

NORDIC ELECTRICITY MARKET

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NERVOUS GENERAL MARKET SENTIMENT PERSISTS

Forecast to week 13:

| | |
|---------------|-----------------|
| ENOFUTBLQ2-20 | 📉 Bearish (<0%) |
| ENOYR-21 | 📉 Bearish (<0%) |
| NP System | 📉 Bearish (<0%) |
| NEDEC20 | 📉 Bearish (<0%) |

Market signals

| | spot | Q2-20 | YR-21 |
|-----------------------------------|------|-------|-------|
| Hydrologic balance | ↓ | ↓ | ↓ |
| Precipitation forecast | ↓ | ↓ | ↓ |
| Temperature forecast | ↓ | ↓ | ↓ |
| Spot | → | → | → |
| Production and transmission exch. | ↓ | ↓ | → |
| Emissions allowance | ↓ | ↓ | ↓ |
| Coal price | ↓ | ↓ | ↓ |
| German prices | ↓ | ↓ | ↓ |
| Technical analysis | → | ↓ | ↓ |

FORECAST TO WEEK 13

POWER FUTURES

Front quarter

The weather will be rainy on Tuesday and Wednesday but precipitation rates will drop slightly below normal after Wednesday. Next week's precipitation rates will be close to the normal level but the weather will get colder than normal. There are no major changes in sight for the hydro balance over the two-week forecast period. However, the hydro balance will remain high and the power demand outlook will decline over the short term due to the uncertainty created by the coronavirus epidemic. Quarterly products will also be technically weak. We expect quarterly product prices to continue to fall slightly.

Annual products

The general market sentiment is still very nervous and the economic outlook is very weak at least in the short term. The general nervous mood and weak economic outlook maintain downward pressure on fuel and emission allowance prices. News of stimulus measures may lend support to stock indices as well as fuel and emission allowance prices, which may support annual products, too. Nevertheless, for the time being we regard the support provided by stimulus measures effective only over the short term and regard a downtrend in annual products more likely.

SPOT MARKET

Temperatures are rising and the weather has turned warmer than normal again. The weather will remain warmer than normal, but there will be a drop in temperatures towards the end of the week and on Sunday the weather will be slightly cooler than normal. Nordic wind power production will be very abundant during the first half of the week but weaker than normal on Thursday and Friday. During the weekend, wind power output will mostly be slightly above normal. We expect the system price to remain low at the weekly level and to settle at an average of €7.5/MWh. Finnish wind power production will also be abundant in the first half of the week. On Thursday, Finnish wind power output will decline to a level below normal but will mainly be slightly above normal for the rest of the week. We expect the Finnish area price to fall at the weekly level and to settle at an average of €16.5/MWh.

EMISSIONS

The nervous atmosphere, weak economic outlook, diving stock indices and power market are maintaining downward pressure on emission allowance prices. The weaker industrial outlook may result in some participants selling their emission allowances. The technical picture for emission allowance prices is very weak. Auction volumes are higher than last week's ones. We expect a continuing fall in emission allowance prices.

| Product | Date | Value | % chg | Chg (EUR) |
|---------------|-----------|-------|--------|-----------|
| ENOFUTBLQ2-20 | 20.3.2020 | 9.10 | -23.2% | -2.75 |
| ENOFUTBLQ3-20 | 20.3.2020 | 10.20 | -21.7% | -2.83 |
| ENOFUTBLQ4-20 | 20.3.2020 | 20.70 | -15.0% | -3.65 |
| ENOFUTBLQ1-21 | 20.3.2020 | 25.70 | -12.6% | -3.70 |
| ENOYR-21 | 20.3.2020 | 21.75 | -13.7% | -3.45 |
| ENOYR-22 | 20.3.2020 | 23.95 | -12.1% | -3.30 |
| ENOYR-23 | 20.3.2020 | 25.60 | -9.5% | -2.70 |
| ENOYR-24 | 20.3.2020 | 26.70 | -7.0% | -2.00 |
| ENOYR-25 | 20.3.2020 | 28.53 | -3.8% | -1.12 |
| NEDEC20 | 20.3.2020 | 16.15 | -26.4% | -5.78 |
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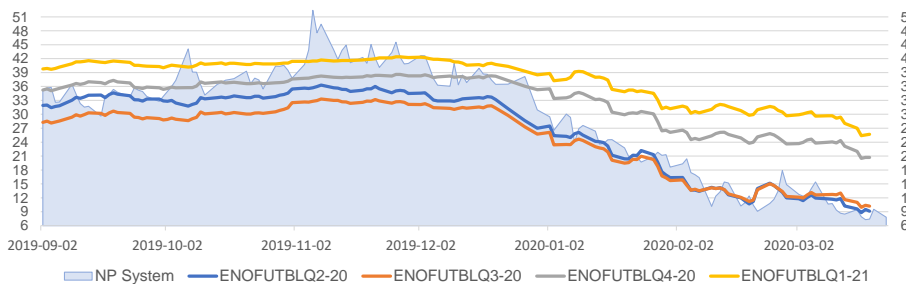
EPAD settlements

| 20.3.2020 (€/MWh) | 2021 | 2022 | 2023 |
|-------------------|-------|-------|-------|
| SYHEL | 8.15 | 4.70 | 3.85 |
| SE1- NP System | -1.50 | -2.25 | -2.25 |
| SE2 - NP System | -1.50 | -2.25 | -2.25 |
| SE3 - NP System | 1.25 | 1.35 | 1.35 |
| SE4 - NP System | 2.60 | 2.60 | 2.60 |

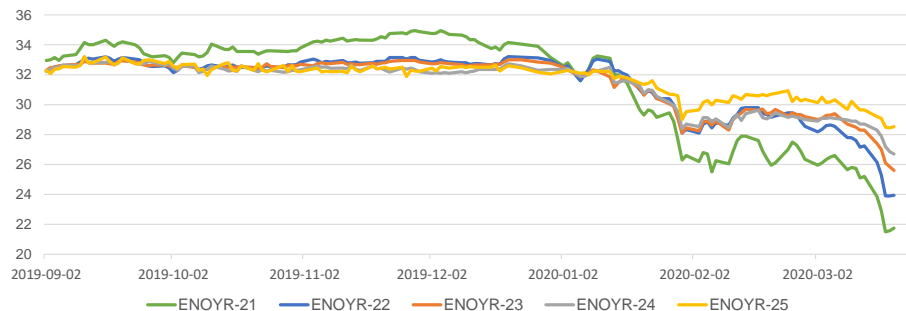
Week's spot price change

| Price area (€/MWh) | Date | Value | % chg | Chg (EUR) |
|--------------------|-----------|-------|--------|-----------|
| NP System | 22.3.2020 | 8.06 | -11.8% | -1.07 |
| NP Area FI | 22.3.2020 | 20.15 | 2.1% | 0.41 |
| NP Area SE1 | 22.3.2020 | 7.67 | -15.8% | -1.44 |
| NP Area SE2 | 22.3.2020 | 7.67 | -15.8% | -1.44 |
| NP Area SE3 | 22.3.2020 | 14.34 | 43.5% | 4.34 |
| NP Area SE4 | 22.3.2020 | 14.34 | 43.5% | 4.34 |

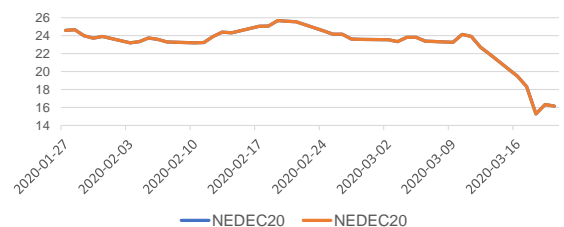
Quarters EUR/MWh (left), NP System EUR/MWh (right)



Years EUR/MWh



Carbon EUR/CO2 t



COMMENTS ON WEEK 12

POWER FUTURES

Front quarter

Front-quarter products took a major dip last week. Last week was milder and rainier than normal but the weather got momentarily drier and cooler at the weekend. The weather forecasts for the week ahead showed wetter and milder conditions again but, as the week progressed, the forecasts for the week ahead got drier and cooler. The weather forecasts indicated precipitation rates at levels close to normal and on Thursday quarterly products corrected upwards. However, the general uncertainty and concerns about a decline in power demand maintained downward pressure on quarterly products and at the weekly level quarterly products ended up on a clear downward trajectory.

Annual products

Last week, the general market sentiment remained very nervous and stock indices continued to dive due to concerns about the coronavirus epidemic. The short-term market outlook was very weak. Emission allowance prices plummeted and fuel prices remained weak. Annual product prices took a steep fall at the weekly level.

SPOT MARKET

Last week, the weather was milder than normal for the time of year but got momentarily cooler towards the end of the week. Nordic wind power production was abundant on Tuesday and Wednesday but weakened towards the end of the week. Nuclear power production declined from the week before as the annual maintenance outage of the Ringhals 1 unit began. Finnish wind power production was abundant in the first days of the week but then dropped close to the normal level. The interconnection between Finland and Northern Sweden was on reduced capacity at the weekend. Futures prices took a major dip and the power demand outlook fell for the coming months, which was also reflected in spot prices. The system price dropped at the weekly level but the Finnish area price rose slightly at the weekly level.

EMISSIONS

Last week, the nervous market sentiment, diving stock indices and considerably weaker economic outlook resulted in emission allowance prices plummeting. Strong support levels for emission allowance prices were also broken, strengthening the downward pressure. Emission allowance prices took a deep dive at the weekly level.

| Indicator | ENOFUTBLQ2-20 | ENOYR-21 |
|-----------------------|---------------|----------|
| Coal-fired production | 76 % | 70 % |
| Coal price | 77 % | 69 % |
| Gas price (NBP) | 80 % | 70 % |
| German price level | 6 % | 85 % |
| Spot | 93 % | 87 % |
| Crude oil Brent | 42 % | 51 % |
| Water reservoirs | 94 % | 92 % |
| EUR/USD FX rate | 1 % | 1 % |
| Temperature | 8 % | 5 % |
| Precipitation | 16 % | 13 % |

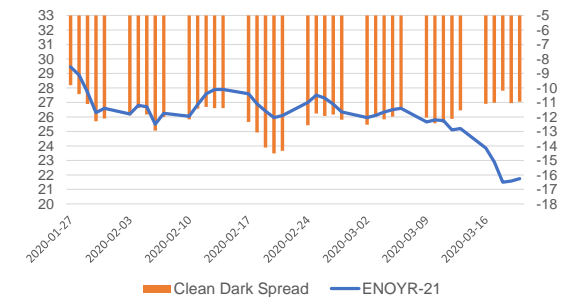
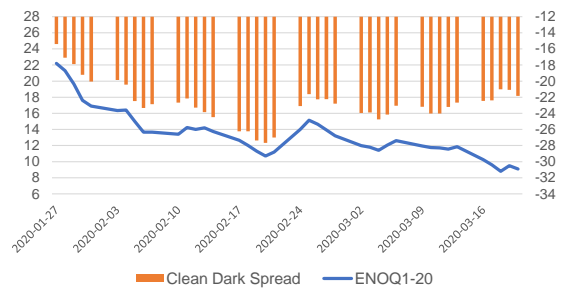
Definition
The above figures measure the ability of market determinants to describe the price changes occurred in last 6 months. The affect is measured as Coefficient of Determination*. Each variable is evaluated independently. We use a color scale to demonstrate efficacy, green (strong), yellow (moderate), red (weak)

| Forecast history | 12 | Chg | 11 | Chg |
|------------------|----|--------|----|--------|
| ENOFUTBLQ2-20 | 📉 | -23.2% | 📉 | -6.0% |
| ENOYR-21 | 📉 | -13.7% | 📉 | -5.3% |
| NP System | 🔄 | -11.8% | 📉 | -44.8% |
| NEDEC20 | 📉 | -26.4% | 📉 | -6.3% |

DETERMINANTS AFFECTING THE MARKET ON WEEK 13

RESTRICTIONS IN PRODUCTION AND TRANSMISSION CAPACITY

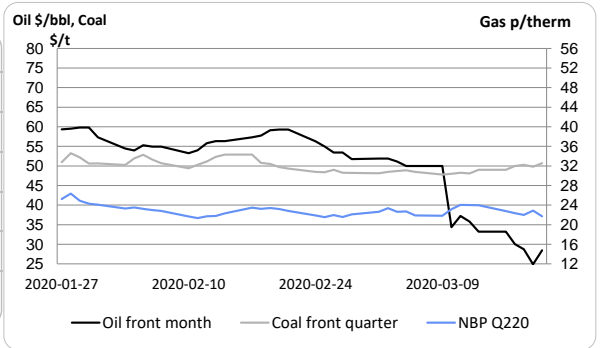
- Ringhals 1 (881 MW), 13.3.-10.4.2020, in use 13.-14.3.2020 440 MW, 14.3.-10.4.2020 0 MW
- Nordic nuclear power plants are currently operating at a capacity utilization rate of 92%
- RU-FI transmission profile varies due to capacity payments, average imports from Russia last week were 11 % of the maximum



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 | 16.32 |
| NP Area FI - NP System | 5.50 | 3.10 | 6.40 | 8.70 | 5.54 | 3.78 | 2.81 | 5.10 | 8.84 |
| NP Area SE1 - NP System | 0.50 | 1.10 | 1.80 | 0.20 | 2.04 | 1.43 | 0.24 | -1.00 | 0.24 |
| NP Area SE2 - NP System | 0.60 | 1.10 | 1.80 | 1.00 | 2.04 | 1.43 | 0.24 | -1.00 | 0.24 |
| NP Area SE3 - NP System | 1.10 | 1.40 | 2.00 | 1.00 | 2.33 | 1.83 | 0.55 | -0.58 | 3.09 |
| NP Area SE4 - NP System | 3.00 | 1.80 | 2.30 | 1.90 | 2.62 | 2.77 | 2.37 | 0.86 | 4.91 |

*Average for period between 1.1.2020-23.3.2020.



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Source for data: intStream, Tilastokeskus

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