENOFUTBLR-24	28.5.2021	29.95	2.8%	0.82
ENOFUTBLR-25	28.5.2021	30.10	1.7%	0.50
ENOFUTBLR-26	28.5.2021	30.30	1.7%	0.50
NEDEC21	28.5.2021	51.70	0.6%	0.30
NEDEC22	28.5.2021	52.38	0.5%	0.28

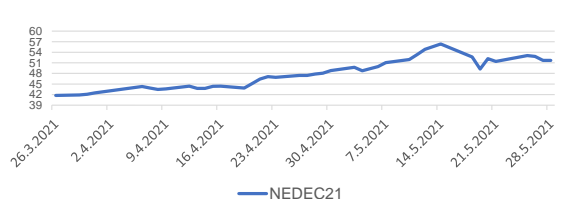
EPAD settlements

28.5.2021 (€/MWh)	2021	2022	2023
SYHEL	6.88	4.15	3.88
SE1- NP System	-6.75	-6.75	-6.88
SE2 - NP System	-6.75	-6.75	-6.88
SE3 - NP System	2.80	2.80	2.90
SE4 - NP System	10.00	9.50	9.50

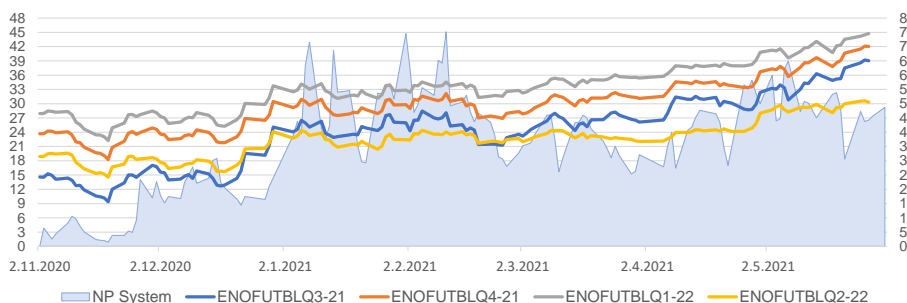
Week's spot price change

Price area (€/MWh)	Date	Value	% chg	Chg (EUR)
NP System	30.5.2021	41.66	6.3%	2.48
NP Area FI	30.5.2021	48.45	6.7%	3.05
NP Area SE1	30.5.2021	36.91	12.9%	4.21
NP Area SE2	30.5.2021	36.91	12.9%	4.21
NP Area SE3	30.5.2021	46.56	21.5%	8.25
NP Area SE4	30.5.2021	46.56	21.5%	8.25

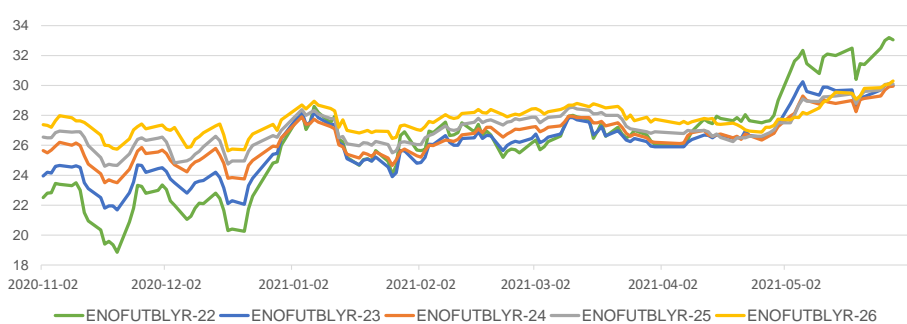
Carbon EUR/CO2 t



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



Years EUR/MWh



COMMENTS ON WEEK 21

POWER FUTURES

Front quarter

Last week, near products rose sharply after weather forecasts had dried up plentifully already during the weekend. The rise eased slightly in the second half of the week as the forecasts promised a normalization of the weather after over a week of high pressure. Spot prices remained also rather strong despite the melting season. Near products were well up at the weekly level.

Annual products

The prices of annual products rose strongly also at the beginning of last week as the weather forecasts dried. Also, emission allowances and fuels were strong in the early part of the week, providing added momentum to the rise. Since the end of the week, the prices of the emission allowance, fuels and German electricity fell, which calmed the rise in the prices of annual products. Even though the price spread with Germany narrowed, it is still historically record high. At the weekly level, the nearest annual product showed a clear rise and further annual products rose, but certainly more moderately.

SPOT MARKET

Since last week was cold, snow melt slowed in the mountains and flow rates decreased to a normal level. Earlier in the week, flow rates were supported by the rain and started to rise again at the weekend as the temperature rose, even though the weather had already turned to very dry. Wind power production was at its highest on Wednesday both at the Nordic level and in Finland but weakened towards the end of the week with the high pressure. Nuclear power annual maintenance was at its most intense last week. The spot price was up at the weekly level even though the working weekdays settled lower than the previous week. The spot price did not collapse at the weekend as was the case the previous week. Also, the Finnish area price settled at higher than the previous week because of the weekend. At the same time, the price spread grew slightly compared to the previous week but at the monthly level settlement was moderate in May.

EMISSIONS

Last week, the emission allowance price sought direction. The market rose at the start of the week, correcting the previous week's fall. Technical resistance levels were tested on Wednesday, but as the gas market retreated, on Wednesday and Thursday the market fell. The market also fell on Friday. Investors' shares of the market have been falling. The emission allowance price closed the week €0.72 down at the weekly level.

Indicator	ENOFUTBLQ3-21	ENOFUTBLYR-22
Coal-fired production	64 %	58 %
Coal price	76 %	75 %
Gas price (NBP)	6 %	85 %
German price level	38 %	34 %
Spot	59 %	62 %
Crude oil Brent	77 %	78 %
Water reservoirs	59 %	59 %
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	21	Chg	20	Chg
ENOFUTBLQ3-21	↗	10.8%	↗	2.9%
ENOFUTBLYR-22	↗	5.3%	↗	-1.9%
NP System	↗	6.3%	↗	-32.1%
NEDEC21	↗	0.6%	↗	-8.8%

DETERMINANTS AFFECTING THE MARKET ON WEEK 22

RESTRICTIONS IN PRODUCTION AND TRANSMISSION CAPACITY

- Ringhals 3 (1074 MW), maintenance 24.5.-20.6.2021, in use 0 MW
- Oskarshamn 3 (1400 MW), maintenance 22.5.-10.6.2021, in use 0 MW
- Olkiluoto 2 (890 MW), maintenance 16.5.-15.6.2021, in use 0 MW
- Forsmark 2 (1118 MW), failure 30.5.-3.6.2021, in use 450 MW

- FI-SE3 (1200 MW), limitation till 30.9.2021, in use 250 MW
- FI-RU (320 MW), maintenance 4.-31.5.2021, in use 0 MW

- Nordic nuclear power plants are currently operating at a capacity utilization rate of 60 %
- RU-FI transmission profile varies due to capacity payments, average imports from Russia last week were 77 % of the maximum

AVERAGE SPOT PRICE AND EPAD

Price area (€/MWh)	2013	2014	2015	2016	2017	2018	2019	2020	2021*
NP System	38.1	29.6	21	26.91	29.41	43.99	38.94	10.93	41.78
NP Area FI - NP System	3.10	6.40	8.70	5.54	3.78	2.81	5.10	17.28	4.03
NP Area SE1 - NP System	1.10	1.80	0.20	2.04	1.43	0.24	-1.00	3.60	-6.26
NP Area SE2 - NP System	1.10	1.80	1.00	2.04	1.43	0.24	-1.00	3.60	-6.28
NP Area SE3 - NP System	1.40	2.00	1.00	2.33	1.83	0.55	-0.58	10.53	0.88
NP Area SE4 - NP System	1.80	2.30	1.90	2.62	2.77	2.37	0.86	15.06	6.07

*Average for period between 1.1.2021-31.5.2021.

Copyright 2021 Gasum Oy – All rights reserved

Source for data: Gasum, Tilastokeskus

Disclaimer: This document is issued by Gasum Oy in jointly by its subsidiary Gasum Portfolio Services Oy. The information in this document, which is for private circulation only, was obtained from sources believed to

