

## RISKS AND THREATS

### THE COMPANY'S DEPENDENCE ON CUSTOMERS, PLANS TO BUILD A COMPETITIVE HEAT AND POWER PLANT

The Company relies primarily on Fortum Power and Heat Polska Sp. z o.o. (a district heating operator) for conducting its heat sales business. The project planned by Fortum Power and Heat Polska Sp. z o.o. to build a combined cycle heat and power plant with a capacity of 400 MW in Wrocław at Obornicka Street 195 poses a significant risk and threat to KOGENERACJA S.A.

The Management Board of KOGENERACJA S.A. conducted an information campaign addressed to the authorities of the Municipality of Wrocław and the Energy Regulatory Office to raise awareness of the consequences of such a decision, namely an excess of installed capacity in the system and a potential increase in district heat prices.

By the end of 2015, Fortum Power and Heat Polska Sp. z o.o. had not confirmed their decision to build their own energy source. Fortum has put the project on hold pending the outcome of the legislative work on amendments to the Energy Law, including in particular the regulation of the support mechanism for high-efficiency cogeneration after 2018.

On the website of the Public Information Bulletin (BIP) Wrocław - Environment and Agriculture Department, a notice was published dated 13 September 2016, ref.: WSR-00Ś.6220.165.2016.AN, on initiation of an environmental impact assessment for the project of building an installation for energy production based on combustion of fuels, with a heat capacity of 225 MWt, using alternative fuel, hard coal and biomass; the installation is to be located at in Wrocław at ul. Obornicka 195. So far, no social consultations have been started, which are required by law for such initiatives.

### AMENDMENTS TO THE ENERGY LAW

The Energy Law and its implementing regulations govern the national energy policy, set out the rules and conditions for the supply and use of fuels and energy and designate the authorities responsible for fuel and energy management.

In 2016, the **Energy Law Act** was amended several times:

- Amendments of 17 March, 1 April and 1 July 2016 - resulting from the Act of 11 February 2016 on changes to departments of government administration and certain other acts
- Amendments of 19 May 2016 - resulting from the Act of 25 September 2015 on changes to the act on freedom of economic activity and certain other acts
- Amendments of 1 July 2016 - resulting from the Act of 22 June 2016 on changes to the act on renewable energy sources and certain other acts and the act of 20 February 2015 on renewable energy sources
- Amendments of 1 August 2016 - resulting from the Act of 7 July 2016 on changes to the VAT Act and certain other acts
- Amendments of 3 August 2016 and 2 September - resulting from the Act of 22 July 2016 on changes to the Energy Law Act and certain other acts
- Amendments of 1 October 2016 - resulting from the Act of 20 May 2016 on energy efficiency
- Amendments of 9 December 2016 - resulting from the Act of 30 November 2016 on changes to the Energy Law Act and certain other acts

### Carbon dioxide emissions

The risks associated with the release of carbon dioxide into the atmosphere and the requirement to redeem the corresponding number of CO<sub>2</sub> emission allowances have not, as yet, posed a serious problem, as the actual level of CO<sub>2</sub> emissions has been lower than the limits allocated to the Company under the National Allocation Plan (NAP). The low number of CO<sub>2</sub> emission allowances allocated under the NAP III for 2013-2020 means:

- A shift towards the auction system as a new allowance allocation regime under the new emissions trading directive
- The free allocation of only part of emission allowances to the Company within the framework of national implementation measures (heat allocations) and the National Investment Plan (electricity allocations), to be evidenced by investments made
- The auctioning of all allowances from 2020

This will translate into an increase in production costs due to the requirement to purchase expensive emission allowances or invest in further improvements to generation efficiency. The price volatility of CO<sub>2</sub> emission allowances is another risk factor.

## FACTORS ASSOCIATED WITH CHANGES IN CONSUMER DEMAND FOR HEAT

The decline in demand for heat resulting from thermal modernisation of housing stock, limitation of heat transmission losses and installation of automatic weather control systems in district heating substations has been halted in recent years.

KOGENERACJA S.A. has been actively looking to attract new customers. These efforts are in particular aided by our cooperation with the Municipality of Wrocław to connect new and existing municipal buildings to the district heating network as a way to compensate for reduced demand and to stabilise our heat sales.

The previous year saw a decline in sales of contracted heat capacity by 13.76 MW, i.e. 1.35%.

## FACTORS ASSOCIATED WITH FLUCTUATIONS IN HEAT AND POWER SALES

The sale of the Company's products is subject to significant **seasonal fluctuations**. Customer demand for heat is much higher in the period of October to April than in other months. This means that combined heat and power generation is also subject to seasonal fluctuations.

While both of the Company's heat and power plants have the technical capacity to generate power without heat recovery, including in periods of reduced demand for heat, this capacity has been significantly reduced following the entry into force of the amended Energy Law on 1 July 2007 in order to meet the efficiency limit of 75% for the conversion of chemical energy into combined heat and power.

In 2016, the energy efficiency ratio was 82.5% at the Wrocław Power Plant (in 2015: 80.95%) and 78.0% at the Czechnica Power Plant (in 2015: 76.75%).