



FORATOM WEBINAR SERIES

IMPACT OF COVID19 ON MARKETS AND GRIDS

Milan Sýkora

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COVID-19 IN THE CZECH REPUBLIC



- ❑ The first three confirmed cases of the COVID-19 in the Czech Republic were reported on 1 March, the first death on 22 March
- ❑ By March 11 the government had closed all schools and by March 12 had declared a state of emergency with following restrictions
 - ✓ ban on free movement throughout the Czech Republic (except travel to work and to the pursuit of a business)
 - ✓ employers recommended to use teleworking as far as possible
 - ✓ ban of all public events, only limited public gatherings
- ❑ Other measures adopted to contain the spread of coronavirus
 - ✓ closing of restaurants and all nonessential stores (March 14)
 - ✓ borders closing (March 15)
- ❑ The state of emergency lasted until 17 May

IMPACT ON INDUSTRY AND POWER SECTOR



- ❑ The industrial production fell down by about 10% in March, with further decrease 34 % in April and 26 % in May (y/y), such a decline for the first time since the economic crisis in 2009

- ❑ Significant decline across all the branches of industry
 - ✓ all three main carmakers in the Czech Republic (Škoda, Hyunday, Toyota-Peugeot-Citroen) halted production in the middle of March (production dropped by 11% during 1Q 2020)
 - ✓ production of plastic products fell by half and metal products by a quarter

- ❑ Power sector was affected by a significant decline in electricity consumption, a record drop in prices and subsequent shutdown of several power sources for which production ceased to be profitable

PREVENTIVE MEASURES ADOPTED BY CEZ



- ❑ As a part of state critical infrastructure CEZ started to implement preventive measures again COVID-19 pandemic since the end of February
 - ✓ preparedness to keep electricity production under any circumstances

- ❑ Nuclear power plants took about twenty measures
 - ✓ face masks, disinfections, home offices, restrictions in cafeterias...
 - ✓ operation not affected, electricity production as planned

- ❑ Pandemic plans were prepared to keep power sources in operation
 - ✓ plants were prepared to adopt more restrictive measures within hours in case of pandemic situation deterioration (shifts isolation, etc.)

- ❑ Unit 1 at Temelin NPP in planned overhaul during March / April
 - ✓ no significant impacts on schedule, only some non critical modifications postponed

CHANGE OF THE CZECH POWER GENERATION MIX DURING COVID-19



A surplus of electricity was recorded, when power plants supplied more electricity to the system than they had contracted, it was thus necessary to activate some actions in order to compensate for the excess of electricity

- ❑ Nuclear power plants in base load
- ❑ Coal-fired power plants declined production by almost a 30% (y/y) in April
- ❑ Flexible gas-fired power plants increased generation by a 30% (y/y)
- ❑ 60% more electricity was produced by pumped storage power plants
- ❑ Renewables produced according to weather conditions
 - ✓ photovoltaics raised as the sun was shining, wind was average, and hydro fell due to the drought and filling of the Orlik dam



OPERATION OF THE CZECH TRANSMISSION SYSTEM

- According to Czech Transmission System Operator (CEPS)
 - ✓ no operational issues with ensuring real-time electricity balance, standard tools of dispatch control used in most cases
 - ✓ transmission system worked in the standard mode, safely and reliably, as part of interconnected European transmission systems
 - ✓ dispatch control was coordinated among the countries

- Continuous decline in power consumption (y/y) since March 9 (partly due to the relatively high outdoor temperature)
 - ✓ the end of March – 7 percent, the mid of April – 15 percent, some days in May even – 18 percent, last week of May – 9 percent

- The power balance on borders:
 - ✓ down by 47 percent (y/y) in March, by 60 percent in April
 - ✓ net imports recorded during 10 days (exceptional compared to past years)
 - ✓ net exports at levels close to the usual values during second half of May

PRICES OF ELECTRICITY AT PXE (PRAGUE)



PXE price copies mostly the German exchange price

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PRAGUE ELEKTRICITY EXCHANGE PRICES



- Minimum daily price on the PXE was 38 EUR, two influences :
 - ✓ surplus of CO2 allowances which pushed the price down, due to lower production in industry and energy sector
 - ✓ ongoing coal-to-gas switching in power generation due to cheap natural gas
 - ✓ the spot price of electricity decreased over several weeks to the lowest levels during past five years

- Prices and trends on PXE copied the German EEX (lower by 4 EUR/MWh)
 - ✓ in May electricity traded at a level of 42-43 EUR/MWh exchange
 - ✓ in the beginning of June, the price increased by 2 EUR (44 EUR/MWh)
 - ✓ at the end of June the price increased again by 1 EUR (45 EUR/MWh)
 - ✓ growth mainly due to the growth of CO2 prices

- Calming of markets after the first response to the COVID pandemic contributed to the increase of electricity prices just to a limited extent
 - ✓ a slight rise in coal and gas prices played also a role

CEZ GROUP'S FINANCIALS AND COVID19



- ❑ CEZ Group have faced the situation resulted from the measures taken to contain the COVID pandemic
- ❑ COVID pandemic did not cause any existential threat for any of ČEZ Group's consolidated companies
- ❑ impact on 2020 financial performance not to be significant thanks to hedging
- ❑ estimated negative impact to EBITDA 2020 – 3 to 4 BN CZK

