Management Board's report on activities of the Capital Group of PGE Polska Grupa Energetyczna S.A. for the 6-month period

ended June 30, 2020

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KEY FINANCIAL RESULTS OF THE PGE CAPITAL GROUP

Key financial data	Unit	Period ended June 30, 2020	Period ended June 30, 2019	% change
Sales revenues	PLN million	22 776	18 236	25%
EBIT	**PLN million**	**271**	**2 446**	**-89%**
EBITDA	**PLN million**	**2 805**	**4 395**	**-36%**
EBITDA margin	%	12%	24%	
Recurring EBITDA	**PLN million**	**3 117**	**3 299**	**-6%**
Recurring EBITDA margin	%	14%	18%	
Net result	**PLN million**	**-637**	**1 765**	**-**
Capital expenditures	**PLN million**	**2 504**	**2 557**	**-2%**
Net cash from operating activities	PLN million	5 309	3 193	66%
Net cash from investing activities	PLN million	-3 449	-3 186	8%
Net cash from financial activities	PLN million	-1 153	1	-

Key financial data		As at June 30, 2020	As at December 31, 2019	% change
Working capital	PLN million	1 157	767	51%
Net debt/ LTM EBITDA*	**x**	**1.75**	**1.60**	

*LTM EBITDA - Last Twelve Months EBITDA.

One-offs affecting EBITDA		As at June 30, 2020	As at June 30, 2019	% change
Change in reclamation provision	PLN million	-434	-246	76%
Change in actuarial provision	PLN million	-40	-36	11%
Release of the provision for the risk of returning the equivalent of the CO_2 emission allowances received at ZEDO	PLN million	121	0	-
LTC compensations	PLN million	41	-15	-
Additional CO_2 emission rights	PLN million	0	1 393	-
Total	**PLN million**	**-312**	**1 096**	**-**

1. PGE Capital Group

1.1. Characteristics of activities

Capital Group of PGE Polska Grupa Energetyczna S.A. ("PGE Capital Group", the "Capital Group", "PGE Group", the "Group") is the largest vertically integrated producer of electricity and heat in Poland. With a mix of own fuel sources, generation assets and distribution network, PGE Group provides a safe and reliable supply of electricity to more than five million households, businesses and institutions. Moreover, PGE Group is the largest heat producer in the country.

The parent company of PGE Capital Group is PGE Polska Grupa Energetyczna S.A. (also "PGE S.A.", "PGE", the "Company", the "Issuer"). PGE Group organizes its activities in six business segments:

CONVENTIONAL GENERATION

Core business of the segment includes extraction of lignite, production of electricity and heat from conventional sources.

DISTRICT HEATING

Core business of the segment includes production of electricity and heat from conventional sources as well as transmission and distribution of heat.

RENEWABLES

Core business of the segment includes electricity generation from renewable sources and in pumped-storage power plants and provision of ancillary services.

SUPPLY

Core business of the segment includes wholesale trading of electricity on domestic and international market, sale of electricity to final off-takers, trading of CO_2 allowances and energy certificates and fuels and provision of services of the Corporate Centre to companies from the PGE Group.

DISTRIBUTION

Core business of the segment includes supply of electricity to final off-takers through the grid and HV, MV and LV infrastructure.

OTHER OPERATIONS

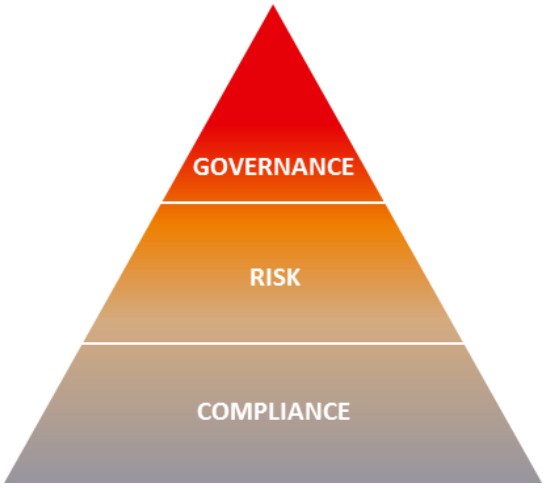
Other operations include provision of services, through the subsidiaries, to PGE Group, which include organisation of capital raising in form of Eurobonds, provision of IT, payroll and HR services, transportation and car sharing services. Its activities also include subsidiaries formed to prepare and implement a project to build a nuclear power plant, to manage investment funds and to invest in start-ups.

The composition of the Capital Group is presented in note 1.3 to the consolidated financial statements.

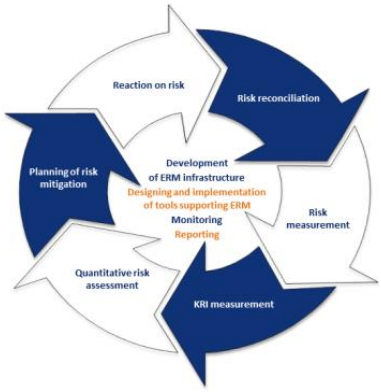
2. Risks in the Group's operations

PGE S.A., as the Corporate Centre managing the Group, creates and implements integrated risk management architecture at PGE Group. In particular, it shapes PGE Group's risk management policies, standards and practices, designs and develops internal IT tools to support these processes, specifies global risk appetite and adequate limits as well as monitors their levels.

PGE Capital Group companies, as well as other entities from the electrical and power sector, are exposed to a number of risks and threats resulting from the specific operating activities and operating in specific market and regulatory environment.



In PGE Group risk management process is pursued based on the GRC (Governance - Risk - Compliance) model. It allows adaptation and integration of each of the operational areas at all levels of management. Having established a top-level Risk Committee, which reports directly to the Management Board, supervision over the effectiveness of risk management in the Group is ensured. Function definition within corporate risk management allows an independent assessment of particular risks, their impact on PGE Group and limiting and controlling major risks using dedicated instruments. Formation of a separate compliance function within the Group guarantees that PGE Group's activities are in line with legal conditions and ensures observance of the adopted internal standards.



The PGE Capital Group has consequently developed a comprehensive risk management system. Risks in the key companies of the Group are measured and assessed. Mechanism allowing identification of areas exposed to risk and risk level measurement methods are constantly verified and developed. Thanks to that, the significant risks concerning various areas of operations are identified and kept within the assumed limits by reducing negative effects of such risks and by taking preventive or corrective measures, in accordance with the presented cycle.

2.1. Risk factors and mitigating actions

The main risks and threats of PGE S.A. and the PGE Group are presented below along with their assessment and outlook in the horizon of the next 12 months.

Risk level	■□□ **low**	■■□ **medium**	■■■ **high**	**Mitigating actions and main tools used for the management of the risk**
Risk outlook in the next period	↘ **decrease**	↗ **growth**	↔ **stable**	
Low level	Risk does not pose a threat and may be tolerated			
Medium level	Risk which needs preparation of the proper reaction based on analysis of costs and benefits			
High level	Intolerable risk, which needs immediate and active reaction, leading simultaneously to limitation of possible consequences and of probability of occurrence thereof			
Market and product risks Related to prices and volumes of offered products and services	**Gross margin on electricity from the production assets of the PGE Capital Group and on trading in related products** - its amount results from the uncertainty as to the future levels and volatility of market prices (electricity prices and the prices of key energy products - CO_2, fuels, including in particular hard coal, gas and the prices of certificates).	■■■	↗	**Actions:** ▪ Optimization of generation assets - definition of production scenarios for updated market parameters of electricity, CO_2 and fuels. ▪ Using consistent guidance in respect of process organisation in the context of commercial strategy and mid-term planning (strategy for hedging key exposures in the area of electricity and related product trading that correspond to the adopted risk appetite in the mid-term). ▪ Establishing position hedging levels with consideration given to the results of analysing pricing risk in respect of electricity and related products, VaR-based. Target hedging levels are specified taking into consideration the Group's financial standing, including in particular its strategic objectives. ▪ Research, monitoring and analysing the electricity markets and sector trends in order to optimally use generation and selling capacities. ▪ Acquiring new customers - diversification of channels to reach final off-takers and diversification of target groups by maintaining an extensive product portfolio and adapting offering to market. ▪ Current clients retention - a diversified portfolio of customer loyalty schemes and client-acquisition activities and special offers dedicated to former clients who moved over to the competitors. ▪ Care for a high level of customer service by developing employees' competences and building relations with business and retail clients. ▪ Use of tools to supporting customer relations processes allows the Group better sales planning and organisation of sales.
	Electricity sales volumes – this risk derives from uncertainty related to the development of macroeconomic indicators affecting the demand for electricity and energy goods, including in the context of the impact of the COVID-19 pandemic and the remedial actions taken.	■■■	↔	
	Tariffs (regulated prices) – resulting from the requirement to approve rates for distribution services and electricity and heat prices for particular groups of entities.	■■■	↔	

Property risks Related to development and maintenance of the assets	**Failures and damage to property** – connected with the operation and degradation over time of energy equipment and facilities and protection of energy equipment and facilities against destructive external factors (including fire, effects of weather phenomena, intentional damage).	■■□	↗	**Actions:** ▪ Active pursuing of a strategy for building up and modernization of the production capacities. ▪ Performing maintenance repairs in line with the highest sector standards. ▪ Diversification of the current structure of the production sources due to energy generation technology. ▪ Insurance of the most important production assets in the event of breakdown and property damage. Assets are insured based on an analysis of insurance costs, capabilities of insurance markets for specified risks or for particular types of assets, costs related to asset replacement and potential lost revenue. ▪ The reliability of the power supply to the end users has been systematically improved through modernization of the distribution grid.
	Investment and development – connected with strategic plans for expanding the generation, distribution and sales potential as well as on-going investments.	■■■	↔	
Operational risks Related to pursuing of ongoing economic processes	**Electricity and heat production** – connected with production planning and impact of the factors that determine production capacities.	■■□	↗	**Actions:** ▪ Optimisation of equipment lifecycles and the availability of key assets. ▪ Inspections, repairs and modernisation of the existing assets. ▪ Optimisation of costs inter alia through monitoring of fuel prices and reserves and securing supply through long-term contracts with suppliers and through price fixing formulas. ▪ Monitoring of legal changes and changes in technical standards in the field of by-products. ▪ Investments in improving the efficiency of the combustion process. ▪ Constant monitoring of service availability. ▪ Creating Business Continuity Plans for critical systems, developing and testing emergency procedures. ▪ Ongoing monitoring of changes in legal regulations. ▪ Training in regulations preventing money laundering and terrorist financing. ▪ Requirement to read Best Procurement Practices and the Code of Conduct for Business Partners of PGE Group Companies. ▪ The approval path and internal regulations concerning the purchasing process. ▪ Control of the work environment. ▪ Training of employees in the field of occupational health and safety. ▪ Informing about threats, restrictions and rules related to the COVID-19 pandemic (dedicated tab on the Intranet). ▪ Conducting an intensive and effective dialogue in order to avoid escalation of potential disputes with the social partners and to work out the most favourable solutions with regard to employment and employment costs within PGE Capital Group connected therewith. ▪ PGE's active participation in internship programmes and cooperation with educational institutions in order to secure a pipeline of qualified personnel . ▪ Assessment and training of personnel in order to make optimal use of it within the Group's structures .
	Fuel management – connected with uncertainty regarding the costs, quality, timeliness and volumes of fuel supply (mainly coal) and production raw material as well as the effectiveness of inventory management processes.	■■□	↔	
	By-products and services - related to the management of production waste	■□□	↔	
	Cybersecurity – understood as intentional disruption of generation and distribution assets and IT systems used at PGE Group.	■■□	↗	
	Procurement - related to the effectiveness and correctness of the purchasing process.	■■□	↘	
	Employee safety - related to ensuring safe working conditions.	■■□	↘	
	Human Resources – pertaining to provision of personnel with the relevant experience, competences and ability to perform specific tasks.	■■□	↗	
	Social dialogue – related to the failure to reach an agreement between the Group's management and the social partners, which could lead to strikes / collective disputes.	■■□	↗	

Regulatory and legal risks Related to compliance with external and internal legal provisions	**Legal changes in support systems –** connected with uncertainty as to the future shape of the support system for production of certified energy.	■□□	↔	**Actions:** ▪ Monitoring of the changes being introduced or proposed provides that our operations in key business segments are carried in compliance with the law and that PGE Capital Group has solutions which take into account potential changes in the legal environment. ▪ Active participation of PGE S.A. as the member of the Polish Electricity Committee that opened its office in Brussels. Through the Committee's operations, the Company actively influences proceeding and shaping of EU law and engages a dialogue with the EU institutions ▪ Adaptation of internal regulations and practices to make sure that the activities are in compliance with the power sector regulations and binding law. ▪ Improvement of activities aimed at protecting and improving the state of the environment by implementing technological and organisational solutions ensuring efficient and effective management in this area.
	Environmental protection – resulting from industry regulations specifying which "environmental" requirements energy installations should meet and what the principles for using the natural environment are. The future environmental regulations and uncertainty concerning their final shape (in particular with regard to the revision of BAT / BREF) may translate into a change in the level of capital expenditures of the PGE Group.	■■□	↗	
	Concessions – resulting from the statutory requirement to hold concessions with regard to conducted operations.	■■□	↘	
	Taxes – related to uncertainty surrounding the future shape of tax regulations and their interpretation.	■■□	↔	
Financial risks Related to finance management	**Credit risk –** connected with the counterparty default, partial and/or late payment of receivables or a different type of breach of contractual conditions (for example failure to deliver/collect goods or failure to pay for any associated damages or contractual penalties).	■■■	↗	**Actions:** ▪ Prior to executing a transaction, a counterparty assessment is carried out and forms a base for applying credit limits, that are regularly updated and monitored. Exposures that exceed established limits are hedged in accordance with the Group's credit risk management policy. The level of utilisation of limits is monitored on a regular basis, payment of receivables is monitored on an ongoing basis and early recovery procedures are in place. ▪ Applying a central financing model, which assumes – as a rule – that external capital is raised by PGE S.A. PGE Group subsidiaries use a variety of intra-group financing sources and liquidity risk is monitored using periodic planning for operating, investing and financing activities. ▪ As regards currency risk and interest rate risk, PGE Group has implemented internal management procedures. PGE Group companies execute derivative transactions involving interest rate- and/or currency-based instruments (IRS, CCIRS) only in order to hedge identified risk exposures. Regulations in force at the PGE Group do not allow, with regard to derivative transactions based on interest rates and currencies, to enter into speculative transactions, i.e. transactions which would be aimed at generating additional gains resulting from changes in the level of interest rates and/or changes in exchange rates, while exposing the company to the risk of incurring a potential loss on this account.
	Liquidity risk – connected with the possibility of losing the ability to meet current liabilities and obtaining financing sources for business operations.	■■■	↔	
	Interest rate risk – resulting in particular from the negative impact of changes in market interest rates on PGE Group's cash flows generated by floating-rate financial assets and liabilities.	■■□	↔	
	Foreign exchange risk – understood in particular as risk that PGE Group's cash flows denominated in currencies other than the functional currency are exposed to due to negative exchange rate movements.	■■□	↗	

3. Electricity market and regulatory and business environment

3.1. Macroeconomic environment

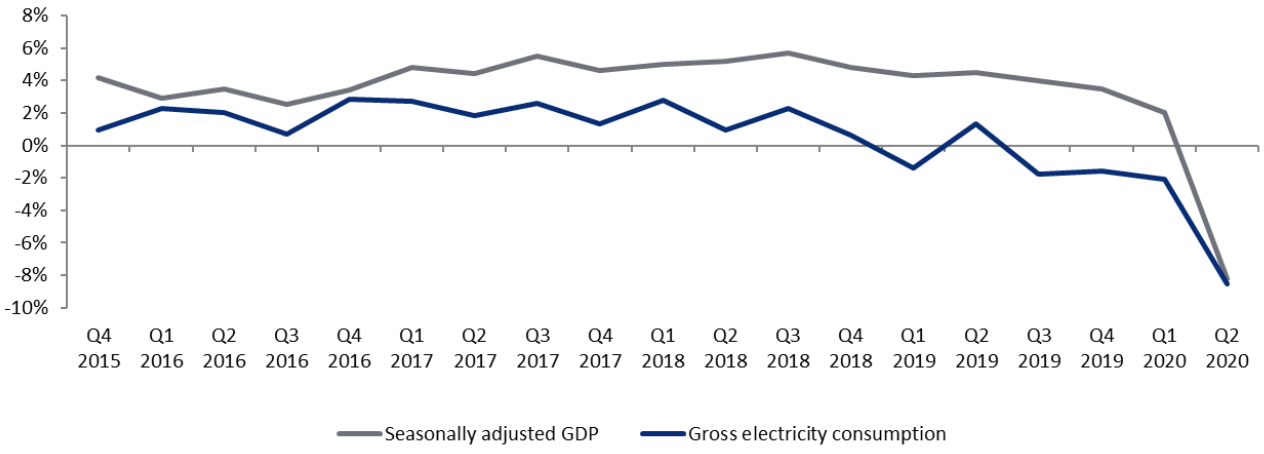
PGE Group's main operating area is Poland, and the domestic macroeconomic backdrop has a substantial impact on Group's results. At the same time, the condition of Poland's economy remains largely tied to the situation across the European Union and in global markets. The Group's financial results are affected by both the situation in specific segments of the economy and the financial markets, which affect the terms of PGE Group's debt financing.

As a rule of thumb, there is a historical correlation between change in electricity demand and change in the rate of economic growth in Poland. Considering PGE Group's position on the Polish power generation market, as well as its substantial share in the electricity sales and distribution market, changes in power and heat demand may have a significant impact on the Group's results.

In the first half of 2020, a non-recurring event that significantly affected the global and domestic economic situation, and consequently the energy market, was the COVID-19 pandemic. To a large degree, the economic lock-down caused a drop in gross electricity consumption - 5.2% in the first half of 2020 y/y. The drop in electricity consumption in the first half of 2020 was higher than in the first half of 2019, when it stood at 0.7% y/y.

The economic trends in the first half of 2020 were driven by pandemic-related restraints affecting primarily the industrial and service sectors. The partial closure of the economy due to the COVID-19 pandemic continued the downward trend in GDP in the first and second quarter of 2020. According to Polish Central Statistical Office data, Polish GDP in the second quarter of 2020 decreased by 8.2% y/y and by 8.9% compared to the first quarter of 2020. Economists estimate that the total decline in GDP in the first half of 2020 was 9.3%. Further impact of the COVID-19 pandemic on GDP will depend on its duration and the pace at which businesses, especially in the services and industry sectors, will return to full-scale operation.

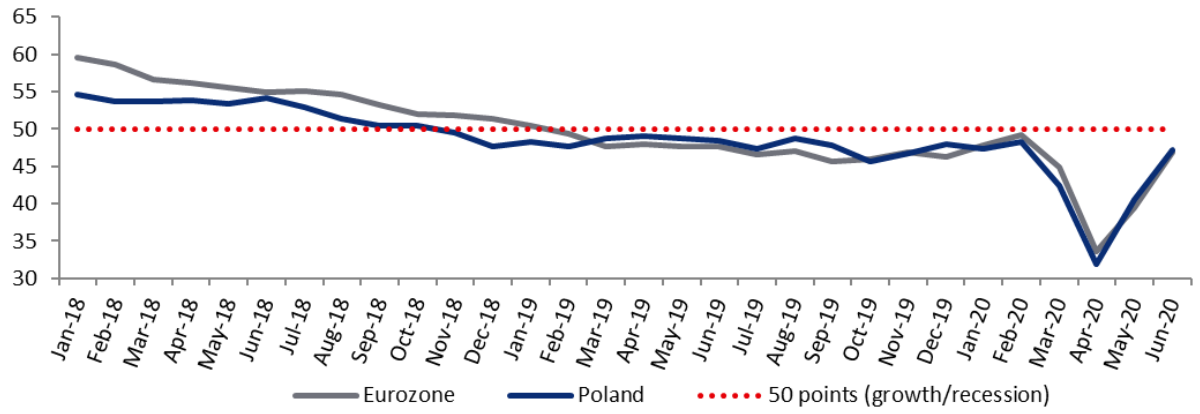
Diagram: Seasonally adjusted GDP change vs. change in domestic gross electricity consumption.



Source: Central Statistical Office of Poland, PSE S.A.

Purchasing Managers' Index ("PMI") reflects the challenges the economy is facing in connection with COVID-19 pandemics. At the beginning of the first quarter of 2020, PMI for industry in Poland indicated an upward trend for 2020. In January 2020, this index stood at 47.4 points and increased to 48.2 points in February 2020. The end of the first quarter of 2020 brought a decline in PMI readings for Polish industry, reaching 42.4 points in March 2020, reflecting concerns of the industry about the effects of COVID-19. The downward trend continued in April 2020, when PMI reached the lowest level in history and amounted to 31.9 points. The trend was reversed in May 2020, when the PMI index for industry in Poland increased to 40.6 points. The upward trend continued until the end of the first half of 2020 and in June 2020 the indicator amounted to 47.2 points. The average PMI for the industry in Poland in the first half of 2020 was 43.0 points, down by 11.4% y/y. A result below 50.0 points means that the questioned managers expect a deterioration in the sector's situation. Polish industry is determined by the condition of industry in the Eurozone, where the PMI index stood at 43.6 points on average in the first half of 2020, while in the previous year it stood at 48.4 points (a drop by 9.9% y/y).

Diagram: Manufacturing PMI in Poland and Eurozone (in points).



Source: Markit Economics

Development in the Polish economy is reflected by inter alia dynamics in overall industrial production. In June 2020, industrial output sold increased by 0.5% as compared to June 2019, when 2.6% drop was recorded in comparison to the analogical period of a previous year, while in comparison with May 2020 it increased by 13.9%. In the first half of 2020 industrial output sold was by 6.3% lower than in the first half of 2019 when a rise of 5.1% was recorded.

3.2. Market environment

SITUATION IN NPS

Table: Domestic electricity consumption (GWh).

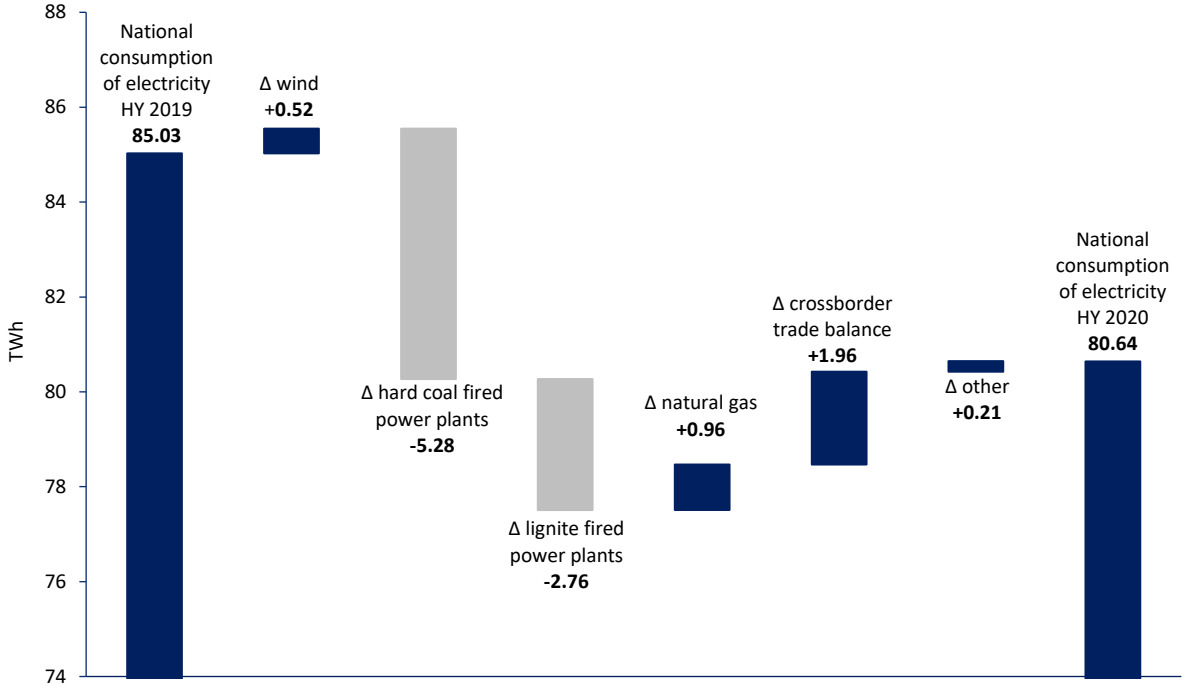
	H1 2020	H1 2019	% change
Domestic electricity consumption	**80 640**	**85 028**	**-5%**
Wind farms	7 859	7 343	7%
Industrial thermal hard-coal fired power plants	33 835	39 110	-13%
Industrial thermal lignite fired power plants	18 669	21 431	-13%
Industrial gas-fired power plants	6 633	5 673	17%
International trading balance	6 547	4 592	43%
Other (industrial plants, hydro power plants, other RES)	7 097	6 879	3%

Source: PSE S.A.

H1 2020

In the first half of 2020, domestic demand for electricity decreased by 4.4 TWh y/y. Owing to stronger winds, particularly in February 2020, the wind-based generation increased by 0.5 TWh y/y. In addition, due to the price difference on cross-border connections and transmission capacity that has improved in 2019, net imports increased by approx. 2.0 TWh compared to the previous year. As a result, less energy produced in utility hard coal-fired power plants (-5.3 TWh) and lignite-fired power plants (-2.8 TWh) was needed to balance the power system.

Chart: Energy balance in the NPS in the first half of 2020 y/y (TWh).



Source: own work based on data from PSE S.A.

ELECTRICITY PRICES – DOMESTIC MARKET

Day-ahead market (RDN)

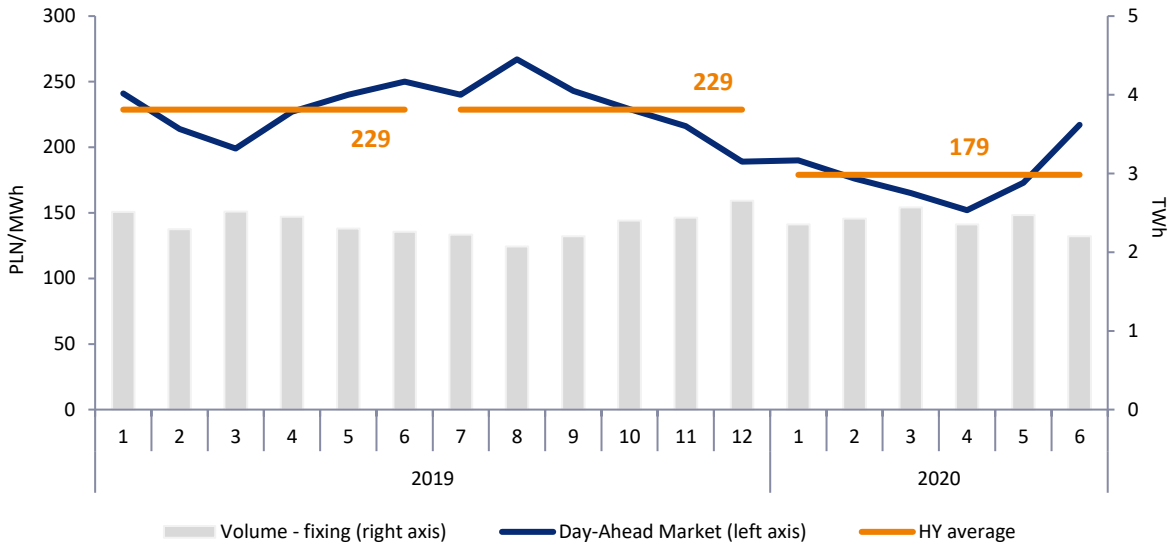
Market/measure	Unit	H1 2020	H1 2019	% change
RDN – average price	PLN/MWh	179	229	-22%
RDN – trading volume	TWh	14.4	14.3	1%

Analysis – selected price factors affecting RDN quotations

Factor	Unit	H1 2020	H1 2019	% change
CO_2 emission rights	EUR/t	21.71	23.60	-8%
Polish Steam Coal Market Index PSCMI-1	PLN/GJ	12.00	11.93	1%
Wind generation NPS	TWh	7.9	7.3	8%
Ratio: wind generation/ NPS consumption	%	10%	9%	
Ratio: international trading/ NPS consumption	%	8%	5%	

In the first half of 2020, the average electricity price on the day-ahead market was PLN 179/MWh and was lower by 22% than average price (PLN 229/MWh) in same period in the preceding year. The decrease in energy prices was the result of two events - lower demand for electricity, resulting from the general decrease in the energy intensity of the Polish economy and the outbreak of the COVID-19 pandemic, as well as meeting the demand with generation from cheaper sources. Compared to the same period of the previous year, a decrease in demand for electricity by 4.4 TWh was observed, the balance of cross-border exchange higher by approx. 2.0 TWh and the level of generation from NPS wind sources was higher by 0.5 TWh.

Chart: Average monthly prices at the day-ahead market in 2019–2020 (TGE).*



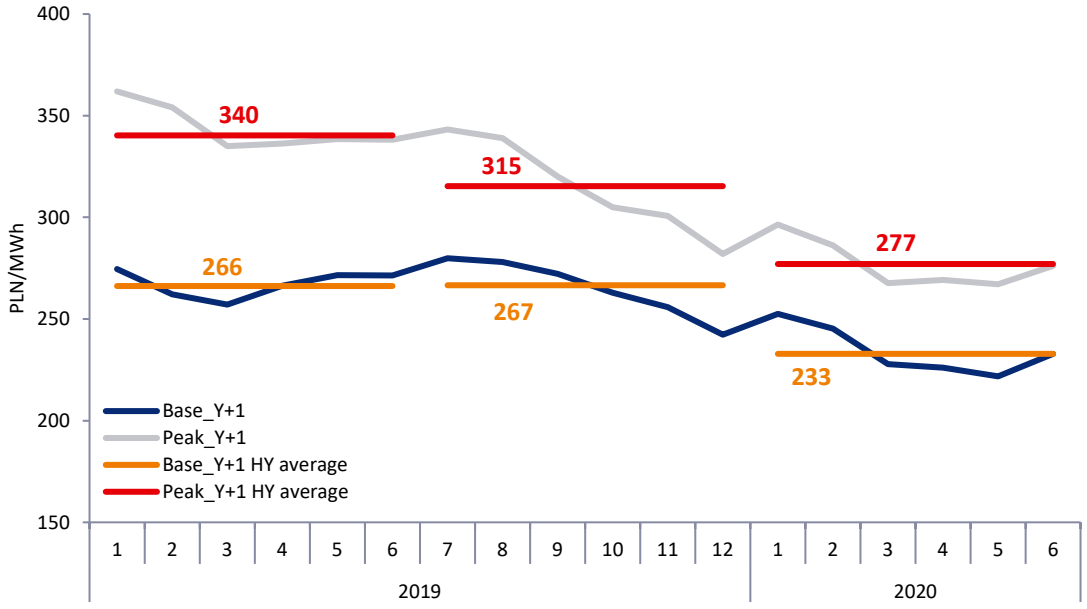
* Average monthly RDN prices calculated on the base of hourly quotations (fixing).

Forward market

Market/measure	Unit	H1 2020	H1 2019	% change
BASE Y+1 – average price	PLN/MWh	233	266	-12%
BASE Y+1 – trading volume	TWh	69.77	49.37	41%
PEAK5 Y+1 – average price	PLN/MWh	277	340	-19%
PEAK5 Y+1 – trading volume	TWh	6.45	5.66	14%

Electricity prices on forward market are shaped by the similar fundamental factors, as the prices on the Day-Ahead Market described in the previous section. The observed forward market decrease (y/y) for BASE_Y+1 is related to the inclusion of the supply of cheaper energy from abroad into the domestic market and since mid-March 2020 – also to the expected drop in demand caused by the pandemic. The drop in PEAK5_Y+1 contract price indicates a flattening of the supply curve and less optimistic demand forecasts, after taking relatively high share of net imports into account.

Chart: Average monthly prices on the forward market in 2019–2020 (TGE).*

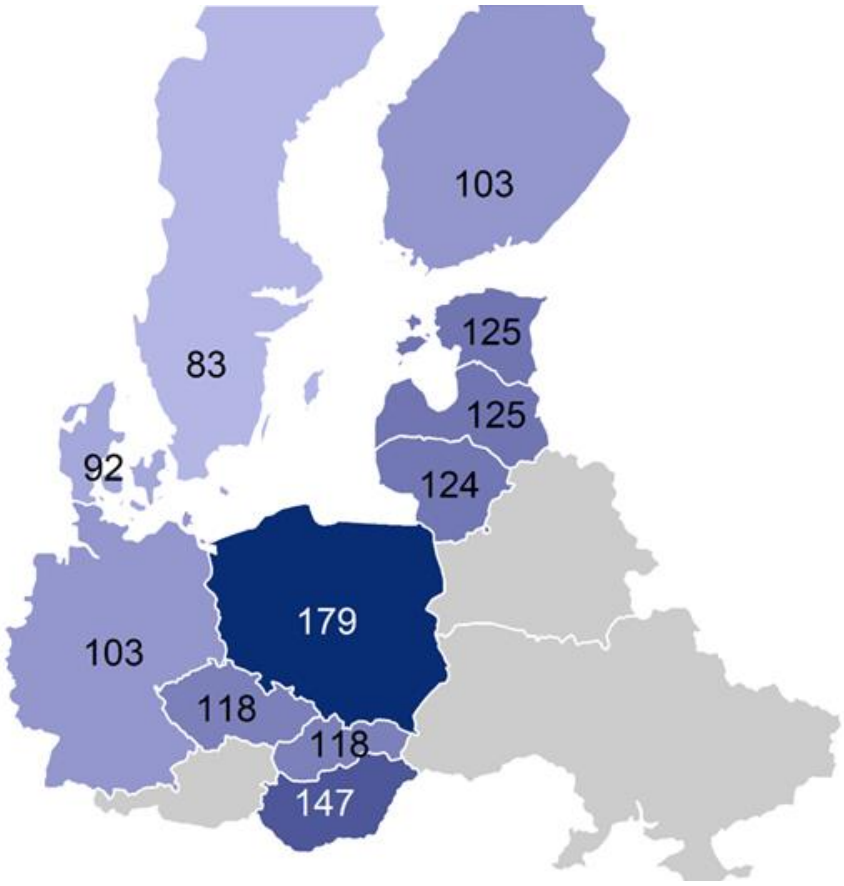


* Monthly average index level for forward contracts for the next year (Y+1), baseload and peak, weighted by the trading volume.

International market

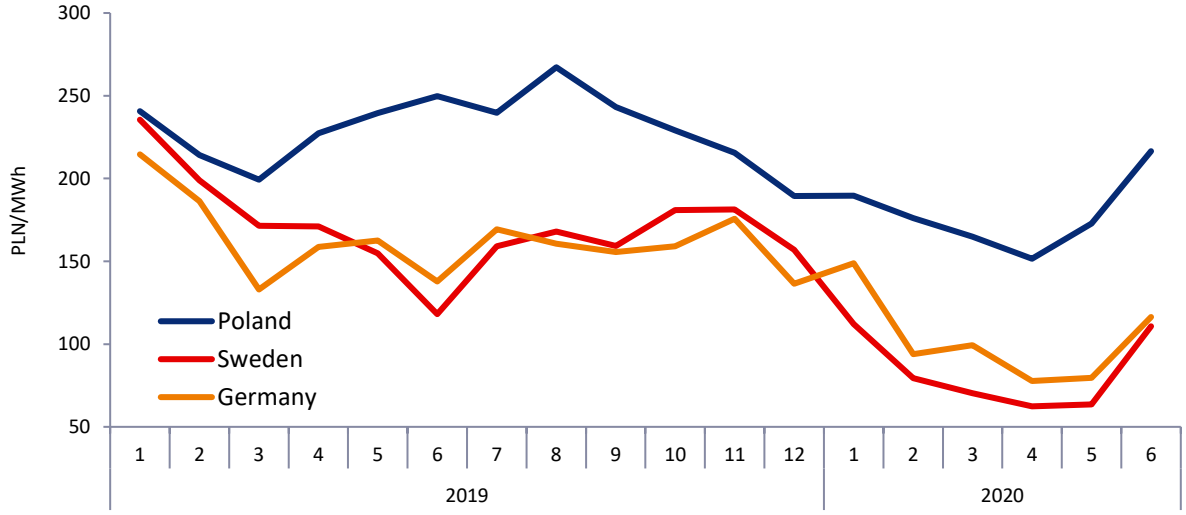
Wholesale market (comparison of day-ahead markets)

Chart: Comparison of average electricity prices on Polish market and on European markets in the first half of 2020 (prices in PLN/MWh, average exchange rate EUR/PLN 4.40).



Source: TGE, EEX, Nordpool

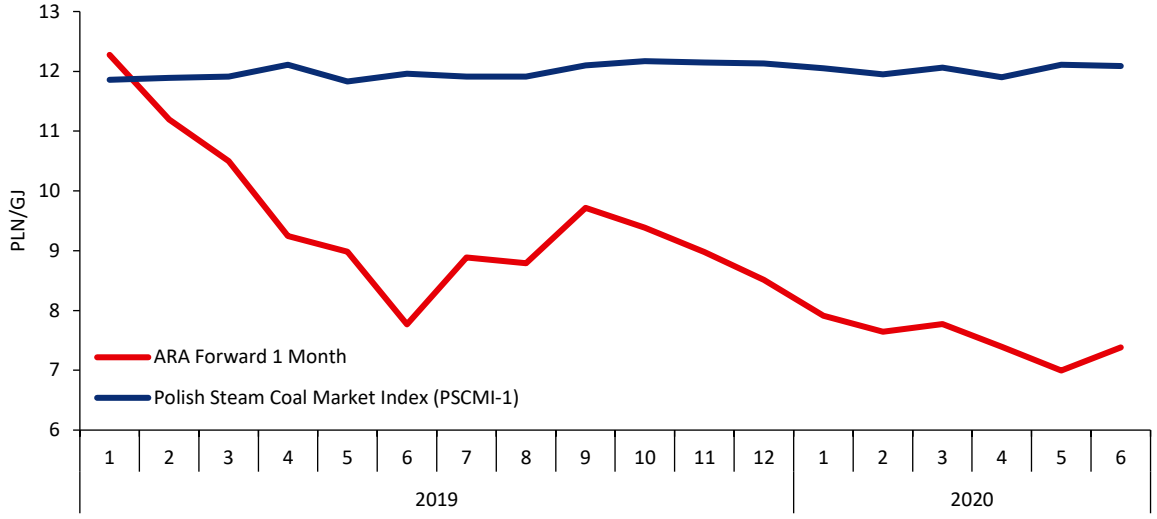
Chart: Evolution of spot market prices.



Source: TGE, EEX, Nordpool

In the first half of 2020, the y/y drop in prices on neighbouring markets ranged between PLN 56 and PLN 92/MWh (i.e. approx. 30-53%), whereas in Poland the average prices were higher by PLN 50/MWh y/y (approx. 22%). The price spread between Poland and neighbouring countries is largely due to differences in realized coal prices in the country and abroad as well as generation mix. The price of hard coal in ARA ports fell by 25% y/y, while the domestic pulverised coal price index, PSCMI-1, increased by 1% over the same period. Transmission capacities on cross-border connections that have been increased since the second half of 2019, caused the import of higher volumes of cheaper energy, which results in the observed correlation of wholesale energy prices in Poland and abroad. The reversal of the downward trend in the second quarter of 2020 is mainly due to the increases in prices of CO_2 emission allowances in that period.

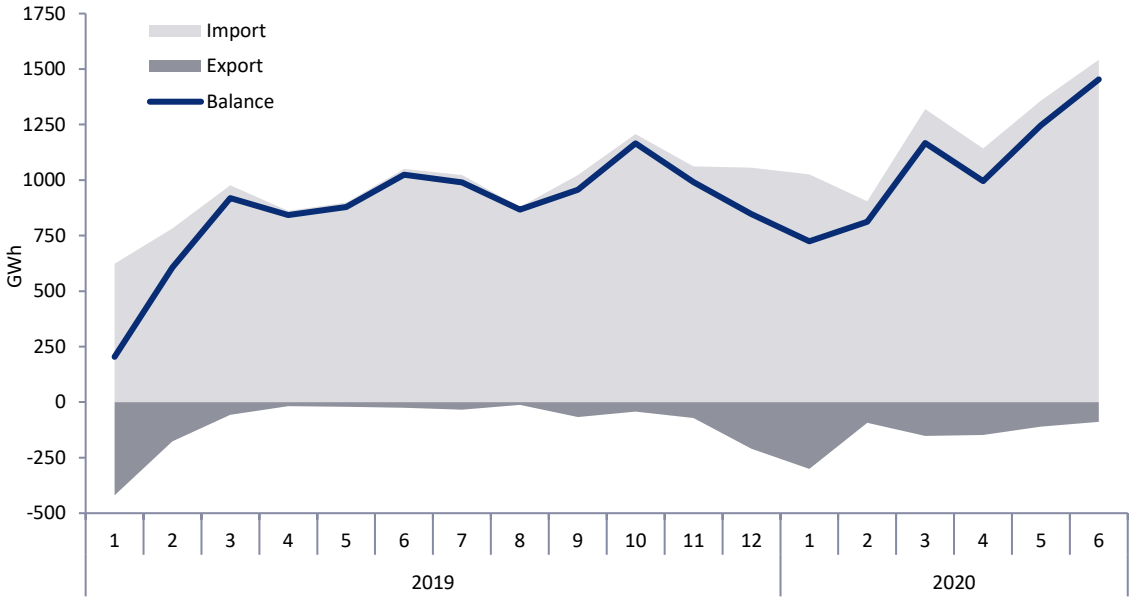
Chart: Hard coal indices ARA vs PSCMI-1[1].



Source: ARP, Bloomberg (API21MON OECM Index), own work.

International trading

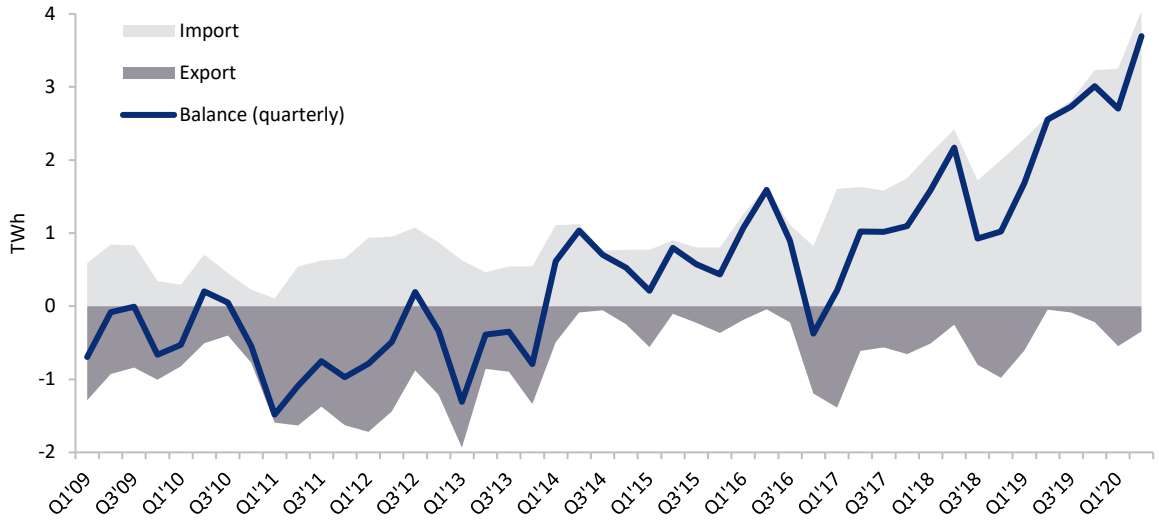
Chart: Monthly imports, exports and cross-border exchange balance in 2019-2020.



Source: own work based on PSE S.A. data.

[1] The comparison is illustrative only. Methodologies of counting the ARA and PSCMI1 indexes are different. Among other things, the ARA index includes insurance and delivery costs. The PSCMI-1 is an ex-mine index without insurance and delivery costs. Standards for calculating the caloric values are also different (ARA – 25.12 GJ/t vs. PSCMI1 caloric value - range from 20 to 24 GJ/t). The aim is to compare the trend and not the absolute level. For illustration purposes ARA index is recalculated from USD/t to PLN/GJ.

Chart: Quarterly trading volumes – import, export and international trading balance in years 2009-2020.

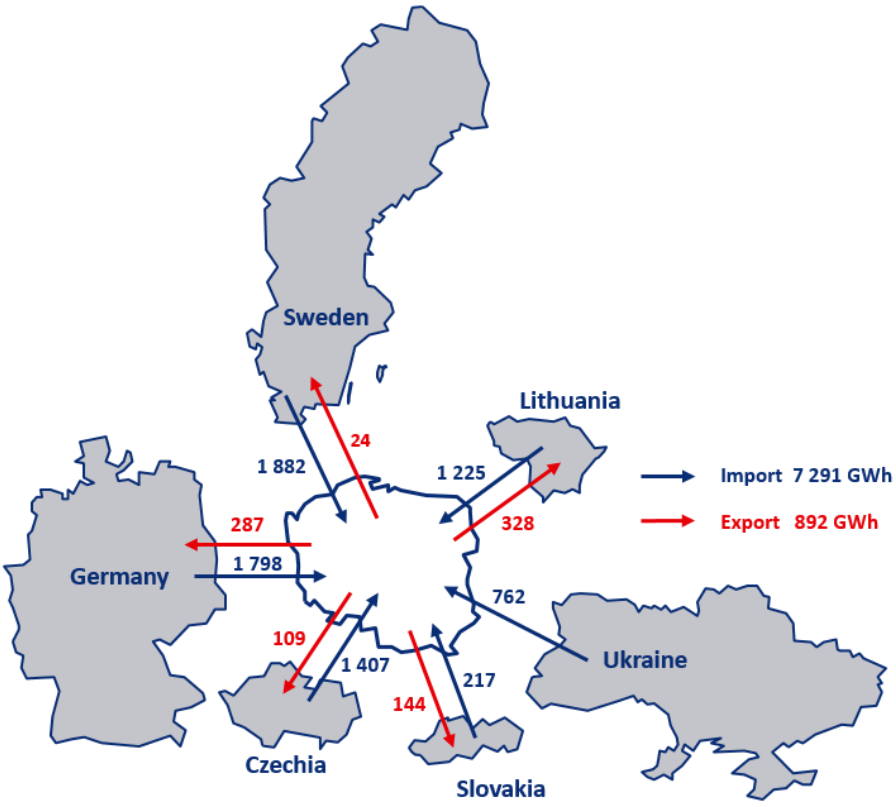


Source: own work based on PSE S.A. data.

In the second quarter of 2020, Poland remained a net importer of electricity, and the trade balance was 3.7 TWh (import 4.0 TWh, export 0.4 TWh) was higher by 1.1 TWh y/y (i.e. by approx. 45% y/y). The international trading balance was impacted mostly by import from Germany (1.2 TWh), Sweden (1.0 TWh) and Czechia (0.9 TWh).

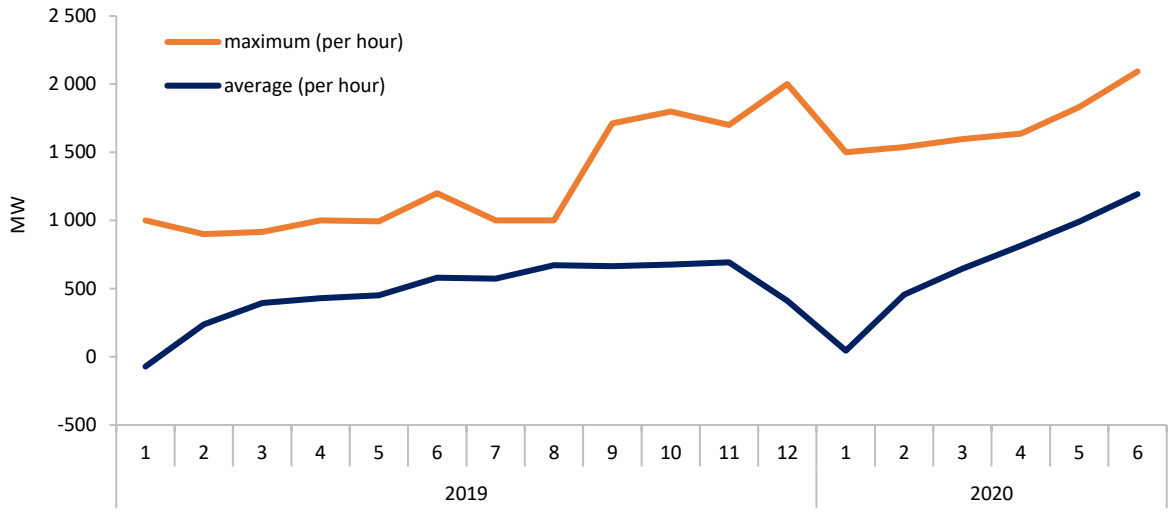
In the first half of 2020 the trade balance was 6.4 TWh (import 7.3 TWh, export 0.9 TWh) and was higher by 2.2 TWh y/y (i.e. by approx. 51% y/y). The international trading balance was impacted mostly by import from Sweden (1.9 TWh), Germany (1.8 TWh) and Czechia (1.4 TWh).

Diagram: Geographical structure of commercial exchange in the first half of 2020 (in GWh).



Source: own work based on PSE S.A. data.

Chart: Parallel exchange[2] balance: average vs. maximum hourly flow in particular months.

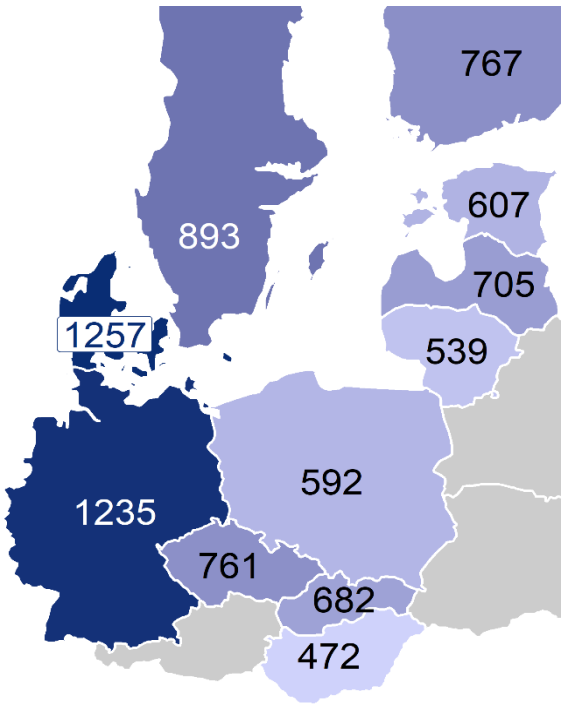


Source: own work based on PSE S.A. data.

Retail market

The diversity of electricity prices for retail customers in the European Union depends both on the level of the wholesale prices of electricity and fiscal system, regulatory mechanism and support schemes in particular. In Poland in the second half of 2019[3] an additional burden (over sale price and cost of electricity distribution) for individual customers accounted for 37% of the electricity price and in comparison to EU average of 41%. In Denmark and Germany the proportion of additional charges in the price of electricity exceeded 50%.

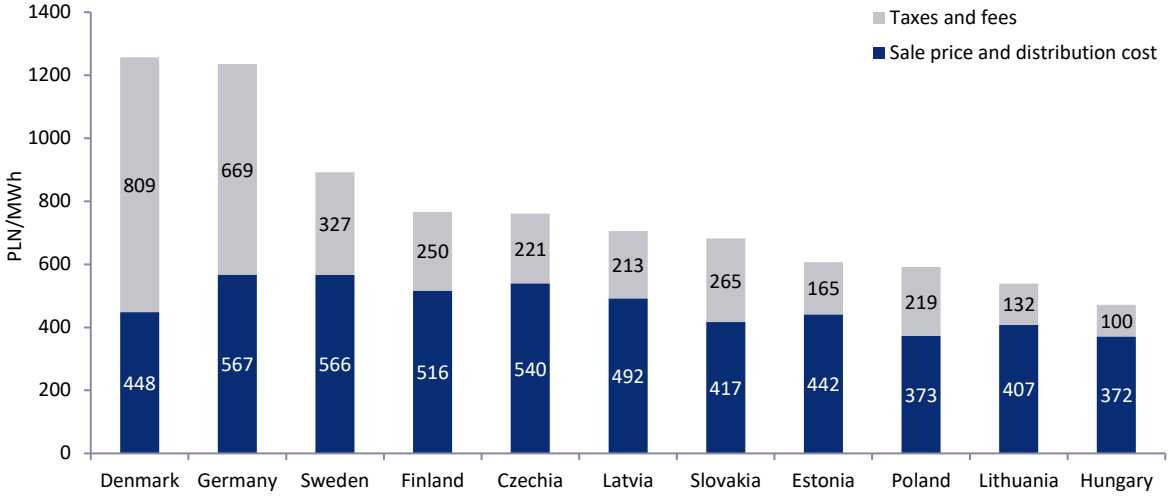
Chart: Comparison of average prices for individual customers in selected EU countries in the second half of 2019 (prices in PLN/MWh, average exchange rate EUR/PLN 4.30).



Source: own work based on Eurostat data.

[2] Parallel exchange – exchange between synchronised system on borders with Germany, Czechia and Slovakia
[3] Eurostat data on retail market are published in semi-annual intervals. The last available update concerns the second half of 2019.

Diagram: The share of additional charges in electricity prices for the individual customers in selected EU countries in the second half of 2019[4] (prices in PLN/MWh, average exchange rate EUR/PLN 4.30).

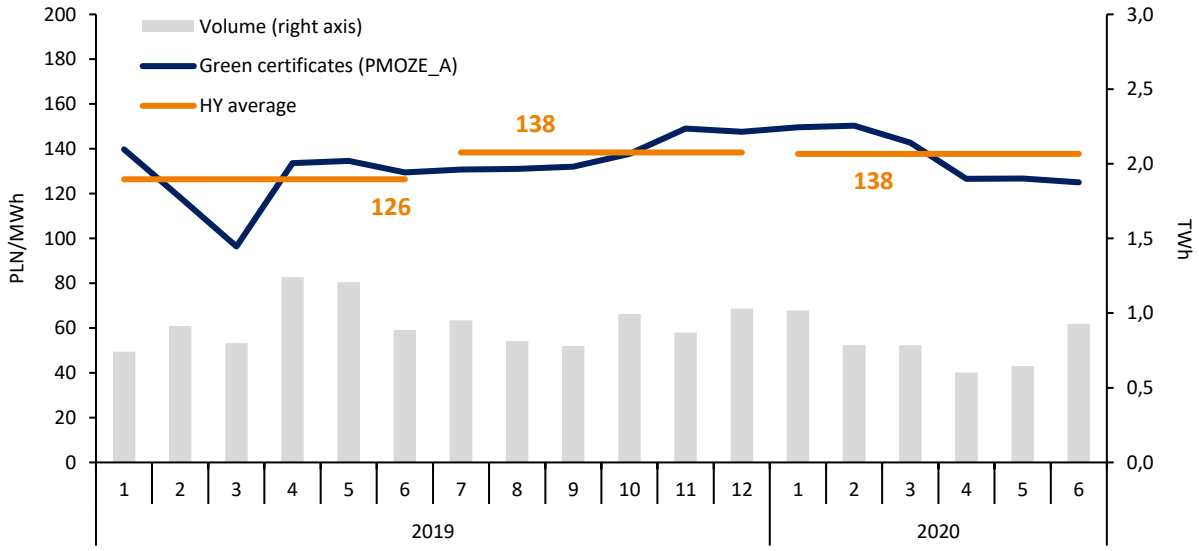


Source: own work based on Eurostat data.

Prices of certificates

In the first half of 2020 the average price of green certificates (index TGEozea) reached PLN 138 PLN/MWh and was higher by 9% compared to the analogical period of the previous year. An obligation to redeem green certificates increased from 18.5% in 2019 to 19.5% in 2020 – as a result the demand for the certificates increased. On the other hand, the wind generation in NPS in the first quarter of 2020 was by 7% higher y/y. Moreover, the prices of certificates were affected by the awareness of limited supply thereof in future connected with the closure of a certification system for new units and the upcoming end of a 15-year support period for first installations that had entered the system in 2005.

Chart: Average quarterly prices of green certificates (TGEozea).



Source: Own work based on TGE quotations.

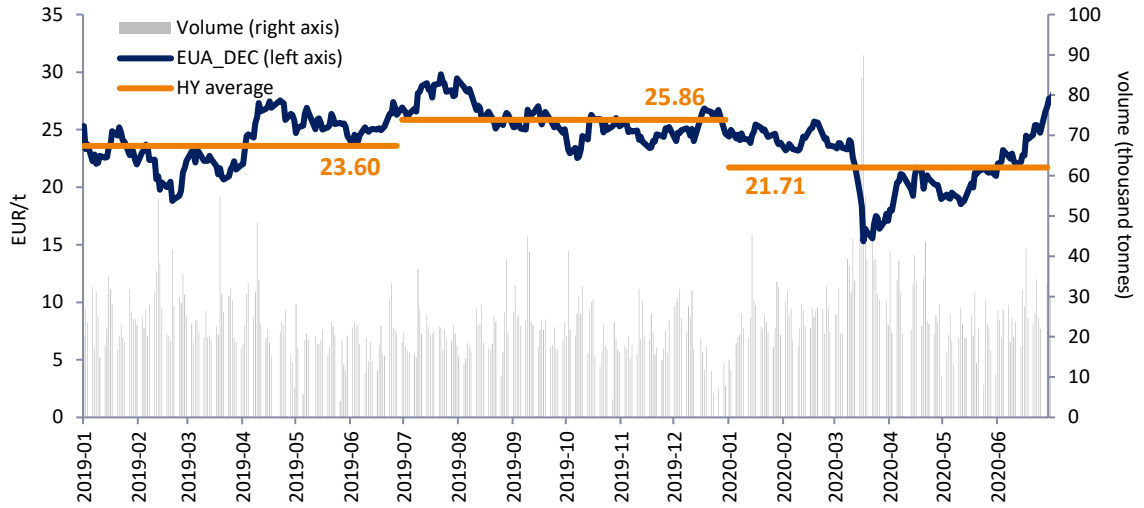
[4] Eurostat data on retail market are published in semi-annual intervals. The last available update concerns the second half of 2019.

3.3. Prices of CO2 emission rights

EUA (European Union Allowances) prices are one of the key factors determining wholesale energy prices and PGE Group's financial results. Installations emitting CO_2 in the process of electricity or heat production bear the expenses for purchasing EUA allowances to cover the deficit (i.e. the difference between CO_2 emissions at PGE Group's generating units and the free-of-charge allowances received under derogation in accordance with the National Investment Plan). Wherein, last allocations granted free of charge are planned for realisation of investment tasks for 2019. It means that the free allocations in accordance with the currently used method will end in 2020.

After significant increases in 2018, the prices of CO_2 emission allowances stabilised and entered a lateral trend lasting until mid-March 2020, when a sudden slump was recorded, caused by the COVID-19 pandemic. Since then, a recovery in the price level has been observed. In the first half of 2020, the weighted average price of EUA DEC 20 reached EUR 21.71/t and was by 8% lower than the average price for EUA DEC 19 (EUR 23.60/t) in the similar period of the previous year.

Chart: Prices of CO_2 emission rights.



Source: own work based on ICE quotations.

CO_2 EMISSION RIGHTS GRANTED FREE OF CHARGE FOR YEARS 2013-2020

PGE Group's installations accounts were credited with free allowances for heat for 2020 and energy for 2019, while free allowances for electricity for 2020 will be received by the Group by the end of April 2021, after verification of reports from investments submitted to the National Investment Plan.

In April 2020, 12 million tons of CO_2 emission allowances were credited to the PGE installations' account in connection with the production of energy in 2019. This value is not shown in the table below, which applies to production in 2020.

At the same time, redemption of emission rights resulting from CO_2 emissions in 2019 was completed in April 2020.

Table: Emission of CO_2 in 2020 broken down into electricity and heat production compared to the allocation of CO_2 emission allowances for 2020 (in tonnes).

Product	CO_2 emissions in H1 2020*	Allocation of CO_2 emission rights for 2020
Electricity	26 574 074	-
Heat	2 731 068	1 034 097
TOTAL	**29 305 142**	**1 034 097**

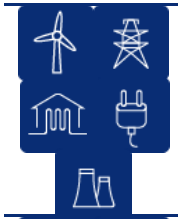
* Estimates, emissions not verified - the data will be settled and certified by the authorised verifier of CO_2 emission on the ground of yearly reports of volume of CO_2 emissions.

3.4. Regulatory environment

DOMESTIC REGULATORY ENVIRONMENT

PGE Group operates in an environment with a significant impact of domestic and foreign regulations. Presented below is a summary of the most significant decisions, which took place in the first half of 2020 and which could have an impact on PGE's operations in the coming years.

Segments	Regulation	Regulation objectives	Latest conclusions	Next stage	Impact on PGE
	Draft act on compensation for the increase in electricity prices in 2020.	The draft assumes : ▪ Introduction of compensation for the increase in electricity prices in 2020 as compared to prices in 2019. ▪ The compensation would be available to end customers in households whose taxable income did not exceed the first tax bracket in 2019 and who will consume at least 63kWh of electricity in 2020. ▪ The compensation would be paid in 2021 by trading companies at the request of the customer, through appropriate corrections to the invoices. ▪ The act provides for 4 compensation thresholds depending on the amount of energy consumption. ▪ The costs of compensation payments (an amount equal to the sum of the compensation paid to end customers) are to be financed with funds from the sale of 25 million CO_2 emission allowances which form part of the national auction pool for the new EU ETS trading period starting on January 1, 2021. ▪ Trading companies will be reimbursed upon an application submitted to Zarządca Rozliczeń S.A. For applications involving more than 4 million power take-off points, reimbursement would be made within 6 months of the date of application.	The draft act was published on **February 24, 2020** on the Government Legislation Center's (GLC) website.	Public consultations are being held. Upon completion of consultations, the draft will be sent to the Standing Committee of the Council of Ministers .	To the greatest extent, the draft affects the operation of the Supply segment. It entails additional obligations imposed on trading companies, such as: notifying customers of their right to compensation, accepting and verifying requests, payment of compensation, and inspection activities in consultation with the competent head of the tax office. The draft stipulates that electricity distribution companies qualify end customers to one of the four groups eligible for compensation, and this compensation is to depend on the consumption of electricity at a given power take-off point.
	Parliamentary bill amending the Act on biocomponents and liquid biofuels and certain other acts .	The draft bill envisages liquidation of the Low-Carbon Transport Fund (*Fundusz Niskoemisyjnego Transportu,* **FNT**) and transfer of the resulting funds to FNT to the National Fund for Environmental Protection and Water Management, which is to be in charge of supporting the tasks previously within the FNT's remit (production of biofuels, development of transport powered by alternative fuels). Furthermore, the bill will amend the Act of 8 December 2017 on the capacity market by setting the date for the commencement of levying the capacity charge to 1 January 2021.	The bill was passed by the Sejm on **July 24, 2020** and sent to the Senate .		By amending the Act of December 8, 2017 on the capacity market and by changing the capacity fee date, the bill affects the Supply and Distribution segments to the extent that the entities concerned are engaged in collecting the capacity fee.

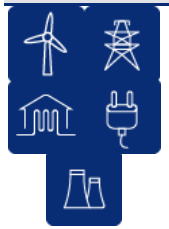
	Draft act on amendments to the Energy Law.	The updated energy law contains a number of changes, including : ▪ comprehensive regulation for energy storage; ▪ introduction of mandatory remote readings at metering installations ; ▪ establishment of an energy market information operator, responsible for establishing and developing a central market information system.	Public consultations on the draft act ended in **November 2018**. Another modified draft act of **June 19, 2020** was submitted to Standing Committee of the Council of Ministers.	The draft is scheduled to be adopted by the Council of Ministers in the second half of 2020.	The proposed solutions will affect all segments of the PGE Group's operations, especially the Supply and Distribution segments .
	The bill amending the Act on the capacity market.	The bill promoter's intention is to align the Act on the capacity market to the provisions of Regulation (EU) 2019/943 of the European Parliament and of the Council of June 5, 2019 on the internal market for electricity and to improve the capacity mechanism taking into account lessons learned from organisation of capacity auctions to date and the associated processes (promulgation of regulations and rules, definition of auction parameters, certification processes).	The bill was published on **July 28, 2020** on the website of the Government Legislation Centre and referred for public consultations, arrangements and review.	After the public consultation report has been prepared, the bill shall be referred to the Standing Committee of the Council of Ministers.	The amendment is of key importance for PGE Group, the holder of a significant stake in the capacity market.
	Draft act on promoting electricity generation in offshore wind farms.	The draft act provides for enabling the development of offshore wind power generation. Offshore wind farms are important for the fulfilment of international commitments in the field of renewable energy in the long term. The key to these is to create legal regulations that will stimulate the growth of this sector. The draft provides for: ▪ A support system for the offshore technology, adjusted to its technical and economic conditions, consisting in granting the so-called right to cover the negative balance to be calculated on the basis of the offshore installation's LCOE. ▪ modifications of administrative procedures related to the investment process, taking into account the specificity of the project to construct offshore wind farms.	The bill, modified after the public consultations, was referred for inter-ministerial arrangements and review on **July 7, 2020**.	In the next stage, the draft will be sent to the Standing Committee of the Council of Ministers.	The draft act is of key importance for the development of offshore wind farms and thus for PGE Baltica, a company responsible for the implementation of the Offshore Programme at the PGE Group and coordinating preparations for the construction of three wind farms.
	The bill amending the Act on renewable energy sources and certain other acts.	The bill envisages in particular: ▪ abolishing the concession obligation for facilities below 1MW, ▪ extending the life of the discount/FIT/FIP support system by 5 years (possibility to enter the system while retaining a 15 years' period of support), ▪ introducing the obligation for the Minister of Climate to publish, in advance, RES energy volumes to be subject to support over the next 4 years,	The bill was published on **August 5, 2020** on the Government Legislation Centre website. Public consultations were completed. The adoption of the act is planned **by the end of 2020**.		The bill regards mainly the RES segment, extending the period within which new RES projects may apply for support. It also facilitates planning the development of this segment by introducing the obligation for the Minister of Climate to publish the schedule and capacity volumes for

		▪ increasing the PV capacity threshold for PV above which it is required to include facilities and protection zones around them in local zoning plans.		RES which may apply for support in the next 4 years.
	The bill amending the Act on the greenhouse gas emissions trading scheme and certain other acts.	The bill is meant to transpose Directive (EU) 2018/410 of the European Parliament and of the Council of March 14, 2018 amending Directive 2003/87/EC to enhance cost-effective emission reductions and low-carbon investments, and Decision (EU) 2015/1814 ("**Directive 2018/410**"), which establishes the so-called Modernisation Fund to operate in 2021-2030 and finance the modernisation of large power facilities as well as smaller-scale projects (insulation of single-family dwellings, modernisation of district heating sources and systems, development of low-carbon dispersed generation). Although the bill does not prejudge what projects will receive financing, it provides that the function of the national operator of the Modernisation Fund will be held by the National Fund for Environmental Protection and Water Management (*Narodowy Fundusz Ochrony Środowiska i Gospodarki Wodnej*, NFOŚiGW). In consequence, the Fund will provide project financing within the framework of the NFOŚiGW's priority programmes.	The bill was published on **July 14, 2020** on the Government Legislation Centre website. Public consultations are in progress.	Depending on the final reading of the regulation, it can open the way to apply for financing for PGE Capital Group projects.
	Ordinance of the Minister of Climate on the reference price of electricity from renewable energy sources in 2020, and periods for producers who won the auction in 2020.	According to the draft, the proposed reference price values, except for those concerning installations with a total installed electrical capacity of not more than 1 MW which use only onshore wind energy to generate electricity, as well as installations with a total installed electrical capacity of no more than 1 MW and with a total installed electrical capacity of more than 1 MW, using only solar radiation energy to generate electricity – which were reduced – are the same as the reference price values set for 2019. Reference price for installations: ▪ with a total installed electrical capacity of more than 1 MW, using only onshore wind energy to generate electricity, is PLN 250/MWh (the price in 2019 was PLN 285/MWh); ▪ with a total installed electrical capacity of no more than 1 MW, using only solar radiation energy to generate electricity, is PLN 360 /MWh (the price in 2019 was PLN 385/MWh); ▪ with a total installed electrical capacity of more than 1 MW, using only solar radiation energy to generate	Ordinance of the Minister of Climate issued on **April 24, 2020** entered into force on **May 19, 2020.**	The ordinance intoroduces changes in prices for wind and solar installations, i.e. technologies that have been most popular in previous auctions and that should account for most of this year's auction budget. The ordinance may affect the prices of energy produced by wind and photovoltaic installations of PGE Group that will participate in auctions in 2020.

		electricity, is PLN 340/MWh (the price in 2019 was PLN 365/MWh).			
	Ordinance of the Minister of Climate of April 7, 2020 on detailed rules for the determination and calculation of tariffs and for settlements heat supply.	The amendment to the ordinance refers, among other things, to: ▪ adapting the cost method of determining the tariff for heat generation in cogeneration units to the new support mechanism for cogeneration, ▪ streamlining and automating the adjustment of tariffs in case of unforeseen and significant changes in external factors – for the cost method, ▪ making the process of revising tariffs drawn up using the simplified method more flexible in the event of publication of new reference prices by the President of ERO or modification of licences, ▪ introducing a mechanism allowing for a one-off transfer in the tariff of purchase costs of CO_2 emission rights incurred in 2018, which so far have not been covered by the tariffs calculated using the simplified method.		The ordinance entered into force on **May 8, 2020**.	The ordinance has a positive impact on the District Heating segment, in particular on the generation of power in cogeneration. It allows to increase revenues from these activities and makes the tariff approval process more flexible.
	The draft Regulation of the Minister of Climate on the main auction parameters for the delivery year 2025 and additional auction parameters for the delivery year 2022.	The draft regulation proposes the following main auction parameters for the delivery year 2025: ▪ demand for power is set at 2 526 MW, ▪ the market entry price for a new unit in the main auction is to be 361 PLN/kW, ▪ the proposed prise increase factor is 1.3, ▪ the parameter determining the capacity below the capacity demand in the main auction - 84.37%, ▪ the parameter determining the capacity above the capacity demand in the main auction - 52.07%, ▪ the maximum price for the price-taker -179 PLN/kW, ▪ the maximum number of rounds in the main auction – 12, ▪ the unit level of net capital expenditures referenced to the net attainable capacity, entitling to offer capacity obligations in the main auction for the delivery period relevant for the year 2025 for no more than: 15 delivery periods by a new generating capacity market unit - amounts to 2 400 PLN/kW; 5 delivery periods by a new and refurbished generating capacity market unit or a demand-side response capacity market unit - amounts to 400 PLN/kW. The draft regulation sets the parameters for additional auctions for the delivery year 2022.	The draft regulation was referred for public consultations, review and arrangements on **July 21, 2020**.	After the public consultation report has been prepared, the draft shall be referred to the Standing Committee of the Council of Ministers.	The regulation is to set the key parameters for main and additional auctions on the capacity market. It will determine the conditions under which generating and response units and energy storage facilities may participate in the capacity market.

	Draft Act amending the Act on disclosure of information about the environment and its protection, public involvement in environmental protection and environmental impact studies and certain other acts.	The draft act aims to transpose the EIA Directive as regards Article 11(1) and (3), i.e. regulations concerning public access to justice in the area of the environment by granting environmental organisations new powers affecting the possibility to use decisions on environmental conditions of projects significantly affecting the environment and to obtain further investment decisions in the investment and construction process.	The bill, modified as compared to the version subjected to inter-departmental arrangements on January 24, 2020, was published on **May 19, 2020** on the Government Legislation Centre website and referred for public consultations.	It is planned to refer the bill to the Council of Ministers for acceptance.	The Act affects all business segments of the PGE Group that implement infrastructural investments.

INTERNATIONAL REGULATORY ENVIRONMENT

Segments	Regulation	Regulation objectives	Latest conclusions	Next stage	Impact on PGE
European Green Deal					
	Regulation of the European Parliament and of the Council establishing the framework for achieving climate neutrality (European Climate Law).	Enshrining the 2050 climate-neutrality objective in EU law, definition of the 2030 emission reduction target of 50-55% reduction compared with 1990.	The EC submitted a legislative proposal on **March 4, 2020**. The key solutions proposed include: ▪ enshrining the legally binding 2050 climate-neutrality objective in EU law, ▪ **by September 2020** The EC will present an assessment of the increase in the emission reduction target from the current 40% in 2030 relative to 1990 to 50-55% in 2030 relative to the same base year, ▪ **by June 30, 2021**, the EC will present relevant legislative proposals, inter alia, on the revision of the ETS Directive and related legislation, including the Directive on the promotion of the use of energy from renewable sources and the Directive on energy efficiency and Energy Taxation Directive. **On 4 May 2020,** Jytte Guteland, the MEP rapporteur for the leading committee ENVI in the European Parliament, presented a draft of her report in which she calls for *inter alia*: ▪ increasing the 2030 reduction target to 65%. The European Commission has until June 20, 2021 to evaluate what amendments would have to be made in the entire EU legislation to facilitate accomplishment of the target. The intermediate reduction target for the year 2040 would be 80-85%, ▪ the climate neutrality target to be reached by all EU Member States individually by 2050 at the latest. After 2050, CO_2 absorption is to be higher than emissions in all countries; ▪ introduction of a CO_2 budget for the entire EU and dividing it into respective economy sectors.	The preliminary negotiating position of the European Parliament is expected to be adopted by **October 2020** The Council's position will be developed no sooner than during the German Presidency (lasting from July 2020). The content of the draft regulation is expected to be arranged **by the end of 2020.**	Improved competitiveness of renewable sources and, in the short term, of gas units, at the expense of high-carbon fuel-based generation units. Increase in operating costs of conventional electricity generation.

Segments	Regulation	Regulation objectives	Latest conclusions	Next stage	Impact on PGE
	Directive 2003/87/EC establishing a scheme for greenhouse gas emission allowance trading within the EU (ETS Directive) as well as implementing and delegated acts, Decision (EU) 2015/1814 of the European Parliament and of the Council concerning the establishment and operation of a market stability reserve for the Union greenhouse gas emission trading scheme (MSR Decision).	Combating climate change and performance of obligations resulting from the Paris Agreement. Development of investment incentives through a CO_2 price signal to develop low-emission sources.	The legislative proposal presented **on March 4, 2020** by the EC, concerning the European Climate Law provides that, among other things: ▪ **by September 2020**, the EC will review the EU's 2030 climate target in the light of the climate neutrality objective and examine options for introducing a new 2030 target of 50-55 % emission reductions compared to 1990 levels. ▪ **by June 30, 2021** The Commission will assess how the EU legislation implementing the Union's 2030 target should be amended to achieve emission reductions of 50-55% compared to 1990 and to achieve the climate neutrality objective. This means that the EC is planning to carry out another revision of the ETS Directive and, potentially, the MSR decision over the next year. Pursuant to the European Commission's Decision of **March 25, 2020,** the management of the Innovation Fund was given to the European Investment Bank. Under its decision of **July ,2 2020**, the European Commission announced the first call for projects under the Innovation Fund. **On July 10, 2020,** the Official Journal of the EU published Commission Implementing Regulation No 2020/1001 laying down detailed rules for the functioning of the modernisation fund.	A comprehensive plan to increase the EU climate target for 2030 to 50-55% is to be presented in **September 2020**, whereas proposals for the next revision of the EU ETS inter alia the ETS directive and potentially MSR decision are expected in **June 2021.**	Improvement in the competitiveness of renewable sources and – in short-term-gas units to the detriment of generation assets using high-emission fuels. Increase in operating costs for conventional generation of electricity. Option to obtain direct investment support from 2021 from the Modernisation Fund. Another revision of the ETS Directive and MSR decision is likely to cause a further increase in prices of emission allowances.
			Market regulations		
	Regulation (EU) 2019/943 of the European Parliament and of the Council on the internal market for electricity (EMR regulation).	Establishment of legal framework for further integration of internal electricity market.	On **May 4, 2020**, the European Network of Transmission System Operators for Electricity (ENTSO-E) submitted to the Agency for the Cooperation of Energy Regulators (ACER) draft methodologies regarding: ▪ European resource adequacy assessment (ERAA), ▪ cost of new entry (CoNE), reliability standard and value of lost load (VoLL). Consultations regarding the aforementioned draft methodologies ended on **May 27, 2020.** **On July 3, 2020,** ENTSO-E submitted the following to ACER:	In accordance with the EMR provisiosn, ACER should either approve or amend the ERAA, CoNE, reliability standard and VoLL methodologies. After completing the public consultations, ACER should either approve or amend the other draft methodologies submitted by ENTSO-E by **October 5, 2020**.	Existing units that exceed the emissions standard 550 g CO_2/kWh (EPS 550 and emit 350 kg CO_2/kW/year (CB 350) will not be entitled to capacity payments from July 1, 2025. A potential drop in volume of and price for electricity sold on the wholesale market by domestic units due to increased import, gradual replacement of existing generation units by new, ones, which meet emission requirements.

Segments	Regulation	Regulation objectives	Latest conclusions	Next stage	Impact on PGE
			▪ a methodology for calculating the maximum entry capacity for cross-border participation in capacity mechanisms, ▪ a methodology for sharing the TSO revenues, ▪ common rules for the carrying out of availability checks, ▪ common rules for determining when a non-availability payment is due, ▪ terms of the operation of the registry of interested capacity providers, ▪ common rules for identifying capacity eligible to participate in the capacity mechanism. The methodology for common rules regarding cross-border participation in capacity mechanisms was subject to public consultations held by ACER by **August 9, 2020**.		
The regulations concerning the financial perspective 2021-2027 and financing for sustainable economic growth					
PGE Polska Grupa Energetyczna	The Regulation of the European Parliament and of the Council establishing the Just Transition Fund (JTF).	Provision of the financial framework for regional transition towards climate neutrality at the EU level.	**On January 14, 2020,** the European Commission presented a proposal for a regulation establishing the Just Transition Fund. The objective of the Fund is to support areas facing significant social and economic challenges due to the process of transition to climate-neutral economy by 2050. **On May 28, 2020,** the European Commission presented a proposal for amendments to the regulation establishing the JTF. The amendments provided for increasing the JTF budget to EUR 40 billion, of which EUR 10 billion was to come from the 2021-2027 Multiannual Financial Framework (2021-2027 MFF) and EUR 30 billion from the EU's next generation instrument. According to the proposal, Poland would receive EUR 8 billion from the JTF. **On June 24, 2020,** the Council adopted the initial mandate for the negotiations with the European Parliament and the European Commission, which was only slightly different from the European Commission's proposal made in May. Issues related to the size of the JTF budget were excluded from the negotiation mandate until their determination by the European Council. **On July 6, 2020,** the EP's REGI committee (the Committee on Regional Development) adopted an initial position of the European Parliament regarding the regulation establishing the JTF. On **17-21 July 2020,** an extraordinary meeting of the European Council was held and agreed that *inter alia*:	The legislative process regarding the regulation establishing the Just Transition Fund involving the European Parliament and the Council is to be completed during the German Presidency **by the end of 2020**.	The impact of the Just Transition Fund regulation on the availability of financial resources that can be obtained by PGE Capital Croup companies. Potential financing of actions and investments in coal regions eligible for support from the JTF.

Segments	Regulation	Regulation objectives	Latest conclusions	Next stage	Impact on PGE
			▪ the size of the JTF budget would amount to EUR 17.5 billion, of which EUR 7.5 billion would come from the 2021-2027 MFF and EUR 10 billion from the EU's Next Generation instrument; ▪ access to the JTF would be limited to 50% of the allocation for a given Member State if that Member State did not undertake to achieve the target of the EU climate neutrality by 2050. The remaining 50% of the funds will be made available after such undertaking is made.		
	The Regulation of the European Parliament and of the Council on the establishment of a framework to facilitate sustainable investment (the Taxonomy Regulation).	Facilitation of funding for sustainable economic growth in EU.	**On April 15, 2020,** the EU Council adopted a regulation concerning the criteria for assessing economic activities in order to determine whether they are environmentally sustainable. Then, on **June 18, 2020,** the Regulation was adopted by the European Parliament. The Taxonomy Regulation was published in the Official Journal of the European Union on **June 22, 2020** and entered into force on **July 12, 2020**. **In March 2020** the Technical Expert Group published a final report. In the report, the Technical Experts Group: ▪ did not recommend, at this stage, that nuclear energy should be considered sustainable because it did not meet the criterion of "causing no significant damage", while recommending further work on this issue in the future by a group with in-depth technical knowledge on this subject; ▪ indicates in the case of gas-based generation sources that those activities where life cycle emissions are below 100g CO_2e/kWh are considered sustainable, this threshold is to be reduced to 0g CO_2e/kWh by 2050.	Preparation by the EC of delegated acts laying down detailed technical and screening criteria for assessing economic activities in order to determine whether a given activity is environmentally sustainable – as regards gas – by the end of 2020, and as regards nuclear power – by the end of 2021.	Possible impact of regulation on availability and cost of funding obtained by PGE Group companies for investments. The matter of recognising nuclear power and gas as environmentally sustainable will be resolved under the future delegated acts. The obligation to include information on the share in the trade, CAPEX and OPEX of environmentally sustainable activities in the statement on non-financial information or consolidated statement on non-financial information.

ADDITIONAL INFORMATION WITH REGARD TO INTERNATIONAL REGULATORY ENVIRONMENT

ACTION BROUGHT AGAINST THE EUROPEAN COMMISSION'S DECISION NOT TO RAISE OBJECTIONS TO THE POLISH CAPACITY MARKET

Segments	Proceeding	Objective of the action brought	Key events	Next stage	Impact on PGE Group
Action brought against the European Commission's decision not to raise objections to the Polish capacity market (SA. 46100), case file no. T-167/19					
	Proceedings brought by Tempus Energy Germany and T Energy Sweden against the European Commission (case file no. T-167/19).	The objective of the action is to annul the European Commission's Decision not to raise objections to the Polish capacity market (SA. 46100) issued as part of the aid procedure.	On **March 14, 2019** Tempus Energy Germany and T Energy Sweden brought an action against the EC decision concerning the Polish capacity market (case T-167/19). The summary of main reproaches and arguments brought up in the complaint was published in the EU Official Journal on **May 6, 2019**. From the published abstract it results, that in their action brought they argue that the EC failed, in particular, to initiate formal investigation proceedings (the second stage of the capacity evaluation mechanism) and that the demand side response (DSR) suffered alleged discriminatory treatment within the Polish capacity market.	The proceedings pending before the European Court of Justice concerning the appeal in the case Tempus Energy and Tempus Energy Technology versus the EC (case file no. C-57/19 P) may have an impact on the action brought.	Depending on the outcome of the dispute, the case may have an impact on the conditions for the performance of and entering into the capacity contracts within Polish capacity market.

4. Activities of PGE Capital Group

4.1. Business segments

	 Conventional Generation	 District Heating	 Renewables	 Distribution	 Supply
Key assets of the segment	5 conventional power plants 2 CHP plants 2 lignite mines	14 CHP plants	16 wind farms[5] 1 photovoltaic power plant[6] 29 run-of-river hydro power plants 4 pumped-storage power plants, including 2 with natural flow	294 519 kms of distribution lines	-
Electricity volumes	Net electricity generation 22.62 TWh	Net electricity generation 4.56 TWh	Net electricity generation 1.40 TWh	Electricity distribution 17.29 TWh	Sales to final off-takers 19.87 TWh
Heat volumes	Heat production 3.00 PJ	Heat production 25.58 PJ	-	-	-
Market position	PGE Group is the leader of lignite mining in Poland (87%) PGE Group is also a national leader in electricity and heat generation	-	PGE Group is the largest electricity producer from RES with market share of approx. 10% (excluding biomass co-combustion and bio-gas)	Second domestic electricity distributor with regard to number of customers	Leader in wholesale and retail trading in Poland

[5] In July 2020 PGE acquired operating wind farm Skoczykłody with a capacity of 36MW, thus increasing the number of wind farms to 17, which will be presented in the next report.

[6] In August 2020, a new 1 MW PV Lesko photovoltaic plant was commissioned, thus increasing the number of photovoltaic plants to 2, which will be presented in the next report.

4.2. PGE Group's key financial results

The best way to measure the profitability of energy companies is EBITDA. This is a result before depreciation, amortization, income tax and financial activities, including interest from drawn debt. It approximately reflects cash flows from operating activities and makes it possible to compare the results of companies regardless of the value of their assets, level of debt and existing income tax rates.

PGE Group's consolidated results are composed of the financial results of each of its operating segments. The Distribution segment and Conventional Generation segment made the largest contribution to the Group's result, participating respectively in 40% and 28% of the Group's EBITDA. District Heating segments accounts for 18% of EBITDA, while Renewables segment generated 11% of the EBITDA and Supply segment contributed 7% to the Group's EBITDA.

EBITDA of the Capital Group by segments (PLN million)

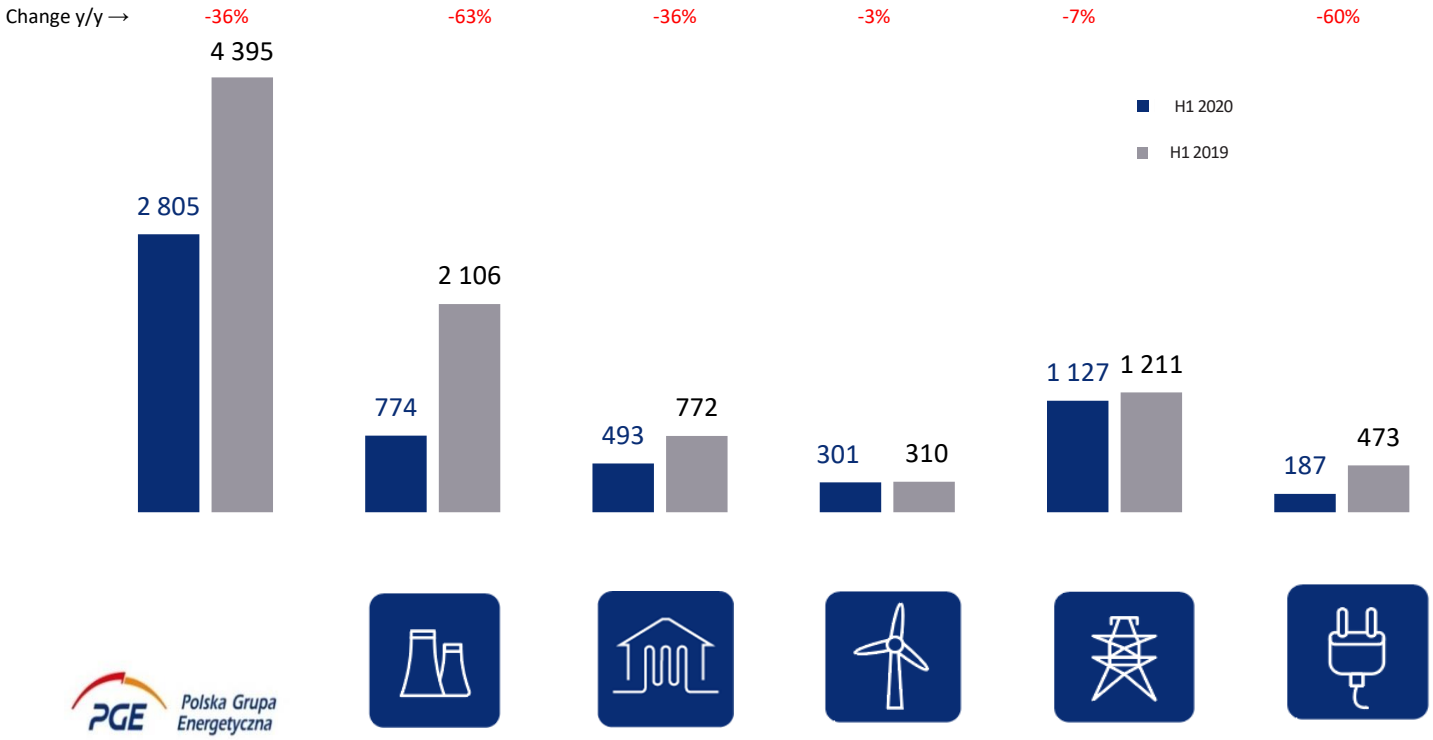
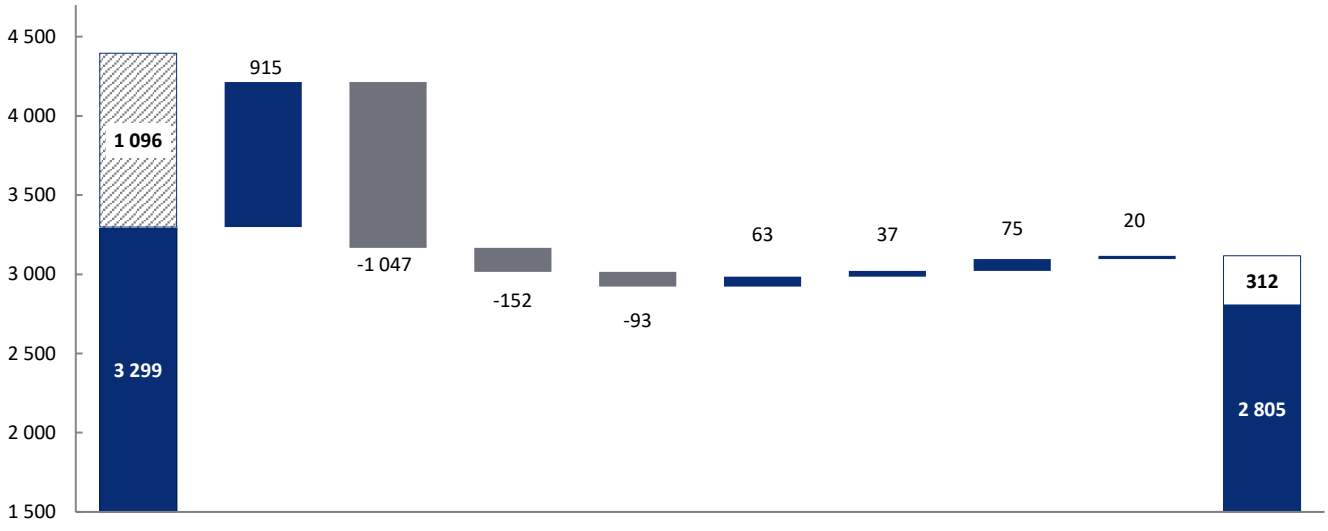


Chart: Key factors affecting EBITDA in PGE Capital Group (in PLN million).



	EBITDA H1 2019	Result on the sale of electricity at producers*	CO_2 emission rights**	Personnel costs***	Result on the sale of electricity to final customers****	Revenues from certificates	Revenues from agreement with TSO	Result on distribution	Other***	EBITDA H1 2020
Change		**915**	**-1 047**	**-152**	**-93**	**63**	**37**	**75**	**20**	
Reported EBITDA H1 2019	**4 395**									
One-offs H1 2019	**1 096**									
Recurring EBITDA H1 2019	**3 299**	7 248	1 793	2 643	39	121	208	2 255		
Recurring EBITDA H1 2020		8 163	2 840	2 795	-54	184	245	2 330		**3 117**
One-offs H1 2020										**-312**
Reported EBITDA H1 2020										**2 805**

* Revenue from the sale of electricity reduced by the purchase cost of electricity.

** Item adjusted for the effect of a one-off event, taking into account the resale of the surplus of CO_2 emission allowances from the previous year.

*** Items adjusted for the impact of one-off events.

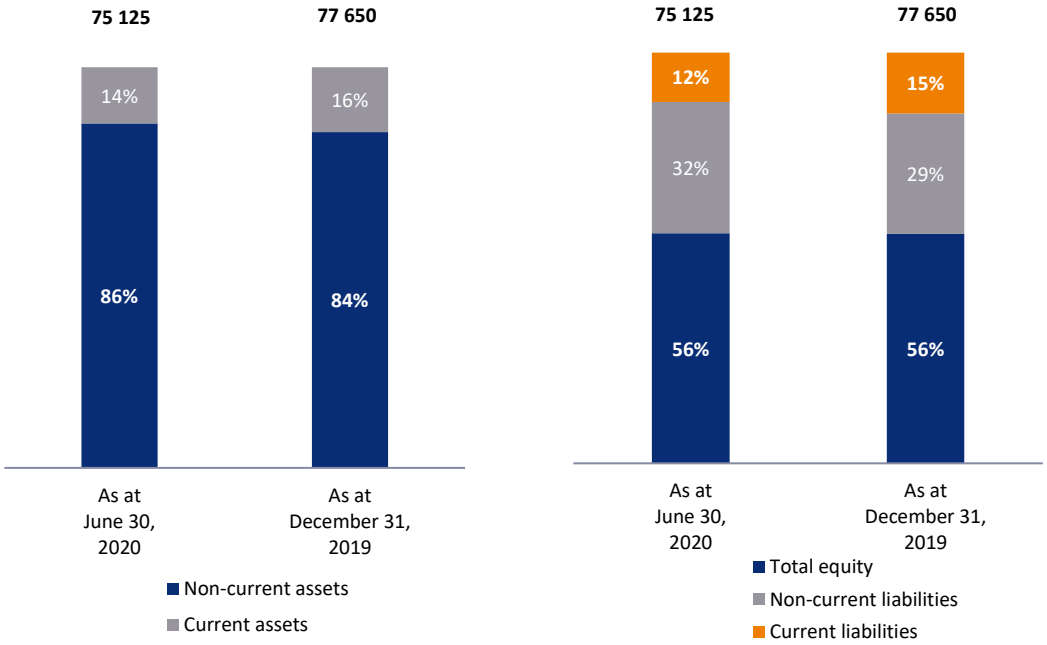
**** Including margin adjustments on certificates at the Capital Group.

Reversal of impact of total one-offs reducing the reported result.

Reversal of impact of total one-offs increasing the reported result.

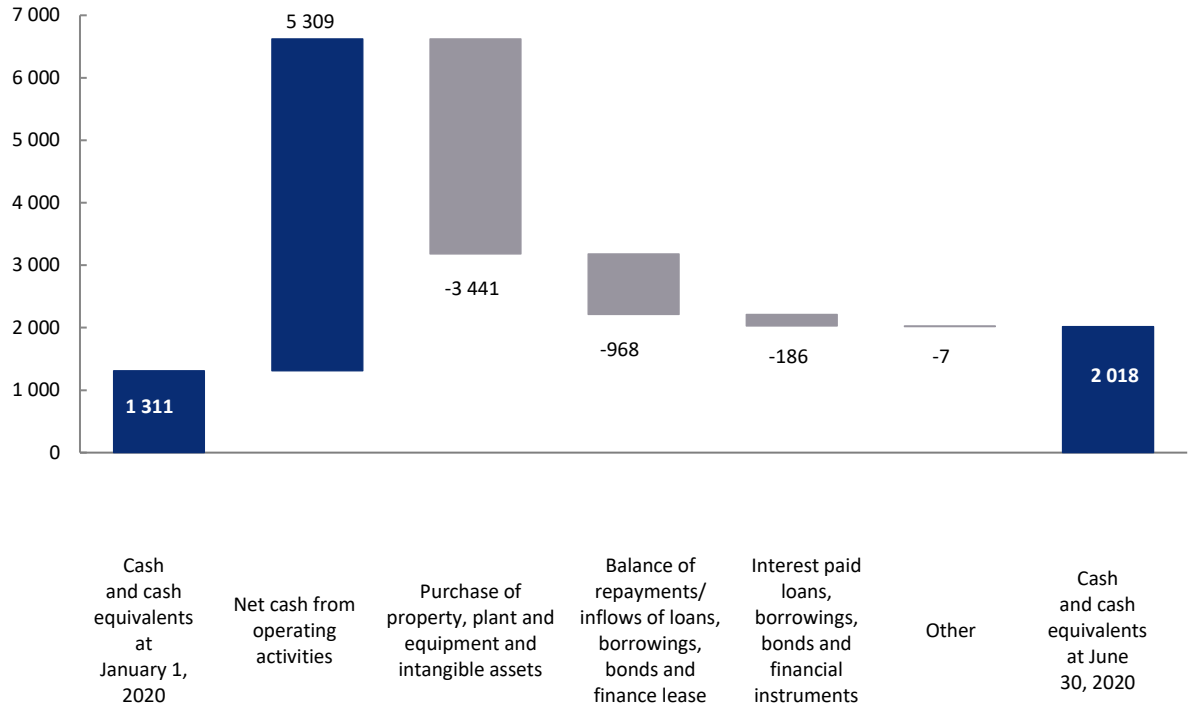
CONSOLIDATED STATEMENT OF FINANCIAL POSITION

Chart: Structure of assets and equity and liabilities (in PLN million).



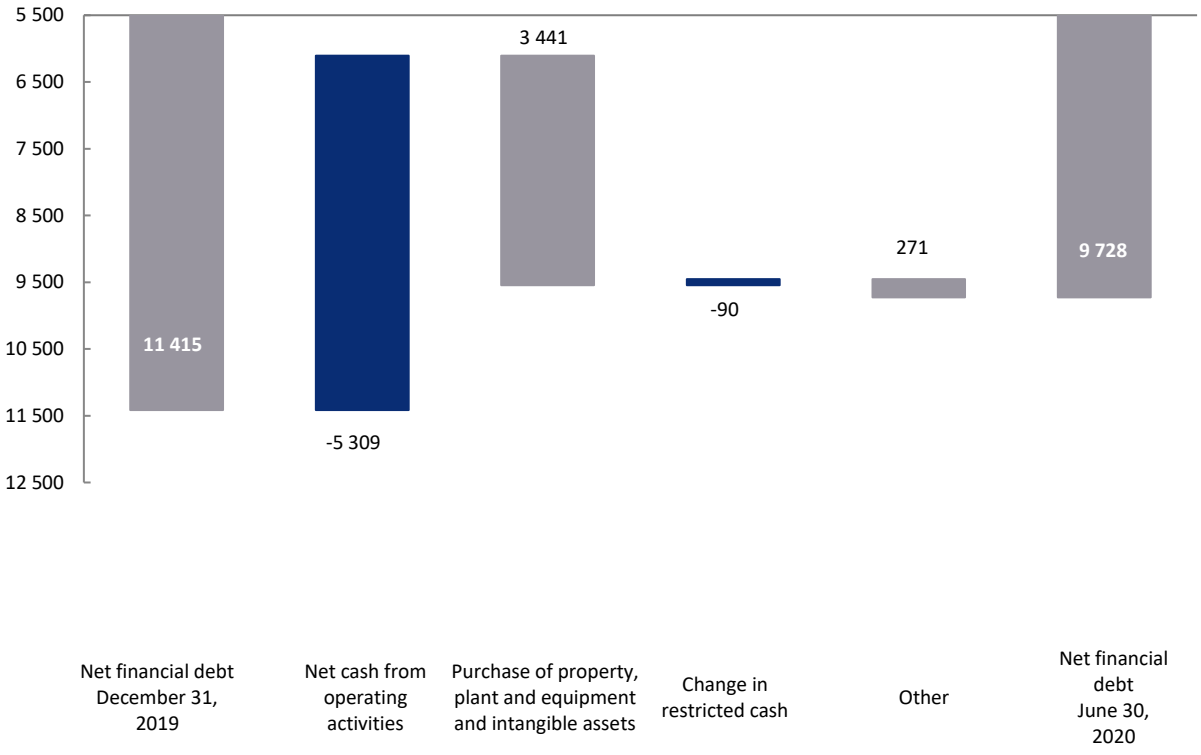
CONSOLIDATED STATEMENT OF CASH FLOWS

Chart: Net change in cash (in PLN million).



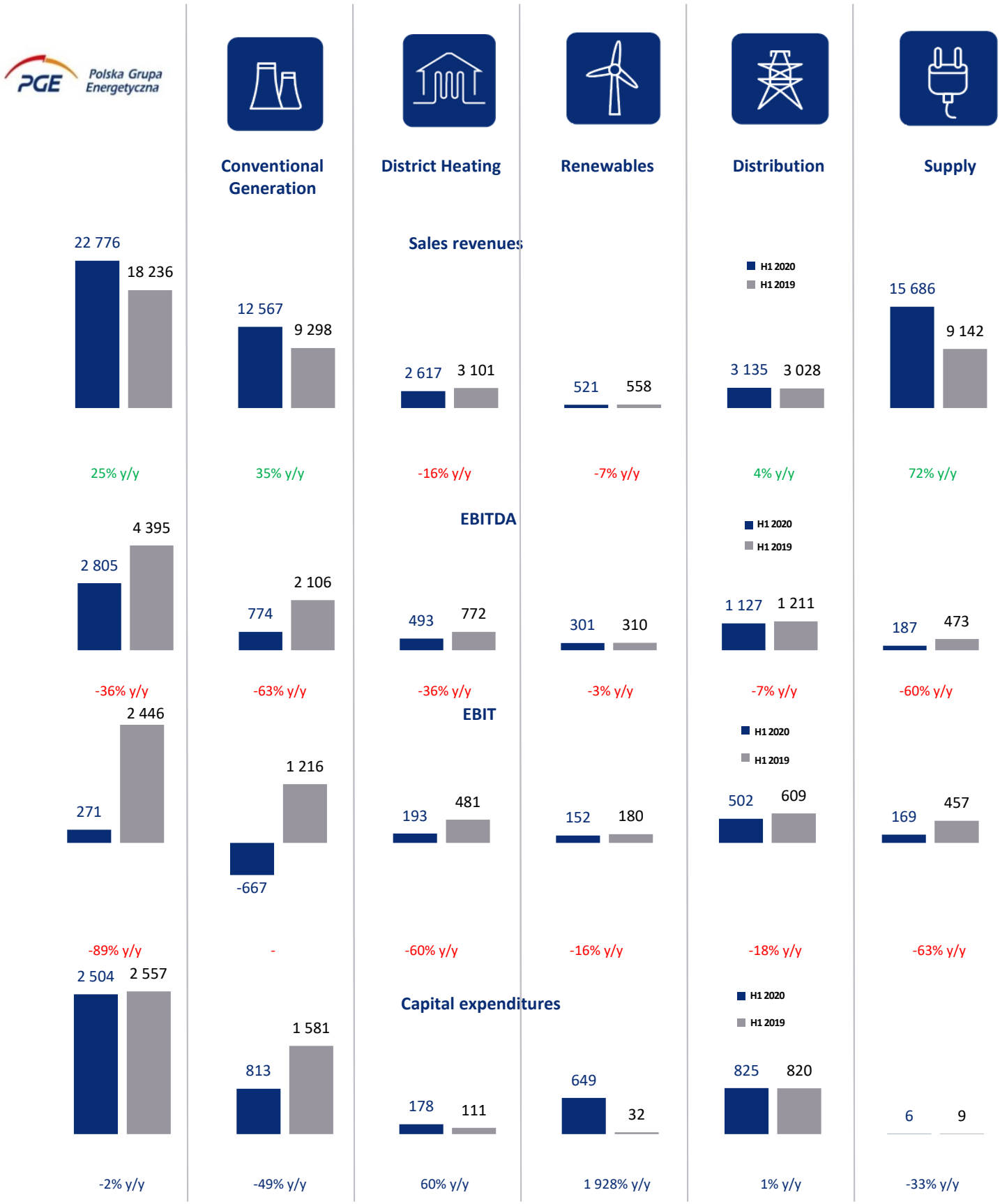
Impact on level of cash		**5 309**	**-3 441**	**-968**	**-186**	**-7**	
Cash and cash equivalents	**1 311**						**2 018**

Chart: Net debt (in PLN million).



Impact on level of net debt		**-5 309**	**3 441**	**-90**	**271**	
Financial net debt	**11 415**					**9 728**

KEY RESULTS IN BUSINESS SEGMENTS (IN PLN MILLION)



Balance of energy of PGE Capital Group

Table: Sales, purchase, production and consumption of electricity in the PGE Capital Group (in TWh).

Volume	H1 2020	H1 2019	% change
A. Sales of electricity outside the PGE Capital Group:	**57.51**	**50.63**	**14%**
*Sales to end-users **	*20.12*	*21.89*	*-8%*
Sales on the wholesale and balancing market	*37.39*	*28.74*	*30%*
B. Purchases of electricity from outside of PGE Group (wholesale and balancing market)	31.19	23.40	33%
C. Net production of electricity in units of PGE Capital Group	28.58	29.50	-3%
D. Own consumption DSO, lignite mines, pumped-storage power plants (D=C+B-A)	**2.26**	**2.27**	**0%**

* Sale mainly by PGE Obrót S.A. and PGE Energia Ciepła S.A.

The total volume of purchased and generated electricity is higher than the volume of electricity sold. The difference presented in point D results from the necessity to cover grid losses in the distribution business (Distribution System Operator), consumption of energy at lignite mines and consumption of energy at pumped-storage power plants.

The increase in sales and purchase of energy on the wholesale and balancing market is related to the fulfillment of 100% of the obligation by the Producers, greater reductions than in previous years, and thus lower production of electricity, and securing sales to end users by purchases on the power exchange market.

Decrease in volume of sales to end-users in the first half of 2020 is a consequence of high base recorded in the first half of 2019. At the beginning of 2019, the retail companies of the PGE Group recorded an increased volume of electricity sales in connection with the takeover of final off-takers from bankrupt trading companies and the PGE Group companies acting as reserve suppliers.

Production of electricity

Table: Electricity production (TWh).

Electricity production volume	H1 2020	H1 2019	% change
ELECTRICITY PRODUCTION IN TWh, including:	**28.58**	**29.50**	**-3%**
Lignite-fired power plants	14.68	17.01	-14%
Coal-fired power plants	7.42	6.39	16%
including co-combustion of biomass	*0.01*	*0.02*	*-50%*
Coal-fired CHP plants	2.46	2.40	3%
Gas-fired CHP plants	2.39	2.26	6%
Biomass-fired CHP plants	0.21	0.14	50%
Communal waste-fired CHP plants	0.02	0.02	0%
Pumped-storage power plants	0.37	0.33	12%
Hydroelectric plants	0.25	0.27	-7%
Wind power plants	0.78	0.68	15%
including RES generation	*1.27*	*1.13*	*12%*

Lower generation volume in the first half of 2020 mainly results from lower NPS demand and higher wind generation and energy import, what translated into lower generation at coal-fired power plants. Above effect was partly offset by production of new units 5 and 6 at Opole power plant.

Lower generation at lignite-fired power plants (decrease by 2.3 TWh) results from lower average load factors at the Bełchatów power plant at units 2-14 (by 21 MW, i.e. by 7%) and at Turów power plant (by 9 MW, i.e. by 6%). As a result of lower use by PSE S.A., Bełchatów Power Plant units were in the reserve longer by 2 426 h, and Turów Power Plant units longer by 1 266 h. Furthermore, lower generation results from the decommissioning of unit no. 1 in Bełchatów power plant at the end of May 2019.

Higher production in coal-fired power plants (up by 1.0 TWh) results from increased generation in Opole power plant, what is mainly due to operation of units no. 5 and 6, which generated 3.3 TWh of electricity in the first half of 2020 compared to 0.7 TWh in the first half of 2019. Above effect was lowered by the longer by 3 565 h reserve downtime of units 1-4 due to lower use of units by PSE S.A. Lower production in Dolna Odra power plant is a consequence of repair-related downtime of by 4 778 h (unit no. has

been in overhaul since September 30, 2019 till June 30, 2020 while unit no. 7 has been in overhaul since May 2020). Lower generation at Rybnik power plant is a result of longer (by 6 900 h) reserve downtime of units 3-8 and lower load factor (by 10 MW).

Higher production in gas-fired CHP plants is a consequence of higher electricity production in Lublin Wrotków CHP and Rzeszów CHP as a result of higher profitability of production due to market conditions.

Higher generation from biomass CHP plants is a consequence of technical conditions in Szczecin CHP Plant, where with lower heat production (due to higher outside temperatures) a higher generation of electricity was necessary to maintain the technical minimum of boiler.

Production at coal-fired CHP plants, hydro power plants and waste-to-energy plants remained at similar level as in the base period.

Higher generation at wind farms results from better wind conditions in the first half of 2020. Load factor at wind farms in the first half of 2020 was higher by more than 3 p.p. on average.

Higher production in pumped-storage power plants results from the nature of these generation units which were used more extensively by PSE S.A. in the first half of 2020.

Table: Production of heat (PJ).

Heat production volume	H1 2020	H1 2019	% change
Heat production in PJ, including:	**28.58**	**29.40**	**-3%**
Lignite-fired power plants	1.50	1.51	-1%
Coal-fired power plants	0.34	0.50	-32%
Coal-fired CHP plants	20.75	21.22	-2%
Gas-fired CHP plants	5.47	5.48	0%
Biomass-fired CHP plants	0.37	0.53	-30%
CHP plants fuelled by municipal waste	0.07	0.06	17%
Other CHP plants	0.08	0.10	-20%

External temperatures contributed more than any other factor to lower generation of heat in the first half of 2020 (y/y). W As compared to 2019, the average temperatures for 2020 were by 2.1°C higher, which translated into lower production of heat.

Sales of heat

In the first half of 2020 the heat sales volume in PGE Capital Group totalled 27.75 PJ and was lower by 0.82 PJ y/y. The above result was caused mainly by lower demand for heat due to the higher average outside temperatures in 2020.

4.3. Operational segments

CONVENTIONAL GENERATION

Segment description and its business model

This segment includes lignite mining and generation of electricity in conventional sources.

Conventional Generation

Main revenue items	PLN m
Sale of electricity *	6 858
Regulatory system services	221
Sale of heat	85

Electricity generation **22.62 TWh**

Heat generation **3.00 PJ**

Main cost items	PLN m
Fees for CO_2 emissions	2 567
Personnel expenses	1 493
Depreciation and amortisation, liquidation, write-offs including capitalised amortisation	1 448 7
Cost of production fuels used	1 166
External services	723

Main result items	PLN m
EBIT	-667
EBITDA reported	774

* managerial perspective.

The main source of revenue in the Conventional Generation segment is revenue from the **sale of electricity** on the wholesale market, based on electricity prices that are shaped by supply and demand mechanisms, taking into account the variable costs of generation. At the same time, the segment's key cost items, given their size and volatility, and thus their impact on operating results, are the **cost of production fuels**, mainly hard coal and natural gas, as well as **fees for CO_2 emissions**. Lignite-based production, which is of key significance for the Group, is based on own mines, therefore its cost is relatively stable and reflected mainly in fixed-cost items, i.e. personnel costs, third-party services and depreciation.

A significant item in the segment's revenue constitutes **revenues from the provision of regulatory system services** based on an agreement with the Polish Transmission Operator, i.e. PSE S.A. This revenue is in parallel to revenue generated on the electricity market and is related to the need to ensure stable operations for the NPS. Regulatory system services are provided by power plants of PGE GiEK.

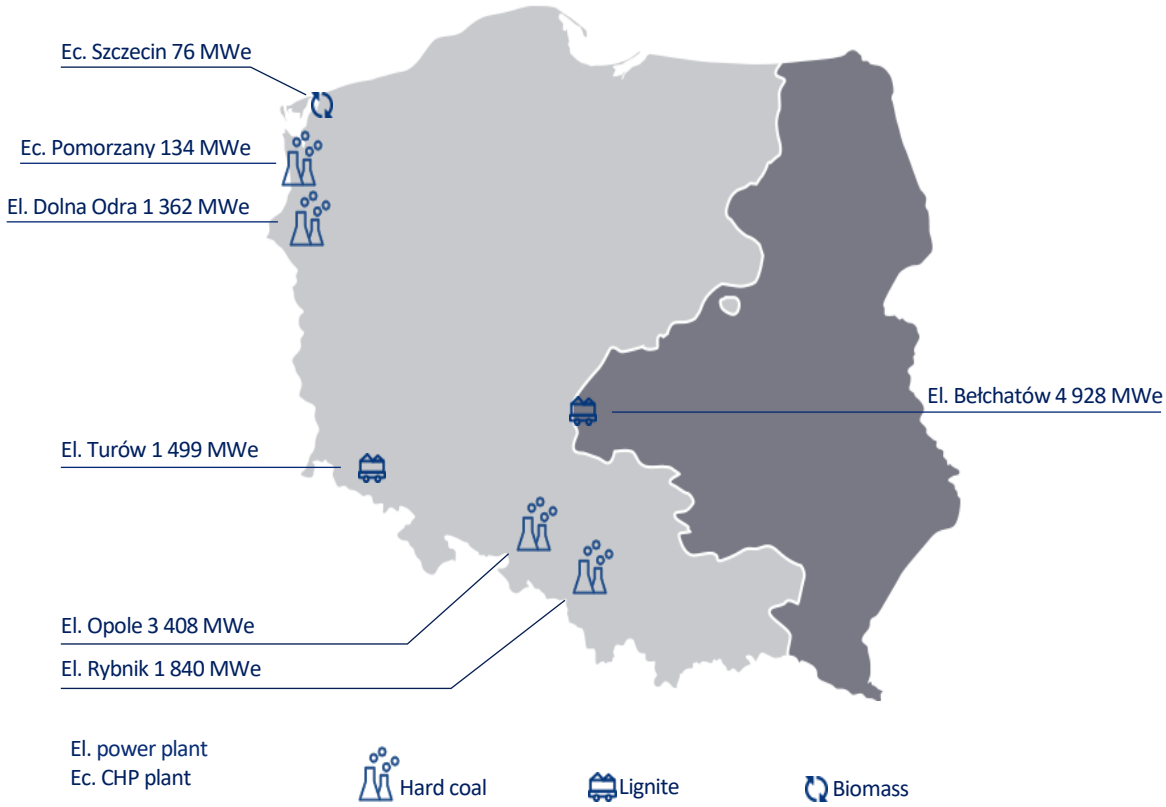
In addition, this segment generates **revenues from sales of heat** produced both at industrial plants and at the Szczecin CHP plant and Pomorzany CHP plant which form part of ZEDO.

ASSETS

Conventional Generation segment consists of: 2 lignite mines, 5 conventional power plants and 2 CHP plants.

Conventional Generation is the leader of lignite mining (its share in the extraction market of this raw material accounting for 87%[7] of domestic extraction), it is also the largest generator of electricity as it generates approx. 33%[8] of domestic gross electricity production. The generation is based on lignite extracted from mines owned by the company as well as hard coal and biomass.

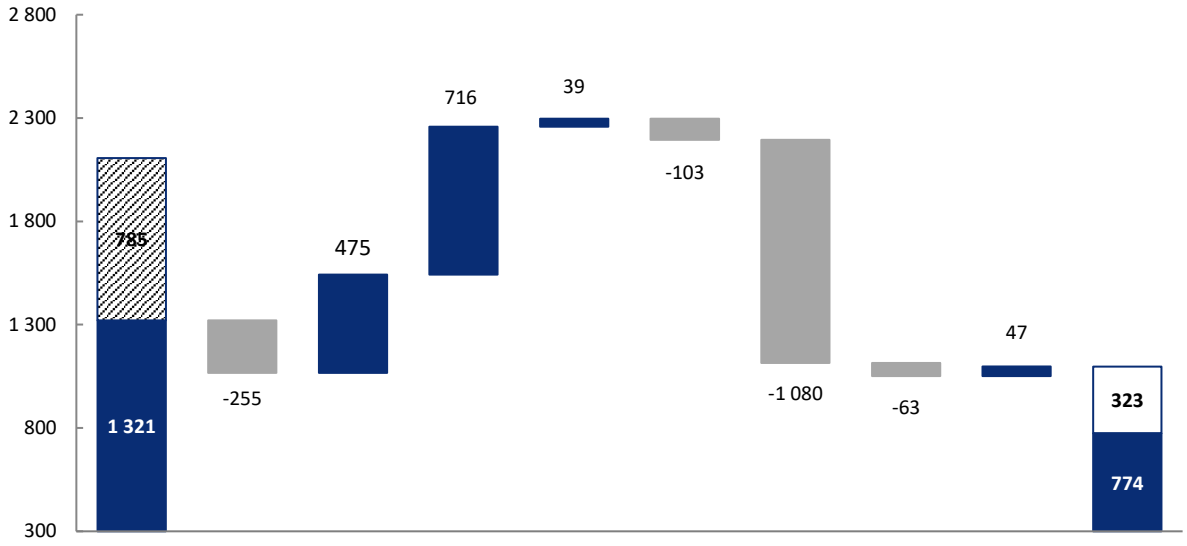
Diagram: Main assets of the Conventional Generation segment with their installed capacity.



[7] Own calculations based on data from Central Statistical Office of Poland
[8] Own calculations based on data from ARE

KEY FACTORS FOR THE RESULTS OF THE SEGMENT

Chart: Key changes of EBITDA in Conventional Generation (in PLN million) – managerial perspective.



	EBITDA H1 2019	Electricity production difference in volume	Electricity production difference in price	Result on the optimization of the electricity trade	Revenues from agreement with TSO	Costs of fuel	Costs of CO_2*	Personnel expenses*	Other*	EBITDA H1 2020
Change		**-255**	**475**	**716**	**39**	**-103**	**-1 080**	**-63**	**47**	
Reported EBITDA H1 2019	**2 106**									
One-offs H1 2019	**785**									
Recurring EBITDA H1 2019	**1 321**	5 733	189	182	1 063	1 608	1 411			
Recurring EBITDA H1 2020		5 953	905	221	1 166	2 688	1 474			**1 097**
One-offs H1 2020										**-323**
Reported EBITDA H1 2020										**774**

*Adjusted for impact of one-offs.

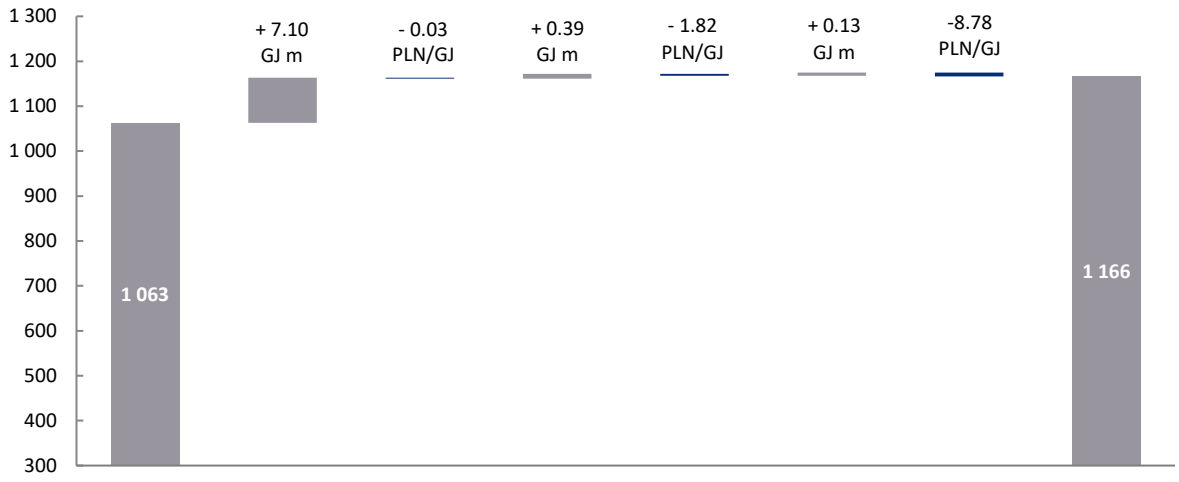
Reversal of the impact of the sum of one-off events reducing the reported result.

Reversal of the impact of the sum of one-off events improving the reported result.

Key factors affecting the EBITDA result of Conventional Generation segment on y/y basis included:

- **Lower electricity production volume** in PGE GiEK by 1.1 TWh due to lower degree of use of units by PSE S.A. resulting from decreased demand in NPS and higher wind generation (see p. 3.2 of this report).
- **Increase in electricity sales prices on the forward market** (see p. 3.2 of this report).
- **Higher result on optimisation of electricity portfolio** due to higher volume of electricity trading by 5.0 TWh, with higher margin realized on electricity trading.
- **Higher revenues from ancillary control services,** mainly from the Operational Capacity Reserve ("ORM") due to lower utilization of generating units as well as higher revenues from the number of the commissioning of units after putting them into reserve at Bełchatów and Opole power plants.
- **Higher fuel consumption costs,** mainly hard coal, due to higher production from this fuel (see p. 3.2 of this report). Main changes on different types of fuel are presented on the chart below.
- **Higher CO_2 costs** as a result of higher price of allowances and lower allocation of allowances granted free of charge. The above effect was reduced as a result of lower emissions of CO_2 due to lower electricity production and commissioning of less emissive units no. 5 and 6 in Opole power plant. Main changes are shown in the chart below.
- **Higher personnel expenses** due to ongoing process to optimise salaries.

Chart: Costs of production fuels consumption in Conventional Generation (in PLN million).

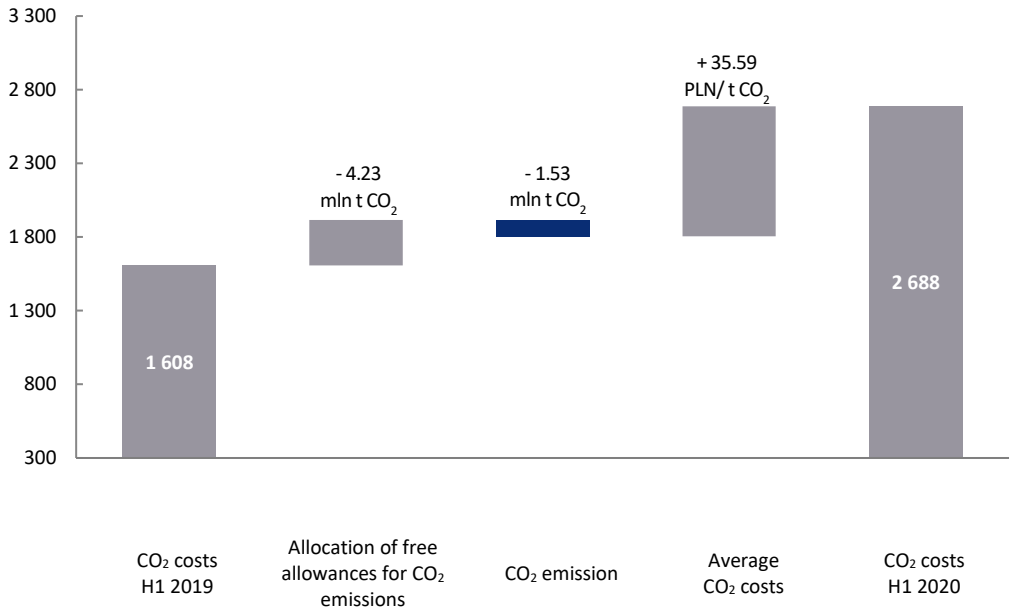


Change		**100**	**-2**	**11**	**-4**	**7**	**-9**	
Cost of fuels H1 2019	**1 063**	975		54		34		
Cost of fuels H1 2020		1 073		61		32		**1 166**

Table: Data on use of production fuels consumption in Conventional Generation.

Fuel type	**H1 2020**		**H1 2019**	
	Volume (tons ths)	**Cost (PLN million)**	**Volume (tons ths)**	**Cost (PLN million)**
Hard coal	3 345	1 073	3 158	975
Biomass	247	61	213	54
Fuel oil – light and heavy	22	32	18	34
TOTAL		**1 166**		**1 063**

Chart: CO_2 costs in Conventional Generation segment (in PLN million).



Change		**307**	**-111**	**884**	
CO_2 costs H1 2019	**1 608**				
CO_2 costs H1 2020					**2 688**

CAPITAL ENPENDITURES

Table: Capital expenditures incurred in Conventional Generation segment in the first half of 2020 and 2019.

PLN million	H1 2020	H1 2019	% change
Investments in generating capacities, including:	691	1 368	-49%
▪ Development	183	787	-77%
▪ Modernisation and replacement	508	581	-13%
Other	35	32	9%
TOTAL	**726**	**1 400**	**-48%**
Capitalised costs of overburden removal in mines	87	181	-52%
TOTAL with capitalized costs of overburden removal	**813**	**1 581**	**-49%**

KEY DEVELOPMENTS IN THE CONVENTIONAL GENERATION SEGMENT

Key development investments:

- On January 3, 2020, a decision was made to accept the offer of the consortium consisting of General Electric Global Services GmbH (Consortium leader), Polimex Mostostal S.A. and General Electric International Inc. submitted in the proceeding "Construction of two CCGT units in PGE GiEK S.A. Branch ZEDO". The planned CCGT units were among the generating units that obtained a 17-year contract in the main capacity market auction, which will come into effect in 2024.
- On January 30, 2020 a contract was signed for construction of two CCGT units with a capacity of approx. 1 400 MW in Dolna Odra power plant.
- On March 10, 2020 a contract was signed with Gaz-System S.A. for the connection of gas devices and installations of units 9 and 10 in the Dolna Odra power plant to the natural gas transmission grid (OGP).
- On March 20, 2020, the Minister of Climate signed a decision extending the license for lignite mining from the Turów lignite deposit for another six years.

- On March 30, 2020, an agreement was signed with PSE S.A. to connect units 9 and 10 at the Dolna Odra Power Plant to the NPS transmission network.
- On May 31, 2020, the 1-year warranty period for unit 5 at the Opole Power Plant ended. At that time, unit 5 operated in accordance with the needs of the NPS without significant problems. The availability of unit 5 in the above-mentioned period meets the terms of the agreement.
- On June 17, 2020, an agreement was concluded with ELBIS sp. z o.o. with its registered office in Rogowiec for the provision of services as a Contract Engineer for the implementation of the project "Construction of units 9 and 10 at Dolna Odra Power Plant" for PGE GiEK S.A. Dolna Odra Power Plant Branch.
- On July 10, 2020, an agreement was concluded with SPIE Elbud Gdańsk S.A. entitled "Construction of a power evacuation system to the power network with a backup power supply system for two gas and steam units for PGE GiEK S.A. Dolna Odra Power Plant Branch".

Key modernisation investments related to emission reductions:

- On February 2, 2020, unit no. 2 in the Bełchatów Power Plant was synchronised after its upgrade.
- On February 3, 2020, an agreement was concluded for the construction of a mercury reduction system for units no. 2-12 and no. 14 in the Bełchatów Power Plant.
- On February 28, 2020, the Flue Gas Desulphurisation unit for Units A and B in Pomorzany CHP plant was commissioned.
- On March 3, 2020, a hydraulic test of the boiler in unit no. 3 of the Turów Power Plant was completed with positive results.
- On March 27, 2020 the trial run of unit no. 1 was completed. In April 2020, unit no. 1 was commissioned.
- On April 23, 2020, a decision was obtained from the Marshal of the West Pomeranian Voivodeship to run two sewage treatment plant installations: mechanical-biological and mechanical industrial-rainwater treatment plant located in the Dolna Odra Power Plant Branch.
- On May 6, 2020, Annex No. 3 was concluded with SBB Energy S.A. (consortium leader) and Polimex and Polimex-Mostostal S.A. to the Agreement entitled "Delivery and assembly of the flue gas catalytic denitrification system for OP-650 boilers in units 5, 6, 7, 8 at Dolna Odra Power Plant."
- On June 1, 2020, final decisions were obtained for the construction of the photovoltaic installation "Dolna Odra PV1 and PV2" with a capacity of 999.6 kWp each, at the Dolna Odra Power Plant Branch, along with the necessary technical infrastructure.
- On June 23, 2020, an agreement was concluded for the development of continuous measurement systems for Hg, NH_3 and HCl air emissions at the Rybnik Power Plant.
- On July 3, 2020, unit 6 (after renovation) at the Dolna Odra Power Plant was synchronized with the NPS, which allowed for the completion of works on the regulatory operation of the catalytic flue gas denitrification ("SCR") installation of unit 6 and the transition to optimization operation.
- On July 15, 2020, after the modernization, the flue gas desulphurisation ("FGD") installation of 7-8 was subjected to a 72-hour Test Run. On July 18, 2020, the 72-hour FGD Test Run was completed.
- On July 23, 2020, a commissioning protocol was signed after the modernization of unit 2 at the Bełchatów Power Plant.
- On July 26, 2020, unit 3 at Turów Power Plant was synchronized with the National Power System.
- On July 31, 2020, an agreement was concluded for the modernization of electrostatic precipitators for units 4-8 at the Rybnik Power Plant.

KEY PROJECTS IN CONVENTIONAL GENERATION SEGMENT

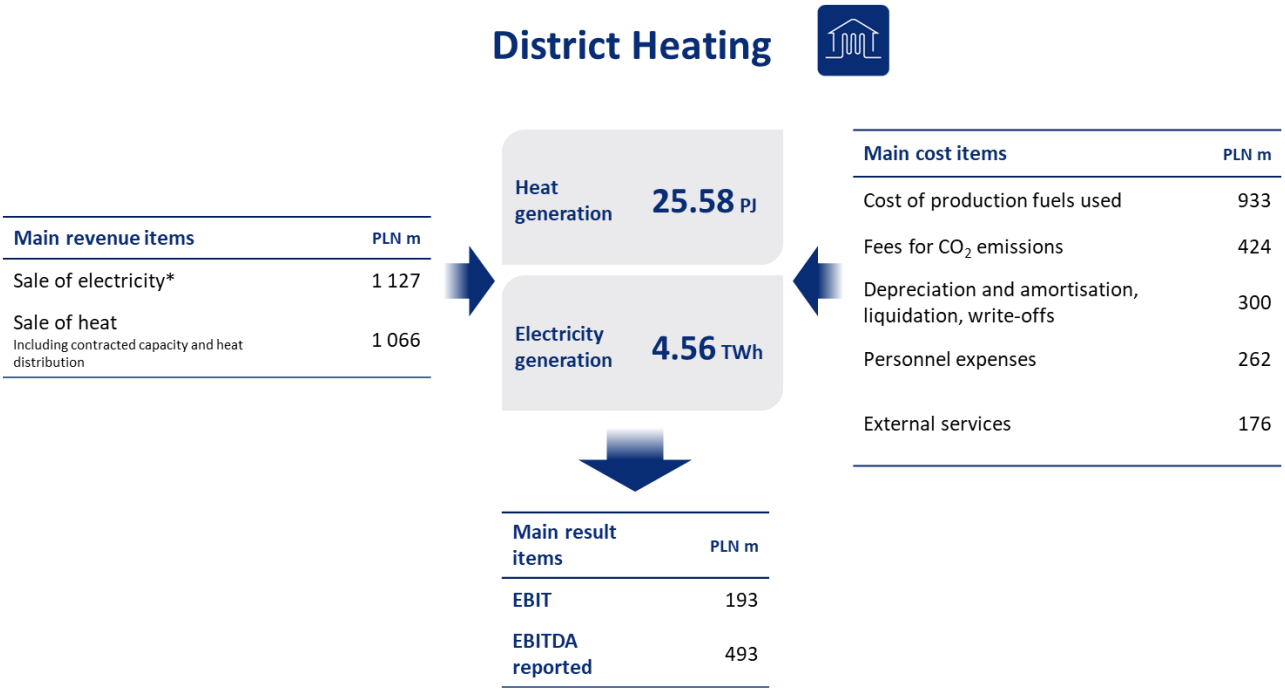
Aim of the project	Budget (net, without costs of financing)	Capital expenditures incurred so far (net, without costs of financing)	Capital expenditures in Q1 2020 (net, without costs of financing)	Fuel/ Net efficiency	Contractor	Expected date of completion	Status
Construction of new unit in Turów power plant							
Construction of power unit with a capacity of 490 MW	PLN 4.3 billion	PLN 3.2 billion	PLN 120.2 million	Lignite / 43.1%	Syndicate of companies: MHPSE, Budimex and Tecnicas Reunidas	**Contractual term: October 2020** The General Contractor presented a proposal to change the completion date of the investment for the construction of a new unit and postpone the commissioning date to **April 2021**. This proposal is being analysed at PGE.	At the end of H1 2020 the overall work progress on the project was 97%. On the construction site, commissioning works are carried out on individual devices of the new unit. The power from the 400 kV power line was applied. Chemical cleaning of the boiler was completed. The first light-oil boiler start-up has also been accomplished.
Construction of new units in Dolna Odra power plant							
Construction of two CCGT units no. 9 and 10 in Dolna Odra power plant	PLN 4.3 billion	PLN 6.3 million	PLN 2 million*	Natural gas/ 63%	Syndicate of companies: General Electric (consortium leader) and Polimex Mostostal	**December 2023**	On January 30, 2020 a contract was signed for construction of two CCGT units with a capacity of approx. 1 400 MWe in Dolna Odra power plant. The investment is at the design stage. Preparatory work is underway to hand over the construction site to the General Contractor.

* Expenditures incurred do not include expenses in the form of advances paid to the General Contractor for the Project.

DISTRICT HEATING

Segment description and its business model

Core business of the segment includes production of heat and electricity from conventional sources as well as distribution of heat.



Main revenue items	PLN m
Sale of electricity*	1 127
Sale of heat Including contracted capacity and heat distribution	1 066

Main cost items	PLN m
Cost of production fuels used	933
Fees for CO_2 emissions	424
Depreciation and amortisation, liquidation, write-offs	300
Personnel expenses	262
External services	176

Main result items	PLN m
EBIT	193
EBITDA reported	493

* managerial perspective.

As in the case of Conventional Generation, this segment's revenues are primarily **revenues from electricity sales**, however, they are usually directly related to generation of heat which in turn depends on demand that is highly seasonal and depends on external temperatures. This is why, in contrast to industrial power plants in Conventional Generation, as a rule, CHP plants do not have any considerable impact on the development of prices for electricity on the wholesale market.

Revenues from the sale and distribution of heat are regulated revenues. Energy companies independently set tariffs and present them to the President of the Energy Regulatory Office (the "ERO President") for approval. Heat production at PGE Group takes place in cogeneration units, which tariffs for heat are calculated using a simplified approach (compared to tariffs based on a full cost structure), based on reference prices, which are mainly conditioned by average sales prices for heat generated in units with specific fuel other than cogeneration units. They are published each year by the ERO President. Tariffs for heat production for cogeneration units in a given tariff year thus reflect changes in the costs of heat-generation units (not co-generation units) in the previous calendar year. The cost approach is applied in the case of tariffs for heat distribution, which allows to cover justified costs (mainly the costs of heat losses and property tax) and a return on invested capital, in line with guidelines from the ERO President. Distribution tariffs for heat are in place at branches in Gorzów and Zgierz, as well as by Kogeneracja S.A., PGE Toruń and Zielona Góra CHP.

Generation of heat and electricity is directly related to key variable costs of the segment, i.e. **the cost of production fuel used** (in particular, hard coal and gas) and **the cost of fees for CO_2 emissions**.

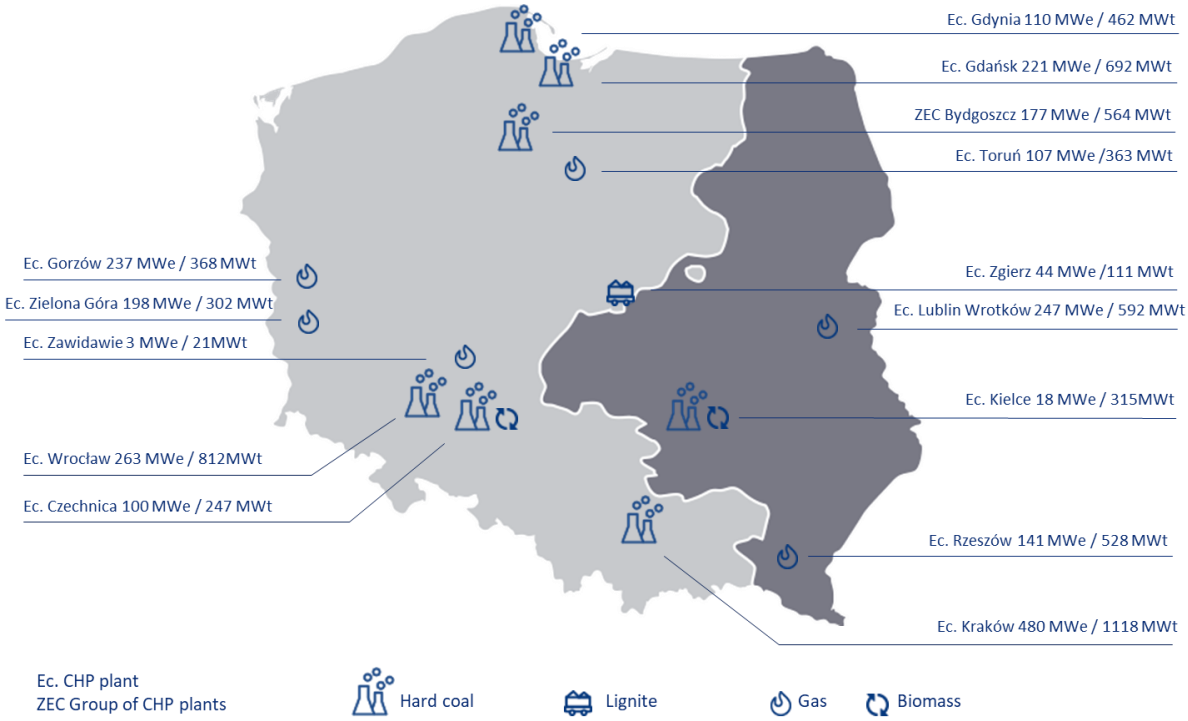
Electricity production in high-efficiency cogeneration is additionally remunerated. Until 2018, CHPs generated revenue from the **sale of energy origin certificates**, i.e. cogeneration certificates (yellow and red). From 2019, due to a change in support model, they receive support at a level covering increased operating costs related to production. For large units, this are set on an individual basis. The support mechanism in the form of certificates is in place also for biomass-fired generating assets. This type of production is additionally remunerated by awarding origin certificates, i.e. green certificates, the sale of which generates additional revenue, within the segment obtained in biomass unit in Kielce CHP.

ASSETS

District Heating within PGE Capital Group combines CHP plants separated from the EDF assets acquired on November 14, 2017 and CHP plants separated from PGE GiEK S.A. Since January 2, 2019 the segment's composition has been as follows: PGE EC S.A., Kogeneracja S.A., Elektrociepłownia Zielona Góra S.A., PGE Toruń S.A., PGE Gaz Toruń sp. z o.o., Ekoserwis sp. z o.o., PEC Zgierz sp. z o.o. oraz Megazec sp. z o.o.

District Heating is the largest heat producer in Poland. Generation is based mainly on hard coal and gas.

Diagram: Main assets of the District Heating segment and their installed capacity.

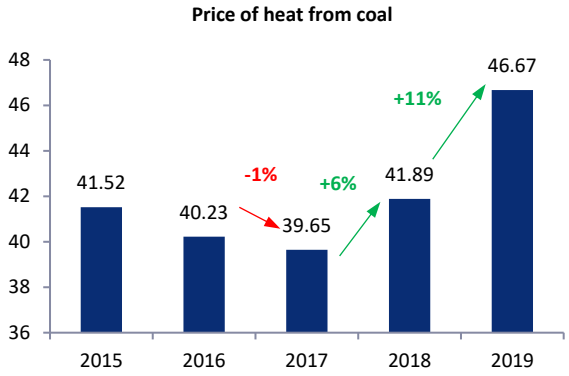


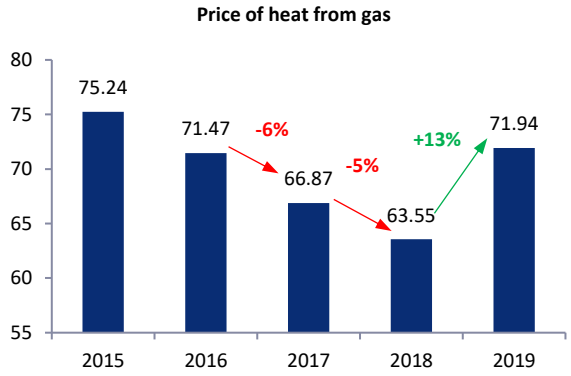
TARIFFS IN DISTRICT HEATING

Description of tariffs in the segment

Due to the fact that the income on heat sales for CHP plant are tariffed as part of the so-called simplified method, they are characterised by a relative delay in the transfer of costs (annual or two-year). They are based on the year-to-year dynamics of average costs (taking into consideration the fuels used) incurred by entities that are not co-generation entities for the year preceding the time of tariff establishment.

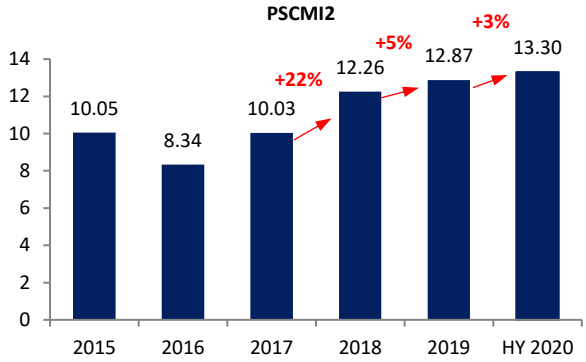
Charts: Changes in the reference price of heat for hard coal and natural gas (PLN/GJ).

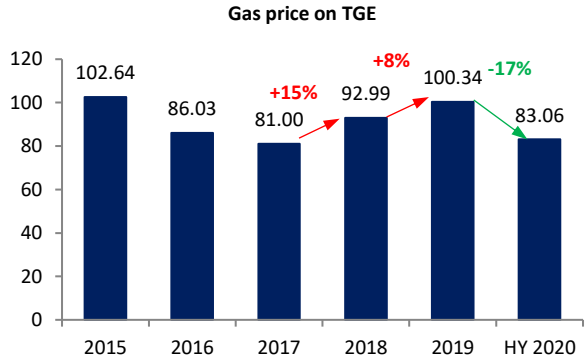




Source: ERO.

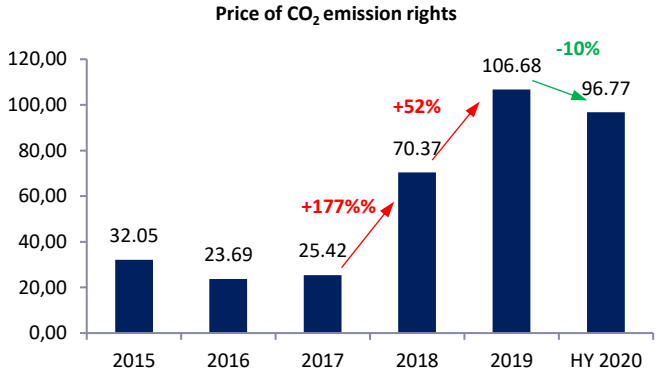
Charts: Changes in costs of fuels – hard coal (PLN/GJ) and gas (PLN/MWh).





Source: ARP, TGE.

Chart: Changes in price of CO_2 emission rights (PLN/t).



Source: ICE; average EUR/PLN rate 4.40.

Reflecting previous cost increases, the reference price of heat produced from hard coal increased by 11% in 2019. It is a base to the increase in heat prices for co-generation entities establishing the tariff during 2020. At the same time, in the first half of 2020 the average market price of coal increased further by 3%, while the average price of CO_2 emission rights decreased by 9%.

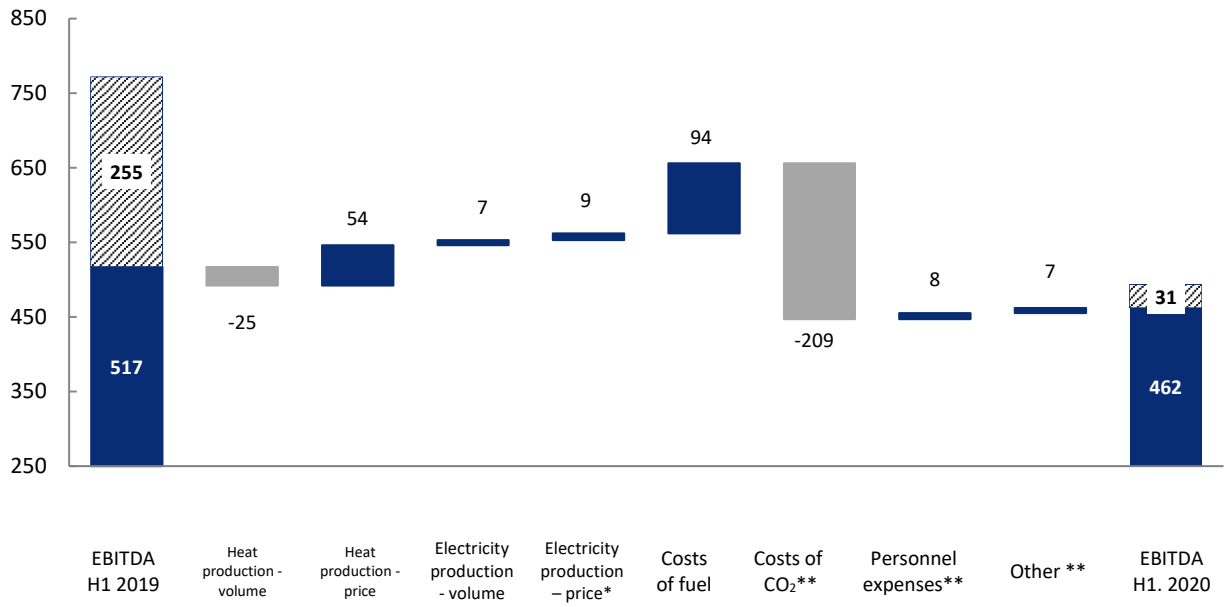
Aside from the time delay in costs transfer, it is also important that the CO_2 cost is only partially transferred in the reference unit price. This is related to the fact that approx. 45% of heating entities in Poland is part of the EU ETS system (capacity above 20 MW), i.e. is obliged to redeem the carbon dioxide emission allowances. The reference price also transfers approx. 45% of the real CO_2 consumption costs at the average heat sales price.

Tariffs for the production of heat from gas in 2020 are set based on an increase in the reference price (13%), whereas in the first half of 2020 gas prices are already lower than in previous periods. Prices stand at PLN 83/MWh and are largely due to forward contracts.

Weather conditions also substantially affect the segment's results. Temperatures directly shape the level of heat demand. Simultaneously, the level of heat production determines the level of electricity production in co-generation, which is an additional source of revenues that decisively affects the CHP plant's profitability.

KEY FACTORS FOR THE RESULTS OF THE SEGMENT

Chart: Key changes of EBITDA in District Heating (in PLN million) – managerial perspective.



Change		**-25**	**54**	**7**	**9**	**94**	**-209**	**8**	**7**	
Reported EBITDA H1 2019	**772**									
One-offs H1 2019	**255**									
Recurring EBITDA H1 2019	**517**	1 037		1 111		1 027	215	269		
Recurring EBITDA H1 2020		1 066		1 127		933	424	261		**462**
One-offs H1 2020										**31**
Reported EBITDA H1 2020										**493**

* Includes costs of certificates redemption regarding electricity sales to final off-takers.

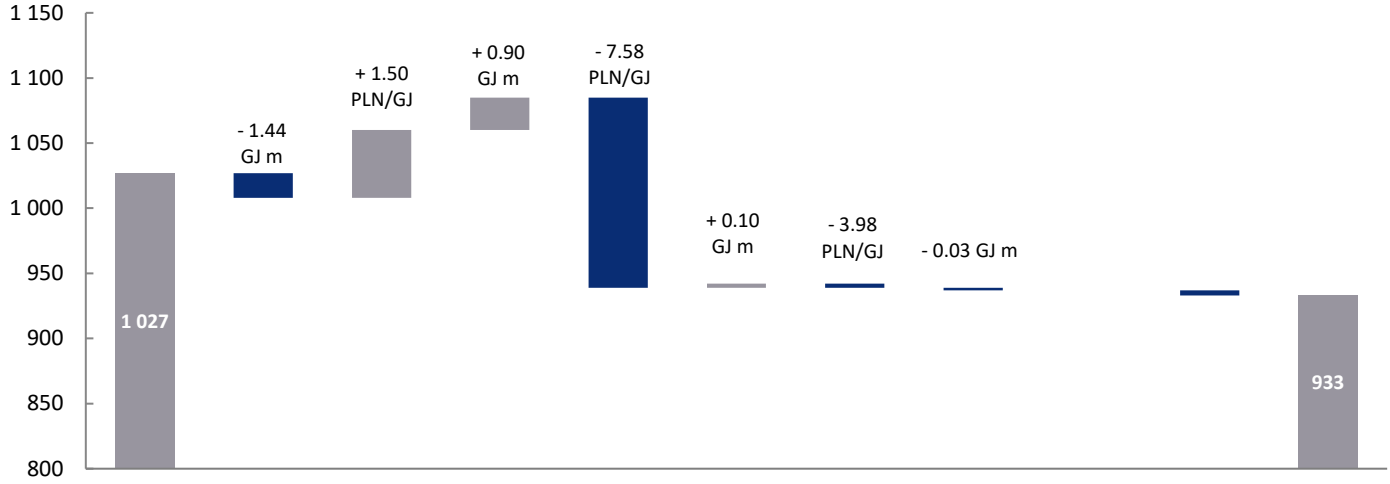
** Items adjusted for one-offs.

Reversal of the impact of the sum of one-off events improving the reported result .

Key factors affecting the EBITDA result of District Heating segment on y/y basis included:

- **Lower volume of heat production** in the first half of 2020 is a result of higher outside temperatures - as compared to 2019 the average temperatures were by 2.1°C higher, what translated into lower production (by 1.6 PJ).
- **Increase of heat sale price** is a result of publication by the ERO of new reference prices for heat production in co-generation.
- **Higher electricity production volume** in the segment by 0.2 TWh as a result of higher generation at Lublin Wrotków CHP and Rzeszów CHP caused by high margins due to low natural gas prices
- **Increase in electricity sale prices** (see p. 3.2 of this report).
- **Lower fuel consumption costs** reflect lower natural gas prices in the wholesale market and lower heat production. For details, see the chart below.
- **Higher CO_2 costs** are mainly a result of higher price of allowances and lower allocation of allowances granted free of charge. The details are shown in the chart below.
- **Lower personnel expenses** result mainly from decreased employment y/y.

Chart: Consumption costs of production fuels in District Heating (in PLN million).

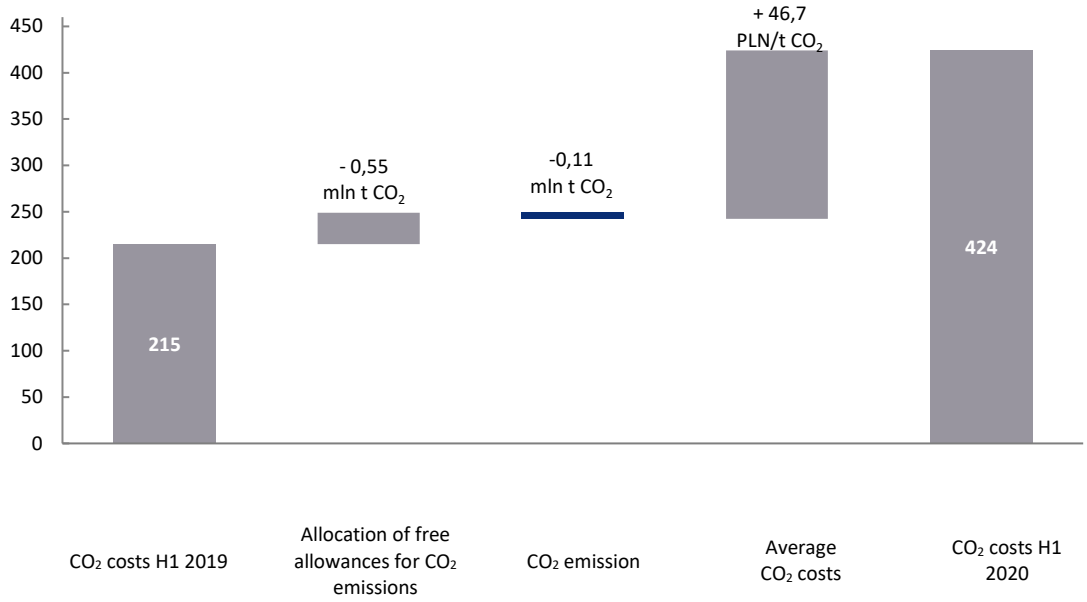


	Costs of fuel H1 2019	Hard coal volume	Hard coal price	Gas volume	Gas price	Biomass volume	Biomass price	Light and heavy oil volume	Light and heavy oil price	Other raw materials	Costs of fuel H1 2020
Change		**-19**	**52**	**25**	**-146**	**3**	**-3**	**-2**	**0**	**-4**	
Costs of fuel H1 2019	**1 027**	481		509		16		9		12	
Costs of fuel H1 2020		514		388		16		7		8	**933**

Table: Data on use of production fuels consumption in District Heating.

Rodzaj paliwa	H1 2020		H1 2019	
	Volume (tons ths)	Cost (PLN million)	Volume (tons ths)	Cost (PLN million)
Hard coal	1 547	514	1 598	481
Gas (cubic metres ths)	632 977	388	600 798	509
Biomass	74	16	71	16
Fuel oil and other raw materials	-	15	-	21
TOTAL		**933**		**1 027**

Chart: CO_2 costs in District Heating segment (in PLN million).



Change		**34**	**-7**	**182**	
CO_2 costs H1 2019	**215**				
CO_2 costs H1 2020					**424**

CAPITAL EXPENDITURES

Table: Capital expenditures incurred in District Heating segment in the first half of 2020 and 2019.

PLN million	H1 2020	H1 2019	% change
Investments in generating capacities, including:	160	98	63%
▪ Development	55	12	358%
▪ Modernisation and replacement	105	86	22%
Other	18	13	38%
TOTAL	**178**	**111**	**60%**

RENEWABLES

Segment description and its business model

This segment is involved in the generation of electricity from renewable sources and in pumped storage power plants.

Renewables

Main revenue items	PLN m
Sale of electricity	268
Regulatory system services*	128
Sale of certificates	120

Electricity generation** **1.40 TWh**

Main cost items	PLN m
Depreciation and amortisation	149
Use of energy incl. energy to pump water at pumped-storage plants	99 97
Personnel expenses	53
External services	37
Taxes and fees incl. real estate tax	32 31

Main result items	PLN m
EBIT	152
EBITDA reported	301

* Accounting perspective.
** Includes start-up production from Starza/Rybice and Karnice II wind farms.

The Renewables segment is based mainly on revenues from the sale of electricity, however contrary to production at industrial plants within the Conventional Generation segment, this revenue is subject to a larger degree to changes in weather conditions and prices on the spot market due to the renewables sales model in place. Electricity output volume translates into property rights (green) and revenue from the sale of energy origin certificates obtained by the segment's assets, excluding hydropower plants over 5 MWe.

A stable part of the segment's results is related to the provision of ancillary services using pumped-storage plants, which is performed on the basis of an agreement with the transmission system operator, PSE S.A

On the cost side, the most important items include: depreciation of segment assets, use of energy to pump water at pumped-storage plants and third-party services, mainly in the form of repair services. Property tax and employee wages also constitute a significant cost item in this segment.

Assets

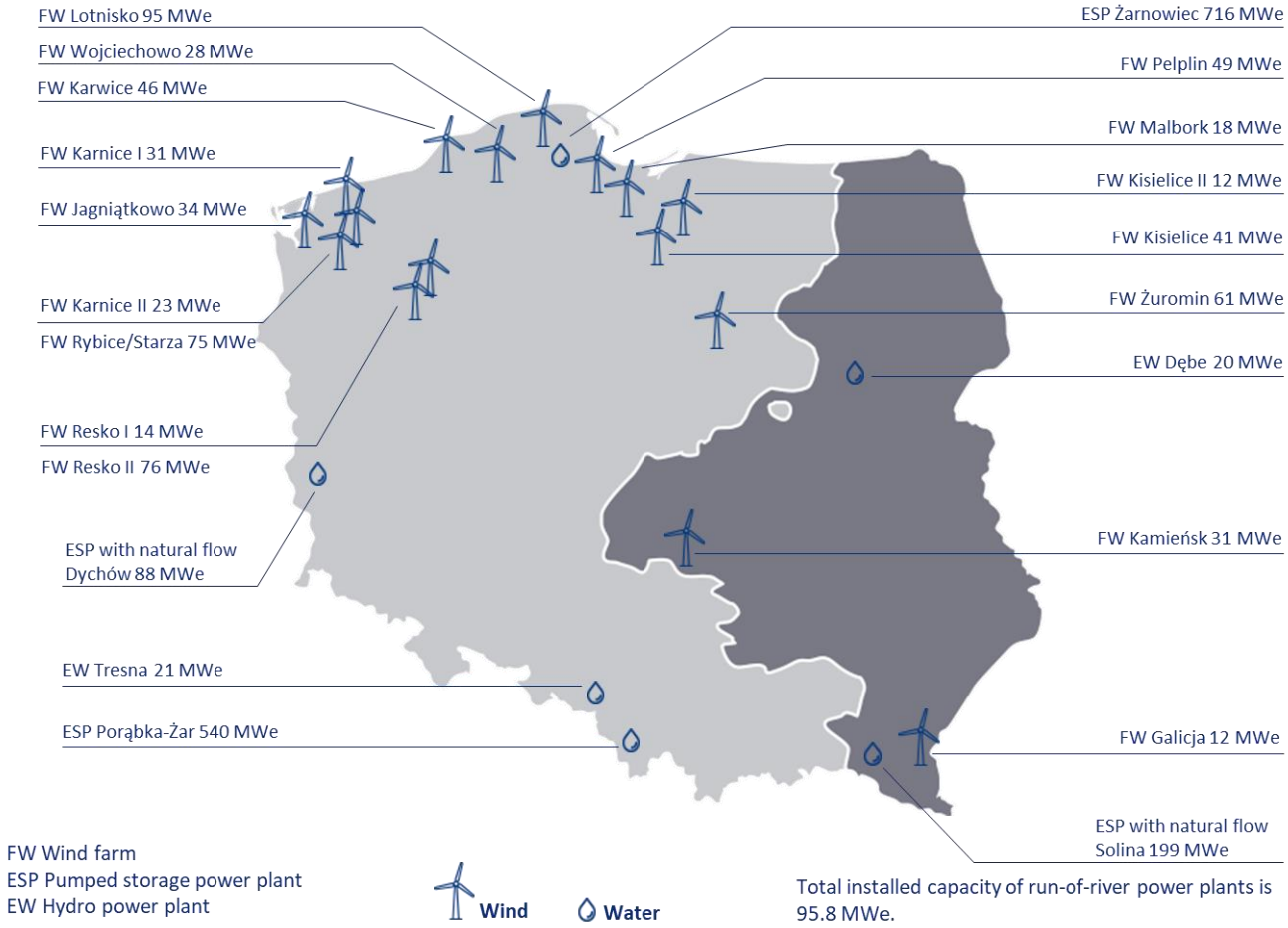
The PGE Capital Group's operations in renewable energy are managed by the PGE Energia Odnawialna S.A. Due to the profile of operations, the segment includes PGE Baltica, which is recognized for presentation purposes. This company is responsible for all activities related to off-shore wind farms.

In the second quarter of 2020, newly built wind farms: Starza/Rybice oraz Karnice II were commissioned. These farms consist in total of 43 turbines with a total installed capacity of 98 MW. The investment was carried out in the West Pomeranian Voivodeship, in the area of Kamień Pomorski and Gryfice counties.

Assets in the segment include:

- 16 wind farms[9],
- 1 photovoltaic power plant[10],
- 29 run-of-river hydro power plants,
- 4 pumped-storage power plants, including 2 with natural flow.

Diagram: Main assets of the Renewables segment and their installed capacity.

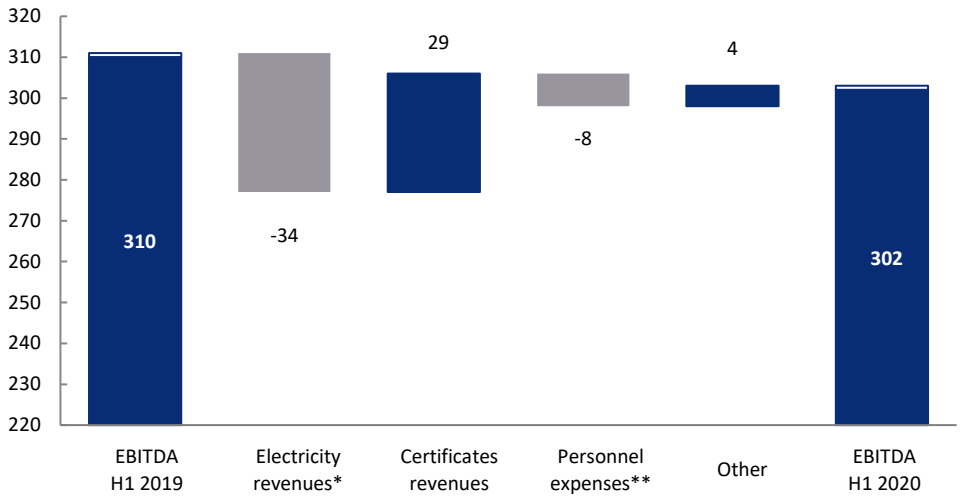


[9] In July 2020 PGE acquired operating wind farm Skoczykłody with a capacity of 36MW, thus increasing the number of wind farms to 17, which will be presented in the next report.

[10] In August 2020, a new 1 MW PV Lesko photovoltaic plant was commissioned, thus increasing the number of photovoltaic plants to 2, which will be presented in the next report.

KEY FACTORS FOR THE RESULTS OF THE SEGMENT

Chart: Key changes of EBITDA in Renewables (in PLN million) – managerial perspective.



Change		**-34**	**29**	**-8**	**4**	
Reported EBITDA H1 2019	**310**					
One-offs H1 2019	**-1**					
Recurring EBITDA H1 2019	**311**	204	91	44		
Recurring EBITDA H1 2020		170	120	52		**302**
One-offs H1 2020						**-1**
Reported EBITDA H1 2020						**301**

* The sum of electricity revenues includes revenues from main generation technologies (wind, water, PV), including cost of electricity purchased for pumping.
** Item adjusted for impact of one-off.

Reversal of the impact of the sum of one-off events reducing the reported result.

Key factors affecting the y/y results of Renewables included:

- **Decrease in revenues from electricity sales** results from: lower average electricity sale price by PLN 44/MWh y/y, what translated into drop in revenues by approx. PLN 45 million; partly compensated by higher sales volume by 58 GWh, what resulted in increase of revenues by approx. PLN 11 million.
- **Higher revenues from sales of certificates** result from: higher average certificate sale price by PLN 29/MWh y/y, what translated into growth of revenues by approx. PLN 23 million; increased production volume by 49 GWh, what translated into growth of revenues by approx. PLN 6 million.
- **Increase of personnel expenses** mainly resulting from increased employment level due to switching to proprietary maintenance of wind farms and development of new company - PGE Baltica, which deals with the offshore wind farms program.
- **Increase in other** results mainly from lower operating costs and income from compensation for damages on wind turbines.

CAPITAL EXPENDITURES

Table: Capital expenditures incurred in Renewables segment in the first half of 2020 and 2019.

PLN million	H1 2020	H1 2019	% change
Investments in generating capacities, including:	643	30	2 043%
▪ Development	630	7	8 900%
▪ Modernisation and replacement	13	23	-43%
Other	6	2	300%
TOTAL	**649**	**32**	**1 994%**

KEY DEVELOPMENTS IN H1 2020 IN THE RENEWABLES SEGMENT

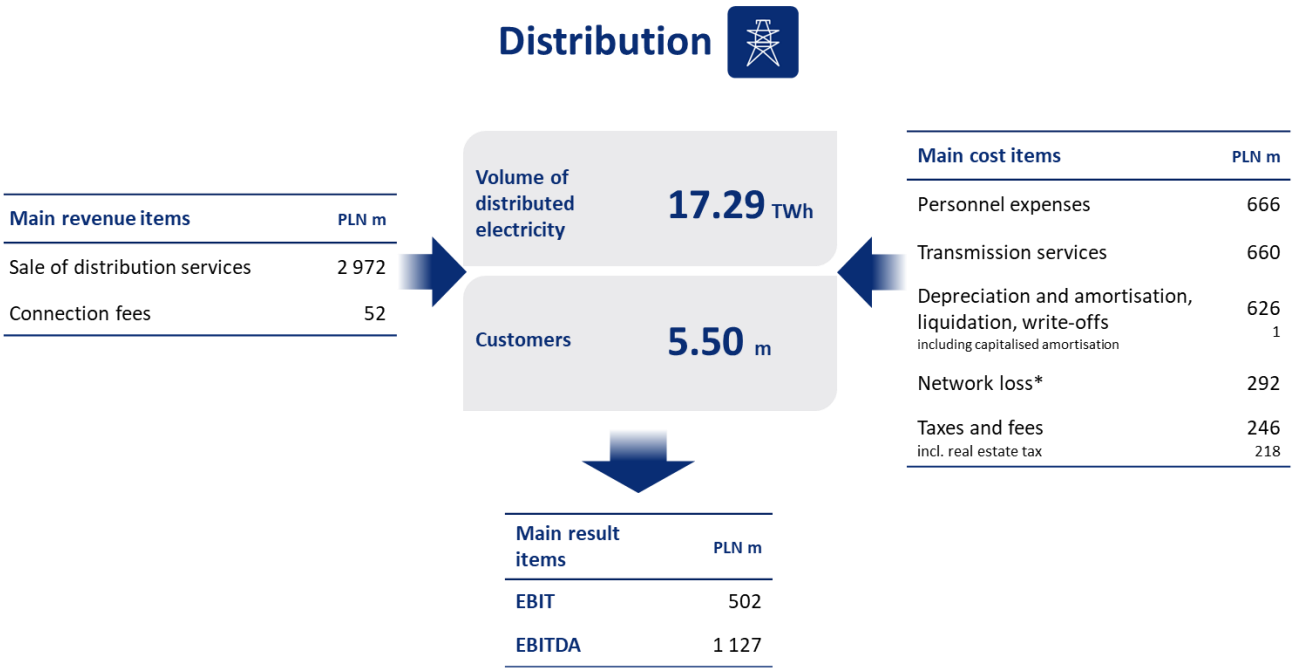
Operating Permits and concessions for electricity generation were obtained for implemented wind farms with a total installed capacity of 98 MW - for FW Karnice II (February 27, 2020; April 3, 2020), FW Starza (April 3, 2020; May 18, 2020) and FW Rybice (April 20, 2020; May 18, 2020).

The wind farms were commissioned on June 17, 2020.

DISTRIBUTION

Segment description and its business model

Core business of the segment includes supply of electricity to final off-takers through the grid and HV, MV and LV infrastructure.



* Managerial perspective.

Segment revenue is based on a tariff for electricity distribution services, which is approved by the ERO President every year at company request and is regulated. The tariff allows costs related to the distribution system operator's on-going activities to be transferred. These are both justified operating costs, depreciation as well as costs related to the necessity to cover grid losses on electricity distribution or the purchase of transmission services from the TSO. At the same time, the tariff reflects the transferred costs in fees such as the RES fee, transition fee or - starting from 2019 – co-generation fee.

The key element shaping the Distribution segment's result is **return on company's invested capital**. This is based on the Regulatory Asset Base ("RAB"), which is established on the basis of completed investments and taking into account asset depreciation. The Regulatory Asset Base serves as the basis for calculating return on capital, using weighted average cost of capital, which is published by the ERO President in accordance with a set formula and using as the risk free rate the average yield on 10-year State Treasury bonds with the longest maturity during the 18-month period preceding the tariff application submission, quoted on Treasury BondSpot market. Moreover, the level of return on capital depends on achievement of individual quality targets set by the ERO President for efficiency indicators that cover: interruption time, interruption frequency, connection time and (not yet included) time to provide metering and settlement data.

VOLUME, CUSTOMERS AND OPERATING DATA

PGE Dystrybucja S.A. operates in the area of 129 829 sq. km and delivers electricity to approximately 5.5 million customers.

Diagram: Area of PGE distribution grid.

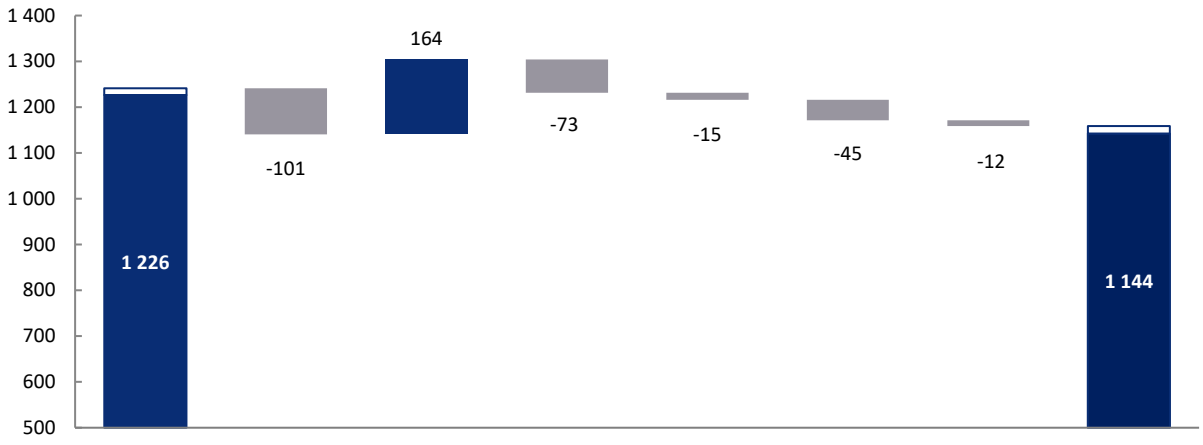
Table: Volume of distributed energy and number of customers in the first half of 2020 and 2019.

Tariff	Volume (TWh)*		Number of customers according to power take-off points	
	H1 2020	H1 2019	H1 2020	H1 2019
A tariff group	2.54	2.74	109	109
B tariff group	6.65	7.09	12 287	11 890
C+R tariff groups	3.16	3.49	486 087	483 069
G tariff group	4.94	4.81	4 999 745	4 937 432
TOTAL	**17.29**	**18.13**	**5 498 228**	**5 432 500**

* with additional estimation of sales.

KEY FACTORS FOR THE RESULTS OF THE SEGMENT

Chart: Key changes of EBITDA in Distribution (in PLN million) – managerial perspective.



Change		**-101**	**164**	**-73**	**-15**	**-45**	**-12**	
Reported EBITDA H1 2019	**1 211**							
One-offs H1 2019	**-15**							
Recurring EBITDA H1 2019	**1 226**	2 179		219	203	604		
Recurring EBITDA H1 2020		2 242		292	218	649		**1 144**
One-offs H1 2020								**-17**
Reported EBITDA H1 2020								**1 127**

* Excluding cost of transmission services from PSE S.A.
** Adjusted for revenues from the Balancing market.
*** Personnel expenses without taking into account the impact of the change in the actuarial provision (one-off).

Reversal of the impact of the sum of one-off events reducing the reported result.

Key factors affecting results of Distribution segment y/y included:

- **Decreased volume of distributed energy** by 1.0 TWh, resulting from lower general demand for electricity in the NPS, mainly caused by impact of COVID-19 pandemic.
- **Increase in rates in tariff for 2020** by PLN 9.5/MWh compared to the tariff for the corresponding period of the previous year, that translated into an increase in revenues from the sale of distribution services. Due to delays in the approval of the distribution tariff (it became effective as of April 6, 2019), revenues from distribution services in the first quarter of 2019 were calculated based on the rates set out in the tariff for 2018, whereas in the current period the rates in force take into account the cumulative increase from the approved tariffs for the previous and current year.
- **Higher costs of energy to cover network losses** mainly as a result of the low base of the previous year, when the "non-cash" impact of the electricity purchase estimate in connection with a significant change in the electricity purchase price was included.
- **Increase of costs of tax on real** estate in connection with an increase of grid assets value as a result of investments; tax rates on land and buildings.
- **Increase in personnel expenses** due to ongoing process to optimise salaries.
- **Change in other** resulting mainly from higher costs of external services related to maintenance and repairs of assets.

CAPITAL EXPENDITURES

Table: Capital expenditures incurred in Distribution segment in the first half of 2020 and 2019.

PLN million	H1 2020	H1 2019	% change
Development investments	367	352	4%
Modernisation and replacement	400	431	-7%
Other	58	37	57%
TOTAL	**825**	**820**	**1%**

KEY DEVELOPMENTS IN H1 2020 IN THE DISTRIBUTION SEGMENT

In the first half of 2020 the largest expenditures in amount of PLN 350 million were incurred for connection of new off-takers.

SUPPLY

Segment description and its business model

Supply segment activities include Group's wholesale and retail trading of electricity. Wholesale trading include mainly electricity trading on behalf of and for Conventional Generation segment, District Heating segment and Renewables segment.

Supply

Main revenue items*	PLN m
Sale of electricity	7 573
Sale of CO_2 emission allowances	7 086
Sales management	427
Sale of fuels including related services	387 3
Revenue from the sale of gas	154

Volume of electricity sales to final off-takers	19.87 TWh
Customers	5.37 million

Main result items	PLN m
EBIT	169
EBITDA	187

Main cost items*	PLN m
Purchase of electricity	7 179
Purchase of CO_2 emission allowances	7 050
Redemption of energy origin certificates	463
Segment operating expenses	397
Purchase of fuels including transport costs	381 10
Purchase of gas	144

* Data for PGE Obrót S.A.

As part of retail-market activities, the key source of segment's revenue is sale of electricity to final customers. This is sale to business and institutional clients, which constitutes more than 75% of the sales volume, and to retail clients. The segment's revenue also includes the sale of fuels, mainly: pulverised coal and fat coal, which is sold by PGE Paliwa sp. z o.o., and sale of gas.

Electricity sales are matched by the costs to purchase electricity on the wholesale market and costs to redeem certificates as part of the support system for renewable sources and energy efficiency.

The Supply segment also covers costs related to the Group's corporate centre.

VOLUME, CUSTOMERS AND OPERATING DATA

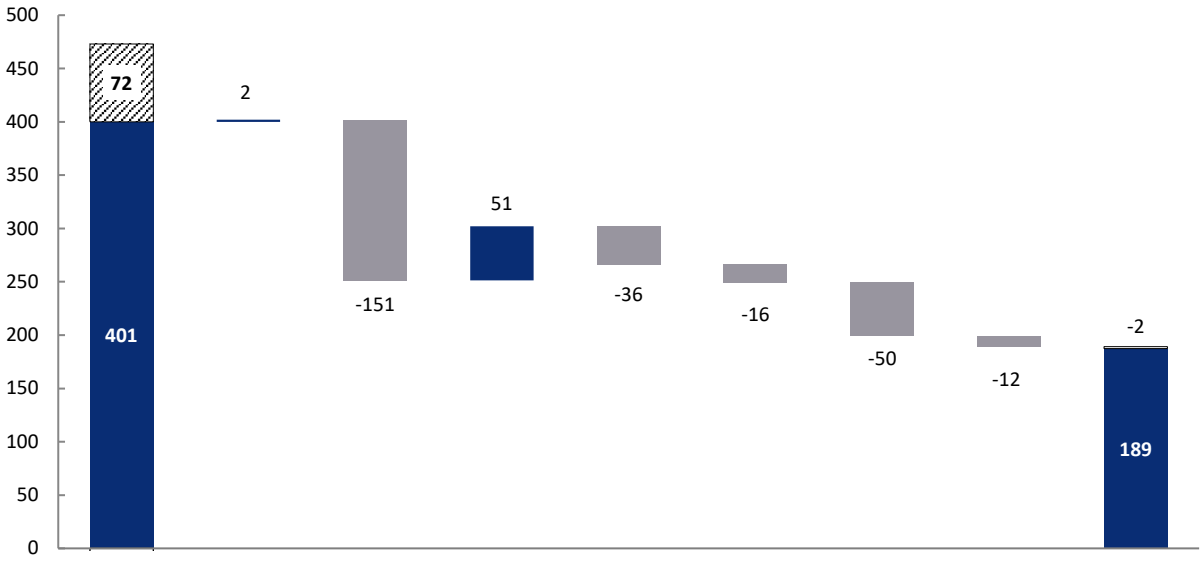
Table: Volume of electricity sales to final off-takers and number of customers in the first half of 2020 and 2019.

Tariff	Volume (TWh)*		Number of customers according to power take-off points*	
	H1 2020	H1 2019	H1 2020	H1 2019
A tariff group	4.60	4.77	145	163
B tariff group	7.08	7.73	12 533	12 653
C+R tariff groups	3.31	3.82	447 684	453 970
G tariff group	4.88	5.02	4 913 860	4 835 987
TOTAL	**19.87**	**21.34**	**5 374 222**	**5 302 773**

*PGE Obrót S.A.

KEY FACTORS FOR THE RESULTS OF THE SEGMENT

Chart: Key changes of EBITDA in Supply (in PLN million) – managerial perspective.



	EBITDA H1 2019	Result on electricity - volume	Result on electricity - margin	Revenues from services provided to other segments of the PGE Group	Result on sale of fuels	Personnel expenses*	Balance of provisions for onerous contracts	Other	EBITDA H1 2020
Change		**2**	**-151**	**51**	**-36**	**-16**	**-50**	**-12**	
Reported EBITDA H1 2019	**473**								
One-offs H1 2019	**72**								
Recurring EBITDA H1 2019	**401**	26		395	46	172	224		
Recurring EBITDA H1 2020		-123		446	10	188	174		**189**
One-offs H1 2020									**-2**
Reported EBITDA H1 2020									**187**

* Item adjusted for impact of one-off.

Reversal of the impact of the sum of one-off events improving the reported result.

Reversal of the impact of the sum of one-off events reducing the reported result.

Key factors affecting EBITDA of Supply segment y/y included:

- **Lower result on electricity sales,** mainly due to lower demand and resale in spot transactions below the purchase price in forward transactions.
- **Increase of revenues from services performed within the Group** resulting mainly from increased revenues from the Agreement for Commercial Management of Generation Capacities ("ZHZW") as a consequence of higher sale and purchase prices of electricity under management and covering new assets under ZHZW agreement.
- **Valuation of financial instruments,** i.e. forward contracts related to trading in CO2 emission allowances
- **Increased personnel expenses** in connection with ongoing process to optimise salaries.
- **Negative impact of balance of provisions for onerous contracts** in retail sale companies resulting from different assumptions adopted to calculate the level of provisions in the analogical period of the previous year. At the end of the first half of 2019 the result on provisions was a consequence of legislative changes, introducing the obligation to maintain the prices for customers as of June 30, 2018. In the first half of 2020 the provision for onerous contracts relates mainly to failure to cover part of the justified operation cost in the area of electricity sales to households - the ERO President refused to approve changes in G tariff.

4.4. Significant events of the reporting period and subsequent events

SIGNING OF THE AGREEMENT FOR THE CONSTRUCTION OF POWER UNITS IN DOLNA ODRA POWER PLANT

On January 30, 2020 PGE GiEK concluded an agreement with syndicate of companies: General Electric Global Services GmbH, Polimex Mostostal S.A. and General Electric International Inc.

Subject matter of the agreement is realisation by the contractor of turn-key construction of two gas-steam units with a gross capacity of 683 MWe each at PGE GiEK S.A. Branch Zespół Elektrowni Dolna Odra (unit 9 and unit 10). The units will be in CCGT technology.

In accordance with the provisions of the agreement, the commissioning of both units is to take place by December 11, 2023.

The value of the Agreement for construction of units, including autostart option, amounts to PLN 3 701 million net. In connection with the agreement, a LTSA (Long-Term Service Agreement) was also signed with regard to service of two gas turbines during 12-year period from the commissioning date of the units. The value of the LTSA amounts to PLN 1 030 million net. Total value of all concluded agreements amounts to PLN 4 731 million net (PLN 5 819 million gross).

Current report of PGE S.A.:

- Signing of the agreement for the construction of power units in Dolna Odra power plant >>

UPDATE OF PGE GROUP STRATEGY

As at the publication date of the report, advanced works are underway to develop a new Group strategy until 2030. The strategy is to adapt the PGE Group to the changing reality and environment, with particular emphasis on the conditions of the energy sector, including the decarbonisation policy of the European Union. The publication of the strategy is planned for autumn 2020.

TESTS FOR IMPAIRMENT OF TANGIBLE FIXED ASSETS, INTANGIBLE ASSETS AND GOODWILL

Due to the changing macroeconomic and regulatory environment, the PGE Capital Group periodically verifies the premises that may indicate impairment of its assets' recoverable amount. In the current reporting period, the Group analysed the premises and identified the factors that significantly contributed to the change in the value of the assets held. As a result of the performed tests, impairment of assets was recognised. The tests results are described in Note 3 to the consolidated financial statements and in the current report of PGE S.A.:

- Information on results of impairment tests

IMPACT OF THE COVID-19 PANDEMIC ON PGE GROUP'S OPERATIONS

PGE Group identifies, on an ongoing basis, the risk factors that affect the Group's performance in connection with the COVID-19 pandemic. As at June 30, 2020, the impact on financial performance remained limited. Nevertheless, further effects of the pandemic may become apparent in subsequent periods. The nature and scale of possible further effects are difficult to estimate. What will be important is the duration of the epidemic, its potential increased severity and extent, as well as its impact on economic growth in Poland. At the same time, the accuracy of estimates remains difficult in view of a number of other factors affecting the power market, including the level of demand for electricity.

The outbreak of the pandemic has led to expectations of economic slowdown in 2020 in the global economy and in Poland. These are reflected, among others, in the revision of market projections for GDP, industrial output and investments.

Due to the reduced level of economic activity, PGE Group identifies the risk that the lower level of domestic electricity consumption will continue. This affects the decrease in revenues and margins from energy generation, distribution and sales in the Distribution, Supply, Conventional Generation and District Heating segments.

A decline in demand for electricity affects the utilisation of generation units. A part of the PGE Group's generation units is held in the so-called spinning reserve and secures potential shortages of supplies from renewable sources, imports or those that result from failures of other commercial power plants in Poland. The majority of production was contracted in previous periods, therefore in the short term the negative impact of lower production volumes on the Conventional Generation segment should be significantly

limited. The negative effect should be related to potential reductions on the part of the Transmission System Operator, resulting in lower production from lignite, which is characterized by a relatively stable cost structure. The PGE Group expects, however, an impact on contracting volumes and prices for subsequent periods, but at this stage this impact cannot be estimated.

For the Supply segment, the decrease in demand volume affected the past period and the negative impact was associated with a lower level of sales to final off-takers and higher cost of balancing electricity. Also in the Distribution segment, a lower volume of deliveries made to final off-takes directly translates into lower revenues earned on this account.

As at June 30, 2020, the impact of the expected increase in payment congestion, especially regarding receivables from small and medium-sized enterprises, was not significant. On the other hand, depending on the further epidemiological and economic situation, the risk of deteriorated liquidity of PGE Group and increased impairment losses on overdue receivables still exists and is monitored on an ongoing basis.

PGE Group's plants are of strategic importance for maintaining undisturbed production and supply of electricity and heat in Poland. The COVID-19 pandemic has affected the change of work organisation, especially with respect to PGE Group's generation units. In many cases, this involves additional costs resulting from, for example, the purchase of protective materials for employees. Since the beginning of the pandemic, the Group has introduced work rules that aim to reduce, as much as possible, the health risk for employees. As one of the largest employers in Poland, with 42 thousand employees, PGE Group takes a number of measures to protect the health and life of its employees, including the implementation of teleworking, raising awareness of, in particular, the basic principles of protection against coronavirus, prevention, quarantine, as well as those related to the organisation of the company and work to ensure business continuity. PGE has established a Crisis Team to collect information from all Group companies, monitor the situation in individual companies on an ongoing basis and take appropriate steps.

The production branches also have plans for operation with non-standard absenteeism that are developed and verified on an ongoing basis, and as plants of strategic importance from the point of view of maintaining undisturbed production and supply of electricity and heat, they are in constant contact with local authorities responsible for monitoring the situation in the country and in all locations of PGE Group entities.

Along with the outbreak of the pandemic, Customer Service Offices were closed, and all communication with PGE customers was routed through remote channels. The Group has also stopped sending collectors to customers' houses. As of May 18, along with further stages of unfreezing the Polish economy, PGE Group has been gradually returning to serving its customers in office, while observing special safety rules. From an operational point of view, owing to the introduction of appropriate countermeasures at the early stage of the pandemic, PGE has been continuously producing electricity and heat and ensuring their uninterrupted supply.

PGE Group has been monitoring the further impact of the COVID-19 pandemic on the financial condition of the PGE Group and is preparing for various scenarios. The pandemic has accelerated the introduction of measures to prepare the entire organisation to changes in order to tackle the decarbonisation challenges faced by energy companies. This will require considerable financial expenditure. All potential savings scenarios for both capital expenditures and operating costs were analysed in order to focus on the most important development projects related to the core business of PGE Group.

INTRODUCTION OF THE OPTIMISATION PROGRAMME

At the end of April 2020, the Management Board of PGE announced its decision to terminate projects with unsatisfactory rate of return, in particular those that are not directly related to the core business of the Group, and all PGE Group companies were obliged to optimise and rationalise their operations.

Tasks, projects and programmes in the areas of R&D, ICT and investments worth more than PLN 1 billion in total, scheduled for 2020-2024, have been closed or limited. These include AI-based projects, some coal projects and low-margin cogeneration projects. The Sponsorship budgets have also been revised. Analyses of contracts have shown that due to the COVID-19 pandemic, the existing partners of the PGE Group are unable to provide services. Therefore, the Management Board of PGE decided to cut sponsorship expenses by approx. 50%.

Moreover, decisions were taken on verification of selected investment activities of the Group, including ceasing Operations of FIZAN Eko-Inwestycje and FIZAN PGE Ventures, as projects unrelated to the Group's core business. As at the date of approval of this report, the payments made by PGE Group companies to the above funds amounted to approx. PLN 31 million. The Management Board of PGE assumes that the funds will be liquidated before the end of 2020.

In addition, on August 3, 2020, the Management Board of the Company announced a decision related to the sale of PGE Paliwa sp.z o.o. and start negotiations with potential buyers. Due to the ongoing negotiation process, PGE does not disclose the details of the talks. This decision is aimed at simplifying the structure and operating processes of the PGE Group, and is also consistent with the expectations of the Ministry of State Assets towards companies in the energy sector with State Treasury shareholding.

CHANGES IN THE MANAGEMENT BOARD AND SUPERVISORY BOARD

Management Board members

From January 1, 2020 till February 19, 2020 the Management Board of the tenth term of office had worked in following composition:

Name and surname of the Management Board	Position
Henryk Baranowski	President of the Management Board
Wojciech Kowalczyk	Vice-President for Capital Investments
Marek Pastuszko	Vice-President for Corporate Affairs
Paweł Śliwa	Vice-President for Innovations
Ryszard Wasiłek	Vice-President for Operations
Emil Wojtowicz	Vice-President for Finance

On February 19, 2020, in connection with the end of the 10th term of office, the Supervisory Board dismissed the above mentioned Management Board members and adopted resolutions which appointed the Management Board of the 11th term of office.

As at June 30, 2020 the Management Board worked in following composition:

Name and surname of the Management Board	Position	
Wojciech Dąbrowski	President of the Management Board	from February 20, 2020
Paweł Cioch	Vice-President for Corporate Affairs	from February 24, 2020
Paweł Strączyński	Vice-President for Finance	from February 24, 2020
Paweł Śliwa	Vice-President for Innovations	from February 20, 2020
Ryszard Wasiłek	Vice-President for Operations	from February 20, 2020

On August 18, 2020, as a result of the competitive procedure, the Supervisory Board adopted a resolution on the appointment of a new member of the Management Board and appointed Mrs. Wanda Buk as the Vice-President of the Management Board for Regulations from September 1, 2020.

At the publication date of this report, the Management Board worked in following composition:

Name and surname of the Management Board	Position	
Wojciech Dąbrowski	President of the Management Board	from February 20, 2020
Wanda Buk	Vice-President for Regulations	from September 1, 2020
Paweł Cioch	Vice-President for Corporate Affairs	from February 24, 2020
Paweł Strączyński	Vice-President for Finance	from February 24, 2020
Paweł Śliwa	Vice-President for Innovations	from February 20, 2020
Ryszard Wasiłek	Vice-President for Operations	from February 20, 2020

Supervisory Board members

As at June 30, 2020 and as the publication date of this report, the Supervisory Board worked in following composition:

Name and surname	Position
Anna Kowalik	Chairman of the Supervisory Board
Artur Składanek	Vice-Chairman of the Supervisory Board – independent
Grzegorz Kuczyński	Secretary of the Supervisory Board - independent
Janina Goss	Supervisory Board Member - independent
Tomasz Hapunowicz	Supervisory Board Member - independent
Mieczysław Sawaryn	Supervisory Board Member - independent
Jerzy Sawicki	Supervisory Board Member - independent
Radosław Winiarski	Supervisory Board Member

As at June 30, 2020 and as the publication date of this report the committees worked in following compositions:

Name and surname of the member of the Supervisory Board	Audit Committee	Corporate Governance Committee	Strategy and Development Committee	Appointment and Remuneration Committee
Janina Goss	Member			Member
Tomasz Hapunowicz		Member Chairman	Member	
Anna Kowalik	Member		Member	Member
Grzegorz Kuczyński	Member Chairman	Member		
Mieczysław Sawaryn			Member	Member Chairman
Jerzy Sawicki		Member	Member	Member
Artur Składanek	Member		Member Chairman	
Radosław Winiarski	Member		Member	

ACTIVITIES RELATED TO NUCLEAR ENERGY

Business partnership and prospects for the project implementation and financing capabilities

PGE EJ1 is PGE Group's entity, which was established in 2010. In 2014, a shareholder agreement was signed, pursuant to which Enea S.A., KGHM Polska Miedź S.A. and TAURON Polska Energia S.A. each purchased from PGE a 10% stake in PGE EJ1 (30% in total).

Decisions with regard to the continuation of the Programme will be made based on decisions by the government administration concerning a role of nuclear energy in Polish fuel mix, mode for the procurement of nuclear power plant technology, investment financing model and an updated Programme for Poland's Nuclear Power.

On August 6, 2020, the Ministry of Climate sent for public consultations a draft resolution of the Council of Ministers on the update of the multi-annual Polish Nuclear Power Program, which provides for the acquisition by the State Treasury of 100% shares in the special purpose vehicle PGE EJ1 Sp. z o. o. The program is to be adopted in the fourth quarter of 2020.

Site characterisation and environmental surveys

Current scope of Program conducted by PGE EJ 1 assumes location and environmental surveys at two potential Lubiatowo-Kopalino, Żarnowiec and preparing an Environmental Impact Assessment Report and Site Report.

Selecting an appropriate location is one of the key aspects in ensuring nuclear safety and the efficient and reliable operation of a nuclear power plant. The results of these works are necessary in order to develop solutions that ensure the power plant's safe operation and minimise its impact on the natural environment and the everyday life of local residents.

Social acceptance

With a view toward ensuring social acceptance for the project to build the first Polish nuclear power plant, PGE Group is conducting activities aiming to maintain a high level of community support at the planned nuclear plant sites and to deliver knowledge about nuclear power. In the first half of 2020, works were continued within the Site Municipality Development Support Programme intended to reinforce partner relations with the local communities and authorities of the municipalities by providing support to initiatives that are of significance to the residents and development of the region.

Compensations from WorleyParsons

WorleyParsons initiated a lawsuit for payment of PLN 59 million for due remuneration, according to the claimant, and return of an amount unduly collected, according to the claimant, by PGE EJ1 from a bank guarantee, and subsequently expanded its claim to PLN 104 million (i.e. by PLN 45 million). On March 31, 2018, the company filed a response to WorleyParsons' expanded claim. PGE Group does not accept the claim and regards its possible admission by the court as unlikely.

LEGAL ASPECTS

The issue of compensation regarding the conversion of shares

Information on the issue of compensation regarding the conversion of shares are described in note 22.4 to the consolidated financial statements.

INFORMATION CONCERNING PROCEEDINGS IN FRONT OF COURT, BODY APPROPRIATE FOR ARBITRATION PROCEEDINGS OR IN FRONT OF PUBLIC ADMINISTRATION AUTHORITIES

Significant proceedings pending in front of courts, competent arbitration authority or public administration authority are described in note 22.4 to the consolidated financial statements.

Termination by Enea S.A. of agreements for sale of certificates

Information on termination by Enea S.A. of agreements for sale of certificates are described in note 22.4 to the consolidated financial statements.

INFORMATION CONCERNING THE GUARANTEES FOR LOANS GRANTED BY THE COMPANY OR A SUBSIDIARY

Within the Group, as at June 30, 2020 PGE S.A. and subsidiaries did not grant guarantees to other entities or to a subsidiary, where a value of guarantees constitutes at least 10% of the Company's equity.

INFORMATION ON ISSUE, REDEMPTION AND REPAYMENT OF DEBT SECURITIES AND OTHER SECURITIES

Information on issue, redemption and repayment of debt securities and other securities is described in p. 5.1 of the foregoing report and in note 1.3 to the consolidated financial statements.

TRANSACTIONS WITH RELATED ENTITIES

Information about transactions with related entities is presented in note 24.2 to the consolidated financial statements.

5. Other elements of the report

5.1. Significant changes in organisation of the Capital Group

Changes which occurred in the PGE Capital Group's structure in the period from January 1, 2020 until the publication date of this report, are presented in note 1.3 to consolidated financial statements and described below.

ACQUISITION OR DISPOSAL OF SHARES BY THE COMPANIES

Segment	Shares of the company	Date of transaction/ registration in the National Court Register	Comment
Other operations	PIMERGE S.A. with its seat in Wrocław („PIMERGE") – acquisition by PGE Ventures of shares in the increased share capital of PIMERGE	March 11, 2020/ July 1, 2020 increase of the share capital registered in the National Court Register	On October 14, 2020 the Extraordinary Assembly of Partners of the PIMERGE adopted resolution on a share capital increase from PLN 298 424 to PLN 1 698 424 PLN, i.e. by PLN 1 400 000, under private subscription through the issue of 1 400 000 new prescribed preferred shares of the company with a nominal value of PLN 1 each. The share capital increase was taken up PGE Ventures as a result of the agreement for the acquisition of PIMERGE shares concluded on March 11, 2020 by PIMERGE and PGE Ventures. Pursuant to the provisions of the above-mentioned share subscription agreement, the coverage of PIMERGE shares acquired by PGE Ventures took place as a result of a contractual set-off of mutual claims between PIMERGE and PGE Ventures, made as a result of a set-off agreement concluded on March 12, 2020 between these companies, i.e. PGE Ventures' receivables under the loan in cash in the amount of PLN 1 400 000 granted to PIMERGE and claims to PIMERGE for the obligation of PGE Ventures to pay a cash contribution in connection with the acquisition of new shares in the company. As a result of the share capital increase and the acquisition of new shares, PGE Ventures' share in the company's share capital increased from 42.4% to 89.9%, which made the company a part of the PGE Capital Group.
Other operations	EPORE sp. z o.o. with its seat in Bogatynia („EPORE") – acquisition by PGE GiEK S.A. of shares in EPORE (the share purchase agreement)	June 18, 2020	On May 29, 2020 PGE GiEK S.A. as a buyer and J.H. Duda Baustoffe Entsorgung Logistik GmbH with its seat in Bad Honnef (Germany) concluded a contract for sale of all owned by J.H. Duda Baustoffe Entsorgung Logistik GmbH shares in EPORE, ie a total of 9 350 shares of this company with a total nominal value of PLN 4 675 000, representing 14.6% of the share capital. Transfer of ownership of shares to PGE GiEK S.A. took place on June 18, 2020. As a result of the above transaction, PGE GiEK S.A. became the sole shareholder of the company, holding 100% of the company's share capital.
Renewables	Eco-Power sp. z o.o. with its seat in Warsaw („Eco-Power") – acquisition by PGE Energia Odnawialna S.A. of shares in Eco-Power (the share purchase agreement)	July 31, 2020	On July 30, 2020 PGE Energia Odnawialna S.A. as a buyer and FEN Wind Farm B.V. based in Amsterdam (the Netherlands) as the seller concluded an agreement for the sale of all owned by FEN Wind Farm B.V. shares in Eco-Power, i.e. 1 150 shares of this company, with a total nominal value of PLN 345 000, constituting 100% of the share capital. Transfer of ownership of shares to PGE Energia Odnawialna S.A. took place on July 31, 2020. As a result of the above transaction, Eco-Power became part of the PGE Capital Group.

INCREASE OF SHARE CAPITAL OF SUBSIDIARIES

Segment	Entity	Date of registration in the National Court Register	Comment
Supply	PGE Centrum sp. z o.o.	February 26, 2020	On January 9, 2020 the Extraordinary Assembly of Partners of the company adopted resolution on a share capital increase from PLN 39 120 000 to PLN 47 920 000, i.e. by PLN 8 800 000. The share capital increase was taken up and paid by PGE S.A. in cash. PGE S.A. holds 100% in the share capital.
Other operations	PGE Ventures sp. z o.o.	February 27, 2020	On January 22, 2020 the Extraordinary Assembly of Partners of the company adopted resolution on a share capital increase from PLN 67 900 000 to PLN 77 000 000, i.e. by PLN 9 100 000. The share capital increase was taken up and paid by PGE S.A. in cash. PGE S.A. holds 100% in the share capital.

DE-MERGERS

Segment	Spun off company /acquiring company	Date of transaction/ registration in the National Court Register	Comment
District Heating	PGE Energia Ciepła S.A. / PGE GiEK S.A.	October 10, 2019/ January 2, 2020	On October 10, 2019 the Extraordinary General Meetings of PGE EC and PGE GiEK adopted resolutions on the division of PGE EC (divided company) through a carve out, pursuant to art. 529 § 1 point 4 of the Polish Commercial Companies Code, by way of transfer to PGE GiEK (acquiring company) of part of assets of the divided company in the form of an organised part of the enterprise covering the activities carried out by PGE EC Branch in Rybniku ("Rybnik Branch") related to production of electricity and heat, as well as distribution of electricity and heat. The transfer of the Rybnik Branch to PGE GiEK was carried out by lowering PGE EC's reserve capital and increase of the share capital of PGE GiEK from PLN 6 530 018 520 to PLN 6 583 137 600 i.e. by PLN 53 119 080 PLN as a result of issue of 5 311 908 inscribed shares of the acquiring company with nominal value of PLN 10 each. As the sole shareholder of PGE EC, PGE S.A. acquired all new shares in the increased share capital of the acquiring company.

5.2. Publication of financial forecasts

PGE S.A. did not publish financial forecasts.

5.3. Information about shares and other securities

SHAREHOLDERS WITH A SIGNIFICANT STAKE

According to the best knowledge, on the ground of the letter from the Ministry of the State Treasury of April 27, 2016, the State Treasury holds 1 072 984 098 ordinary shares of the Company, representing 57.39% of the Company's share capital and entitling to 1 072 984 098 votes on the General Meeting of the Company, constituting 57.39% of total votes.

Table: Shareholders holding directly or indirectly by subsidiaries at least 5% of the total votes at the General Meeting of PGE S.A.

Shareholder	Number of shares	Number of votes	% in total votes on General Meeting
State Treasury	1 072 984 098	1 072 984 098	57.39%
Others	796 776 731	796 776 731	42.61%
Total	**1 869 760 829**	**1 869 760 829**	**100.00%**

Shares of the parent company owned by the members of management and supervisory authorities

Table: Shares of PGE S.A. held and managed directly by the managers of the Company.

Shareholder	Position	Number of shares at June 30, 2020	Nominal value of shares at June 30, 2020
Management Board of PGE S.A.		**300**	**3 075**
Paweł Strączyński	Vice-President of the Management Board	300	3 075

6. Statement on the reliable preparation of the financial statements

STATEMENT ON THE RELIABLE PREPARATION OF THE FINANCIAL STATEMENTS

To the best knowledge of the Management Board of PGE S.A., the half-yearly financial report, containing interim condensed consolidated financial statements of PGE Capital Group, interim condensed standalone financial statements for PGE S.A. and comparative data were prepared in accordance with the governing accounting principles, present a fair, true and reliable view of the material and financial situation of PGE Capital Group and its financial result.

The report of the Management Board on the activities of PGE Capital Group presents a true view of the development, achievements and situation of the Capital Group.

STATEMENT ON THE ENTITY AUTHORISED TO AUDIT THE FINANCIAL STATEMENTS

The Management Board of PGE S.A. declares that the entity authorised to audit the financial statements, which reviews the interim consolidated financial statements and interim condensed standalone financial statements for PGE S.A., has been appointed in accordance with provisions of the law. The entity and the statutory auditors, who performed the review, fulfilled all the requirements for issuing an unbiased and independent report on the review, in accordance with the governing provisions and professional standards.

7. Approval of the Management Board's Report

The foregoing Management Board's Report on activities of PGE Capital Group was approved for publication by the Management Board of the parent company on September 15, 2020.

Warsaw, September 15, 2020

Signatures of members of the Management Board of PGE Polska Grupa Energetyczna S.A.

President of the Management Board	**Wojciech Dąbrowski**	
Vice-President of the Management Board	**Wanda Buk**	
Vice-President of the Management Board	**Paweł Cioch**	
Vice-President of the Management Board	**Paweł Strączyński**	
Vice-President of the Management Board	**Paweł Śliwa**	
Vice-President of the Management Board	**Ryszard Wasiłek**	

Glossary

AKPiA	Control, measurement and automation apparatus area
Ancillary control services (ACS)	services provided to the transmission system operator, which are indispensable for the proper functioning of the National Power System and ensure the keeping of required reliability and quality standards.
Achievable capacity	the maximum sustained capacity of a generating unit or generator, maintained continuously by a thermal generator for at least 15 hours or by a hydroelectric generator for at least five hours, at standardized operating conditions, as confirmed by tests.
ARA	USD hard coal price index in EU. Loco in harbours Amsterdam-Rotterdam-Antwerp
Balancing market	a technical platform for balancing electricity supply and demand on the market. The differences between the planned (announced supply schedules) and the actually delivered/off-taken volumes of electricity are settled here. The purpose of the balancing market is to balance transactions concluded between individual market participants and actual electricity demand. The participants of the balancing market can be the generators, customers for electricity understood as entities connected to a network located in the balancing market area (including off-takers and network customers), trading companies, electricity exchanges and the TSO as the balancing company.
Base, baseload	standard product on the electricity market: a constant hourly power supply per day in a given period, for example week, month, quarter or year.
BAT	Best Available Technology
Best Practices	Document „Best Practice for GPW Listed Companies 2016" adopted by the resolution of the GPW Supervisory Board of October 13, 2015 and effective from January 1, 2016.
Biomass	solid or liquid substances of plant or animal origin, subject to biodegradation, obtained from agricultural or forestry products, waste and remains or industries processing their products as well as certain other biodegradable waste in particular agricultural raw materials.
Black energy	popular name for energy generated as a result of combustion of black coal or lignite.
CCGT	Combined Cycle Gas Turbine
Circular economy	system that minimises the consumption of resources and the level of waste as well as emissions and energy losses by creating a closed loop of processes in which waste from one process is used as resources in other processes so as to maximally reduce the quantity of production waste
Co-combustion	the generation of electricity or heat based on a process of combined, simultaneous combustion in one device of biomass or biogas together with other fuels; part of the energy thus generated can be deemed to be energy generated with the use of renewable sources.
Co-generation	the simultaneous generation of heat and electricity or mechanical energy in the course of one and the same technological process.
Constrained generation	the generation of electricity to ensure the quality and reliability of the national power system; this applies to generating units in which generation must continue due to the technical limitations of the operation of the power system and the necessity of ensuring its adequate reliability.
CVC fund	Corporate Venture Capital; in the CVC model, portfolio companies, aside from financial support, receive the opportunity to verify their ideas in a corporate setting
Distribution	transport of energy through distribution grid of high (110 kV), medium (15kV) and low (400V) voltage in order to supply the customers.
Distribution System Operator (DSO)	a power company engaging in the distribution of gaseous fuels or electricity, responsible for traffic in the gas or electricity distribution systems, current and long-term security of operation of the system, the operation, maintenance, repairs and indispensable expansion of the distribution network, including connections to other gas or power systems.
Energy cluster	civil-law arrangement that may include natural persons, legal entities, scientific units, research institutes or local government units, concerning the generation, distribution or trade in energy and energy demand balancing, with this energy being from renewable sources or other sources or fuels, within a distribution grid with nominal voltage below 110 kV, within the operational area of the given cluster, not exceeding the area of one district (powiat) in the meaning of the act on district authorities) or 5 municipalities (gmina) in the meaning of the act on municipal authorities; an energy cluster is represented by a coordinator, which is a cooperative, association, foundation appointed for this purpose or any member of the energy cluster indicated in the civil-law arrangement
ERO	Energy Regulatory Office (pol. URE).
EUA	European Union Allowances: transferable CO_2 emission allowances; one EUA allows an operator to release one tonne of CO_2.

EU ETS	European Union Greenhouse Gas Emission Trading Scheme) EU emission trading scheme. Its operating rules are set out in the ETS Directive, amended by the Directive 2009/29/EC of the European Parliament and of the Council of April 23, 2009 (OJ EU L. of 2009, No. 140, p. 63—87).
EV	Electric vehicle
FIT/FIP	Feed-in-Tariff (FIT) and Feed-in-Premium (FIP): system of subsidies to the market price of electricity performed by Zarządca Rozliczeń S.A.
Generating unit	a technically and commercially defined set of equipment belonging to a power company and used to generate electricity or heat and to transmit power.
GJ	Gigajoule, a unit of work/heat in the SI system, 1 GJ = 1000/3.6 kWh = approximately 278 kWh.
GPZ	main power supply point, a type of transformer station used for the processing or distribution of electricity or solely for the distribution of electricity.
Green certificate	popular name for energy generated from renewable energy sources.
GW	gigawatt, a unit of capacity in the SI system, 1 GW = 10^9 W.
GWe	one gigawatt of electric capacity.
GWt	one gigawatt of heat capacity.
HCl	hydrogen chloride.
Hg	mercury.
HICP	Harmonised Index of Consumer Prices
High Voltage Network (HV)	a network with a nominal voltage of 110 kV.
IED	Industrial Emissions Directive
IGCC	Integrated Gasification Combined Cycle.
Installed capacity	the formal value of active power recorded in the design documentation of a generating system as being the maximum achievable capacity of that system, confirmed by the acceptance protocols of that system (a historical value, it does not change over time.
IRiESP	the Transmission Network Operation and Maintenance Manual required to be prepared by a transmission system operator pursuant to the Energy Law; instructions prepared for power networks that specify in detail the terms and conditions of using these networks by system users as well as terms and conditions for traffic handling, operation and planning the development of these networks; sections on transmission system balancing and system limitation management, including information on comments received from system users and their consideration, are submitted to the ERO President for approval by way of a decision.
IRZ	Cold Intervention Reserve Service – service consisting of maintaining power units ready for energy production. Energy is produced on request of PSE S.A.
KRI	Key Risk Indicator
KSE	the National Power System, a set of equipment for the distribution, transmission and generation of electricity, forming a system to allow the supply of electricity in the territory of Poland.
KSP	the National Transmission System, a set of equipment for the transmission of electricity in the territory of Poland.
kV	kilo volt, an SI unit of electric potential difference, current and electromotive force; 1kV= 103 V.
kWh	kilowatt-hour, a unit of electric energy in the SI system defined as the volume of electricity used by the 1 kW equipment over one hour. 1 kWh = 3,600,000 J = 3.6 MJ.
kWp	a power unit dedicated to determining the power of photovoltaic panels, means the amount of electricity in the peak of production.
Low Voltage Network (LV)	a network with a nominal voltage not exceeding 1 kV.
LTC	long-term contracts on the purchase of capacity and electricity entered into between Polskie Sieci Elektroenergetyczne S.A. and electricity generators in the years 1994-2001.
Medium-voltage network (MV)	an energy network with a nominal voltage higher than 1 kV but lower than 110 kV.
MEV	Minimum Energy Volumes.
MSR	Market Stability Reserve (relating to CO_2)
MW	a unit of capacity in the SI system, 1 MW = 10^6 W.
Mwe	one megawatt of electric power.

MWt	one megawatt of heat power.
NAP	National emissions Allocation Plan, prepared separately for the national emission trading system and for the EU emission trading system by the National Administrator of the Emission Trading System.
NAP II	National CO_2 emissions Allocation Plan for the years 2008-2012 prepared for the EU emission trading system adopted by the Ordinance of the Council of Ministers of July 1, 2008 (Dz. U. of 2008, No. 202, item 1248).
NH_3	ammonia
Nm^3	normal cubic meter; a unit of volume from outside the SI system signifying the quantity of dry gas in 1 m3 of space at a pressure of 101.325 Pa and a temperature of 0°C.
NO_x	nitrogen oxides.
N:W ratio	Ration of volume of overburden removed in m^3 to the mass of extracted coal in tons
OTF	Organised Trading Facilities
Operational Capacity Reserve (ORM)	ORM constitutes of generation capacities of active Production Schedular Units (JGWa) in operation or layover, representing excess capacity over electricity demand available to the TSO under the Energy Sale Agreements and on the Balancing Market in unforced generation
Peak, peakload	a standard product on the electricity market; a constant power supply from Monday to Friday, each hour between 7:00 a.m. and 10:00 p.m. (15-hour standard for the Polish market) or between 8:00 a.m. and 8:00 p.m. (12-hour standard for the German market) in a given period, for example week, month, quarter or year.
Peak power pumped storage plants	special type of hydro-power plant allowing for electricity storage. It uses the upper reservoir, to which water is pumped from the lower reservoir using electricity (usually excessive in system). The pumped storage facilities provide ancillary control services for the national power system. In periods of increased demand for electricity, water from the upper reservoir is released through the turbine. This way, electricity is produced.
PJ	Petajoule, a unit of work/heat in the SI system, 1 PJ = approx. 278 GWh
Property rights	negotiable exchange-traded rights under green and co-generation certificates
Prosumer	end customer who purchases electricity under a comprehensive agreement and generates electricity only from renewable sources at a micro-installations for own purposes, unrelated to economic activities
PSCMI1	Polish Steam Coal Market Index 1 - average level of prices of coal dust sold to industrial-scale power plants in Poland
RAB	Regulatory Asset Base.
Red certificate	a certificate confirming generation of electricity in co-generation with heat.
Red energy	popular name for electricity co-generated with heat.
Regulator	the President of ERO, fulfilling the tasks assigned to him in the energy law. The regulator is responsible for, among others, giving out licenses for energy companies, approval of energy tariffs, appointing Transmission System Operators and Distribution System Operators.
Renewable Energy Source (RES)	a source of generation using wind power, solar radiation, geothermal energy, waves, sea currents and tides, flow of rivers and energy obtained from biomass, landfill biogas as well as biogas generated in sewage collection or treatment processes or the disintegration of stored plant or animal remains.
SAIDI	System Average Interruption Duration Index - index of average system interruption time (long, very long and disastrous), expressed in minutes per customer per year, which is the sum of the interruption duration multiplied by the number of consumers exposed to the effects of this interruption during the year, divided by the total number of off-takers. SAIDI does not include interruptions lasting less than three minutes and is determined separately for planned and unplanned interruptions. It applies to breakdowns in the low (LV), medium (MV) and high voltage (HV), wherein SAIDI in quality tariff does not include interruptions on low voltage.
SAIFI	System Average Interruption Frequency Index - index of average system amount of interruptions (long, very long and disastrous), determined as number of off-takers exposed to the effects of all such interruptions during the year divided by the total number of off-takers. SAIFI does not include interruptions lasting less than three minutes and is determined separately for planned and unplanned interruptions. It applies to breakdowns in the low (LV), medium (MV) and high voltage (HV), wherein SAIFI in quality tariff does not include interruptions on low voltage .
SCR	Selective catalytic reduction
SNCR	Selective non-catalytic reduction
Start-up	early-stage company established in order to build new products or services and characterised by a high level of uncertainty. The most common features of start-ups are: short operational history (up to 10

	years), innovativeness, scalability, higher risk than in the case of traditional businesses but also potential higher returns on investment
Tariff	the list of prices and rates and terms of application of the same, devised by an energy enterprise and introduced as binding on the customers specified therein in the manner defined by an act of parliament.
Tariff group	a group of customers off-taking electricity or heat or using services related to electricity or heat supply to whom a single set of prices or charges and terms are applied.
TGE	Towarowa Giełda Energii S.A. (Polish Power Exchange), a commodity exchange on which trading can take place in electricity, liquid or gas fuels, extraction gas, emission allowances and property rights whose price depends directly or indirectly on electric energy, liquid or gas fuels and emission allowances, admitted to commodity exchange trading.
TPA, TPA rule	Third Party Access, the owner or operator of the network infrastructure to third parties in order to supply goods/services to third party customers.
Transmission	transport of electricity through high voltage (220 and 400 kV) transmission network from generators to distributors.
Transmission System Operator (TSO)	a power company engaging in the transmission of gaseous fuels or electric energy, responsible for traffic in a gas or power transmission system, current and long-term security of operation of that system, the operation, maintenance, repair and indispensable expansion of the transmission system, including connections with other gas or power systems. In Poland, for the period from July 2, 2014 till December 31, 2030 Polskie Sieci Elektroenergetyczne S.A. was chosen as a TSO in the field of electricity transmission.
TWh	terawatt hour, a multiple unit for measuring of electricity unit in the system SI. 1 TWh is 10^9 kWh.
Ultra-high-voltage network (UHV)	an energy network with a voltage equal to 220 kV or higher.
V (volt)	electrical potential unit, electric voltage and electromotive force in the International System of Units (SI), 1 V= 1J/1C = (1 kg x m^2) / (A x s^3).
W (watt)	a unit of power in the International Systems of Units (SI), 1 W = 1J/1s = 1 kg x m^2 x s^{-3}.
Yellow certificate	a certificate confirming generation of energy in gas-fired power plants and CCGT power plants.
Yellow energy	popular name for energy generated in gas-fired power plants and CCGT power plants.