

# NON-FINANCIAL REPORT

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On activities of PGE Polska Grupa Energetyczna SA  
and PGE Capital Group  
for year 2021

ended December 31, 2021



*Leading in the green transition*

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## LETTER OF THE PRESIDENT OF THE MANAGEMENT BOARD OF PGE POLSKA GRUPA ENERGETYCZNA SA

| GRI 102-14 | GC-7 | GC-8 | GC-9 |



**Ladies and gentlemen,**

**2021 was a year in which we were actively turning strategy into action. Our commitment to being a leader in sustainable energy transition is manifested in the non-financial dimension of the Group's operations, focusing on the positive impact of our activities on the surroundings.**

In the social area, we place particular emphasis on the transition of coal regions so as to provide new prospects for our employees and other residents there. The measures we have initiated and the investments in progress in the Bełchatów and Turoszów regions are an indispensable part of just transition and are supportive of the transition of the entire Polish energy industry.

In parallel to the progress being made in investments aimed at decarbonising the Group, we are striving to raise climate awareness in order to effectively work on reducing greenhouse gas emissions and building an organisation that is resilient to change. Last year, we demonstrated this primarily by implementing a carbon footprint calculator covering all three scopes, while also initiating work on developing a sector-wide framework for carbon footprint calculations. We also decided to begin reporting under the Carbon Disclosure Project and we will continue to actively and increasingly comply with recognised reporting standards.

Effective management in the non-financial area of a company's operations must be ensured by the principles of corporate governance. Toward the end of last year, PGE's Management Board appointed the Sustainability Committee and the Management Board Proxy for ESG, which guarantees consistent development in the ESG area and the setting of national standards in this respect. This is one of our key challenges for 2022, and we are determined to get it done.

I invite you to read our report, which is structured in alignment with the ESG concept, keeping in mind the expectations of our stakeholders.



**Wojciech Dąbrowski**

President of the Management Board  
PGE Polska Grupa Energetyczna SA

## Our approach to reporting

### | GRI 102-46 |

The report on non-financial information of PGE Polska Grupa Energetyczna S.A. and PGE Group for 2021 is prepared in accordance with the requirements of the amended Accounting Act, implementing Directive 2014/95/EU into Polish law. The report covers non-financial information for the period from January 1 to December 31, 2021 and includes consolidated data for PGE Group and its parent undertaking - PGE Polska Grupa Energetyczna S.A. As at December 31, 2021, PGE Group comprised 83 companies in which PGE Polska Grupa Energetyczna S.A. directly or indirectly held over 50% of share capital. The non-financial report covers 37 companies which reported having employees.

The chapters of the report in the narrative section are divided according to the ESG structure (E - environment, S - social, G - governance). This section includes references to indicators in line with GRI standards. The non-financial report for 2021 includes 80 GRI Standards indicators, which is 35% more than in 2020, along with the company's own indicators. The numerical indicators are presented at the end of the report. The indicators are broken down into the following areas: environmental, employee-related, social, human rights and anti-corruption.

The non-financial report of PGE Polska Grupa Energetyczna and PGE Group incorporates selected indicators of the Global Reporting Initiative (GRI) reporting standard in its 2016 version, unless 2018 is indicated in the table. The report also references the 10 principles of the UN Global Compact.

Aside from selecting the most relevant topics from the point of view of both the company and its environment, the authors of the report, following internal consultations, also selected indicators that most closely reflect the specific nature of PGE Group's activities.

### **Key new elements in the non-financial report for 2021:**

- recognition of the EU environmental taxonomy,
- PGE Group's carbon footprint in three scopes,
- ESG area management,
- management of the Circular Economy,
- approach to climate risk management,
- approach to anti-corruption,
- approach to managing conflicts of interest.

## 1. Overview of activities of PGE Group

The PGE Capital Group ("PGE Group") is the largest energy group in Poland. It generates approximately 44 percent of Poland's electricity and approximately 20 percent of the country's district heat, and its electricity distribution area covers about 40 percent of the country's territory. The PGE Group's parent company is PGE Polska Grupa Energetyczna SA ("PGE SA").

### 1.1 Business model

| GRI 102-1 | GRI 102-2 | GRI 102-7 | GRI 201-1 |

The PGE Group operates across the entire value chain: it produces electricity and heat in both conventional and renewable power plants and CHP plants, and then supplies and sells them to customers across Poland, both households and businesses, institutions and local governments. In 2021, the PGE Group continued the process of integrating the management area of Combustion By-products (CBPs) through setting up a new segment: Circular Economy. The utilization of CBPs allows PGE to reduce the extraction of natural resources, limit its impact on the environment and reduce CO<sub>2</sub> emissions. In this way, the PGE Group implements measures aimed at making the energy sector waste-free, in line with the idea of a circular economy oriented towards environment protection.

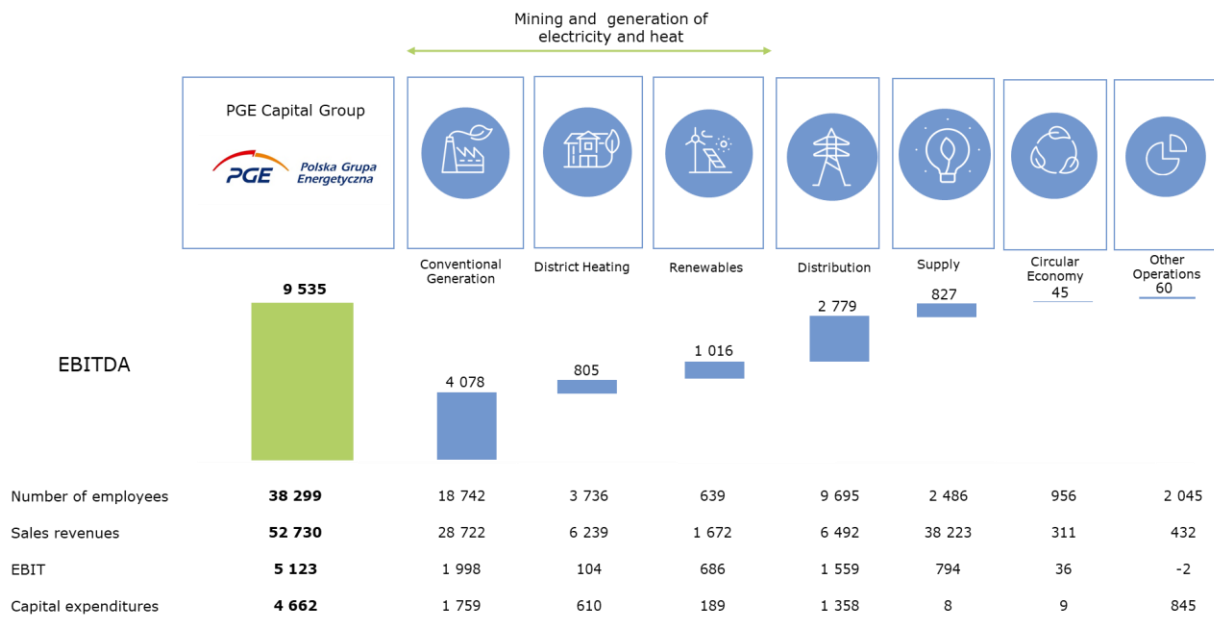


Fig. Key data of the PGE Capital Group for 2021

## Business model of PGE Group in 2021

The PGE Capital Group's business activities are currently organized in seven segments:

### CONVENTIONAL POWER GENERATION

This segment deals with lignite mining as well as electricity and heat generation from conventional sources.

### DISTRICT HEATING

This segment deals with electricity and heat generation from cogeneration sources, as well as the transmission and distribution of heat.

### RENEWABLES

This segment deals with electricity generation from renewable sources and in pumped storage hydro power plants, as well as the provision of ancillary services.

### SUPPLY

This segment deals with wholesale trade in electricity in the domestic and foreign markets, sale of electricity to end users, trade in emission allowances, property rights and fuels, as well as the provision of Corporate Centre services to the companies belonging to the PGE Group.

### DISTRIBUTION

This segment deals with the provision of services related to the supply of electricity to end users by means of high-, medium-, and low-voltage networks and facilities. The company managing the segment – PGE Dystrybucja SA – acts in the capacity of the Distribution System Operator.

### CIRCULAR ECONOMY

The activities of the segment include the provision of comprehensive services in the field of management of combustion by-products ("CBPs"), provision of services in auxiliary areas for electricity and heat producers and the supply of materials based on CBPs.

### OTHER OPERATIONS

Other operations include provision of services, through the subsidiaries, to PGE Group, which include organisation of capital raising in form of Eurobonds (PGE Sweden), provision of IT, payroll and HR services, transportation, management of investment funds and investing in start-ups. The diagram below presents the current business model of the PGE Group.

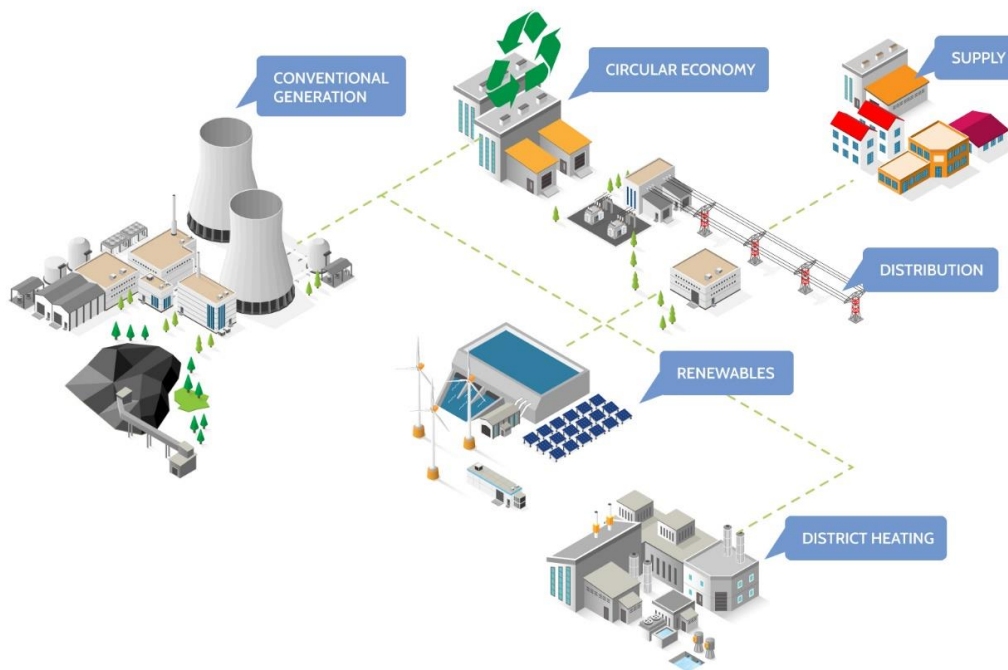


Fig. Current business model of PGE Group

As PGE Group's strategy is being implemented and the government's plan to carve out coal assets is finalised, PGE's business model is temporarily set to change – from being primarily an electricity producer, PGE will predominately become a distributor of energy. PGE Group's generating potential will be gradually re-built as investments in new generating assets, especially offshore wind farms, are implemented – the diagram below presents the target business model of the PGE Group.

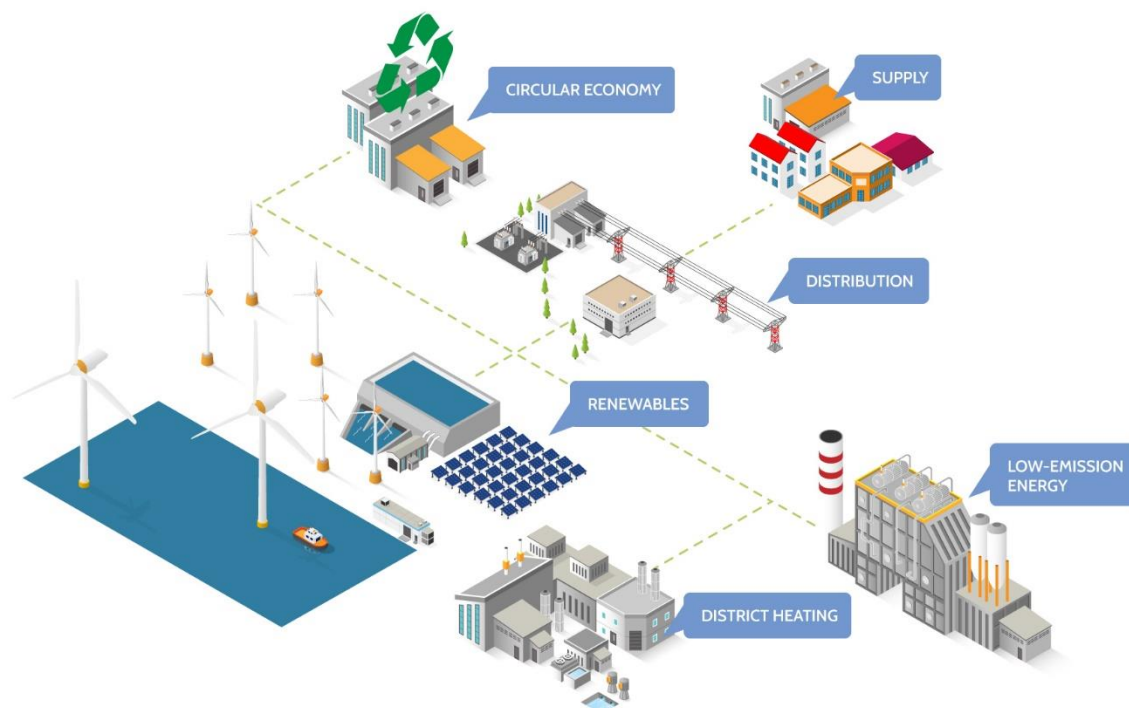


Fig. Target business model of the PGE Group

## Business segments and their market position.

| Key assets of the segment  | Electricity volumes   | Heat volumes                               | Market position  |
|--|---|--|--|
| Conventional Generation  |   |  |  |
|  <p><b>5 conventional power plants</b><br/><b>2 lignite mines</b></p>   | <p>Net electricity generation<br/><b>57.42 TWh</b></p>            | <p>Heat generation<br/><b>5.13 PJ</b></p>  | <p>PGE Group is the leader of lignite mining in Poland (approx. 91%)<br/>PGE Group is also a national leader in electricity and district heat generation</p> |
| District Heating   |   |  |  |
|  <p><b>16 CHP plants</b></p>  | <p>Net electricity generation<br/><b>8.76 TWh</b></p>             | <p>Heat generation<br/><b>51.64 PJ</b></p> | <p>PGE Group is a national leader in electricity and district heat generation</p>  |
| Renewables   |   |  |  |
|  <p><b>17 wind farms</b><br/><b>5 photovoltaic power plants</b><br/><b>29 run-of-river hydro power plants</b><br/><b>4 pumped-storage power plants, including 2 with natural flow</b></p> | <p>Net electricity generation<br/><b>2.59 TWh</b></p>             | -  | <p>PGE Group is the largest electricity producer from RES with market share of approx. 10% (excluding co-combustion of biomass and bio-gas)</p>              |
| Distribution   |   |  |  |
|  <p><b>297 029 kms of distribution lines</b></p>  | <p>Electricity distribution volume<br/><b>37.74 TWh</b></p>       | -  | <p>Second domestic electricity distributor with regard to number of customers</p>  |
| Supply   |   |  |  |
|   | <p>Electricity sales to final off-takers<br/><b>37.32 TWh</b></p> | -  | <p>Leader in wholesale and retail trading in Poland</p>  |



## 1.2 The strategy of the PGE Capital Group until 2030 with an outlook until 2050

Energy transition, decarbonisation of power generation and climate neutrality are the key issues on which the Strategy of the PGE Group focuses. Developed by the Management Board of PGE Polska Grupa Energetyczna appointed in February 2020, the Strategy was announced on October 19, 2020 and presents a concrete plan for a sustainable transition of the PGE Group towards low- and zero-carbon power generation.

The business strategy of the PGE Group is a response to the profound changes taking place in the energy sector in recent years and to the expectations of society, which to a large extent determine the directions of development for the whole industry. The PGE Group is the leader of transformation and modernisation of the energy sector in Poland; it supports the development of a market environment conducive to the energy transition. The transformation of the PGE Group will be carried out in a sustainable manner, in dialogue with social partners. PGE is aware of the impact of its operations on the environment – in the social, economic and environmental dimensions. PGE's activities are oriented towards maximising added value for all stakeholders.

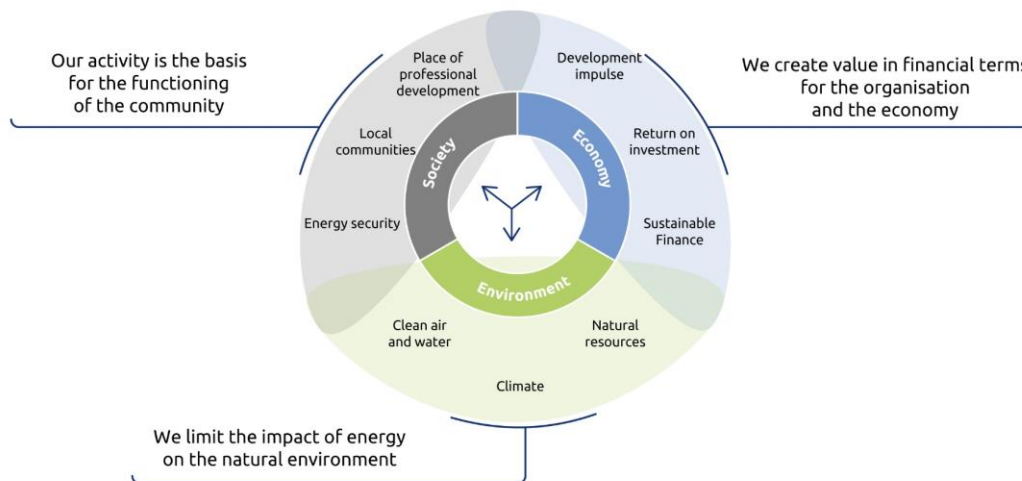


Fig. Sustainable transformation of the PGE Group

### The key development directions and activity reduction areas

The PGE Group's key development areas will include offshore and onshore wind energy, photovoltaics, grid infrastructure, low-emission heat generation and modern energy sector services. The area in which activities will be ceased include coal and lignite power generation, hard coal trading and support areas outside the core business.

### Mission and vision

The mission of the PGE Group is to provide energy for a secure future. According to its long-term vision, PGE is to become the leader of sustainable energy transformation in Poland. The Group's vision translates into three strategic priorities:

- generation of environmentally friendly energy,
- provision of modern energy services,
- efficient and effective functioning of the Group.

#PGE2050

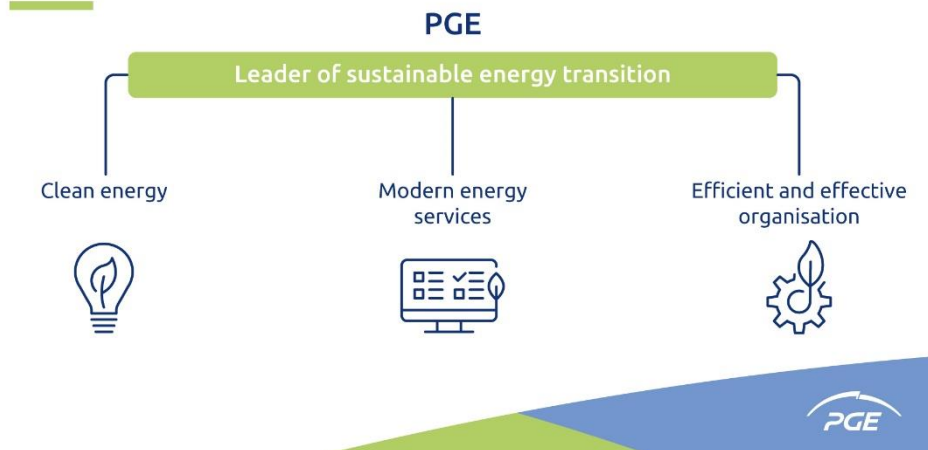


Fig. The strategic priorities of the PGE Group

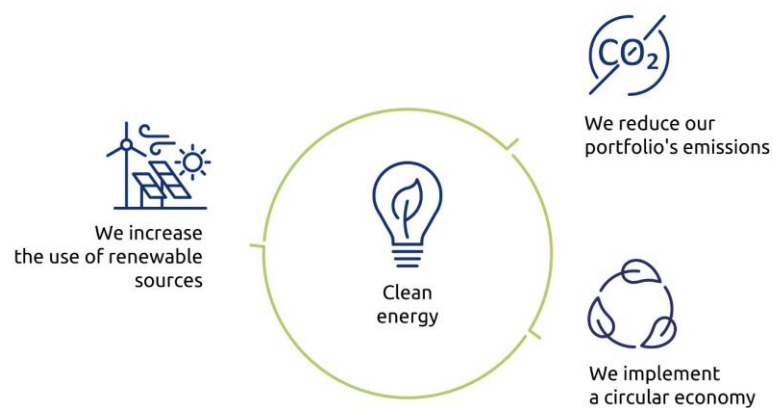


Fig. The activities of the PGE Group increasing positive environmental impact

As a leader of transition, PGE Group declares to reduce its impact on the natural environment by achieving climate neutrality by 2050. A permanent reduction of emissions is planned through changes in generation technologies, expansion of the RES portfolio and enabling customers to participate in energy transformation thanks to attractive product offers. The share of low- and zero-emission sources in the generation portfolio should reach approx. 85 percent by 2030, and RES should account for approx. 50 percent of generated energy.

## #PGE2050

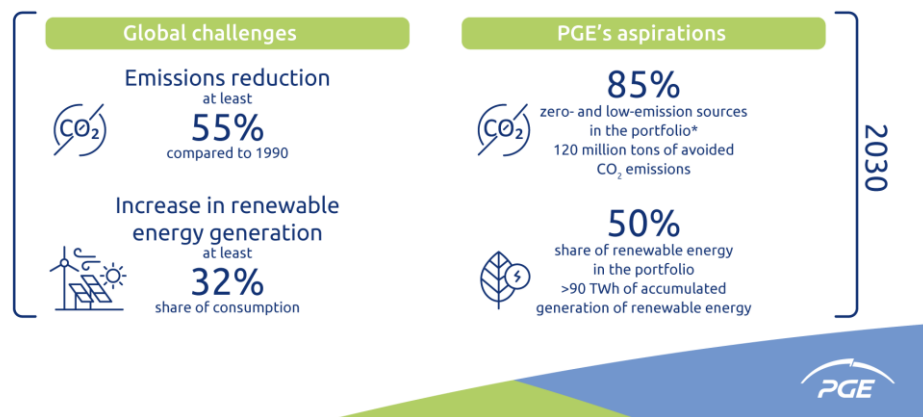


Fig. PGE Group aspirations by 2030

## #PGE2050

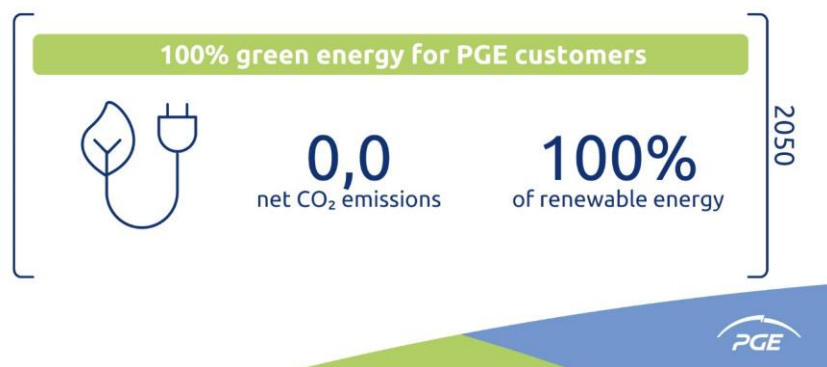


Fig. By 2050, the PGE Group plans to achieve climate neutrality and provide its clients with 100 percent of renewable energy

Greenhouse gas emission reduction targets have also been set, as follows:

- 80% reduction in emissions by 2030 (compared to emissions in 2020),
- 100% reduction in emissions by 2050 (compared to emissions in 2020).

The strategy also sets targets for increasing the waste recirculation rate (> 65% by 2035) and reducing the volume of waste landfilled (10% by 2035).

### Aspirations of PGE Group

The PGE Group is ready to carry out the transition process of the sector: preparing the conventional electrical power system base to function in a new ownership structure. The PGE Group is a leader in development of offshore wind energy sector. PGE's offshore wind capacity installed in the Baltic Sea shall amount to 2.5 GW in 2030 and as a result of preparation of further projects in new locations – is to exceed 6.5 GW by 2040. At the same time the programme of building power in onshore wind farms and photovoltaics will be continued and expected new capacity should be increased by 2030 by more than 1 GW and more than 3 GW respectively. In the District Heating segment the Group plans transition of district heating towards low and zero-emission sources (share in heat production should be over 70% in 2030). At the same time PGE will promote connections of individual heat sources or replacement for environmentally friendly installations. Important role in energy transition is performed by implementation of the principles of circular economy in all areas and minimization of the impact on the natural environment.

## Modern energy services

Reliable network infrastructure and partnership with customers are the foundation of the energy transition. In Distribution segment the improvement of quality of services in the field of energy supplies is assumed (the time of interruptions in energy supplies will be reduced by 8% in the cities and by 50% in other areas in 2025, cost efficiency, efficiency of performance and transparency of connection processes will be streamlined). Grid modernisation and new energy storage units (planned 800 MW by 2030) are needed for the full use of distributed power sources and ensuring a secure operation of the transmission system. Financial stability and developing a new DSO regulatory model that guarantees meeting the challenges of transition are necessary to pursue those goals, which should improve expected free cash flow by PLN 0.7 billion until 2030. PGE Group wants to maintain the highest in the market customer satisfaction level resulting from the quality of energy offerings and services. The issue is addressed by development of professional energy services and integration of customer contact and service channels. Assumed increase in margin in the retail segment should amount to approx. PLN 0.4 billion (annual average).

The Group plans to build additional value by enabling customers to actively participate in the energy transition offering among other things RES installations for the clients and access energy, capacity and ancillary services markets (1.0 GW in market services). These activities should contribute to 25% rise in EBITDA of retail sales companies by 2030.

## Efficient and effective organisation

In order to meet the challenges resulting from decarbonisation, decentralisation and competition, PGE Group must improve its operational efficiency. The Group assumes reduction of fixed cost by approx. 15% until 2025 and approx. 25% by 2030 (compared to 2019, the figures do not include the effect in the Conventional Generation segment in case it is separated). The PGE Group's business profile will evolve towards requiring less work and changing key competences. Effective ICT area will be a lever for improving the efficiency of the PGE Group's operations through economic process automation and digitisation. Demographic trends will affect the employment level in the PGE Group and employee career paths. Assumed employment reduction will be at approx. 15% in 2030 and 50% in 2050 compared to 2019. This will require effective implementation of projects in the area of human capital management. Further staff development will be oriented to renewable energy and modern energy services.

## Investments

Investments of the PGE Group will be focused on the development of renewable energy, transition of district heating and grid infrastructure. There will be no new coal investments (both mining and generation) and investment decisions on gas sources will be made in 2025 at the latest. Total expected capex in years 2021-2030 will amount to approx. PLN 75bn and approx. 50% will be allocated to renewable energy sources (offshore wind farms, onshore wind farms and photovoltaics). Another key important area of spending is regulated activity, including grid infrastructure and low-emission cogeneration sources.

### #PGE2050

#### PGE Group investments until 2050

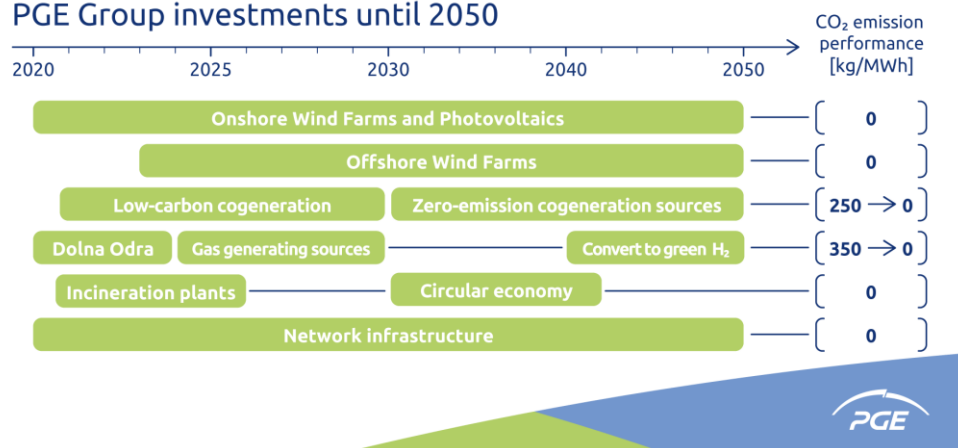


Fig. PGE Group investments until 2050

Key actions and indicators related to Strategy implementation in terms of the strategic priority "environmentally friendly energy".

| Objectives  | Actions and results in 2021  |
|---|--|
| Construction of offshore wind farms: 2.5 GW by 2030 and more than 6.5 GW by 2040                                | <ul style="list-style-type: none"> <li>• Milestones reached in projects Baltica 2 and 3</li> <li>• Launch of individual negotiations with European Commission regarding determining an individual price in a contract for difference</li> <li>• Preparation of tender for works project</li> <li>• Start of tender for delivery of turbines</li> <li>• Signing of letter of intent to establish service hub in the Sea Port in Ustka</li> <li>• Execution of agreements on connection to transmission grid</li> </ul>  |
| Development of onshore wind farms:<br>> 1 GW in new capacities by 2030  | <ul style="list-style-type: none"> <li>• Capacity of projects in the pipeline: approx. 150 MW</li> <li>• Analysis of opportunities for development of own projects at PGE Group's locations: approx. 50 MW</li> <li>• Analysis of acquisition projects: approx. 140 MW</li> </ul>  |
| PV development program<br>> 3 GW installed capacity in 2030   | <ul style="list-style-type: none"> <li>• Installed capacity in 2021: 4 MW, 18 MW under construction</li> <li>• Capacity covered by construction permits: approx. 170 MW</li> <li>• Land secured: potential for 2 000 MW</li> <li>• Auctions won in 2021: 23 projects with a total capacity of 46 MW</li> </ul>   |
| Construction of 800 MW in energy storage systems by 2030  | <ul style="list-style-type: none"> <li>• Entry of Góra Żar energy storage system into operation (500 kW)</li> <li>• Development of hybrid energy storage project in Żarnowiec (200 MW)</li> <li>• Identification of the potential for energy storage system functioning for the purposes of distribution grids – approx. 8 MW in energy storages reported on the Investment Committee of PGE S.A.</li> <li>• Identification of energy storage projects integrated with renewable energy sources – 79 MW</li> <li>• Analysis on the possibility of building a pumped-storage facility in Młoty (750 MW)</li> </ul>  |
| District-heating transition: Share of zero- and low-carbon sources in heating production at approx. 70% by 2030 | <ul style="list-style-type: none"> <li>• New EC Czechnica: launch of construction on a gas-and-steam unit with a pumped reserve boiler room and heat accumulator</li> <li>• Gdańsk CHP plant: entry into operation of new peak sources, conceptual works on building new gas-fired sources</li> <li>• Gorzów CHP plant, Lublin Wrotków CHP plant, Rzeszów CHP plant: launch of implementation of project to build peak and reserve boiler rooms as backup for coal-based sources.</li> <li>• Bydgoszcz CHP plant: construction of new gas boiler unit and preparation for construction of gas-fired cogeneration source</li> <li>• Zgierz CHP plant: preparation for construction of peak load and reserve boiler unit for gas-fired engines and PV installation, which will ensure coverage of demand for heating resulting from the shut-down of old coal units</li> <li>• Kielce : preparation for construction of new open cycle gas turbine (OCGT) unit intended to make up a capacity deficit caused by the shut-down of old coal units</li> <li>• Gdynia CHP plant: construction of new peak load and reserve boiler unit and steam boiler, preparation for construction of new gas-and-steam unit</li> <li>• Preparation for construction of waste-to-energy incinerator projects: Rzeszów (2nd technological line) and Bełchatów</li> <li>• Decarbonisation plan in place for 8 branches</li> </ul> |

## 1.3 PGE Group activities in terms of the EU Environmental Taxonomy

PGE Group, as a public interest entity preparing non-financial statements in accordance with the amended Accounting Act, which implements Directive 2014/95/EU of the European Parliament and of the Council into Polish law, is required to disclose for 2021 the extent to which its business activities can be considered environmentally sustainable. This requirement stems from EU Regulation 2020/852 on the establishment of a framework to facilitate sustainable investment, amending EU Regulation 2019/2088 and from the Delegated Regulations on the establishment of a framework to facilitate sustainable investment (hereinafter: EU Environmental Taxonomy, Taxonomy).

Pursuant to art. 10 of the Delegated Act of July 6, 2021<sup>1</sup>, for the period from January 1, 2022 to December 31, 2022, non-financial companies will only disclose the percentage of business activities eligible for the Environmental Taxonomy and business activities not eligible for the Environmental Taxonomy, within its objective 1 (Climate change mitigation) and objective 2 (Adaptation to climate change), in total:

- total turnover,
- capital expenditures, and
- operating expenditures

and related qualitative information (explanatory) - determined in accordance with the Commission Delegated Regulation (EU) 2021/2178.

Pursuant to the Commission Delegated Regulation (EU) 2021/2178, economic activity qualifying for taxonomy in disclosures for 2021 means the economic activity described in the Commission Delegated Regulation (EU) 2021/2139.

In order to prepare disclosures for 2021, a thorough analysis of the activities carried out in all segments and companies of the PGE Group was carried out, as a result of which activities eligible for the Taxonomy were identified, i.e. those that are consistent with the description of activities listed in Annex I (Climate Change Mitigation) or Annex II (Adaptation to climate change) to Commission Delegated Regulation (EU) 2021/2139.

As part of the implementation of the above activities, the following detailed activities were carried out in the PGE Group and the following results were obtained, which are hereby disclosed:

### Step 1

#### DIVISION OF PGE GROUP ACTIVITIES

PGE Group's business is organised into seven operating segments:

- Conventional Generation,
- District Heating
- Renewables
- Supply
- Distribution
- Circular economy
- Other Operations.

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<sup>1</sup> Commission Delegated Regulation (EU) 2021/2178 of 6.7.2021 supplementing Regulation (EU) 2020/852 of the European Parliament and of the Council by clarifying the content and presentation of the information on environmentally sustainable business activities to be disclosed by companies subject to Article 19a or 29a of Directive 2013/34/EU and specifying the method to comply with this disclosure obligation, OJ L 443.

Taking into account the NACE (Nomenclature statistique des Activités économiques dans la Communauté Européenne) classification of economic activities in the European Union, the following activities are carried out within the above segments:

- Mining of lignite – NACE 05.20
- Production of electricity – NACE 35.11
- Distribution – NACE 35.13 and 35.30
- Sales – NACE 35.14

## Step 2

### IDENTIFICATION OF ECONOMIC ACTIVITIES INCLUDED IN THE EU ENVIRONMENTAL TAXONOMY

On the basis of supplementary annexes to Commission Delegated Regulation (EU) 2021/2139<sup>2</sup> of June 4, 2021, a selection was made of those activities that were carried out by PGE Group entities in 2021. These are:

- 4.1. Production of electricity using photovoltaic technology
- 4.3. Production of electricity from wind energy
- 4.5. Production of electricity from hydropower
- 4.8. Production of electricity from bioenergy (biomass)
- 4.9. Transmission and distribution of electricity
- 4.10. Electricity storage
- 4.11. Thermal energy storage
- 4.15. Distribution in district heating/cooling systems
- 4.20. Cogeneration of heat/cooling and electricity from bioenergy (biomass)
- 4.24. Generation of heating/cooling from bioenergy
- 4.25. Generation of heating/cooling from waste heat

The Group's organisational structure was analysed, taking into account also companies operating in other areas, which were been specified however due to the fact that these activities are ancillary to the Group companies' core business.

## Step 3

### DETERMINATION OF INDICATORS FOR ACTIVITIES ELIGIBLE UNDER THE EU ENVIRONMENTAL TAXONOMY FOR 2021

In the next step, PGE Group's individual segments were assigned to two categories:

- category I - comprising the areas of PGE Group's operations eligible for the Taxonomy,
- category II - comprising the areas of PGE Group's operations not eligible for the Taxonomy.

In certain cases where activities both included in the Taxonomy and not included in the Taxonomy were carried out within a segment, an additional breakdown was made within the segment, classifying it generically as partially qualified.

This situation applies to the Conventional Generation and District Heating segments, where the activities eligible for the Taxonomy include the production of electricity and heat from biomass and the distribution of heat.

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<sup>2</sup> Commission Delegated Regulation (EU) 2021/2139 of 4.6.2021 supplementing Regulation (EU) 2020/852 of the European Parliament and of the Council by establishing technical eligibility criteria for determining the conditions under which an economic activity qualifies as a significant contributor to climate change mitigation or adaptation, and whether that economic activity does not cause significant damage to any other environmental objective, OJ L 442.



The following table indicates PGE Group's operating segments with their classification in the Taxonomy and indication of the related type of activity included in the delegated act:

| PGE Group segment       | Qualification for EU Environmental Taxonomy in terms of its objective 1 (Climate change mitigation) and objective 2 (Adaptation to climate change) | Type of activity according to delegated act in terms of its objective 1 (Climate change mitigation) and objective 2 (Adaptation to climate change) of EU Environmental Taxonomy   |
|-------------------------|--|---|
| Renewables              | YES  | 4.1. Production of electricity using photovoltaic technology<br>4.3. Production of electricity from wind energy<br>4.5. Production of electricity from hydropower<br>4.10. Electricity storage  |
| Distribution            | YES  | 4.9. Transmission and distribution of electricity<br>4.10. Electricity storage  |
| Conventional Generation | PARTIALLY  | Only within the following scope:<br>4.8. Production of electricity from bioenergy (biomass)<br>4.20. Cogeneration of heating/cooling and electricity from bioenergy (biomass)   |
| District Heating        | PARTIALLY  | Only within the following scope:<br>4.11. Thermal energy storage<br>4.15. Distribution in district heating/cooling systems<br>4.20. Cogeneration of heat/cooling and electricity from bioenergy (biomass)<br>4.24. Generation of heating/cooling from bioenergy |
| Supply                  | NO   |   |
| Circular economy        | NO   |   |

In addition, the "Other Operations" segment was divided, which is responsible for, among other things, IT, accounting and HR services provided to other PGE Group companies. Taking into account the nature of these services related to support of core activities, it was assumed that costs incurred by PGE Systemy, which is responsible for IT area in PGE Group, and PGE Synergia, which is responsible for the payroll area, and Elbest Security, providing physical security services, will be allocated to other segments in proportion to the support provided (determined on the basis of mutual settlements) and classified or not classified in the Taxonomy, analogically to the segment for which the given support was provided. The percentage breakdown of the support provided was determined on the basis of the level of turnover achieved by support companies in individual segments. In addition, the turnover and operating costs of the companies: PTU ETRA, Energetyczne Systemy Pomiarowe and Bio-Energia, which support the activity of the Renewable Energy and Distribution segment, were assigned as qualifying to the Taxonomy, while costs incurred by other companies, accounted for within the "Other Operations" segment, were not qualified for the Taxonomy.

The final calculation of the Taxonomy qualification indicators required to be reported for 2021 was based on financial data allowing the allocation of specific volumes to the segments and the activity within the segment.

Due to the presentation of data from the entire PGE Group, the following indicators were calculated based on consolidated data.

### Value of turnover eligible for EU Environmental Taxonomy

This is the value of turnover from products or services related to business activities, which was classified in the Taxonomy within its objective 1 (Climate change mitigation) and objective 2 (Adaptation to climate change), broken down by segments of PGE Group.



| PGE Group segment       | Value of turnover eligible for EU Environmental Taxonomy within its objective 1 (Climate change mitigation) and objective 2 (Adaptation to climate change)[PLN million] |
|-------------------------|---|
| Renewables              | 1 051   |
| Distribution            | 6 415   |
| Conventional Generation | 90  |
| District Heating        | 303   |
| Supply                  | 0   |
| Circular economy        | 0   |
| Other Operations        | 4   |
| <b>Total</b>            | <b>7 863</b>  |

### Value of operating expenditure eligible for EU Environmental Taxonomy

This is the value of operating expenditures corresponding to assets or processes related to business activities that have been classified in the Taxonomy within its objective 1 (Climate change mitigation) and objective 2 (Adaptation to climate change), broken down by segments of PGE Group.

| PGE Group segment       | Value of operating expenditures eligible for EU Environmental Taxonomy within its objective 1 (Climate change mitigation) and objective 2 (Adaptation to climate change)[PLN million] |
|-------------------------|---|
| Renewables              | 899   |
| Distribution            | 4 382   |
| Conventional Generation | 92  |
| District Heating        | 336   |
| Supply                  | 0   |
| Circular economy        | 0   |
| Other Operations        | 79  |
| <b>Total</b>            | <b>5 788</b>  |

### Value of capital expenditures eligible for EU Environmental Taxonomy

This is the value of capital expenditures corresponding to assets or processes related to business activities that have been classified in the Taxonomy within its objective 1 (Climate change mitigation) and objective 2 (Adaptation to climate change), broken down by segments of PGE Group.

| PGE Group segment       | Value of capital expenditures eligible for EU Environmental Taxonomy within its objective 1 (Climate change mitigation) and objective 2 (Adaptation to climate change)[PLN million] |
|-------------------------|---|
| Renewables              | 181   |
| Distribution            | 1 358   |
| Conventional Generation | 2   |
| District Heating        | 70  |
| Supply                  | 0   |
| Circular economy        | 0   |
| Other Operations        | 0   |
| <b>Total</b>            | <b>1 611</b>  |

## PGE Group data

PGE Group's indicators for 2021 were calculated based on the following data:

| Turnover  |   |
|---|---|
| Activity eligible for EU Environmental Taxonomy within its objective 1 (Climate change mitigation) and objective 2 (Adaptation to climate change) | Activity not eligible for EU Environmental Taxonomy within its objective 1 (Climate change mitigation) and objective 2 (Adaptation to climate change) |
| 14.9%   | 85.1%   |
| Capital expenditures  |   |
| Activity eligible for EU Environmental Taxonomy within its objective 1 (Climate change mitigation) and objective 2 (Adaptation to climate change) | Activity not eligible for EU Environmental Taxonomy within its objective 1 (Climate change mitigation) and objective 2 (Adaptation to climate change) |
| 34.6%   | 65.4%   |
| Operating expenditures  |   |
| Activity eligible for EU Environmental Taxonomy within its objective 1 (Climate change mitigation) and objective 2 (Adaptation to climate change) | Activity not eligible for EU Environmental Taxonomy within its objective 1 (Climate change mitigation) and objective 2 (Adaptation to climate change) |
| 11.2%   | 88.8%   |

The revenue, operating costs and capital expenditures specified in the denominator in the above calculations are taken from PGE Polska Grupa Energetyczna's consolidated financial statements for 2021.

PGE Group intends to implement strategic investments in compliance with the EU taxonomy for sustainable activities. The investments currently being implemented by the Group will result in an increase in taxonomy indicator values, not only within the first two objectives, but also in the next four objectives, which will be implemented by the European Union in the near future. At the same time, the scale of the conventional coal-fired energy generation business, which is to be spun off at the beginning of 2023, is of key importance for the 2021 results. Last year, it had a decisive impact not only on revenue and operating costs but also on overall capital expenditures, primarily through maintenance expenditure required to operate the business. In alignment with the Group's strategy, growth investments are focused on RES, electricity distribution and zero- and low-carbon conventional sources.

## 2. ENVIRONMENTAL

| GC-7 | GC-8 | GC-9 |

The generation and supply of environmentally-friendly energy is the pillar of PGE Group's business strategy. As leader of the energy transition, PGE Polska Grupa Energetyczna aims to reduce its impact on the climate, both within its existing operations and planned investments.

### 2.1 Climate awareness

PGE Group's response to climate change encompasses a new business strategy, which includes the goal of climate neutrality by 2050. In 2021, PGE Group continued its efforts aimed at the redesign of its generation portfolio towards low- and zero-emission sources. The effects of the actions taken are already visible, and the positive emission reduction trend will continue in the coming years.

PGE as the leader of sustainable energy transition in Poland, including in environmentally friendly energy, is committed to reducing its impact on the environment through:

- decarbonising generation through technology change, expanding its RES portfolio and enabling its customers to participate in the transition,
- increasing the use of renewable sources and decarbonising the portfolio,
- developing a circular economy,
- reaching climate neutrality by 2050.

Eco-friendly investments are at the core of PGE Group's investment activities. In 2021 alone, PGE Group companies spent nearly PLN 2.2 billion on environmental protection investments, with the following investments directly concerning decarbonisation:

- PLN 637 million - investments in the development and modernisation of the distribution network, including replacing overhead lines with cabling,
- PLN 743.9 million - strategic development investments in new gas units replacing coal units,
- more than PLN 87 million - strategic development investments in renewable energy,
- PLN 81.4 million - connections of RES installations.

The remainder of the expenditures are investments related in particular to adapting the generating assets to the requirements of the BAT Conclusions and modernisation and restoration investments related to increasing the operating efficiency of the assets.

This confirms PGE Group's commitment to reducing the environmental impact of its operations and responsibly using natural resources.

#### **Decarbonisation of the generation portfolio**

Renewable assets are a key element of the energy transition, aiding in the reduction of carbon dioxide emissions into the atmosphere and thus increasing the share of renewable energy sources in the National Power System.

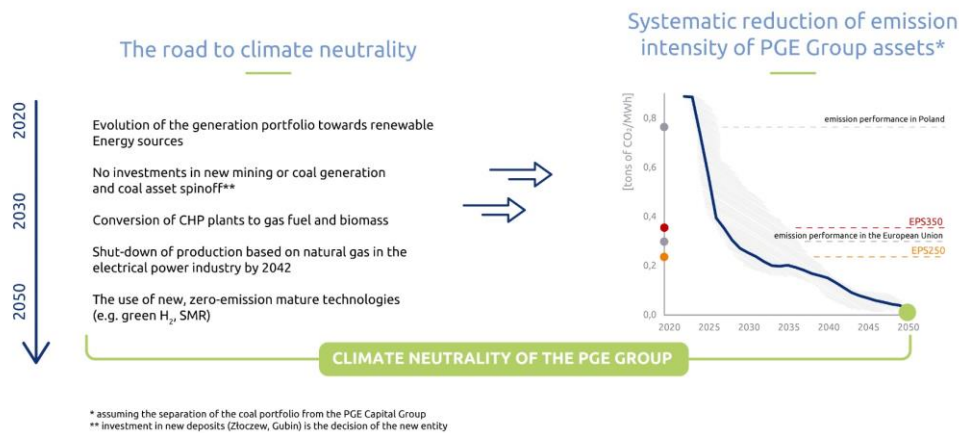


Fig. PGE Group's path to climate neutrality

PGE Group's long-term strategic aspiration is to supply 100% of energy from renewable sources to customers by 2050, which will be possible through:

- construction of offshore wind farms,
- implementation of the PV program,
- development of the onshore wind portfolio,
- energy storage program.

The implementation of RES projects will contribute to the diversification of PGE Group's fuel mix, an increase in installed capacity in renewable energy sources, and thus to the implementation of the EU climate policy.

PGE Group currently already has over 2 331 MW of installed capacity in zero-emission sources, including hydroelectric (run-of-river) power plants, pumped storage plants, onshore wind farms and photovoltaics, of which approx. 688 MW comes from wind farms.

## OFFSHORE PROGRAM

PGE Group is developing an Offshore Wind Farms Program (Offshore Program). By 2030, PGE Group will have built 2.5 GW of offshore wind farms under a strategic partnership with Denmark-based Ørsted. The Baltica 2 and Baltica 3 farms will be the largest offshore wind investments in the Baltic Sea. Another offshore wind farm, Baltica 1, with a capacity of 0.9 GW, is to be put into service after 2030. Taking account of the scale of planned investments, PGE Group intends to build up its capacities to independently operate and maintain its offshore wind farms. In a longer perspective, the construction of subsequent offshore wind farms is also planned. PGE intends to own offshore wind farms with a capacity of at least 6.5 GW by 2040. Further projects are planned to be implemented by PGE on its own or with selected partners.

## PV PROGRAM

PGE Group has a program for the development of photovoltaic assets, where the strategic goal is to achieve an additional 3 GW of solar power capacity by 2030 and to ensure that PGE Group is a leader in the development of photovoltaics in Poland. In 2021, PGE Energia Odnawialna was intensively involved in the development of its own photovoltaic farms, as part of which PGE Group has obtained building permit decisions for nearly 200 MW of PV capacity. PGE Group also actively participated in RES auctions which contribute to the economic feasibility of implemented projects. In the first half of the year, 19 projects won with a total capacity of approx. 18 MW, and in the second half - 3 projects with a capacity of up to 1 MW and one large project - PV Augustynka with a target capacity of 25 MW. The projects that obtained auction support will be put into operation already at the turn of 2022 and 2023. In addition, having secured all administrative decisions, the Group has started preparing tender procedures for the following projects: PV Gutki (12 MW), PV Huszlew (13 MW) and PV Jeziórko (100 MW). These assets will be built in 2022 and 2023.

As part of the program to develop photovoltaics at PGE Group, preparations for the first stage of the construction of PV farms were continued at the Bełchatów power plant. These farms are to be built in the following areas of: Ashes Reservoir, Reservoir No. 5 and Szczerców Mountain, which requires, first of all, reclamation, changes to the Conditions Study and Local Spatial Development Plans, as well as obtaining all administrative decisions.

## DEVELOPMENT OF ONSHORE WIND PORTFOLIO

PGE Group is also preparing to develop onshore wind farms. According to the strategy, PGE Group's objective for the onshore wind area is to build an additional 1 GW of capacity in onshore wind farms by 2030. The Group's current investment portfolio includes projects with a total capacity of approx. 200 MW, including: FW Lotnisko II, FW Karnice III, FW Bukowo, FW Resko III. However, their further development depends on the date of entry into force of the law liberalising the distance law, in particular the relaxation of the so-called "10H" condition. In a positive scenario, these wind farms will possibly be put into operation in 2026-2029.

## ENERGY STORAGE PROGRAM

Between 2018 and 2021, PGE Energia Odnawialna implemented a pilot project co-financed by the Intelligent Development Operational Program called "Energy storage adapting PV farm for work in smart grids." The project involved the construction of a battery-based energy storage facility with a power rating of 550 kW and a total capacity of over 1 000 kWh, integrated with an existing 500 kW photovoltaic farm on Góra Żar in the Bielsko district. The goal of the project was to verify the technical feasibility of providing auxiliary services to the local distribution system operator. Currently, the project is in the process of clearing the grant and the infrastructure is being adapted to work in the energy price arbitrage function.

In 2021, PGE Dystrybucja implemented a pilot project called "Innovative network services to improve the quality and reliability of electricity supply." Tests were conducted as part of the project on various modes of operation of the energy storage facility with a power rating of 2.1 MW and storage capacity of 4.2 MWh, operating in the distribution grid, including the possibility of its independent operation as a temporary power supply source in the n-1 and n-2 states. The facility is situated and connected at the 110/30/15 kV Rzepedź substation. Its functionality includes improving the reliability of power supply to consumers in Komańcza and Rzepedź. The tests confirmed the correct operation of the energy storage facility and maintenance of power quality parameters in compliance with the applicable regulations. The pilot energy storage system in Rzepedź will serve to develop solutions for energy storage projects related to power quality and reliability of PGE Dystrybucja's distribution grid operation.

PGE Group is analysing further projects concerning the development of energy storage systems. The aspirations expressed in PGE Group's strategy assume the construction of 800 MW of storage capacities by 2030. The Group currently sees potential in developing electrochemical energy storage facilities. In 2021, PGE obtained connection terms for an energy storage system with a capacity of over 200 MW, which will operate in a hybrid set-up with the Żarnowiec pumped storage hydropower plant. In addition, works are being carried out on a project involving the construction of 50 distributed energy storage facilities connected to 110 kV/15 kV substations (the so-called main supply points) in PGE Dystrybucja's coverage area. The total capacity of these energy storage systems is 270 MW. At the same time, the Group recognises opportunities in developing pumped storage hydropower plants, which play an important role in the National Power System. Pumped storage units also perform energy storage functions. These investments are at the stage of analysis, business model development and pre-project documentation. Their implementation depends on achieving appropriate economic feasibility and securing sources of financing.

## DISTRICT HEATING SECTOR TRANSITION

PGE Group's business strategy adopted in 2020 sets a low- and zero-emission objective for the district heating area. The key actions undertaken by PGE that will contribute to the achievement of these goals above all include investments in the area of new gas-fired generating sources and thermal waste-to-energy systems as well as the use of renewable energy as a source of district heat.

In the second half of 2021, an asset decarbonisation plan was also developed for PGE Energia Ciepła in response to the objectives set out in PGE Group's business strategy. It has also been incorporated into the Group's Strategy Implementation Plan in the District Heating segment. The Decarbonisation Plan encompasses development and implementation of investment programs in alignment with the assumed strategic objectives for individual locations of PGE Energia Ciepła. Rebuilding generation capacities with the use of new low- or zero-emission generating units should be completed by 2030, and climate neutrality would be achieved by 2050. To this end, PGE Energia Ciepła is gradually replacing old coal-fired sources with new low-emission

sources fired with gas and oil, taking into account the possibility of using hydrogen or ammonia in the future, as such fuel becomes available. The new generating units will be characterised by greater operational flexibility and reliability. In 2023-2029 most of PGE Energia Ciepła's locations will feature installations that result in a total or considerable withdrawal from coal fuel. The coal phase-out is first planned in: Zgierz, Kielce, Lublin, Rzeszów and Gorzów Wielkopolski, followed by CHP plants in Bydgoszcz, Siechnice near Wrocław, Gdynia and Gdańsk. Gas, municipal waste, biomass, waste heat and renewable energy will be used to produce heat in the new and modernised heat generation units.

The key investment projects in this area especially include:

- construction of new gas-fired cogeneration sources  
PGE Energia Ciepła is also currently implementing investment projects to build new gas-fired cogeneration sources in Siechnice, Bydgoszcz and Zgierz. The following locations are currently working on preparing similar projects using gas fuel: Gdynia, Gdańsk, Kraków;
- construction of new reserve and peak load boiler plants  
At the turn of 2021 and 2022, a new peak load boiler plant with a capacity of 130 MW was put into service in Gdańsk, which consists of oil and gas boilers and modern electrode boilers powered by electricity. The use of electrode boiler technology at the Gdańsk CHP is an innovative solution in Poland. Furthermore, the construction of new peak load and reserve boiler plants started at the end of 2021 at six other locations, i.e. in Gorzów Wielkopolski, Lublin, Rzeszów, Kielce, Gdynia and Bydgoszcz, with a total capacity of approx. 743 MW, in order to replace the old coal-fired boilers.

PGE Group also owns a waste-to-energy incinerator system in Rzeszów. This technology is safe for the environment, modern and tested in over 300 cities around the world. Thanks to the use of state-of-the-art filters, the incinerator meets the strictest EU requirements concerning environmental protection. This system is expected to be expanded by a second technological line.

PGE Energia Ciepła is also implementing projects with a longer time horizon as part of dedicated programs for the development of the existing generating assets in Kraków, Gdańsk and Wrocław. These are expected to be completed by 2030.

In implementing PGE Group's strategy, the development and investment plans that are being prepared take into account the deployment of low-emission technologies and ultimately the achievement of climate neutrality within an assumed time horizon. The assumptions for these PGE Group projects are drafted on the basis of analysis of potential regulatory trends, also in cooperation with industry organisations on the national and EU level. The development projects being analysed also consider the application of technology enabling the co-firing of hydrogen, which in the long term offers an opportunity to significantly reduce CO<sub>2</sub> emissions in cogeneration systems.

### **Reducing greenhouse gas emissions from conventional energy generation**

Irrespective of investments related to the build-up of new RES capacities, which are to result in a shift of the generating mix to zero and low-emission generation, PGE Group is systematically working on reducing greenhouse gas emissions in its existing conventional units. Unit carbon dioxide emissions are being systematically reduced as generating assets are modernised and development investments are carried out.

Considerable capital expenditures are directed at this purpose every year. Combustion processes are optimised and solutions are introduced to improve generating efficiency, increase fuel and raw material use efficiency and reduce the energy intensity of generation processes and own needs.

## CONVENTIONAL POWER PLANTS

The Bełchatów plant is a major greenhouse gas emitter (CO<sub>2</sub>). This is due to the fact that it is the largest unit in Poland and the world producing electricity from lignite, which causes emissions to accumulate in one place and reach significant absolute values.

New units 5 and 6 in the Opole plant support the process of limiting greenhouse gas emissions as these more efficient assets are started-up first before older units. In effect, at a given level of supply (capacity of installed units) and a stable level of demand in the country (demand for capacity), units with lower CO<sub>2</sub> emissions displace higher emission units. These actions contribute to the reduction of emissions from the national energy industry. In 2021, the emission factor for units 1-4 at the Opole plant was 0.897 Mg/MWh and for units 5-6 this was 0.731 Mg/MWh.

At the Turów plant, the reduction of carbon dioxide emissions was achieved by increasing the efficiency of electricity generation of units 1-3 and launching a highly efficient unit 7 in 2021. This unit meets strict environmental standards and is adapted to the emission requirements resulting from BAT conclusions, which address the best and most environmentally friendly technologies available.

At the Dolna Odra plant, there has been a gradual reduction in the amount of coal burned since 2013. At the same time, biomass combustion was introduced in 2004, replacing part of the coal that would have to be burned in the absence of biomass combustion. Modernisations of units at the branch have been aimed at increasing the efficiency of electricity generation and lowering emissions, including CO<sub>2</sub>.

The branch's transition towards climate neutrality is supported by projects using gas as a transition fuel. A project is in progress to build two gas-fired units, with a capacity of approx. 700 MW each, making it the largest and most modern gas-fired power plant in Poland. High-methane natural gas is the primary energy source for the selected generation technology. Worth nearly PLN 5 billion, the investment will be completed before the end of 2023. As of the end of December 2021, the overall project progress, including design works, production and delivery of equipment and works on the construction site exceeded 50%.

The average CO<sub>2</sub> emission of the new units will be more than two times lower than the current average emission of energy generating assets in the National Power System (NPS). Energy generation using the new units will deliver a reduction in CO<sub>2</sub> emissions in the NPS of approx. 2-3 million tonnes per year. The emission reduction is achieved not only due to a change of fuel to gas but also thanks to the application of the latest generation of gas turbine, which has an energy generation efficiency in excess of 63%. For comparison, gas-and-steam plants with turbines from the previous generation have an efficiency of 59-60%, while most modern coal units - approx. 46%.

## INCREASE IN CONNECTION CAPACITY

The majority of investments in the area of electricity distribution in 2021 concerned the modernisation and development of the medium- and low-voltage electricity grid and transformer stations. These investments will increase the connection capacity of the distribution grid, including for renewable energy sources, as well as improve electricity supply interruption rates and further reduce grid losses. The energy efficiency of electricity equipment is increased by replacing transformers and procuring metering devices, including modern electricity meters. Renewable energy sources (RES) are an important element of sustainability, with measurable economic and environmental effects. In 2021, PGE Dystrybucja connected 141 000 household photovoltaic systems, with a total capacity of 996 MW, to its grid.

In 2021, 234 RES sources with a unit capacity of over 50 kW, i.e. sources that are not classified as micro-installations, also appeared in the PGE Dystrybucja grid, including:

- photovoltaic plants with a total capacity of 174 MW - 222 units
- wind farms with a total capacity of 11 MW - 3 units
- biogas plants with a total capacity of 4 MW - 7 units
- hydropower plants with a total capacity of 0.15 MW - 2 units

These initiatives are important from the point of view of the expected reductions in energy output from conventional sources and are part of positive efforts in the context of systemic climate change, with limited impact on PGE's own emissions.



## Transparency on climate-related disclosures

In July 2021, in response to the expectations of investors for whom environmental impact management is increasingly important, PGE Group took part in a voluntary, international Carbon Disclosure Project (CDP) study on climate change. CDP is a not-for-profit organisation that operates a global disclosure system on sustainable management by companies and cities. PGE participated in the survey for the first time. In the area of climate change management, the company received a grade of D (disclosure), on a scale of A to F. PGE's disclosure data is available by logging into the platform at <http://www.cdp.net>.

Participation in the study allowed PGE Group to acquire new competences that will serve to better define PGE's development plans and to report on non-financial issues in an even more advanced way.

## 2.2 PGE Group's carbon footprint

Carbon footprint is a type of ecological footprint and one of the measures of a company's impact on the environment. Footprint calculations and data management show a strong climate awareness in the organisation. Carbon footprint is the total sum of greenhouse gas emissions (carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), carbon oxide (N<sub>2</sub>), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulphur hexafluoride (SF<sub>6</sub>), caused directly or indirectly by an individual, organisation, event or product.

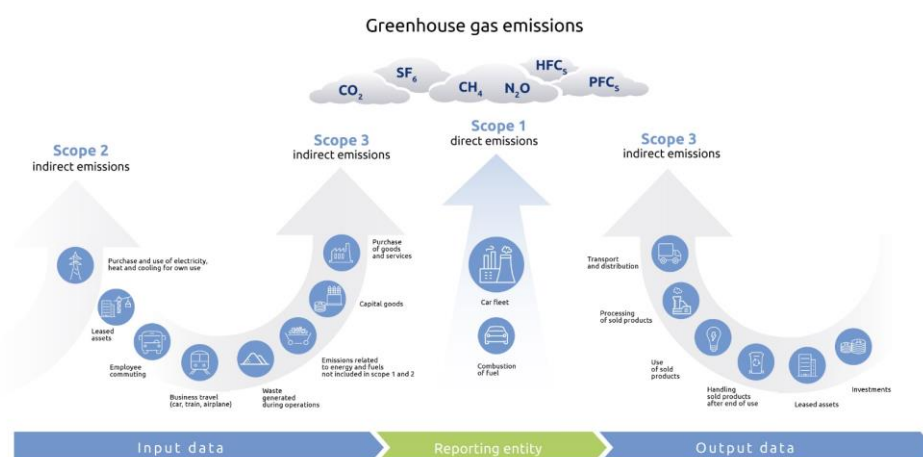


Fig. Simplified diagram of the carbon footprint scopes in an organisation

## Sector cooperation for a unified approach to carbon footprinting

In April 2021, PGE Polska Grupa Energetyczna began active and deliberate efforts to implement a standard for calculating carbon footprint at PGE Group. Internal activities were undertaken in PGE Group within the framework of the established team for carbon footprint calculations, as well as external activities - within the framework of cooperation with the Polish Association of Professional Heat and Power Plants (PTEZ), which resulted in the development of a joint manual for carbon footprint calculations for the energy industry, with the substantive support of Bureau Veritas. The manual has been developed in accordance with ISO 14064 and GHG Protocol Standards and is designed to calculate the carbon footprint at different levels of the organisation. The manual has been developed in accordance with ISO 14064 and GHG Protocol Standards and is designed to calculate the carbon footprint at different levels of the organisation. PGE Górnictwo i Energetyka Konwencjonalna, PGE Energia Ciepła and Zespół Elektrociepłowni Wrocławskich KOGENERACJA. The work on the development of the manual also involved the team responsible for the carbon footprint calculations at PGE Group.



The developed "Manual for Uniform Footprint Capture for Electricity and Heat Sector Entities" with an integrated IT tool aims at a uniform footprint capture for electricity and heat sector entities, including a proper approach to carbon footprint calculations as follows:

- **Scope 1** – these are direct emissions to the atmosphere from installations (equipment, vehicles, machinery, boilers, plants) that are owned or controlled by the organisation;
- **Scope 2** – these are indirect emissions related to the use of energy consumed by the company to operate its facilities, both owned and leased (electricity, heat, cold, transport and distribution losses);
- **Scope 3** – these are other indirect emissions that occur throughout the business value chain, i.e. purchases of goods and services, business travel, commuting to and from work, capital goods, etc.);
- **biogenic emissions** – these are emissions related to the natural carbon cycle and result from the combustion, fermentation, decomposition or processing of materials of biological origin.

Based on this document, PGE Group developed a standard for calculating the carbon footprint to be applied by Group companies. The key in this process was the preparation of the companies and their training, in particular with regard to the identification of emission sources, their classification and appropriate conversion into CO<sub>2</sub> equivalent using the available and defined CO<sub>2</sub> emission factor appropriate for a given reporting year. In subsequent years, it will be important to calculate the carbon footprint for a given reporting year based on updated CO<sub>2</sub> emission factors appropriate for that calendar year. As more data becomes available, in particular on the available emission factors for individual emission sources, and as maturity of the organisation continues to develop, this process is expected to be streamlined in subsequent years. At the same time, it will enable the development of specific emission reduction targets.

### **PGE Group's carbon footprint**

As part of a pilot project, PGE Group calculated its carbon footprint for the year 2020. However, in order to responsibly count the data and obtain comparable results within the sector, it treats the data for 2021 as the base, in which the carbon footprint was calculated on the basis of a manual developed in cooperation with PTEZ. The method adopted there is a consistent approach to counting the footprint in the electricity sector in the country.

The volume of greenhouse gas emissions in 2021 was calculated for key PGE Group companies with significant operations and significant influence over the level of carbon footprint, especially in terms of direct emissions within scope 1 and taking into account the amount of charges for environmental use and water services. The carbon footprint was calculated in full scope and encompassed the following PGE Group companies, which are decisive in terms of carbon footprint generation:

- PGE Górnictwo i Energetyka Konwencjonalna,
- PGE Energia Ciepła,
- Zespół Elektrociepłowni Wrocławskich KOGENERACJA,
- PGE Toruń,
- Elektrociepłownia Zielona Góra,
- PGE Energia Odnawialna,
- PGE Dystrybucja,
- PGE Ekoserwis,
- PGE Obrót,
- PGE Polska Grupa Energetyczna SA,
- PGE Baltica,
- PGE Systemy,
- PGE Dom Maklerski.

Other PGE Group companies which will be assessed as likely to have a significant impact on the volume of greenhouse gas emissions will be gradually incorporated into this process.

PGE Group-level carbon footprint calculation data by emission scope and biogenic emissions:

| PGE Group's carbon footprint in 2021                    | t CO <sub>2</sub> e |
|---|---------------------|
| <b>Scope 1</b>  |                     |
| Fuels, of which:  | 70 169 857          |
| - lignite   | 42 692 766          |
| - hard coal   | 25 083 918          |
| - natural gas   | 1 954 130           |
| - other fuels   | 439 043             |
| Process emissions                                       | 764 718             |
| Refrigerants and other gases                            | 51 836              |
| <b>Total scope 1</b>                                    | <b>70 986 410.3</b> |
| of which EU-ETS emissions (%)                           | 99.7                |
| <b>Scope 2 Market-based*, of which:</b>                 | <b>2 183 395</b>    |
| Electricity losses in transmission and distribution     | 1 379 892           |
| Purchased electricity for own use                       | 759 699             |
| Purchased thermal energy for own use                    | 43 804              |
| <b>Scope 2 Location-based**</b>                         | <b>2 183 836</b>    |
| <b>Scope 3</b>  |                     |
| Category 3. Energy- and fuel-related emissions          | 22 191 648          |
| Category 1. Purchased goods and services                | 821 824             |
| Category 10. Processing of sold products                | 755 065             |
| Category 2. Capital goods                               | 508 996             |
| Category 4. Upstream – transport and distribution       | 259 805             |
| Category 5. Waste resulting from operations             | 75 014              |
| Category 11. Use of sold products                       | 74 949              |
| Category 7. Commuting of workers                        | 34 965              |
| Category 6. Business trips                              | 158                 |
| <b>Total scope 3</b>                                    | <b>24 722 424.4</b> |
| <b>Total scope 1 + scope 2 + scope 3 Market-based</b>   | <b>97 892 230</b>   |
| <b>Total scope 1 + scope 2 + scope 3 Location-based</b> | <b>97 892 670.8</b> |
| Biogenic emissions                                      | 687 876             |

\*Scope 2 Market-based - emissions resulting from the consumption of purchased electricity, calculated on the basis of an index published by a specific energy vendor

\*\*Scope 2 Location-based - Scope 2 emissions result from the consumption of purchased electricity. It is calculated on the basis of the average index for Poland, which represents the actual emissions generated in the country. This index is published on the KOBiZE website.

Conventional generation is responsible for 85.5% of PGE Group's calculated carbon footprint. Scope 3 accounts for approx. 25% of the total carbon footprint, understood as the sum of Scope 1, Scope 2 and Scope 3.

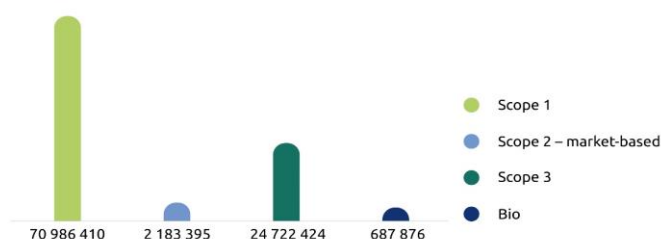


Fig. Distribution of greenhouse gas emissions in 2021 by category of greenhouse gas emissions

## Methodology and emission factors

Data on the organisation's activities is monitored in accordance with the implemented process for calculating the carbon footprint at PGE Group. Emissions were calculated in accordance with the following standards: The Greenhouse Gas Protocol A Corporate Accounting and Reporting Standard Revised Edition-GHG Protocol Scope 2 Guidance and Corporate Value Chain (Scope 3) Accounting and Reporting Standard. CO<sub>2</sub> emissions of biogenic origin were identified and reported separately. Operational and/or financial control within the Group was adopted as the consolidation criterion, meaning that 100% of the companies' emissions were attributed to PGE Group. The sources of emission factors were publications from the following databases: National Balancing and Emission Management Centre (KOBiZE), DEFRA (Department for Environment, Food & Rural Affairs) database, European Environment Agency (EEA) and Ecoinvent 3.6.GWP (Global Warming Potential factor) coefficients for refrigerants were adopted according to the 5th IPCC (Intergovernmental Panel on Climate Change) Report.

By using a uniform approach to counting the carbon footprint, the data will be comparable within the sector.

## 2.3 Environmental protection process management

Climate awareness is one of the most important areas of environmental management at PGE Group. The Environmental Policy is a document that defines the competences and responsibilities as well as processes and activities relevant to environmental protection. It takes a systematic approach to preventing and mitigating adverse impacts on the environment and climate. The Environmental Policy sets out:

- general rules, rights and obligations in the area of environmental protection at PGE Group,
- processes and activities carried out at PGE Group that are of key importance to environmental protection,
- key roles defined in the environmental management process for appropriate levels within PGE Group's organisational structure,
- environmental processes in business units, taking into account the specifics of each one,
- continuously raising awareness of PGE Group's employees in the field of environmental protection.

Environmental impact management issues have been incorporated into PGE Group's Code of Ethics, which requires all employees to use natural resources rationally and into the PGE SA Management Board's Declaration on Environmental Policy. In it, the Management Board commits to continuous improvement of activities for the protection and enhancement of the environment and to the prevention of pollution by implementing high and economically justified technological standards. The Management Board declaration is available on PGE Group's website: [www.gkpge.pl/zrownowazony-biznes/obszary-dzialalnosci/z-szacunkiem-dla-ziemi](http://www.gkpge.pl/zrownowazony-biznes/obszary-dzialalnosci/z-szacunkiem-dla-ziemi).

### Environmental Management System

PGE SA has since 2019 had a team responsible for implementing, maintaining and improving the environmental management system based on the PN-EN ISO 14001:2015 standard, certified in the majority of Group companies. To ensure that PGE Group's Environmental Policy is successfully implemented, environmental management system administrators and coordinators have been appointed in individual companies. The results of cyclical audits confirm that both the developed regulations and the activities carried out as part of the certified management system are compliant with the requirements of the standards and increase the effectiveness of management. Where necessary, improvement measures are implemented.

### EMAS

The EcoManagement and Audit Scheme (EMAS) is an EU environmental certification scheme and an instrument to support the implementation of a sustainable culture within an organisation with regard to effective management of available resources and energy. EMAS operates on the basis of the EU Regulation on the voluntary participation by organisations in a Community eco-management and audit scheme.

EMAS is currently implemented at two branches of PGE Górnictwo i Energetyka Konwencjonalna - in Elektrownia Opole and in Zespół Elektrowni Dolna Odra. The Eco-Management and Audit Scheme (EMAS PI:2999) is in place at PGE Energia Ciepła's Wybrzeże CHP branch. Together with the environmental declaration, it is subject to annual verification by an independent accredited verifier. EMAS registration means compliance with the highest standards in environmental management and audit. The Opole and Dolna Odra branches of PGE Górnictwo i Energetyka Konwencjonalna are among the organisations that have been

registered in the national eco-management and audit scheme (EMAS) for the longest time. The Opole plan is the national leader in this respect.

### **Green Office Certificate**

Green offices with functionalities that meet environmental objectives are one of the manifestations of PGE's environmental commitment. Across many PGE Group locations, offices have undergone a Green Office certification process, carried out by the Foundation for Environmental Education. The certificate is issued for two years. The certificate issue is preceded by an independent certification survey, and employees take part in a series of training sessions concerning, inter alia, good ecological practices used in the office and at home.

The Green Office certificate confirms that PGE Group undertakes new pro-ecological initiatives that result in the reduction of the company's impact on the natural environment, also in the administrative aspect.

The benefits of implementing Green Office certification include:

- credible proof of compliance with environmentally relevant parameters,
- participation in a national initiative providing an opportunity to exchange experience, explore the potential for cooperation and mutual promotion (green marketing),
- raise environmental awareness among the company's employees and customers,
- lower operating costs through more rational management of raw materials, energy, water and waste.

The following companies held the Green Office certificate in 2021:

- PGE SA,
- PGE Dystrybucja: central office and branches: Białystok, Lublin, Łódź, Rzeszów, Skarżysko-Kamienna, Warsaw, Zamość,
- PGE Obrót: central office in Rzeszów and 6 locations: Białystok, Lublin, Warsaw, Łódź, Skarżysko-Kamienna and Zamość,
- PGE Energia Odnawialna: central office,
- PGE Górnictwo i Energetyka Konwencjonalna: central office and seven branches.

## **2.4 Concern for air quality**

The production of electricity and heat from fossil fuels has an impact on the environment, which is why PGE Group attaches great importance to minimising the harm.

PGE places particular emphasis on the development of district heating, knowing how its use has a positive impact on the improvement of air quality and the environment. District heating is one of the most effective ways of combating smog, which - especially in the autumn and winter season - is a problem in many Polish cities. Research indicates that, depending on location, one of the main sources of smog is individual heating of buildings with low-quality fuels. Thermal energy for heating is produced not in household furnaces but instead in high-efficiency CHP plants equipped with efficient systems for denitration, desulphurisation and particulate matter filtering. In addition, electricity is produced in a cogeneration process, which means that the energy contained in the fuel is converted and used more efficiently.

PGE Group attaches great importance to working with local authorities, jointly counteracting smog problems to improve the quality of life for residents.

### **PGE - largest producer and supplier of district heating**

PGE Group cares for partner relations with local authorities and local distributors, thanks to which it develops solutions beneficial to customers.

PGE Group's District Heating Strategy is an answer to the need to improve air quality in cities through mass connections to the district heating network and the retirement of old, inefficient and environmentally polluting household coal furnaces.

The strategy aims to:

- replace over 100 000 individual heat sources by 2030,
- make investment decisions for natural gas by 2025 at the latest, with commercialisation of zero-carbon fuels (e.g. green hydrogen) or electrification of district heating necessary in subsequent years,

- exceed 70% share of zero- and low-carbon sources in heat generation by 2030,
- build new waste-to-energy incinerator systems.

In local markets in 2021, PGE Energia Ciepła connected buildings with an aggregate demand of 229 MWt to the municipal heat networks. It is as if an entire city the size of Gorzów Wielkopolski was connected to the district heating system in one year. In markets where PGE Energia Ciepła is only a heat producer, buildings with a demand of 197 MWt were connected, whereas in markets where PGE Energia Ciepła operates as an integrated entity and is also a heat distributor, buildings with a demand of 32 MWt were connected. Three quarters of connections were made in three large cities: Kraków, Wrocław and Gdańsk. PGE Energia Ciepła also connected buildings from the primary market, i.e. newly constructed buildings with heat demand of 164 MWt. On the secondary market, i.e. facilities which replaced their heat supply with the municipal heating network, the company connected buildings with heat demand of 65 MWt.

### Modernisation of generating assets

Consistent investments in generating assets reduce PGE Group's environmental impact. Using the best available technologies, PGE Group strives to further improve its environmental performance. In 1989-2021, PGE Group's power plants reduced emissions as follows: SO<sub>2</sub> by 94%, NO<sub>x</sub> by 65%, particulate matter by 99%.

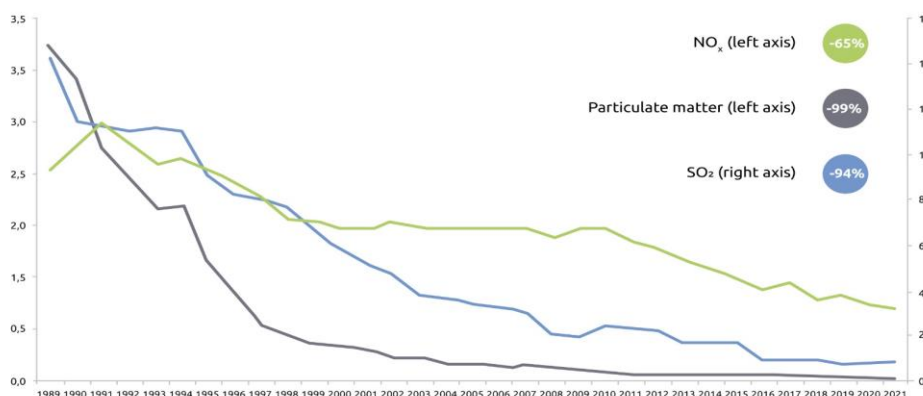


Chart of emission reductions of SO<sub>2</sub>, NO<sub>x</sub> and dust from 1989 to date.

Depending on the location, modernisation programs have different scopes of adaptation works. A large group of modernisation and restoration investments in 2021 consisted of tasks aimed at adapting generating units to the requirements of BAT conclusions. Most of them have been completed. In the case of PGE Górnictwo i Energetyka Konwencjonalna, the following power stations were adapted to BAT conclusions: Bełchatów, Opole, Dolna Odra, Rybnik, Turów, Pomorzany. In the case of PGE Energia Ciepła, a dozen or so tasks were carried out at the following CHPs: Wybrzeże, Kraków, Wrocław. Some adaptation tasks are still in progress due to time derogations secured. In the case of PGE Energia Ciepła the derogation period lasts until the end of 2023. The undertaken measures were mainly aimed at adjusting PGE's generation assets to environmental limits (e.g. reduction of emissions of dust, SO<sub>2</sub>, NO<sub>x</sub>, Hg and more) but they also contributed to improvements in other parameters, including generation efficiency and the increase of control capabilities, which are also important due to the reduction of failure rates.

Another example of an investment that contributes to reducing emissions into the environment and at the same time improves generation parameters is the modernisation of a gas turbine at the Zielona Góra CHP. The investment is in progress. It is expected to be completed in autumn 2022. As a result of the modernisation, the unit's emissions will be reduced (e.g. NO<sub>x</sub>), the efficiency of energy generation will be increased and the regulatory parameters of the entire generating unit will be improved, which also has an impact on the CHP's failure rate.

## 2.5 A responsible approach to water resources management

| GRI 303-1 | GRI 303-2 |

Processes related to water and sewage management at PGE Group's sites are carried out mainly on the basis of the Water Law and other executive acts dedicated to water and sewage management. They are carried out in accordance with administrative decisions issued by competent authorities, such as integrated permits or sectoral decisions (water-law permits). PGE Group monitors the quantity and quality of water abstracted and wastewater discharged in accordance with administrative decisions issued in this respect.

### Transparency of water resource disclosures

Aspects of water and wastewater management are regularly measured and monitored across the Group's operations. PGE is aware of its impact and actively works to respect limited water resources, as confirmed by the international CDP survey. PGE received a C grade in the survey, meaning that it is a company aware of water security.

In the survey, PGE reported a wide range of data in the area of water management, especially in relation to electricity and heat production and lignite mining. The data disclosed includes, among other things, the individual levels of water treatment in the operations, including technical information on the level applied for discharged water. Detailed data on water abstractions and wastewater discharges for individual installations are compared on a year-on-year basis. Water management information provided by the CDP study is available by logging on to the platform at [cdp.net](https://cdp.net).

### Water management in power stations

PGE conducts on-going monitoring of the quantity and quality of abstracted water and discharged wastewater. For technological purposes, water from surface water intakes is used, which is then subjected to purification and treatment processes. In order to reduce the amount of raw water consumption, closed circuits are used, and the used process water and wastewater are introduced to other production processes. Wastewater generated by the production activities of the power plant undergoes treatment, including multi-stage treatment, and is then discharged to surface waters or transferred to municipal enterprises. Depending on environmental conditions, the units have appropriate water treatment and wastewater treatment technologies to ensure that all environmental requirements are met. Adapting to the requirements of the BAT conclusions at PGE Górnictwo i Energetyka Konwencjonalna also means reducing pollutants to water from flue gas cleaning systems generated in the process of electricity generation. The wastewater treatment plant is being modernised and extended in this respect.

#### *Turów power plant*

The Turów plant, due to its location, is situated in an area characterised by higher than average precipitation levels. Part of the precipitation falling at the foot of the Iżera Mountains is naturally retained in the Witka Reservoir, located on the Witka River. This reservoir is the main water intake for the Turów plant. Given the fact that the water in the Witka reservoir comes largely from rainfall, it can be stated that the Turów plant uses rainwater for its technological processes. The Turów plant uses only surface water for its operations and does not use underground water intakes.

At the Turów plant, the closing of the water cycle in production processes is carried out by diverting used water for treatment and returning it again to production processes. All wastewater from the power plant site is treated in wastewater treatment plants: Industrial Wastewater Treatment Plant, Wastewater Treatment Plant from Wet Flue Gas Desulphurisation System at unit 7, Wastewater Sub-treatment Plant from Flue Gas Desulphurisation System at units 4-6, Ash Settling Plants, Sanitary Wastewater Treatment Plant.

The closing of the water cycle in production processes is carried out by diverting used water for treatment and returning it again to production processes:

- with the entry into operation of the new unit, the wet flue gas desulphurisation wastewater treatment plant of unit 7 was put into service - the treated wastewater is reused in technological processes,
- modernisation of the wet flue gas desulphurisation system wastewater pre-treatment plant at units 4-6 was completed - pre-treated wastewater is directed to further treatment in the wet flue gas desulphurisation system wastewater treatment plant unit 7,



- optimisation of water consumption and amount of discharged wastewater - water from desalination of the main cooling system or as an emergency is used for water supply to the wet flue gas desulphurisation system of units 4-6,
- a contract was signed for the modernisation of the Industrial Wastewater Treatment Plant.

The expansion of the industrial wastewater treatment plant at Turów power station began in 2021. This is a pro-environmental measure aimed at improving the environment around the Turów energy complex. The recipient of sewage from the Turów plant is the Miedzianka River. In order to achieve the environmental objective, it must be ensured that wastewater discharged into the river does not deteriorate its condition, thus the wastewater parameters must meet the water quality requirements for a mountain stream class. The on-going project will ensure the achievement of environmental objectives and thus adapt the Turów plant to EU and national environmental requirements. The planned industrial wastewater treatment plant will be based on modern, highly efficient membrane technologies - microfiltration and reverse osmosis. The efficiency of reverse osmosis is approx. 96%-98%, meaning that over 96% of all pollutants will be captured in this process. This will be the first wastewater treatment plant in Poland and one of the few in the European Union to use this type of technique so widely. As a result of this project, the Turów plant will be the first power station where treated wastewater can be returned to technological systems. The new treatment facility will be the largest in the Polish energy sector, using membrane technologies with a total capacity of over 14 000 m<sup>3</sup> per day. Implementing this investment will have a positive impact on the border river - the Nysa Łużycka.

As part of monitoring, the quality of water in the Miedzianka River is also tested periodically at three sampling points. Physiochemical parameters are tested every two weeks by an in-house laboratory, while once every two months the quality of water is tested by an accredited laboratory.

#### *Opole power plant*

At Elektrownia Opole, all wastewater from the company's premises is treated in a final treatment plant. Some types of industrial wastewater are subject to multi-stage treatment. Industrial wastewater and rainwater is directed to the final mechanical-chemical treatment plant, where it undergoes a coagulation process (merging of dispersed colloid phase particles into larger aggregates). Wastewater is treated using the activated sludge method in a biological system, also located in the final treatment plant. The treated industrial wastewater and domestic sewage is discharged through a common collector to the Odra river. In order to improve the sedimentation of inflowing suspended solids in raw wastewater and to improve and automate the discharge of sludge to the sedimentation plots, a new radial settling tank with an integrated coagulation chamber was built in 2019. The new settling tank increased the operational reliability of the treatment plant and created a capacity reserve for the equipment at the treatment plant. The new settling tank operates as the primary plant of the sewage sequence. The design capacity ensures the capture and treatment of the inflow up to the nominal size of 3 200 m<sup>3</sup>/h and has a hydraulic reserve.

#### *Dolna Odra power plant*

The Dolna Odra power station has an open cooling system and is equipped with facilities for the reduction of pollutants contained in wastewater. Depending on the type of wastewater, it is treated in a chemical, biological or mechanical treatment plant or neutralised in neutralisers. Depending on the composition of the wastewater, it is treated in one or two facilities. Rainwater and snowmelt from the power plant area are treated using settling tanks and separators.

In order to improve the sedimentation of incoming suspended solids in raw sewage and to improve and automate the discharge of sludge to the sludge plots, a new radial settling tank with an integrated coagulation chamber was built in 2019. The new settling tank increased the operational reliability of the treatment plant and created a capacity reserve for the equipment at the treatment plant. The new settling tank operates as the primary plant of the sewage sequence. The design capacity ensures the capture and treatment of the inflow up to the nominal size of 3 200 m<sup>3</sup>/h and has a hydraulic reserve.

#### *Bełchatów power plant*

In order to reduce water consumption and the amount of wastewater discharged to water, the water used at the Bełchatów plant is reused in closed internal circuits and is not discharged to water. Used process water is used for slagging and making up losses in the hydro-ash cycle. Sanitary sewage and rainwater or snowmelt are discharged to the sewage treatment plant at the Bełchatów mine.

### *Rybnik power plant*

At the Rybnik plant, all wastewater from the power station premises is treated in the industrial sewage treatment plant and the flue gas desulphurisation system. The Rybnik plant uses closed water circuits wherever possible. The water taken from the intakes is used in internal processes and only when there is no possibility to use it in the power plant installations, it is discharged as wastewater. None of the volumes in 2021 exceeded in this respect the limit values specified in the water permits. In connection with the need to adapt the treatment plant to the requirements of BAT conclusions, the method of sewage treatment using the modern Nalmet preparation was successfully applied.

### **Water management in the mining process**

Lignite deposit exploitation using the open-pit method, carried out at the Bełchatów and Turów lignite mines, requires prior dewatering of the rock mass, which has a significant impact on hydrogeological conditions and results in changes in hydrodynamic relations. Water management in lignite mines is connected with both deep dewatering and surface dewatering of open pits. Water from the pits is discharged to field settling ponds for final purification by natural sedimentation of suspended solids supported by a plant filter or to dedicated treatment plants. Each of the open-pit lignite mines owned by PGE conducts scheduled water protection activities. Drainage facilities to ensure water purity are being expanded and modernised.

### *Bełchatów lignite mine*

Since the beginning of its operation, the Bełchatów mine has been carrying out planned and rational activities in the field of water protection. The dewatering system in Bełchatów drains both underground and surface water in order to dewater the rock mass to the extent enabling safe exploitation of lignite from the Szczerców field and Bełchatów field.

To counteract the effects on the environment, the mine:

- has a deep-water drainage system using large diameter deep wells, which makes it possible to lower the groundwater table while maintaining the safety of mining operations and limiting the amount of pumped water,
- uses selective extraction and discharge of pumped water in the pit in order to reduce the amount of dirty water requiring treatment,
- uses a multi-stage treatment system for water discharged from the pit dewatering,
- maintains a proper hydrodynamic system in the area of the "Dębina" salt diapir in order to protect its structure,
- monitors the impact of mining activities on the environment, making it possible to observe any early signs of deterioration in the condition of a particular environmental feature and to take appropriate preventive measures.

Water from deep drainage is discharged through a system of ditches and canals in quantities and physiochemical parameters that do not exceed the statutory provisions contained in the valid water law permits. Waters discharged into surface watercourses must feature at least class II purity.



The existing natural watercourses in the region are used to safeguard water purity:

- Central Wastewater Treatment Plant in Rogowiec - mechanical and biological type. It treats the following types of wastewater: domestic and social sewage, rainwater and industrial. The plant provides wastewater treatment services for external companies,
- Sewage treatment plant in Chabielice - mechanical-biological treatment plant. It treats social and domestic sewage from the facilities of O/Szczerców and provides treatment services for the Municipal Facility in Szczerców.

The operation of the following facilities is important for water protection: sedimentation tanks for surface drainage water and a protective barrier for the "Dębina" salt diapir to maintain uniform water levels in the rock mass surrounding the diapir.

#### *Turów lignite mine*

In 2021, the Turów mine branch discharged the following to external watercourses: mine water from surface dewatering of the pit, well water and domestic sewage. The quality of well water allows it to be discharged directly into external watercourses. Mine water and domestic sewage were treated at 5 on-site sewage treatment plants. Mine water treatment plants at the Turów mine branch are equipped with the Actiflo system – a highly effective process of suspension reduction, and these are:

- Mechanical and chemical treatment plant on the Ślad creek
- Mechanical and chemical treatment plant on the Biedzychówka stream
- Mechanical and chemical treatment plant on the Nysa Łużycka river

Mechanical-biological treatment plants operate on the basis of activated sludge, and these are:

- Mechanical-biological treatment plant for the OAU Administrative and Service Centre
- Mechanical and biological treatment plant for 5th slipway OSA-2

The amount of discharged mine water depends on the amount of precipitation and in 2021 it was shaped at the level of approx. 13 million m<sup>3</sup>. The parameters regarding the quantity and quality of discharged sewage are regulated by the requirements of valid water law permits held by the branch. The quality and quantity of discharged water and sewage are monitored on an on-going basis.

At the same time, the mine is actively working to eliminate potential risks of mining impacts on the environment and surrounding areas, in addition to many years of continuous groundwater monitoring by Polish-Czech and Polish-German specialist teams. The most recent environmental investment at the mine is the nearing completion of the construction of an anti-filtration screen, which protects the land adjacent to the mine on the Czech side of the border against potential groundwater outflow. Its purpose is to protect the drinking water intake in the Czech town of Uhelna, which is located in close proximity to the Turów complex. In accordance with arrangements made by the Czech and Polish sides, set out in the environmental decision, an underground barrier is being built at a cost of several million zlotys to additionally secure water relations on the border between the two countries. The anti-filtration screen, about 1 100 meters long and 1 metre wide, is being constructed at a depth of between 65 and 117 metres using several hundred boreholes and injection technology. 200 injection boreholes have been completed thus far. Construction of the anti-filtration barrier will be completed in June 2022. In accordance with an agreement executed on February 3, 2022 between the Government of the Republic of Poland and the Government of the Czech Republic on cooperation in the field of addressing the effects on the territory of the Czech Republic resulting from the exploitation of the Turów mine, after the completion of the investment, hydrogeological studies and analyses will be initiated to determine the functionality of the barrier, in particular in terms of preventing groundwater outflow from the territory of the Czech Republic. In case the barrier proves not to be fully functional, Poland has committed to expand, deepen and tighten it. The existing network currently comprises approx. 550 groundwater table measurement sites, of which more than 150 belong to the Czech-Polish and German-Polish measurement network.

A similar but much longer underground barrier, more than 4 km long, has been in place at the mine site along the German border for many years, protecting the waters of the Nysa Łużycka river from entering the mine and fulfilling its role 100 percent.

## Water in heat generation and supply

One of the elements of PGE Energia Ciepła's management strategy is to optimise the consumption of raw materials, including in particular water, and to reuse, as far as possible, the produced substances accompanying the main production process and precious elements.

At PGE Energia Ciepła, process water is produced using mainly surface water or, in certain places, groundwater. At the Szczecin CHP, internal sea waters are abstracted. All groundwater intakes in operation have established direct water protection zones. Several plants also use water from municipal water supply systems. Depending on the size of the plant, source and composition of the raw water, different water preparation techniques are used, such as lime decarbonation, filtration, ion exchange, ultrafiltration, reverse osmosis, electrodeionisation. In each case, the complete water preparation sequence consists of a combination of several of the above techniques.

Depending on the technological requirements, water is directed to reception points after various stages of preparation. At each of these stages, particular attention is paid to the rational use of water. Many of the wastewater streams generated in the course of water preparation are returned to the process for re-use. Sewage generated in other installations, if their composition permits, is also returned to the process. Examples of this are:

- return of so-called hot sewage as a source for the water preparation process,
- frequent use of rainwater or drainage water for water production,
- returning to the desulphurisation process the treated wastewater from the desulphurisation process, if its composition directly depends on the quality of the coal combusted,
- using part of the domestic sewage, after treatment, as a source of water for closed recharge,
- on-going work on the cooling system at the Krakow CHP to use treated sewage from the municipal treatment plant as a source of process water,
- using sewage as a source of water for domestic water systems or for supplementing ash extraction and slagging systems.

In order to adapt installations that have wet flue gas desulphurisation at the following locations: Kraków, Wrocław, Gdańsk and Gdynia, a number of actions have been planned to increase the efficiency of wastewater treatment accompanying this treatment method. The existing flue gas desulphurisation systems are equipped with highly efficient wastewater treatment plants; however, due to the requirements related to compliance with BAT conclusions, their operation will be further optimised. At the Wrocław, Gdańsk and Kraków CHPs, active work is being carried out on the dosing of the modern Nalmet preparation, which together with modernisation works planned for 2022 will allow optimisation of the operation of the treatment plants at individual locations.

## PGE Energia Ciepła with innovative INNUPS technology

Among the stricter requirements of the BAT conclusions in the field of nitrogen and sulphur oxides removal, requirements were introduced concerning the parameters of wastewater from wet flue gas desulphurisation systems. One of the key parameters are concentrations of metals and metalloids in wastewater. As part of the program of adjustment to BAT conclusions, a number of projects were implemented, including in the field of water and wastewater management a project derived from a research and development project, i.e. implementation of heavy metals capture technology in InnUPS technology. In 2013-2016, PGE Energia Ciepła developed a technology for treating wastewater from wet flue gas desulphurisation systems. The developed technology is based on a column system containing ion exchange resins dedicated to the removal of metals and metalloids.

In 2021, the INNUPS treatment system was put into service at PGE Energia Ciepła's Gdynia CHP. Thanks to the new technology, wastewater is treated to a much higher degree than required by the EU regulations in force since August 2021. In addition, the installation enables the recovery of marketable metals, such as rare earth metals and precious metals. This is an example of the widest possible re-use of produced anthropogenic minerals and precious elements, in line with the principles of circular economy binding at PGE Group.

## Renewables

For PGE as Poland's leader in hydropower generation, a responsible approach to the use of hydropower and pumped storage plants is of particular importance. As regards PGE Energia Odnawialna, the key issues include surface and underground water intake and discharged wastewater, which is subject to constant testing and

analysis for compliance with the requirements of water permits. Wastewater treatment facilities are operated at individual sites, where operational inspections of separators are performed by specialist companies and, as required, waste is cleaned, collected and disposed of, and adsorption filters are replaced. In its operations, the company takes into account the risk of harmful substances entering the environment through contamination of water reservoirs as a result of failures of the hydro-set equipment. PGE Energia Odnawialna takes remedial measures which consist in continuous monitoring of equipment operation by power plant operators, regular inspections and carrying out repair, operation and modernisation works. Municipal sewage is discharged in accordance with contracts with municipal companies.

## Distribution

PGE Dystrybucja is aware of and actively acts to respect limited water resources. PGE Dystrybucja conducts on-going monitoring of the quantity and quality of water abstracted and wastewater discharged, in accordance with administrative decisions in this respect. Wastewater generated in the course of production activities is subjected to treatment and then discharged to surface waters or transferred to municipal companies in accordance with the concluded agreements.

## 2.6 Circular Economy

According to PGE's strategy, one of the ways to achieve the goal of climate neutrality by 2050 is to implement the principles of circular economy in all areas of activity. Actions taken by PGE to close cycles of raw materials are aimed at the optimum use of resources, protection of natural resources and mitigation of adverse environmental impact by, inter alia, reducing the volume of generated waste.

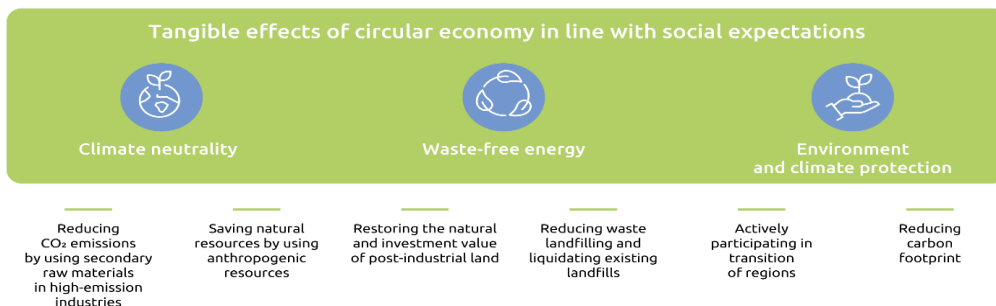


Fig. Environmental and social effects of implementing circular economy products

Processes and assets that are in alignment with the circular economy include:

- extending the life cycle of raw materials and materials used,
- reducing energy losses and material waste,
- processing waste into wholesome products in order to minimise waste,
- reclamation and restoration of investment values of post-industrial sites.

The concept of re-using combustion by-products has been around in the energy sector for over 20 years. Reduction of emissions to the atmosphere causes an increase in the amount of substances captured in air protection systems and thus an increase in the possibility of using combustion by-products. PGE Group places strong emphasis on the economic use of combustion by-products, implementing the concept of reducing environmental footprint in practice. The reuse of combustion waste in various sectors of industry brings tangible benefits to the environment:

- does not give rise to the need to allocate new land for the construction of landfill facilities and associated infrastructure,
- reduces the use of natural resources (e.g. natural gypsum, aggregates) and thus reduces the area of degraded land associated with their extraction;

- leads to a reduction in nuisance caused by landfills, both for people and the environment;
- reduces the cost of doing business.

In pursuing its strategy, PGE places great emphasis on developing solutions that maximise the economic use of raw materials and waste, thereby achieving environmental and climate protection objectives. In the area of waste management, indicators have been set for waste recirculation and reduction of the volume of landfilled waste by 2035 in the form of two targets:

- recycling above 65%, and
- landfilling of no more than 10 percent of the waste generated.

### Dedicated Circular Economy segment

PGE Group has set up a dedicated Circular Economy segment, where PGE Ekoserwis plays the leading role. Its activities are focused on the implementation and deployment of ecological and economic solutions in the area of resources of raw materials and post-industrial waste from the energy industry. The main objective of the new segment is a coherent, strategic and business-oriented management of post-industrial raw material streams in line with the circular economy, taking into account care for the environment and sustainability.

The Circular Economy segment's priority is to promote, create and implement circular economy principles across the entire PGE Group and to increase the degree of utilisation of raw materials involved in energy generation processes. This is a response to the challenges facing the Polish economy both in the long term and in the coming years as an important element of the transition process. An efficient Circular Economy model will make it possible to carry out an energy transition that will fit in with national challenges in the area of waste-free and environmentally friendly energy.

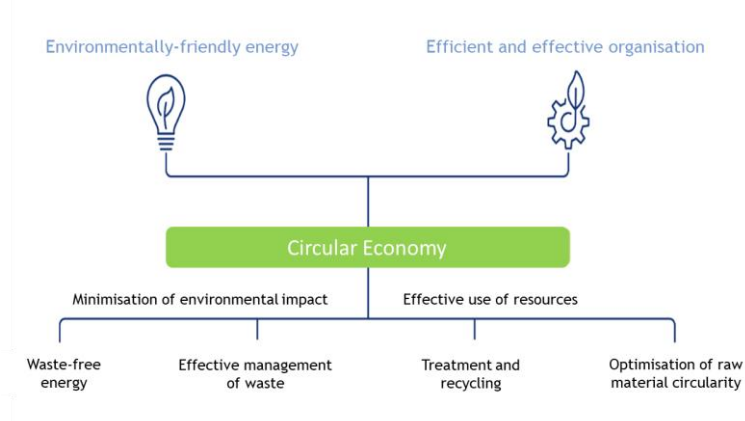


Fig. Implementation of PGE Group's strategic priorities within the Circular Economy segment



Fig. Current and future management model for Circular Economy at PGE Group

Adequately ensuring the use of secondary raw materials is connected with the necessity to implement the principle of priority for these raw materials in economic processes. The EU Circular Economy package, which reduces and eventually eliminates landfilling in principle, is a major challenge for the energy and mining industries. At the same time, this is an opportunity for the energy sector and a benefit resulting from the preservation of natural resources for future generations and lower environmental impact.

## Combustion by-products

### | GRI 301-3 |

Combustion by-products are the result of electricity and heat production in generating units using fossil fuels. Combustion by-products management at PGE Group, based on circular economy, leads to the use of waste as full-value substances in other branches of the economy (cement industry, construction, road construction, mining), and in consequence to the reduction of the volume of generated final waste. In 2021, a total of nearly 11 million tonnes of combustion by-products in the form of ash, slag, ash-slag mixture and gypsum from flue gas desulphurisation systems were generated in PGE Group's power plants and CHPs during the production of electricity and heat, of which as much as 65% was economically used, including as full-value products which find their use in many diversified economic directions. The reuse of combustion by-products in various industrial sectors brings tangible environmental benefits. The inconvenience of landfills, both for people and the environment, is reduced as there is no need to allocate new land for their construction, with accompanying infrastructure.

Combustion by-products are successfully replacing natural raw materials (e.g. natural gypsum, aggregate), thus reducing their extraction and the accompanying emissions. The responsible use of secondary raw materials, such as gypsum from flue gas desulphurisation systems, is a good example of implementing the principle of priority for secondary raw materials in economic processes. Such measures help to protect fossil resources for future generations.

Greenhouse gas emission reduction is not insignificant in production cycles that use combustion by-products. Examples include reducing the carbon footprint of cement production using fly ash, or gypsum boards using synthetic gypsum. The use of high-calcium ash from energy generation reduces the CO<sub>2</sub> emissions that accompany the cement and lime industries in the production of traditional binders (i.e. cement or lime). Therefore, the conventional energy industry contributes to part of the avoided CO<sub>2</sub> emissions due to the use of combustion by-products supplied from the energy industry to the cement industry. According to a report by the National Centre for Balancing and Emissions Management, thanks to the production of binders from combustion by-products, which successfully replace cement and natural lime in selected geotechnical applications - mainly in road construction, the reduction of CO<sub>2</sub> emissions over a 5-year period may be reduced by almost 568 thousand tonnes of CO<sub>2</sub>.

The methods of combustion by-product waste management applied by PGE are eco-friendly and constitute an alternative to landfilling. Solutions are developed using the company's own research and development facilities and laboratory, and are supported by leading scientific and research institutions with which the company cooperates on a regular basis. The combustion by-products and gypsum produced are monitored for quality and, depending on the parameters, are directed to the appropriate use.



Fig. Industries to which PGE directs combustion by-products in the form of full value products or raw materials and their relation to the circular economy

Manufacturers of cement, concrete, ceramics, mining and road construction, among others, benefit from the use of proven and safe solutions. Products made using combustion by-products technology meet all the requirements for building materials or products.

By-products of combustion are also used in the reclamation and macro-levelling of post-industrial and degraded land, restoring many areas to their former landscape and natural beauty. They are also widely used in the mining industry to protect pits.

In 2021, the largest volumes of combustion by-products were directed to the construction segment.

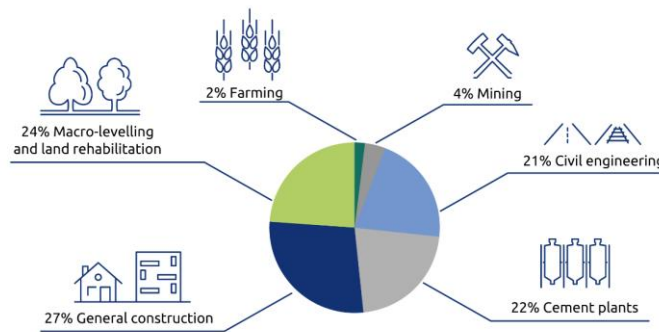


Fig. Share of different directions of combustion by-products use in 2021

### Mining by-products

The minerals that accompany lignite deposits, called mining by-products, play an important role in the sustainable supply chain of raw materials and materials. These include limestone, lake chalk, sands, clays, flint cobbles and erratic boulders in the form of granitoids and other Scandinavian rocks. Management of associated minerals contributes to rational deposit management and protection of the earth's surface.

The reclamation and restoration of investment values of post-industrial sites is an integral stage in ending the extraction of energy minerals. The decommissioning of pits is aimed at making them usable and restoring them to the environment. In the case of lignite pits, international experience shows that water reclamation is most popular option. For this purpose, macro-levelling is carried out using the earth and rock masses accumulated during the exploitation phase in order to shape the land appropriately for leisure and recreation or in another direction.

Reclaimed areas can also be an attractive area for investments in renewable energy sources. The location of these areas in the vicinity of energy connections will allow them to be used in the future for the construction of wind farms, photovoltaic farms or energy storage facilities.

### Circular Economy Research and Development Centre

In a time of transition, PGE faces new challenges related to the development and implementation of waste processing technologies and recovery of raw materials from RES installations, which in a discernible time horizon will also constitute a potential for their optimal use in accordance with the principles of Circular Economy. To be able to achieve this, specialised competence and dedicated research and development activities in this area are required. Therefore, work began in 2021 on the construction of the Circular Economy Research and Development Centre, where projects will be focusing on, inter alia, the recovery and recycling of raw materials from decommissioned RES installations.

The role of the Circular Economy Research and Development Centre is to develop and implement solutions aimed at the optimal economic utilisation of post-industrial energy waste and recovery of valuable raw materials which, when re-used, will reduce the consumption of natural resources and minimise the generation of waste. The Circular Economy Research and Development Centre will focus on the utilisation of all waste



generated in the energy production processes, both from the current conventional energy sector and from the energy sector based on renewable energy sources. The aim of the Centre is to create a centre of competence for research and development in the area of waste management from the energy industry. The specialised facility will have its own research and technical laboratory. The scope of work on advanced projects will include the development of technologies and solutions for waste processing, recovery of raw materials and manufacture of high value products from the resources obtained.

## 2.7 Waste

### | GRI 306-2 |

Waste management at PGE Group is carried out on the basis of relevant administrative decisions, i.e. integrated permits and sector decisions. PGE Group companies adapt to new requirements concerning waste management and new obligations are fulfilled on an on-going basis.

Priority is given to preventing and reducing waste, carrying out recovery or disposal of waste. All waste is collected in accordance with the rules of waste segregation and is initially stored in designated areas.

Secondary raw materials are collected selectively for further economic use. All waste is transferred for management to authorised entities. Only two types of waste that are not suitable for further use are sent directly to landfill.

Starting from January 1, 2020, PGE Group companies actively participate in the national waste database system and perform all their obligations in this respect on an on-going basis. This has made it possible to develop an effective tool for all participants in the waste management process in the companies' branches.

The volume of hazardous waste generated is decreasing every year. On the scale of the entire PGE Group, a reduction by approx. 14% is observed in 2021 compared to 2020. Particularly noteworthy is the intensified activities in recovery processes (including energy recovery) for non-hazardous waste. PGE Group recovered approx. 59% more waste of this type than in 2020.

### **Waste in conventional energy generation**

In conventional energy generation, it is imperative that as much of the waste and combustion by-products generated are managed economically as possible within the circular economy. Only when no use is possible is the waste landfilled.

#### *Bełchatów power plant*

The combustion of lignite at the Bełchatów plant results in the production of combustion by-products: fly ash and furnace slag, and synthetic gypsum (as a product) as a result of flue gas desulphurisation. At present, the Bełchatów plant operates three landfills for non-hazardous and inert waste - the "Zwałowisko" and "Lubień" landfills, where ash-slag mixture is stored, and the "Rogowiec" landfill, where gypsum waste and partly waste from production that can no longer be recovered are stored.

Fly ash from ash removal processes in electrostatic precipitators is transported to retention tanks, where each has a working capacity of 1 800 m<sup>3</sup> and is equipped with 1 or 2 loading sleeves depending on the type of tank and ash. The volume of ash which was not collected by external customers is directed to the suspension production and transport installation and is deposited in the "Lubień" landfill.

The second type of waste produced during the combustion of lignite is slag, which is transported hydraulically to the "Zwałowisko" landfill.

### *Turów power plant*

Ways to manage waste as well as quantities of waste generated at the Turów plant are in accordance with conditions defined in the valid integrated permit. The amount of waste generated depends on the investments made and the scope of operations carried out at the installation. In order to prevent the necessity of storing combustion waste at the landfill, this waste is transferred to the Turów lignite mine for recovery. This consists of filling in the areas that have been adversely transformed. The waste recovery process consists of mixing the combustion waste with mine overburden and then filling the post-mining excavation with the obtained mixture, in accordance with the conditions specified in the decision on waste treatment. The target area of the pit together with the internal heap, where the recovery of combustion waste from the power plant is carried out, will be developed in the direction of forestry.

### *Opole power plant*

The Opole plant produces by-products from fuel combustion (slag, fly ash), flue gas desulphurisation (synthetic gypsum), fly ash as waste (non-quality fly ash) and insignificant amounts of other waste from fly ash flotation (microspheres). These substances result from the operation of generating units 1 - 4 and new units 5 - 6.

Flue gas desulphurisation systems are operated on all generating units. Synthetic gypsum (as a by-product) is entirely collected by Knauf Bełchatów sp. z o.o. and PGE Ekoserwis. It was decided that the power plant will not carry out combustion by-products storage. All combustion by-products will be subject to economic use. The Opole plant has a combustion waste landfill, but due to the economic use of all generated combustion by-products, no waste has been deposited there since 2000.

### *Dolna Odra power plant*

At the Dolna Odra plant, mainly combustion waste called ash-slag mixture is generated, which is deposited at the combustion waste landfill located at the fuel combustion installation. Microspheres and sludge from the flue gas desulphurisation system are produced in insignificant amounts. Coal fly ash, which is considered a by-product, as well as synthetic gypsum are collected by PGE Ekoserwis.

### *Rybnik power plant*

The Rybnik branch transfers the generated combustion by-products to PGE Ekoserwis for further management. It should be emphasised that in 2021 the Rybnik plant did not produce ash, slag and gypsum classified as waste. Ashes and slag were produced only as by-products, while gypsum as a product.

## **Waste in mines**

The reclamation and restoration of investment values of post-industrial sites is an integral stage in ending the extraction of energy minerals. The decommissioning of pits is aimed at making them usable and restoring them to the environment. The minerals accompanying lignite deposits play an important role in the sustainable supply chain of raw materials and materials. The management of associated minerals contributes to rational deposit management and protection of the earth's surface. All waste generated that is not managed on the companies' premises is transferred to external entities.

### *Turów lignite mine*

The Turów mine recovers combustion waste from the Turów power plant. Sewage sludge from domestic sewage treatment plants is a valuable fertiliser and soil improver and is used in the process of biological reclamation of post-mining areas.

The mine also carries out rational management of humus (removed as part of the preparation of the forefield), which is used as a sodding material and to protect the surface of the internal dump from excessive dust.



### *Bełchatów lignite mine*

Storage and recovery of generated waste is carried out at the mine site. Waste is stored selectively, depending on its type, with preliminary separation of recyclable waste, in separate and adapted places, with a ban on mixing and in conditions protecting against penetration of harmful substances into the environment, access of unauthorised persons and animals, in appropriate containers or in bulk.

### **PGE Energia Ciepła**

Most of the volume of post-processing waste is sent to external customers, either as waste or as a by-product. Once in a while there are situations when the volume of transferred waste is higher than the current volume, which is due to the transfer of waste to external customers from the previous period's stock. When waste has no economic use, it is sent to landfills. In recent years, these quantities have been marginal in relation to the total outfall. Taking into account the regulatory context and processes of the transition of energy sources, a gradual reduction in the volume of post-process waste should be expected in the coming years.

### **PGE Energia Odnawialna**

Waste in the operations of PGE Energia Odnawialna is limited. Waste is managed in accordance with the Waste Act, internal regulations and provisions set out in permits for the generation of hazardous and non-hazardous waste.

### **PGE Dystrybucja**

In the case of PGE Dystrybucja, the amount of waste generated depended on the scope of operations carried out on the power grid, the occurrence of failures and the investments carried out.

Reducing the amount of waste generated in the distribution area is achieved, among other things, through the development of modern live-work technology, which allows the operation of the electricity grid to be carried out without having to shut down the lines supplying electricity, extending the life of the switching equipment.

## **2.8 Land rehabilitation**

One of the most important environmental protection activities carried out at PGE Group's lignite mines is the rehabilitation of post-mining areas, which restores usable and natural values to post-mining areas and recreates or shapes new environmental features. To this end, types and methods of rehabilitation are defined and visions of the landscape after completed rehabilitation are presented.

The reclamation of post-mining areas is a complex issue, consisting of design and technical as well as biological activities. It includes the following stages:

- preliminary (preparatory) reclamation - concerns the recognition of factors determining the correct course of rehabilitation. At this stage levelling measurements are taken, mining maps are drawn up and cost and project documentation is prepared,
- basic (technical) rehabilitation - refers to macro-levelling covering earthworks, consisting in proper shaping of the heap into a system of slopes and shelves, regulation of water relations by means of hydrotechnical facilities and equipment and reconstruction or construction of access roads,
- detailed (biological) rehabilitation - concerns improvement of air and water properties of soil, elimination of its excessive acidification, supplementation of missing nutrients, introduction of herbaceous and woody vegetation recreating biological conditions of the area and protection against surface erosion,
- post-rehabilitation treatment - includes the care of seedlings and the replenishment of outcrops.

First of all, the works eventually shape the slopes and ledges of the heap, protect the slopes by controlled drainage of rainwater, consolidate the top layer of soil and protect the area against erosion, reduce the volume of rainwater runoff by increasing soil retention, improve the quality of water flowing from the heap and reduce fugitive emissions.

## Bełchatów mine

The Bełchatów mine conducts large-scale land rehabilitation activities. So far, it has already rehabilitated more than 2 300 ha of post-mining land and handed over more than 1 500 ha of rehabilitated, forested land to the State Forests. At present, the post-mining areas of the Bełchatów lignite mine are dominated by the forestry direction. It can be preliminarily estimated that about 5 500 ha of the land (including protective strips around water reservoirs) will be eventually handed over for forest management. So far, the Bełchatów mine has handed over to the State Forests more than 1 500 ha of transformed forested land. As part of rehabilitation activities, more than 23 million trees have been planted on all mine sites, thus ensuring biodiversity.

The rehabilitation of post-mining areas at the Bełchatów mine is carried out on the basis of a technological project for the Bełchatów field and the Szczerców field, as well as on the basis of annual detailed technical projects for individual areas.

In 2021, on the external dumps of the Szczerców field and the internal dumps of the Bełchatów field, the Bełchatów mine rehabilitated 234 ha of land, including biological rehabilitation on 112 ha.

Góra Kamieński is a flagship example of comprehensive rehabilitation efforts. It is the highest hill in central Poland, 395 metres above sea level. It was formed from 1 354 billion m<sup>3</sup> of overburden, taken off in the process of accessing successive layers of lignite. Currently, it is one of the main tourist attractions in central Poland. A ski lift, hiking and cycling routes and a 620-metre-long sledge run make Góra Kamieński an important point on the map of summer and winter sports enthusiasts.

The formation of a second heap, this time at the Szczerców Field, was also completed. This process took 17 years, and resulted in the creation of the "twin" Góra Kamieński. The heap was formed from almost 1 billion m<sup>3</sup> of overburden located above lignite seams. Currently, the mountain has an area of 1 114 ha and a relative height of approx. 170 m.

The rehabilitation of the heap is being carried out in a forestry direction, taking into account the recreational function through the creation of forests, cycle paths, a golf course, autodrome, hippodrome and a ski slope. A photovoltaics farm will also be built at the top.

Within the area of the Bełchatów field, work is being carried out on corrections and additions to afforestation from the rehabilitation carried out in previous years. The target rehabilitation directions include:

- forest, woodland direction - internal dumps of the Bełchatów field,
- forestry, recreational and sports, agricultural (cultivation of energy crops), economic (construction of a wind farm) - the external dump of the Szczerców field,
- water direction - mining pits of field Bełchatów and field Szczerców,
- recreational and sports facilities and wooded areas in coastal areas.

Ultimately, the main rehabilitation task for the Bełchatów mine will be the water reclamation of both end pits, combined with the creation of a large leisure complex. The scale of difficulty of this project is unparalleled in Poland. Once the mining is fully completed, the Bełchatów mine may become an important place for water sports enthusiasts. Over 4 000 ha will form a reservoir on which economic or recreational and sports activities can be conducted in accordance with local needs.

In 2021, the Bełchatów mine obtained administrative decisions to recognise the reclamation as completed in forestry direction for approximately 137 ha of land in the Bełchatów field and approximately 41 ha of land in the Szczerców field.

## Turów mine

In the case of the Turów mine, the rehabilitation of the external dump, which has been carried out since 1960s, is aimed at target forest management, where mining operations have been finished. The rehabilitated external dump of the Turów Mine is a forest complex of the area of almost 22 km<sup>2</sup> which constitutes invaluable oxygen generating area of the Bogatynia municipality. It is also environmentally diversified, where habitats and ecological corridors are created (habitats of very numerous representatives of both plant and animal world, including many rare and protected species). It is the largest site of its kind in Poland and one of the largest in Europe.

The effects of the land rehabilitation works carried out contribute mainly to the improvement of the quality of basic environmental components, i.e. air, water and soil. Uncontrolled emission of dust from the heap decreases with the increase of the area of forested land. The anthropogenic forest complex formed on the external dump contributes significantly to the increase of forest cover in this industrialised region. Although the age structure of afforestation is characteristic for young forests, it is already an important landscape and climate factor for the Bogatynia municipality.

The rehabilitated external dump perfectly fits into the mountainous surroundings of the "Worek Żytawskiego", which is part of the Iżera Foothills. After more than fifty years since the start of reclamation work, the dump should be seen as an integral part of the entire ecosystem. It improves the quality of life of the region's inhabitants thanks to multi-directional reduction of negative impacts of industrial activity. It also performs protective functions, including:

- prevents wind erosion (reduction of fugitive emissions),
- reduces water erosion and flood prevention through the controlled drainage of surface water made within the framework of reclamation,
- increases retention and recreational or productive function (harvesting of timber).

Drainage works were carried out in 2021. Maintenance of existing drainage ditches was carried out and new culverts and flow traps were constructed. These facilities will allow rainwater to be managed in a controlled manner, which has a significant impact on subsequent biological reclamation works.

In 2021, a wildlife inspection was also carried out on 28.5 ha of the open-pit foreground area, establishing the principles for the continuation of mining with respect to the principles of species protection for animals, plants and fungi. The necessary tree and shrub cutting was carried out outside the bird breeding season.

The result of the rehabilitation works are dynamically growing multi-species stands forming components of the forest environment, including the soil and its specific microflora and local microclimate. There is relatively rich biological life in the reclaimed land. As years go by, the colonisation by fungi, bacteria and actinomycetes increases. There is a clear predominance of forest species over non-forest species, testifying to the transformation of the forest ecosystem developing towards fertile upland forest habitats.

Over the next few months, under a signed agreement with the Czech Republic, the mine will plant additional saplings on a strip of the surface dike that will be built on the mine-Czech border.

The kilometre-long earth embankment will be planted with trees and rich vegetation.

### **Reclamation of waste dump at PGE Energia Ciepła**

Reclamation activities are also carried out by PGE Energia Ciepła. After a landfill is closed, it is formally shut down and then recultivated in the green direction. Vegetation is introduced, grass covers and tree plantings are made. Where possible, measures are planned to restore the land to its economic function. The levelling works carried out are intended to enable adaptation of the land for various economic functions of an industrial, service or municipal nature.

Currently, there are 12 landfills in the branches of PGE Energia Ciepła with various status of operation - operational, closed - prepared for rehabilitation, as well as rehabilitated. An example of landfill restoration is the process of rehabilitation of the disused furnace waste landfill in Gorzów Wielkopolski, owned by PGE Energia Ciepła, which began in 2021. The rehabilitation of the inactive landfill of non-hazardous and inert waste will be carried out in accordance with the relevant administrative decisions and the technical design developed in this respect.

## 2.9 Biodiversity

| GRI 304-1 | GRI 304-2 |

When planning new projects, PGE each time analyses its impact on the natural environment and ecosystems. In addition to analyses of the potential impact of new investments and modernisation of existing ones, PGE also meets the challenges related to the protection of biodiversity, understood as the multififormity and variability of life on Earth in all its forms and interactions, which includes diversity within species, between species and the diversity of ecosystems.

### Locations in the vicinity of protected areas or areas of high biodiversity value

PGE Group sites are not located in protected areas, however some of the companies' branches are adjacent to them. Therefore, PGE monitors these areas to avoid any negative impact of its operations.

#### *PGE Górnictwo i Energetyka Konwencjonalna*

The following are located near the Bełchatów mine:

- Łuszczanowice nature reserve (approx. 9.5 km),
- Murowaniec nature reserve (approx. 15 km),
- Widawka valley, in the nearest distance approx. 5 km.

In the case of the Turów mine, it is located close to Natura 2000 areas. Two protected areas are located in the vicinity of the Turów mine:

- Natura 2000 area "Przełomowa Dolina Nysy Łużyckiej" - a section of the Nysa Łużycka valley from Trzcinec to Zgorzelec,
- Natura 2000 area "Neißegebiet." This area includes the floodplain of Nysa Łużycka and the preserved forest fragments connected to it. The area is complementary to the Polish side of the Natura 2000 area "Przełomowa Dolina Nysy Łużyckiej." Together they encompass the entire Nysa Valley with the preserved ecosystems in its immediate surroundings.

There are also three natural monuments located in the vicinity of the open pit and the former external dump of the Turów mine:

- fossil stem of the conifer *Taxodioxylon gypsaceum*,
- small-leaved lime tree,
- pedunculate oak.

In case of the Rybnik plant, on the northern side of the site and around the "Rybnik" Reservoir there are natural protected areas in the form of Cystercian Landscape Compositions of Ore Mountains Landscape Park. South of the power plant there is the Okrzeszyniec valley. The nearest Natura 2000 areas are located several kilometres from the power station:

- Special Bird Protection Area "Stawy Wielikąt i Ligota Tworowska". (approx. 17 km),
- Special Area of Habitat Protection Stawy Łęczok (Nędza) (approx. 17 km),
- Special Habitat Conservation Area Graniczny Meander Odry (approx. 26 km),
- Special Protection Area of Dolina Górnej Wisły (approx. 38 km),
- Special Area of Habitat Protection Tarnogórsko-Bytomskie Podziemie (approx. 40 km).

In the vicinity of Elektrownia Dolna Odra there are the following forms of nature protection: a landscape park, five Natura 2000 areas, five nature monuments (more than 116 trees), an ecological grassland and a nature and landscape complex. In the immediate vicinity of the Dolna Odra plant there are two partly intersecting areas under protection within the Natura 2000 network. These are:

- Dolina Odry Special Habitat Conservation Area (Habitats Directive) (approx. 0.8 km),
- Dolina Dolnej Odry Special Protection Area (Birds Directive) (approx. 0.3 km),
- Dolina Dolnej Odry Landscape Park (approx. 1.3 km).

### *PGE Energia Ciepła*

PGE Group's CHPs operate in industrial areas where there is a limited degree of biodiversity. In PGE Energia Ciepła locations, especially within the boundaries of areas to which the company has a legal title, there are no Natura 2000 areas or other areas subject to protection under the Act of 16 April 2004 on nature protection (e.g. national and landscape parks, etc.). There are also no large or small ecological corridors. The site is fenced, so there is no possibility of animals entering. However, in the closer and further vicinity of PGE Energia Ciepła installations there are such areas, therefore they are taken into account at the stage of investment preparation.

The following areas are located in the vicinity of the Pomorzany CHP:

- Dolina Odry Special Habitat Conservation Area,
- Dolina Dolnej Odry Special Protection Area (Birds Directive) (approx. 200 m),
- Areas important for the condition of the urban environment and preservation of biodiversity include allotment gardens, the valley of the Bukowa river, housing estate greenery, street greenery, biologically active areas accompanying buildings and developed areas, publicly accessible greenery (squares, plazas) and the Odra river with its wetlands.

The Szczecin CHP is situated approx. 1.3 km from two Natura 2000 areas, i.e.

- Dolna Odra Special Habitat Conservation Area,
- Dolina Dolnej Odry Special Protection Area.

The exception is the combustion waste landfill, which is located in the immediate vicinity of the areas mentioned, next to the Odra river.

### *PGE Energia Odnawialna*

There are protected areas in the vicinity of PGE Energia Odnawialna facilities. Technological processes, equipment operation and investments carried out do not cause interference in biodiversity of these areas. There are Natura 2000 special habitat areas (SACs) in the vicinity of the sites.

The following areas are located in the Solina branch:

- Areas of Protected Landscape,
- Beskid Niski Protected Landscape Area and Wschodniobeskidzki Protected Landscape Area - there are two protected landscape areas in the Lesko county,
- Wschodniobeskidzki Protected Landscape Area,
- Landscape parks - in the Lesko county:
  - Landscape Park of Góry Słonne,
  - Ciśniańsko-Wetliński Landscape Park,
  - Dolina Sanu Landscape Park,
- Natural monuments - Skałki Myczkowieckie,
- Nature reserves: Koziniec, Nad Jeziorem Myczkowieckim and Przełom Sanu pod Grodziskiem - in the vicinity of Solina and Myczkowce,
- Natura 2000 sites of European Community importance - only in the area of the Lesko county, there are no such sites in the vicinity of the use:
  - Góry Słonne,
  - Dorzecze Górnego Sanu,
  - Bieszczady,
- Natura 2000 areas - Special Bird Protection Areas
  - Two special bird protection areas Natura 2000 have been established in the Lesko county:
    - Bieszczady,
    - Góry Słonne.

## *PGE Dystrybucja*

PGE Dystrybucja's office buildings are not located in Natura 2000 areas or other areas subject to protection under the Nature Conservation Act of 16 April 2004 (e.g. national and landscape parks, etc.). There are also no large or small ecological corridors in the area. However, electric power lines run through protected areas and there are various types of switching stations in them - among others within the boundaries of the Wigierski, Biebrzański and Narwiański National Parks, Puszcza Piska, Białowieska, Augustowska, Knyszyńska and Kampinoska Forests, Landscape Parks: These include Międzyrzecz Warty i Widawki, Wzniesień Łódzkich, Nadbużański, Mazowieckie, Chojnowski, Spalski, Sulejowski and Bolimowski Landscape Parks, Natura 2000 Areas: Pradolina Warszawko-Berlińska, Dolina Przysowa i Słudwi and the Jeziorsko Reservoir, as well as the protected areas of the Bieszczady and Roztocze Mountains.

### **Efforts for biodiversity**

PGE Group is actively working to preserve and develop biodiversity. Monitoring of non-forest habitats and protected plant species as well as forest habitats is carried out in the vicinity of mines.

#### *Bełchatów mine*

The following survey work was carried out at the Bełchatów mine in 2021 as part of the monitoring:

- Monitoring of spring pasqueflower and marsh helleborine,
- Monitoring of Natura 2000 non-forest habitats - lowland fresh meadows used extensively,
- Monitoring of hydrological conditions in peatlands,
- Monitoring of protected peatland species,
- Monitoring of rare and protected species: swamp fern, common yew, wolfsbane laurel, common melliferous helleborine, mountain ash,
- Relocation (metaplantation) of mountain ash and common swamp from Uroczysko Stróża to the Bełchatów Forest District, Borowiny Forestry,
- Active protection of Natura 2000 habitats - monitoring of light oak, implementation of active protection works at the site Wola Wiewiecka, Forest District Radomsko.

In terms of monitoring forest ecosystems in 2021, studies were carried out on damage to stands in habitats such as: wet forest, fresh mixed forest, wet mixed forest, fresh mixed forest, wet mixed forest, swampy mixed forest, fresh forest, alder swamp. Additionally, recommendations for wet and swampy habitats were developed as part of this monitoring.

#### *Turów mine*

Within the area of the rehabilitated external dump of the KWB Turów branch there is a diversified natural environment (habitats of numerous representatives of both plant and animal world, including many rare and protected species). In the course of the inventory of animals carried out by ecologists and foresters it was found that the following species live here: roe deer, wild boars, foxes, muskrats, hares, badgers, martens, polecats, weasels and ermine. Birds are represented by many species, both migrating, breeding and wintering. Some of them, such as the kestrel or tawny owl, are now counted among the species which are becoming rarer in Poland. The wetlands are home to numerous amphibians and reptiles, including protected tree frogs, fire-bellied toads, mountain newts, grey toads, viviparous lizards and grass snakes. The flora is represented by more than a hundred species of woody and herbaceous plants. Some of them were introduced during recultivation works, but most of them found their way here by natural succession, finding favourable conditions for living. The resulting ecosystem is a constantly evolving environment, undergoing constant changes and transformations. With the passage of time the biodiversity of the former heap will increase. The plants introduced in the course of recultivation works, through their influence on the surrounding environment, are already paving the way for other, more demanding species. This is evidenced, among other things, by the observed phenomenon of animals migrating from the adjacent areas not transformed as a result of mining and settling in rehabilitated areas.

As part of a biodiversity study in 2021, the Turów plant conducted a study on mercury content in ichthyofauna (fish). The study was carried out at measuring stations of the Miedzianka and Nysa Łużycka waters.



### *PGE Energia Odnawialna*

On-going nature research makes it possible to learn about the real impact of the company's activities on species richness. The observations made during nature monitoring have shown positive effects of the activities carried out so far. PGE Energia Odnawialna participates in the costs of restocking rivers and lakes in accordance with the provisions of water permits, and the constructed fish ladders enable unimpeded fish migration. In the area of restocking rivers, it also cooperates with anglers' associations.

In 2021 the Dychów branch took an active part in drawing up plans for conservation tasks for Natura 2000 areas, such as the Krośnieńska Dolina Odry and Dolina Dolnego Bobru areas. Another fish ladder (in Stare Raduszcze) was also put into use.

The green areas owned by the company are maintained by employees and cleaning services. Investigations of wind farms in operation did not indicate any need for significant biodiversity protection measures. Should such a need arise, preventive measures will be taken. Nature surveys will continue in the coming years.

### *Small hydro power plants*

The Dębe hydro power plant has a fish ladder to allow fish migration. As regards EW Smardzewice, PGE Energia Odnawialna participates in the costs of restocking the Pilica river. Out of 21 power plants operating in the Odra river basin, only five do not have a fish ladder: EW Rakowice, EW Kliczków, EW Małomice, EW Żarki Wielkie and EW Gubin.

### *Wind farms*

In 2021, PGE Energia Odnawialna continued to conduct bird and bat monitoring at its wind farms Resko II, Kisielice II, Karwice, Lotnisko and Wojciechowo. Last year's monitoring carried out on these wind farms were the last cycles of research within the framework of natural observations of ornitho- and chiropterofauna (birds and bats). On-going nature research makes it possible to learn about the real impact of the company's activities on species richness. In the case of positive effects, the observations made during the natural monitoring make it possible to undertake actions conducive of their preservation. Whereas if significant negative effects occur, it will be possible to take preventive measures. The nature monitoring of the wind farms so far has not indicated a need to undertake actions increasing the protection of biodiversity.

### *PGE Dystrybucja*

PGE Dystrybucja takes care to protect birds, including storks. To this end, it undertakes actions aimed at increasing their safety.

Due to the location of their nests on electricity poles, storks are particularly exposed to the risk of electrocution. For years, metal platforms have been put up on poles above the power lines for the storks to make their nests. This prevents direct contact between the storks and the power lines, which significantly reduces the risk of electrocution, especially for young storks. Currently, there are about 27 000 such platforms or other protective devices placed on the company's premises. More than half of them are located in the Białystok branch of PGE Dystrybucja S.A. where, due to exceptionally favourable living conditions, the occurrence of storks is the highest in Poland. In order to protect the birds, the power infrastructure of PGE Dystrybucja is additionally equipped with special protection devices: platforms, deterrents, colourful balls suspended on lines.

Energy professionals between 2018 and 2021 secured 300 medium voltage facilities as well as installed 100 reflective rotating markers over the Biebrza and Narew rivers, 120 protections on power line poles and built 50 platforms for stork nests. As part of stork protection, PGE also repairs damaged platforms. This work is carried out between mid-October and the end of February, when the storks fly out of Poland for the autumn-winter period. The protective season for storks starts after that period.

### **Restoration of the peregrine falcon population**

#### **| GRI 304-4 |**

The peregrine falcon is one of the rarest bird species in Poland, and 20 years ago it was almost non-existent in our country. There are currently 80 pairs of falcons in Poland and they are under strict species protection. PGE Group has been actively working to restore the peregrine falcon population in Poland for 19 years.



Over the years, falcons have taken a liking to PGE's chimneys. For the first time ornithologists spotted a pair of falcons on the premises of the Dolna Odra power plant complex in 2003 and then the first nestlings were ringed. In the following years, the birds settled in nests prepared for them on chimneys of heat and power plants in Gdynia, Gdańsk, Toruń, Lublin and on the chimney of the power plant in Bełchatów, at the Dolna Odra power plant complex. In 2020 and 2021, 18 chicks were hatched and ringed in six nests in PGE branches. Since 2003, 110 young falcons have fledged from nests located on PGE Group installations, which constitutes 19.43% of all young peregrine falcons that have been born in Poland in urban areas since 1999 (a total of 566 nestlings have hatched).

In the area of the Dolna Odra power plant complex, apart from falcons, there are also protected sand martins nesting in the inactive section 4 of the furnace waste dump, as well as kestrels living in the chimneys and units of the power plant. The swallows have adapted the slopes created as a result of ash-slag extraction as their habitat. Their protection consists mainly in protecting young birds, which often fall out of their nests during the first flights.

### **Partnerships for biodiversity**

As part of activities related to the restoration of the peregrine falcon species, PGE cooperates with the Association for Wild Animals "Sokół." As part of the cooperation, cameras were placed on falcon nesting boxes installed in heat and power plants in Gdynia, Toruń and Lublin, which allow viewing the birds online on the website peregrinus.pl.

The opportunity to watch live the family life of the peregrine falcon is intended to spread knowledge about the restoration efforts of the species. It also allows indirect contact with nature, especially the unreachable, as in the case of the peregrine falcon, which usually has its nest at an altitude of one hundred metres. Observing the life of peregrines is extremely popular. Statistics show that the highest number of nest viewing visits occurs in May. In this month alone, more than 670 000 visits to the peep-holes established on PGE chimneys can be recorded. The Group organises naming contests for young falcons, with nearly 3 000 participants each time. Posts and videos promoting PGE's activities in the field of peregrine falcon protection are published on PGE Group's YouTube channel and social media.

PGE also supports the "Sokół" Association in its information and education activities, encouraging local communities to take an interest in the life of wild birds. At the Gdynia CHP, it is a tradition to invite children from a nearby primary school to a "live" nature lesson, during which they have the opportunity to see the process of ringing young birds.

PGE also cooperates with other associations and foundations whose goal is to protect birds. These include the Białystok branch of the Polish Society for the Protection of Birds (PTOP), the Ecological Group from Siedlce, the "Chance for Stork" Association from Kozubszczyzna and the Lublin Ornithological Society.

Thanks to an agreement with PTOP, the project "Protection of white stork in river valleys of eastern Poland" was implemented between 2017 and 2021, with the main objective of reducing white stork mortality due to electrocution.

PGE Group is also involved in a number of other projects in the area of ecology, nature and climate protection. It supports national parks, cooperates with the Regional Directorates of the State Forests, forest inspectorates, ornithological associations and other organisations working for the benefit of nature and climate protection. PGE is also a strategic partner of the League for Nature Protection.

### **Forests Full of Energy**

The objective of the Forests Full of Energy program is to improve air quality and the condition of groundwater as well as to restore tree stands in Polish forests. The program develops appropriate social and ecological attitudes among employees and their families, and fosters the establishment and maintenance of good neighbourly relations between PGE Group and local communities.

In the implementation of the program's assumptions, PGE cooperates with the Regional Directorates of State Forests in order to jointly take care of forests. Foresters develop planting plans and prepare seedlings, and PGE employees, mobilising their families and local communities, come to places designated by foresters to plant trees. Over time, scouts and school children have joined the program.

Over the 22 years of the program, more than 600 000 trees, mainly pines, spruces, oaks and beeches, have been planted as part of the tree planting campaign.

### **League for Nature Protection**

PGE Polska Grupa Energetyczna and the League for Nature Protection signed a strategic partnership agreement in 2021. The cooperation assumes the implementation of activities in the field of environmental protection and nature and ecological education.

The cooperation assumes the implementation of activities in the field of environmental protection and nature and ecological education.

As part of the strategic partnership between the League for Nature Protection and PGE, the PGE Foundation together with the League carries out environmental, educational and ecological projects.

### **Revitalisation of the Crooked Forest**

The Crooked Forest is a natural monument located in the Gryfino Forest Inspectorate, in the direct vicinity of the Dolna Odra power plant. This is a cluster of nearly a hundred-year-old unusual pine trees, which due to their age in some places show a tendency to die. The revitalisation of the Crooked Forest will involve the construction of an educational path and tourist infrastructure based on exposing the most beautiful fragments of this natural monument, as well as the establishment of two experimental pine plantations from seeds obtained in the Crooked Forest. Funds for this purpose were provided by the PGE Foundation, which is the Strategic Partner of the Project.

### **Cooperation with national parks**

Cooperation with the Kampinos National Park began in 2021. The project for the Park was carried out by PGE volunteers, whose task was to tidy up the area of the Teaching and Museum Centre in Granica.

PGE has also established cooperation with the Park with regard to the education of children and young people, the protection of cultural and historical values in the Park, and active nature conservation.

PGE Group and the PGE Foundation supported the Biebrza National Park both financially and substantially in the implementation of the project to install photovoltaic panels on two buildings of key importance to the Park: Education and Management Centre in Osowiec-Twierdza and Animal Rehabilitation Centre and Tourist Information Building in Grzędy. This is the first photovoltaic project, developing renewable energy sources, carried out jointly by PGE and a national park. The Foundation donated the funds for the installation of the panels, and PGE Group's employees will provide the Park's management with expert support, which made it possible to realise the construction of both power plants according to the most optimal parameters.

The Biebrza National Park also hosted photography workshops for PGE Group employees, aimed at showing the beauty of the unique nature of the Biebrza river valley, vast peat bogs and extremely rare endangered plant, bird and animal species. Photographs taken during the workshops were presented at an exhibition entitled "Biebrza Valley," presented in the Open Air Gallery of the Royal Łazienki Museum in Warsaw, in October 2021.

PGE and PGE Foundation also supported the Świętokrzyski National Park with a donation for the installation and commissioning of a photovoltaic system. Thanks to this a comprehensive energy modernization of the Education Centre and the Management of the Świętokrzyski National Park in Bodzentyn is possible.

Similarly to the implementation of the photovoltaic project in the Biebrza National Park, PGE supported the management of the Świętokrzyski National Park both in terms of content and financing. A donation for this project was made by PGE Foundation.

In 2021, PGE also started cooperation with the Roztocze National Park, with regard to the protection of natural and cultural values in the park. The project, carried out with funds donated by PGE Foundation, consisted of two tasks: a research and conservation project entitled "Roztocze storks - protection of symbols of the cultural landscape and forest backwoods" and the revitalisation of the dendrological path in the area of the former tree and shrub nursery in Florianka.

## 3. SOCIAL

As the largest energy group in Poland, PGE has a direct and extensive impact on society. It is both a guarantor of uninterrupted energy supplies and plays a vital economic role both nationwide and in individual regions. At the same time it is a workplace for nearly 40 thousand people. Therefore the impact of PGE on society is a priority factor guiding the Group's activities.

### 3.1 Just transition

#### | GRI 203-1 |

In accordance with its business strategy, PGE Group's energy transition involves new investments, new technologies in electricity generation, but also a higher demand for new competences and professional qualifications of employees.

PGE is a partner to local communities, listens to their needs and takes them into account in its plans related to sustainable transition. PGE Group makes sure that energy-sector firms and employees as well as the residents of coal regions are part of the entire transition process and actively participate in it.

A just transition should be conducted in such a way that the changes taking place take into account and respect the interests of the local community and territorial administration, investors and business, environmental interests, as well as the creation of new jobs for workers in the coal sector. It is important to make sure that just transition is conducted in accordance with best change management practices that emphasise coordination, long-term planning and multi-dimensional collaboration between social and business partners, local authorities and the government. The transition of mining and quarrying regions is a complex, difficult and ambitious task therefore comprehensive measures are required to maximise the security of the local community (especially mine and power plant employees and their families, who are directly exposed to the effects of transition in the coal regions), as well as to maintain the economic potential of regions that have been heavily dependent on mine and power plant operations for several decades. It is also crucial to ensure the energy security of the region and the entire state in the process of gradually reducing coal assets.

The transition projects being implemented by PGE Group in the Łódź and Lower Silesia regions are part of the process of changing Poland's energy mix towards low- and zero-emission energy.

PGE Group has developed a transition concept for the power generation complexes in Bełchatów and Turów. This assumes further development of renewable energy sources (mainly in the area of photovoltaics and onshore wind farms), as well as ambitious investment projects aimed at stabilisation of generation capacities and strengthening of social, economic and territorial cohesion. Regardless of the process of spinning off its coal assets, PGE Group will remain active in today's coal regions, both as an active investor in the energy transition process and as an initiator of activities supporting their economic development.

#### **Bełchatów energy complex**

PGE Group, which includes PGE Górnictwo i Energetyka Konwencjonalna and subsidiaries providing support services to the power plant and mine, is the largest employer in the Bełchatów region. Currently, the Bełchatów Complex employs almost 11 200 people.

In order to reduce the employment gap in the region, which will result from gradual reduction in the operation of the mine and power plant, PGE plans to carry out a range of projects over the next several years, including activities related to the development of renewable energy sources, land reclamation projects and pro-community projects such as the already operating Competence Development Centre. The lack of ambitious, costly investment and protective measures for the employees of the energy complex and those employed in industries related to conventional energy may lead to a serious social crisis in the region.

PGE Group has prepared a concept for the transition that comprehensively presents a plan for investment projects along with their justification and time-frames. In the case of the Łódź region, where the Bełchatów energy complex is located, it presents specific investment projects for 2021-2043 carried out both by PGE Group and complementary projects implemented outside PGE Group, which will create a total of over 15,000 new jobs in modern sectors of the economy. Implementing this ambitious plan depends on the involvement of many entities, also at the country-wide level, as it exceeds the capacities of PGE Group alone.

These are projects such as:

- three wind farm projects with a capacity of close to 100 MW
- PV farms with a capacity of approx. 600 MW
- energy storage systems with a capacity of up to 300 MW
- establishment of a RES technology centre on the basis of today's conventional energy support companies, which will be re-focused to implementing renewable projects: production, renovation and recycling and recovery of end-of-life raw materials from renewable sources
- Competence Development Centre - a dedicated program for power plant and mine workers and local residents that creates opportunities for retraining for work in the renewable energy sector.
- waste-to-energy incinerator with a capacity of 60 000 tonnes per year
- program "Virtual Power Plant" - use of IT competences
- development of a recreational/tourist/cultural centre

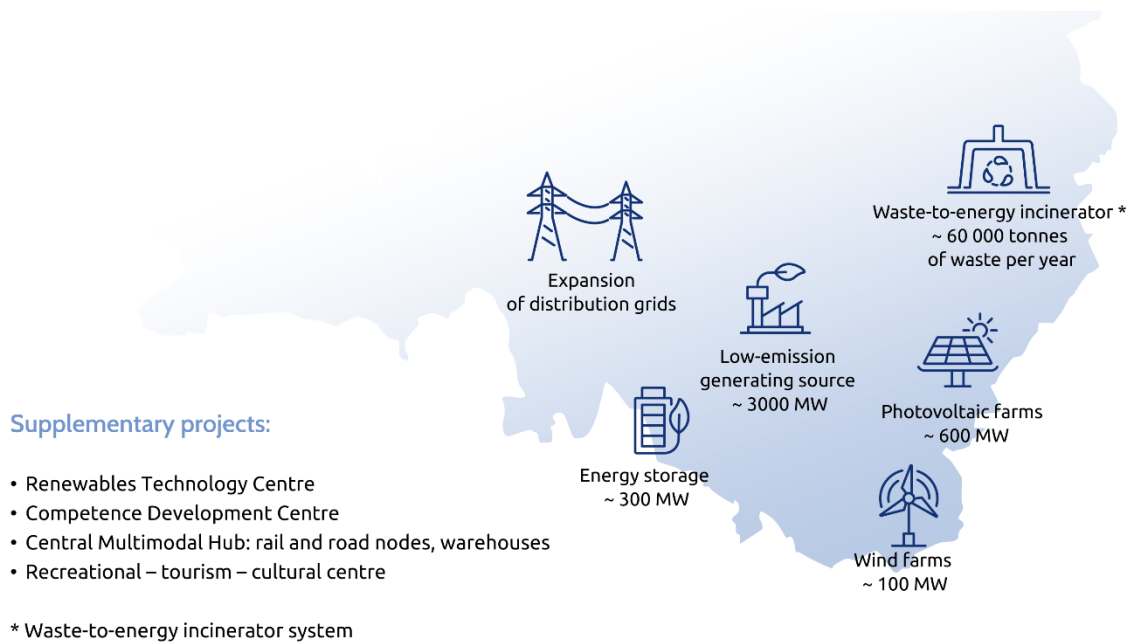


Fig. Just transition – Bełchatów region 2050

In 2021, preparatory work was carried out for investment projects (RES, waste-to-energy incinerator, low-emission generation sources) and updated strategies of support companies were adopted, including the construction of a RES Technology Centre based on their resources. The new investments (RES, waste-to-energy) are expected to be implemented in 2025-2027. September 2021 also saw the launch of the Competence Development Centre, the offering of which is already being used by 200 employees of, among others, support companies, to build competence in the field of renewable energy. On 3 February 2022 by signing a letter of intent concerning the Combined Transport Consortium (Multimodal Hub in Zduńska Wola - Karsznice), thus formalising the cooperation between PGE - Betrans and PKP Cargo. The role of Betrans, a PGE Group transport company, will be to handle the wheel transport in the planned multimodal terminal, which will ensure the possibility of maintaining jobs in the future with a smaller number of orders coming from the conventional power industry.

## **Turów energy complex**

PGE Polska Grupa Energetyczna SA has prepared and submitted to decision-makers at the local and national level detailed information on seven projects to support the implementation of the Just Transition Plan for the Lower Silesian Voivodship, six of which are to be implemented in the Zgorzelec County. The list of projects includes:

Zgorzelec county:

- Construction of PV farms with a capacity of ~100 MW
- Construction of wind farms with a capacity of up to 150 MW
- Construction of energy storage systems
- Construction of a new CHP for the purposes of the district heating network in Bogatynia
- Open pit mine museum: "Discovery Centre - the science and history of Opencast Mining and the Transition of the Region - an educational and tourism project with elements of land reclamation."
- "Virtual Power Plant" program - harnessing IT competences.

Kłodzko county:

- Construction of a pumped storage power plant "Młoty" - this project is planned in the Kłodzko county, but it will also be important for the Zgorzelec country and the entire Lower Silesia voivodship as a project stabilising electricity supplies in the context of gradual phasing out of conventional units in the region.

Aside from the work being done by the complex transition team, PGE Górnictwo i Energetyka Konwencjonalna has jump started the activities of the South-Western Energy Cluster, which is located in the Zgorzelec county. This is one of the elements of preparations for the energy transition of the region. The Cluster will work on the region's transition program and will include the process of re-skilling and educating employees from the Turów complex into new branches of the economy.

Preparatory work is currently under-way on investment projects, with implementation planned with a view to 2029.

Given the current conditions, upon shut-down of the last coal-fired power unit at the Turów plant, the plant will be earmarked for closure, which is in line with the European Union's decarbonisation policy. Depending on available financial resources, low- and zero-emission investments will be implemented within the current energy complex. Without a doubt, the funds from the Just Transition Fund will enable the implementation of a broader range of project activities that will mitigate the negative effects of the energy transition on the region's inhabitants and the local economy.

## **Just Transition Fund**

PGE Polska Grupa Energetyczna SA has since 2020 been undertaking a number of activities to support the Łódź and Lower Silesia regions in their efforts to obtain funding from the EU's Just Transition Fund, actively participating in work on the creation of:

- Territorial Just Transition Plan for Łódzkie Voivodship,  
Territorial Just Transition Plan for Lower Silesia Voivodship (in reference to the Zgorzelec country area),  
and
- National Just Transition Plan,

each time postulating that the needs of the Łódzkie and Lower Silesia regions (Zgorzelec sub-region) be taken into account in these documents.

According to the Regulation of the European Parliament and of the Council (EU) of 24 June 2021, the Just Transition Fund is earmarked for mitigating the negative social and socio-economic effects of climate and energy transition in the so-called coal regions. PGE SA is making efforts for the Łódź region (where the Bełchatów power complex operates) and the Zgorzelec sub-region (with the Turów power complex is located) to be recognised by the European Commission as "coal regions" within the meaning of the Just Transition Fund, thus gaining access to support from the EU Just Transition Fund (and the Mechanism more broadly). The funds from the Just Transition Fund could be used, inter alia, for actions relating to the creation of new jobs, employee training facilitating retraining and broadening professional competences of employees formerly employed in the coal sector, reconstruction of the region's economic potential, diversification and modernisation of the local economy, undertakings facilitating development of renewable energy sources, or

even projects supporting reclamation of post-mining and post-mining areas. PGE Group maintains an intensive dialogue with representatives of public and local administration and the European Commission, supporting the Łódź region and the Zgorzelec Powiat in their efforts to gain access to EU resources from the Fund. PGE SA also took part in consultations on successive versions of draft Territorial Just Transition Plans and the National Just Transition Plan.

PGE Group allows for the possibility of modification of the projects it develops, which are part of the just transition, depending on the final decisions and decisions regarding the possibility and manner of using the funds coming from, among others, the Just Transition Fund, so that the financing of these projects is as effective as possible from the perspective of PGE Group and at the same time so that these activities serve the regions and the local community in the best possible way.

Application for funding from the Just Transition Fund within the regional envelope (i.e. Territorial Just Transition Plans) or the national envelope (i.e. National Just Transition Plan) is to take place at a later stage, in accordance with procedures envisaged by the European Commission. Currently, both the Łódzkie Province and the Zgorzelec sub-region (within the Lower Silesia region) are still awaiting a decision from the European Commission on whether they will be recognised as a region eligible to benefit from the just transition fund in the upcoming financial perspective.

## 3.2 Dialogue with stakeholders

### | GRI 102-40 |

The key stakeholders of PGE Group include, among others: the government, local administration, regulator, shareholders, investors, customers, media, industry and non-governmental organisations, scientific communities, representatives of local communities and employees.



Fig. PGE Group's key stakeholders

Successful transition depends on good understanding of the transition by all PGE stakeholder groups and their active contribution to the change process. PGE makes every effort to ensure that the energy transition is fair and transparent and is carried out in accordance with agreements reached in the dialogue process.



## Forms of dialogue with PGE Group's stakeholders

| GRI 102-40 | GRI 102-43 | GRI 102-44 | GRI 102-47 |

A stakeholder panel based on the AA1000 international stakeholder dialogue standards is planned for 2022. Due to the pandemic, the cyclical nature of the existing panels organised in the form of face-to-face meetings was temporarily suspended. PGE Group conducted other forms of dialogue with its key stakeholders in 2021 using online solutions.

This report is a response to the expectations of both internal and external stakeholders. It shows how the individual business areas of PGE Group implement the Group's business strategy and describes actions taken in the environmental, social (including employee-related) and corporate governance areas.

The report also refers to topics identified by stakeholders during dialogue panels in previous years.



Fig. Expectations of internal and external stakeholders towards the PGE Capital Group and the content of the non-financial report reported during dialogue sessions

## Public affairs

PGE Group operates in an exceptionally complex and volatile regulatory environment. On-going monitoring of legislative processes and active participation in dialogue with groups responsible for law-making are an essential element for conducting effective economic activity and fulfilling our stakeholders' expectations. This activity directly translates into building the Group's value.

PGE aims to raise public awareness of the problems and challenges of the power sector. We are a natural partner for discussions with legislators as well as central and local administration. PGE's experts analyse the consequences of regulatory and political decisions in the energy area. PGE Group shares its observations and analyses within existing frameworks for dialogue with the administration and lawmakers. PGE also takes an active part in the work of institutions trying to draw attention to issues important to the company and the entire energy industry.

The basis for PGE Group's sustainable development is the maintenance of partner relations with institutions supervising the functioning of the markets in which we operate on an on-going basis. We emphasise constructive and transparent dialogue with independent market regulators and market supervisory agencies. PGE is a member of a number of energy-industry organisations, which is another channel through which we present our opinions. This ensures that positions are balanced and take into account the viewpoints of all organisation members.

The issues of PGE Group companies' membership in industry organisations are regulated by the "Good practices in cooperation with domestic and international industry organisations", which are annexed to the internal General Procedure for Regulatory Management. Industry organisations are recognised as organisations, associations or chambers of commerce which have the energy sector in their scope of activity.



PGE Group companies are members of organisations such as:

**| GRI 102-13 |**

| no. | Key national and international industry organisations of which PGE Group companies are members (as of December 31, 2021) | Type of organisation | Membership of PGE Group company   | Representation on the organisation's governing bodies  |
|-----|--|----------------------|---|--|
| 1.  | Polish Committee for Electricity (PKEE)  | national             | PGE SA  | Number of members: 5<br>Functions performed:<br>President of the Governing Board of the PKEE Vice President of the Governing Board of the PKEE<br>Member of the PKEE Governing Board Member of the PKEE Governing Board Member and Secretary of the PKEE Governing Council |
| 2.  | Eurelectric - indirect membership via Polish Committee for Electricity (PKEE)  | international        | PGE SA  | Number of members: 1<br>Functions performed:<br>Eurelectric Board of Directors Member  |
| 3.  | Association of Polish Electricians (SEP)   | national             | PGE SA, PGE GIEK and PGE Dystrybucja  | Lack of PGE Group representatives in the authorities of the organisation   |
| 4.  | Energy Trading Association (TOE)   | national             | PGE SA and PGE Obrót  | Number of members: 2<br>Vice-President of the TOE Management Board Member of the TOE   |
| 5.  | Polish Association of Listed Companies (SEG)   | national             | PGE SA and ZEW KOGENERACJA SA.  | Lack of PGE Group representatives in the authorities of the organisation   |
| 6.  | Union of Entrepreneurs and Employers (ZPP)   | national             | PGE S.A.  | Lack of PGE Group representatives in the authorities of the organisation   |
| 7.  | Union of Polish Energy Employers (ZPPE)  | national             | PGE SA, PGE GIEK, PGE Dystrybucja PGE Energia Odnawialna and PGE Energia Ciepła | Number of members: 1<br>Functions performed:<br>President of the Management Board of ZPEP  |
| 8.  | European Energy Forum (EEF)  | international        | PGE SA  | Lack of PGE Group representatives in the authorities of the organisation   |
| 9.  | Eurogas  | international        | PGE SA  | Lack of PGE Group representatives in the authorities of the organisation   |
| 10. | Hydrogen Europe (HE)   | international        | PGE SA (exit as of December 31, 2021)   | Lack of PGE Group representatives in the authorities of the organisation   |
| 11. | Economic Society of Polish Power Plants (TGPE)   | national             | PGE GIEK  | Number of members: 3<br>Functions performed:<br>President of the Management Board of TGPE Vice-President of the Management Board of TGPE (since November 2021)   |

| no. | Key national and international industry organisations of which PGE Group companies are members (as of December 31, 2021) | Type of organisation | Membership of PGE Group company   | Representation on the organisation's governing bodies  |
|-----|--|----------------------|---|--|
|     |  |                      |   | Member of the Management Board of TGPE   |
| 12. | Polish Society of Professional Heat and Power Plants (PTEZ)  | national             | PGE GIEK, PGE Energia Ciepła, ZEW KOGENERACJA and EC Zielona Góra   | Number of members: 3<br>Functions performed: PTEZ Board President PTEZ Board Member PTEZ Board Member  |
| 13. | The Union of Employers: Association of Lignite Miners (ZP PPWB)  | national             | PGE GIEK  | Number of members: 2<br>Functions performed: Chairman of the Board of the PPWB and Member of the Covenant Council Chairman of the Covenant Council |
| 14. | European Association of Coal and Lignite (EURACOAL) indirect membership through ZP PPWB                                  | international        | PGE GIEK  | Number of members: 1<br>Functions performed: Vice President of EURACOAL since February 2022.   |
| 15. | Polish District Heating Chamber of Commerce (IGCP)   | national             | PGE GIEK (exit as of December 31, 2021), PGE Energia Ciepła, ZEW KOGENERACJA, PGE Toruń and EC Zielona Góra | Number of members: 2<br>Functions performed: Chairperson IGCP Board Member IGCP Board  |
| 16. | Polish Society for Transmission and Distribution of Electricity (PTPiREE)  | national             | PGE Dystrybucja   | Number of members: 2<br>Functions performed: Member of the PTPiREE Board Member of the PTPiREE Board   |
| 17. | European Distribution System Operators (E.DSO)   | international        | PGE Dystrybucja   | Number of members: 1<br>Functions performed: Member of the Board of Directors E.DSO  |
| 18. | EU DSO Entity  | international        | PGE Dystrybucja   | Number of members: 1<br>Functions performed: Member of the Board of Directors of the EU DSO  |
| 19. | Cogen Europe   | international        | PGE Energia Ciepła  | Lack of PGE Group representatives in the authorities of the organisation   |
| 20. | Polish Offshore Wind Energy Society (PTMEW)  | national             | PGE Baltica   | Lack of PGE Group representatives in the authorities of the organisation   |
| 21. | Polish Wind Energy Association (PSEW)  | national             | PGE Baltica and PGE Energia Odnawialna  | Lack of PGE Group representatives in the authorities of the organisation   |
| 22. | WindEurope (WE)  | international        | PGE Baltica   | Lack of PGE Group representatives in the authorities of the organisation   |
| 23. | Hydropower Plant Society (TEW)   | national             | PGE Energia Odnawialna  | Lack of PGE Group representatives in the authorities of the organisation   |

As the largest energy company in Poland, PGE is aware of the importance of decisions concerning the future of energy which are taken at the European level. PGE Group is present on the international forum, actively contributing to institutional dialogue and aiming at the mutual understanding of the arguments of the various parties. Constructive exchange of arguments and views leads to compromise. A significant part of its activities is carried out within PGE's membership in the Polish Electricity Association (PKEE), which brings together representatives of the industry in Poland. The President of PGE's Management Board, Wojciech Dąbrowski, is also the President of the PKEE Governing Council. Moreover, through the PKEE, PGE actively participates in the works of the international organisation EURELECTRIC, representing the interests of the power sector at the European level. President Wojciech Dąbrowski, as the PKEE representative, sits on the EURELECTRIC Board of Directors.

The growing need for direct dialogue with the European community led PGE to open its own office in Brussels in April 2019, remaining a member of PKEE. The organisation is a leading actor in Brussels in the area of representing the voice of the entire Polish electricity industry.

In the area of dialogue with external stakeholders, PGE Group companies organise, inter alia, energy forums with representatives of local authorities and conduct social consultations accompanying investment projects. They also hold meetings with potential contractors or workshops for contractors from the power and energy sector.

### **Dialogue with shareholders**

The main objectives of PGE's information policy are transparency and cooperation based on mutual trust. Effective communication with investors and transparency are in the Company's best interest and contribute to building value for its stockholders. The activities taken up by us in terms of investor relations are more than regulation requirements. These regulations oblige the Company to meet information duties in terms of periodical and on-going reporting with special consideration of inside information. In order to satisfy demanding stockholders and investors, we launched a series of additional tools, the aim of which is to eliminate the information asymmetry between the Company and the capital market. These tools are available on the Company's website, in the Investor Relations' section and include:

- presentation of "PGE Group's strategy 2030 with 2050 perspective", along with an one pager with summary of strategic objectives,
- dedicated investor presentations,
- quarterly files in xls format with operational and financial details for the reporting period,
- an editable xls-format file with financial and operational data, presented as a time series from the first quarter of 2011 until the last reporting period,
- preliminary estimated results, at dates prior to quarterly reporting. These publications contain the key financial values, operating volumes and information on significant one-off events,
- a summary of the quarter for capital market analysts,
- for investors sensitive to social and environmental issues, looking for the link between business, finance and PGE's commitment to its environment, since 2015 PGE has been publishing PGE Group's Integrated Report online.

### **Dialogue with stakeholders by companies**

In the area of dialogue with external stakeholders, PGE Group companies organise, inter alia, energy forums with representatives of local authorities and conduct social consultations accompanying investment projects. They also hold meetings with potential contractors or workshops for contractors from the power and energy sector.

### **Energy forums**

Local governments, i.e. municipalities and counties, are a natural partner for PGE Dystrybucja during investments or grid modernisations. Therefore, every two years energy forums for local governments are organised in each of the company's branches. These meetings are often attended not only by representatives of communes, towns, districts, voivodeship offices or marshal offices, but also by other guests. In the Łódź branch, these are representatives of county and voivodeship crisis management centres or the local special economic zone. The meeting formula creates an opportunity for the company to dialogue with local authorities on topics important to both parties. In 2021, due to the epidemic situation, 14 meetings were held at PGE Dystrybucja's branches and attended by nearly 800 representatives of local authorities. Discussed topics included cooperation between the company and local governments in planning investments, expansion and modernization of the grid, procedures to be followed in the event of mass grid failures (emphasising the role

of close cooperation of power engineers with Provincial and County Crisis Management Centres) and issues related to renewable energy sources.

In addition to the Energy Forums held every two years in all branches of PGE Dystrybucja and the central office, dialogue is conducted with representatives of local authorities and technical services of municipalities on current activities. Such discussions are held both at the branch level and in individual energy regions. They concern both planned and on-going works in the field. In 2021, over a thousand such meetings were held.

### **Cooperation between PGE Energia Ciepła and local authorities**

District heating has a major impact on the fight against low-scale emissions in Polish cities. For years, PGE Energia Ciepła's CHPs have been supporting local governments in the fight for clean air. The company's branches, together with local governments, engage in information and education campaigns on connecting to the district heating network.

The Zielona Góra CHP supports the city in the fight against smog by implementing investments within the Integrated Territorial Investment Strategy - developed by the Mayor for the Urban Functioning Area of Zielona Góra. The CHP cooperates with the city on eco-friendly electric public transport.

PGE Energia Ciepła's Kraków branch is working with the city on the preparation of "Assumptions for the plan for supplying the municipality of Kraków with heat, electricity and gas fuels for 2023-2038." The first Heat Map in Poland has been developed. This is a tool necessary both for the heat distributor (to plan necessary network investments) and for the heat producers (to plan investments and modernisations). PGE Energia Ciepła is also implementing the Energy Lab project, which allows to take a closer look at the energy needs of public utility buildings belonging to the Municipality of Kraków.

In Siechnice, as part of preparations for the start of construction of a new gas-fired CHP, PGE Energia Ciepła has developed a communication plan for the project, including a survey among the residents and information meetings for both residents and councillors and village leaders.

The Gorzów branch of PGE Energia Ciepła has been working with the local government for many years. In 2021, the company's management board signed a letter of intent with the Mayor of Gorzów Wielkopolski on the construction of a waste-to-energy incinerator. Pursuant to this agreement, both parties undertake to cooperate and mutually support the implementation of the investment.

### **Dialogue for a just transition**

In the course of the on-going dispute around the Turów mine, PGE has undertaken a range of activities aimed at resolving the situation and taking care to provide reliable information to stakeholder groups, which include:

- Development of a website dedicated to the Turów complex containing information on the on-going and planned activities there.
- On-going publication of information materials on the extraction and production activities of the Turów complex, including pro-environmental activities in terms of water, land, air as well as social responsibility initiatives.
- Conducting an opinion poll. Between July and August 2021, at PGE's request, an opinion poll was conducted among the inhabitants of the Bogatynia municipality, the Czech region of Hradec nad Nisou and the German region of Olbersdorf. The survey showed that the residents of the region were very much interested in a quick end of the dispute and in a compromise. Tensions have a negative impact on the neighbourly balance of the tri-border area and thus on cross-border trade, which has for years been an important pillar of development in the region. This was the opinion of 76% of those surveyed.
- Organisation of a debate entitled "A common future for mining regions located in the PL-CZ-DE tri-border area. Economy, Society, Environment" aimed at defining the challenges facing local governments, the need for cross-border cooperation and the creation of a new vision for the region and its residents. Its participants - local government officials and energy experts - discussed the challenges and opportunities for the region, which is closely associated with the energy and mining industry, encompassing three neighbouring countries with a total of 10 lignite mines. Five on the Czech side, four on the German side and one on the Polish side in Turów. They provide jobs for 50 000 people. For the energy transition to be just, it must be carried out in a coordinated manner. It cannot be a wild transition. The process of modernising the energy sector and the climate policy should not be decoupled from the people, so long-term planning based on specific investment projects and social programs with financing provided by the Just Transition Fund is essential.

- Organisation of a visit of Polish state authorities to the Turów complex and meeting with employees of the Turów mine and power plant.
- Transparency of the on-going process related to the continuation of lignite mining at the Turów mine. PGE Group has made available the contents of the Decision on Environmental Conditions, which was issued in January 2020 after the completion of extensive cross-border consultations with the Czech Republic and Germany and after fulfilling a number of conditions stipulated by Polish and European law. The document confirms that the Turów mine engages in mining operations in accordance with the provisions of Polish and European law. The company has carried out all the necessary activities to continue the operations of the Turów complex and ensure that the processes run smoothly while providing energy security for millions of Polish families.
- Cooperation with local authorities.
- Dialogue with EU institutions.

### Information workshops

Information workshops are another form of dialogue with external stakeholders. In 2021, PGE Polska Grupa Energetyczna organised two of these workshops for potential suppliers of products and services for the construction of offshore wind farms in the Baltic Sea. The first one, entitled "Offshore Workshop," was held online on June 18, while a panel entitled "Let's build Baltica 2+3 together: How to get involved in the PGE and Ørsted investment" was held on August 30 during the PWEA conference in Serock. The workshop was attended by representatives of PGE, PGE Baltica and Denmark-based Ørsted. During these meetings the participants could learn about the schedule of PGE's investments in offshore wind farms, the scope of work in progress or plans for the development of port infrastructure. PGE's procurement portal was also presented in order to facilitate the participation of potential contractors in tenders organised by PGE. There was also the possibility to register in PGE's database of potential suppliers.

PGE Energia Ciepła organised a workshop for contractors from the energy industry and associated industries where it presented its planned investments and rules for the proper preparation of tender procedures based on the public procurement law. Close to 150 participants from all over Poland took part in the first of a series of PGE Obrót's webinars for local governments and other entities purchasing electricity pursuant to the public procurement law. Participants included representatives of local government units, public administration entities, universities and hospitals. At the meeting, experts from PGE Obrót responded to questions related to the functioning of the electricity market. Most of these questions concerned renewable energy sources, with particular emphasis on photovoltaics, the possibility of using it and details on prosumer billing.

Similar online meetings were organised by PGE Energia Odnawialna. They were addressed to companies operating in the field of wind energy and to representatives of the photovoltaics sector. Workshop participants had the opportunity to learn about the company's investment plans and areas of potential cooperation. Also presented at the meetings were the most important regulations and procedures defining the area of cooperation with contractors. Each of the webinars consisted of a series of expert panels and Q&A sessions.

## 3.3 Employees

In accordance with its business strategy, PGE Group's energy transition involves new investments, new technologies in electricity generation, but also a higher demand for new competences and professional qualifications of employees.

PGE Group's commitment to the transition is not focused solely on the organisation itself. PGE Group takes a broader approach because the transition also concerns the inhabitants of the coal regions. PGE actively participates in the preparation and implementation of transition plans for these regions, in particular Bełchatów and Turoszów, the functioning of which is strongly dependent on the activity of PGE Group's energy complexes located in these areas (more details in Chapter 3.1). Project teams appointed for this purpose are responsible for developing directions for the further development of these regions. A separate project team performs tasks related to the preparation of the spin-off of coal-fired generating assets to a new entity - the National Energy Safety Agency (NABE). One of the most important elements of each of these projects is the human capital management policy, based on the use of own human resources, which allows for the development of the potential of competences and knowledge of the specifics of our operations.

## **New vocational training courses**

An important step in preparing employees associated with the Bełchatów complex for a just energy transition is the establishment of the Bełchatów Competence Development Centre. The centre was established as part of the "Transition Concept for the Bełchatów Region" and it operates in cooperation with the Marshal's Office of the Łódź Voivodeship.

The aim of establishing the Bełchatów Competence Development Centre is as follows:

- providing opportunities for retraining for both workers and residents of the region,
- preparing employees for work in the area of renewable energy (PV, offshore, onshore) and modern energy services,
- secondary education in fields of study leading to qualifications in professions employable in the renewable energy sector,
- vocational training for adults in fields useful for new energy production technologies.

The Bełchatów Competence Development Centre began its training activities in September 2021. The following qualified vocational courses were offered to people who were interested: renewable energy equipment and systems technician, automation technician, IT technician, programming technician, welding technician. Almost 200 people have already taken advantage of the educational offering. New fields of study will be developed in accordance with the needs of the Bełchatów complex transition program and the inhabitants of the Łódź region.

## **Circular Economy Research and Development Centre**

The formation of the Circular Economy segment in PGE Group's business model is also an important transition project. The Circular Economy Research and Development Centre in Bełchatów was established in November 2021 and will open in Q4 2022. The centre will develop and implement solutions to increase the use of post-industrial waste from the energy sector and the recovery of raw materials from decommissioned RES installations. The functioning of the centre is related to the need to provide appropriate employees and equip them with the necessary knowledge and skills.

Analysis carried out in 2021 identified the following key professional qualifications: laboratory technicians in the physical and mechanical laboratory, technology specialists, specialists in raw material recovery, recycling of materials from Circular Economy waste (PV installations, energy storage facilities, wind farms), designers of engineering solutions, REACH specialists, environmental specialists, specialists in economic use of other waste generated in connection with the operation of energy infrastructure, specialists in carrying out reclamation processes, liquidation of landfills and demolition of waste heaps. Depending on the situation on the labour market, decisions will be made to recruit employees from outside or to train employees already working in the Circular Economy segment and provide them with the necessary competences.

## **Recruitment in the RES area**

In view of PGE Group's strategic turn towards renewable energy, activities aimed at securing staffing levels in this area are a priority. A number of recruitment processes were carried out at PGE Energia Odnawialna in 2021 with the aim of:

- ensuring staffing levels that guarantee the availability and continuity of electricity generation,
- recruiting for positions related to building and developing competences in the Renewable Energy Investments Department, which is responsible for the development of new photovoltaic projects, and in the future, after the relaxation of the distance law, also wind projects,
- expanding the scope of in-house maintenance of wind turbines (electrical and mechanical services, including replacement of large components - generators and gearboxes) and developing a wind turbine propeller repair team. With the hiring of wind turbine blade repair specialists, the company will gradually become less dependent on services provided by external companies and will be able to react more flexibly in case of bad weather conditions by transferring employees to other farms, where weather conditions make it possible to repair blades.

The company plans further recruitments in the coming years. These will strengthen the team responsible for implementing RES projects and ensure the effective operation of new generation capacities and fill vacancies left by retiring employees.



Offshore wind is a new branch of the Polish energy industry. PGE Baltica, in charge of implementing PGE Group's offshore program, will create jobs and professions of the future. This is a huge challenge for the HR department. The processes of recruitment, adaptation and development of employees are exceptionally important to the company. The company is involved in a range of programs addressed to young people who are entering the labour market, including students and graduates of technical faculties. They have the opportunity to take part in internships and apprenticeships in the company. They learn reporting, knowledge management, planning, finance, analysis, market research in the context of individual areas of an offshore wind farm. They support the implementation of tasks in the technical, business development and project areas. For them, this is an invaluable experience, and for the company - an opportunity to develop the potential of its future employees.

The company is also active in the field of offshore wind energy education in Poland. An example of this is the cooperation with Polish universities on a new renewable energy major. In order for the company to influence the curriculum and its quality, it willingly shares its expertise and guidance with the Gdańsk University of Technology and the Gdynia Maritime University.

The retail sales company, PGE Obrót, is also involved in the energy transition process. As part of its strategic initiatives, projects related to the sale of pro-ecological green energy offerings are being implemented. In 2021, the "Pro Eko" project was launched, establishing an organisational unit dealing with the sale of products related to photovoltaics. Activities related to the support of prosumers are being implemented. The company also runs a number of communication and product campaigns related to the development of green energy.

### **Program for interns**

Aware of the business challenges related to the implementation of a new business strategy, PGE continued its involvement in the development of the internship program being implemented under the auspices of the Ministry of Climate and Environment - Energy for the Future. In 2021, its 5th edition was completed and the next edition was launched. In the sixth edition, PGE Group funded internships for six interns selected in the recruitment process from among the program participants. The program is being carried out by the largest fuel and energy companies in Poland and enables people from the best Polish universities to take the first steps in their professional careers in the energy sector.

### **Business strategy implementation plans in the area of human capital management**

In 2021, work began on developing a plan for the implementation of the business strategy in the Human Capital Management area for 2022 - 2025, enabling the Group's strategic goals and objectives to be met. Each company has identified the necessary directions of development in the HR area and has defined key initiatives. Joint activities have been identified within the entire PGE Group, which will be implemented by the Corporate Centre in cooperation with the companies. Joint initiatives include the following programs and projects:

- implementing a Competence Assessment to be based on the Competence Model and shared rules,
- equipping managers and project managers with the right change management tools,
- increasing the effectiveness of competence management of key personnel across PGE Group, which will consist of the identification of positions understood as ones of particular importance and value to PGE and in ensuring their systemic management and implementing a succession mechanism,
- reviewing the rules of corporate human capital management and making necessary adjustments resulting from both structural changes which have taken place at PGE Group in recent years and adjusting the provisions to the current business needs,
- implementing the role of HR Business Partner in companies where this function does not yet exist and creating a forum for the exchange of knowledge, good practices and experience for those involved in this area,
- consolidating selected areas of support.

### **Internal communication**

One of the objectives set out by PGE Group in its new strategy until 2030 with an outlook to 2050 is to increase the organisation's effectiveness and efficiency. This is a task that cannot be achieved without the acceptance and involvement of employees. Internal communication at PGE Group is aimed at raising employees' business awareness and building an understanding for activities related to the energy transition, of which PGE is the leader. These assumptions are realised via numerous publications in internal media featuring expert commentary from PGE Group employees.



## 1070 articles published on the Corporate Portal and further development of internal communication channels in 2021:



Fig. Internal communication in figures

In 2021, a total of 1 070 materials were published on PGE Group's Intranet. 50 editions of the newsletter were delivered to employee inboxes. 10 online editions of the employee magazine "Pod Parasolem" were also published. Transparent and two-way communication is a vital element of the company's organisational culture. Employees are encouraged to share their views through opinion surveys. They can also share ideas and exchange observations on internal blogs focused on ecology, green energy and conscious consumer choices. They also have dedicated email addresses at their disposal, to which they can send questions related to HR matters or the company's strategy and on-going projects.

### Dialogue with employees - employee opinion survey and leadership profile survey

At PGE Group, dialogue with employees is an important element of building employee engagement. This is evidenced by the fact that solutions building the Company's organisational culture and improving the well-being of employees are implemented on the basis of their opinions and diagnosed needs. The tools of such dialogue include the "Employee Opinion Survey" and the survey of leadership competences of managers: "Leader Profile." Thanks to cyclical activities, PGE collects opinions from a large number of employees, which would not be possible using other tools.

Standardised questionnaires measure the most important indicators for employee engagement in the workplace and effective cooperation with managers. The Employee Opinion Survey includes 16 indicators, such as engagement, cooperation, communication, among others. In 2021, the survey was conducted at the following companies: PGE SA, PGE Baltica, PGE Ekoserwis, PGE Systemy and PGE Energia Ciepła. The results are discussed with the management boards of the companies, social partners, managers and all employees. Improvement plans are developed on this basis. Examples of such actions include, among others, improvements in the area of communication between employees, such as organisation of cyclical meetings or definition of rules for cascading information within teams, as well as well-being initiatives, the "Let's get to know each other" campaign in which teams talk about themselves and their work, implementation of mechanisms and tools supporting the work of specific teams, and implementation of rules for remote work in the Work Regulations.

The "Leader Profile" survey was conducted for the first time in 2021. Areas assessed by managers include: communication, building relationships, motivating and building engagement, developing employees and achieving results. The survey was conducted in the form of a questionnaire with 23 closed questions and 2 open questions. The turnout in the first edition of the survey was 74%. The "Leader Index," i.e. the average percentage of positive answers given to all 23 questions, was: 89%.

The "Leader Profile" survey was conducted at PGE SA and PGE Systemy, which in 2021 completed the process of changing its organisational structure and optimising its personnel resources. The company faced a challenge of how to strengthen and retain its current employees and how to recruit new ones. In PGE Systemy's case, the "Leader Profile" survey was extended to include an examination of the level of cooperation among senior

managers ("Cooperation Survey"). The information obtained was used to further develop team management skills among the company's management staff. Managers received individual reports with feedback on their level of managerial competence.

### **Employee safety during the COVID-19 pandemic**

Another year of the pandemic confirmed that internal communication is essential in the process of providing employees with necessary information, also when it comes to safety. PGE Group employees were informed about the current epidemic situation, new guidelines and legal regulations and recommendations related to the sanitary regime via the intranet, newsletter or the company magazine "Pod Parasolem." Regular announcements were sent out, at both the Group and company level, which kept employees up-to-date on particularly important issues related to safety during the pandemic. Encouraging employees to get vaccinated against COVID-19 was also an important part of communication activities related to the pandemic. The most important information on the National Vaccination Program was presented in a special tab on the intranet.

Since the beginning of the pandemic, crisis teams have been operating in individual companies and monitoring the situation in workplaces on an on-going basis. At PGE SA, an interdisciplinary crisis team coordinates actions related to the pandemic in the entire PGE Group. The actions undertaken are based on the following assumptions:

- **Safe work organisation** - at PGE Group, solutions to minimise the pandemic risk are implemented on an on-going basis. Employees are provided with appropriate personal protective equipment, with instruction in the form of videos and posters on how to use it. Depending on the specific situation of individual companies, appropriate recommendations were introduced with regard to conduct in the office - i.e. how to organise meetings, cover the mouth and nose, move around the office and use shared spaces. In selected companies, a vaccination campaign was organised for interested employees, who could receive the first and second dose of the vaccine and a booster dose. The companies also promote vaccination through exemption from work duties for the time the vaccine is received or an extra day off for those vaccinated. Some of the companies also allow employees to test for both Covid-19 and antibodies. The companies are also continuing to train managers in managing distributed teams (with a particular focus on remote working).
- **Communication** - PGE Group continuously improves ICT tools which support online communication between employees in times of pandemonium, as well as the organisation of remote work, e.g. with regard to electronic document circulation and correspondence records. In addition to information provided on an on-going basis to all employees, information exchange at all levels is important. At PGE SA, meetings of the employer's representatives with employee representatives (trade union organisations and the Employee Council) are held every two weeks to discuss health and safety at work and the pandemic. To support the building of relations among employees, online integration activities with the participation of management boards are conducted in many companies.
- **Accountability** - employees in quarantine or isolation can count on their employer's contact and support, including for on-going needs. In 2021, PGE Group employees continued to support the GIS hotline, from January 22 to May 31, 2021. In total, during the pandemic, PGE employees received 6 850 calls and spent 14 322 minutes talking to people who were looking for the necessary information. In January 2021, PGE SA employees were involved in volunteering for senior citizens, where they delivered lunches to them every day.

## Concern for employees' health

| GRI 401-2 | GRI 403-3 | GRI 403-6 |

Pandemic-related restrictions are a difficult experience for many employees. PGE Group attaches great importance to developing initiatives related to improving the well-being and health of its employees. PGE Group employees are provided with private medical care, which also includes occupational medicine. Within the framework of agreements in place, they can undergo preliminary, check-ups and periodic examinations. PGE respects its employees' right to privacy; therefore information on health conditions is not used when making HR and employment decisions.

Many companies organise additional pro-health activities for their employees. PGE Baltica has a program in place: "Tool-Box – Occupational Health and Safety." These are weekly meetings held in the form of short QHSE (Quality, Health, Safety, Environment) training sessions. Topics related to the current and future activities of the company as well as topics related to the personal safety of employees (hazardous incidents, corrective measures) are discussed at the meetings.

"Operation Regeneration" is a project initiated at PGE SA and involving prevention in physical and mental health, as part of which employees can take advantage of free examinations, webinars with psychologists, dieticians or doctors. As part of the campaign, free flu vaccinations were organised, from which - in 2021 - about 20% of employees benefited, as well as free preventive examinations. In October 2021 alone, around 40% of employees took part in the tests. "Operation Regeneration" is complemented by educational materials published in internal media on health issues and work-life balance. The principles of healthy nutrition are also promoted.

There was also a webinar promoting COVID-19 vaccinations, a series of webinars on COVID-19 challenges, stress reduction and relaxation techniques, as well as a week for fitness (two webinars on taking care of the spine while working remotely and pain complaints) and a week for better health (home office menus and immunity - how to strengthen it). In 2022, a free antibody test was carried out for those who were interested. As part of the Development Academy, employees were offered emotion management training by qualified trainers.

An educational campaign devoted to oncological prophylaxis was carried out at PGE GiEK. Employees were provided with access to non-standard medical services, including oncologists specialising in the diagnosis and treatment of skin, lymph node, breast or gastrointestinal cancers. In the case of a suspected oncological disease, doctors performed procedures and referred patients for further treatment in clinics. A "Health Town" was also organised to promote a healthy lifestyle and cancer prevention. Employees had the opportunity to participate in consultations with specialist doctors, meetings with a dietician, dermatoscopic examinations and examinations in a mammobus. There was also an educational campaign devoted to healthy lifestyles, oncology prevention and the "Prevention 40+" program.

## Health and safety at work

| GRI 403-1 |

The safety and health of people working for PGE Group are a priority for the entire organisation. In 2020, PGE SA's Management Board adopted the Occupational Health and Safety Policy, which defines the organisation's framework for action and goal-setting regarding occupational health and safety management and recognises this area as a key value for the organisation's development. The Policy also defines long-term strategic undertakings concerning OHS and the basic principles of their implementation. The document was developed in cooperation with representatives of all business segments and consulted with the entire PGE Group. Notes and comments from representatives of individual subsidiaries and the social side positively influenced its final shape. The policy's scope includes PGE Group companies. On this basis, the declarations of the management boards will be updated to take account of the specific nature of work in individual companies. PGE Group's Occupational Health and Safety Policy reflects the requirements specified in the latest standard for Occupational Health and Safety management systems: ISO 45001 and the guidelines included in the Labour Code. Proactive and reactive OHS objectives have been implemented for the top management of PGE Group subsidiaries.

The OHS situation is regularly discussed at PGE SA's Management Board meetings. As part of the update of the megaprocess map in 2021, a process was developed: "Occupational health and safety management." It will be implemented from 2022. OHS management and detailed solutions at PGE Group are currently embedded on a local level within the activities of individual companies. Occupational health and safety issues

are a regular item in top management meetings (e.g. management board meetings, branch management meetings). Topics include discussion of occupational health and safety incidents, working conditions and other issues in the safety and health of employees and contractors working at the site / company.

PGE Group intends to standardise the best solutions in the coming years. In order to ensure the exchange of experiences and mutual learning from incident analysis, an IT tool was implemented to collect information on health and safety incidents in the entire PGE Group, including accidents at work or near-miss incidents. The knowledge acquired in this way translates into additional actions in the area of occupational health and safety, which are taken throughout the Group by means of the Framework Plan for the Improvement of Occupational Health and Safety or in the form of alerts to organisations aimed at taking preventive measures in other locations.

In 2021, the companies' Framework Plan for the Improvement of Occupational Health included tasks in the following areas:

- Improving occupational health and safety in handling operations,
- Improving occupational health and safety when working at heights,
- Supervising the use of personal protective equipment when carrying out live work,
- Reducing the risk of objects falling from a height

PGE Group companies comply with legal requirements. Compliance is verified by organisational units dealing with audits, OHS, Compliance, etc. A majority of PGE Group companies have a certified OHS management system based on the PN-ISO 45001 standard.

#### *Occupational risk assessment*

##### **| GRI 403-2 |**

Occupational risk assessment for workplaces is the foundation of health and safety management at PGE Group. The process is adapted to hazards and the specific nature of work and is described in internal normative acts of individual companies. A documented occupational risk assessment is provided for all workplaces. Depending on the needs, various methods of occupational risk assessment are used, such as Risk Score, PN 18002, Chemical risk assessment, OWAS, KIM1, KIM2, Lehman method. To ensure the most accurate results, the process of hazard identification and risk assessment involves the occupational health and safety personnel, supervisors of the employees working on the assessed position and often also the employees themselves, social labour inspectors, other experts relevant to the risk or the members of the occupational health and safety committee.

The power equipment used in the companies and branches has operating instructions that contain, inter alia, information on identifying hazards to human health and life associated with the operation of the power equipment or group of equipment, and rules of conduct to eliminate the identified hazards. Where required, job-specific manuals and other instructions describing the safe performance of work specify the activities to be performed prior to commencement of work, the rules and methods of safe performance of work, activities to be performed after completion of the work, and the rules to be followed in emergency situations which pose a risk to the life or health of employees.

In the CHP plants and the power plant in Rybnik, risk assessments are additionally carried out for tasks within the order-to-work system. In 2021, more than 32 000 such assessments were carried out in this area.

#### *Reporting of occupational health and safety issues*

At PGE Group companies, employees have at their disposal various channels of information on occupational health and safety issues, e.g. through superiors, occupational health and safety personnel, social labour inspectors, publicly available physical boxes for paper notifications, emails, occupational health and safety committees or the IT application. Representatives of top management at PGE Group companies are expected to carry out regular visits to workplaces of employees assigned in the structure. A manual for conducting such managerial field visits was developed in 2021. In addition, within the Group, employees can report health and safety issues within the Compliance function.

### *Right to stop work in the event of danger to health and safety*

In accordance with the Labour Code, all employees have the right to refrain from performing work that endangers their life or health. This is connected with the occurrence of an external threat, when the work conditions do not comply with the regulations of occupational safety and health and constitute a direct threat to the health or life of an employee or when the work performed endangers other people. Employees are entitled to remuneration for the period when they refrain from work due to the hazard. In companies where there is work requiring special psychophysical fitness, records are kept of such work. Employees performing such work have the right, after prior notification to their supervisor, to refrain from such work if their mental and physical condition does not ensure the safe performance of work and poses a threat to others. They are then directed to perform other types of work.

### *Investigation of occupational health and safety incidents*

Every occupational accident is investigated by a team consisting of an occupational health and safety officer and a social labour inspector or employee representative. If necessary, the team consults other specialists to the extent necessary to assess the type and consequences of the accident. Other OHS incidents or accidents are also investigated at PGE Group companies. Conclusions are drawn from these investigations to improve the OHS management system, and the teams share their experiences at Group level. Causes of incidents are analysed using various methods, including: cause tree analysis, TOL or the 5x why method.

### *Consultation and participation of employees*

#### **| GRI 403-4 |**

Consultations with employees on health and safety issues are carried out at individual companies mainly through the established Health and Safety Committees. Efforts are made to have an equal number of employee and employer representatives and an occupational doctor. Committee meetings are held at least quarterly during working hours. Over 120 meetings were held in PGE Group companies in 2021. The task of the Occupational Health and Safety Committee is to consult on occupational health and safety issues, in particular: reviewing working conditions, periodic assessment of the state of occupational health and safety, issuing opinions on measures taken by the company to prevent accidents at work and occupational diseases, formulating conclusions on the improvement of working conditions and cooperating with the company in performing its obligations in the area of occupational health and safety. In connection with the performance of these tasks, the Committee may use the expertise or opinions of specialists from outside the workplace in cases agreed with the company and at the company's expense.

### *Occupational health and safety communication*

OHS communication is carried out on many levels. The publication "Pod parasolem" addressed to all PGE Group employees covers issues such as the organisation of safe work with power equipment, the culture of health and safety or the role of visible leadership.

Various communication tools are used in individual Group companies, such as: incident information brochures, health and safety reports, animated films, instructional videos, webinars and discussion of health and safety issues in meetings with employees.

### **Occupational health and safety training**

#### **| GRI 403-5 | GRI 403-7 |**

Prior to starting work, all employees receive initial health and safety training consisting of general and job-specific instruction. Where justified, an introductory OSH training for contractors is also carried out. Depending on their position, employees undergo periodic OSH training. The period ranges from 1 year for positions which are exposed to particular risks to 6 years for administrative and office positions. Detailed training programs are adapted to groups of positions. Employees performing work on power equipment undergo mandatory examinations which end in obtaining a certificate confirming their competence to perform specific work.

Maintenance, repair, assembly, inspection and measurement work on power equipment is carried out in accordance with operating manuals for power equipment or groups of power equipment, which describe, inter alia, the characteristics of the equipment, activities associated with its commissioning, operation and shutdown and the timing of inspections, tests and measurements. Additionally, work on power equipment is carried out in accordance with a manual for the organisation of safe work. This document describes how the work is to be

organised, requirements for persons in charge, conditions for supervising the work and rules for the circulation of written orders. Individual PGE Group companies are responsible for the provision of these documents.

Operational work that creates the possibility of particular danger to human health or life is performed on the basis of a written order. The written order is also often used in situations where this formula is advisable for safety reasons, in particular when directing contractors' employees to work.

## **Employee development**

### **| GRI 404-2 |**

The pandemic situation indicated the need to continue developing employees via hybrid solutions, as well as the need to develop competencies related to digital transformation - both specialised, concerning the operation of systems, and social and managerial competencies that enable effective relationship building and the achievement of business objectives. Employees also participated in open training in 2021, in line with business needs, and in training directly related to their areas of professional activity. Employees of the Human Resources Department, through workshops and training, prepared for the changes related to the introduction of the "Polish Deal," changes in labour legislation and in the HR and payroll system.

Periodically, Lunch&Learn meetings were organised for employees of all companies. These were one-hour online sessions during which PGE Group employees, who were experts and enthusiasts in a given field, shared their knowledge in the areas of security, compliance, business psychology, communication and social research related to the energy transition program, and new technologies.

Computer training was particularly popular among PGE SA employees. The Academy of Development was also active - a series of training courses developing interpersonal skills and building interdisciplinary knowledge in the field of assertiveness training, exerting influence, solving problems, designing new solutions, change management and energy management.

At PGE Obrót, online training sessions were conducted for all employees, focusing mainly on supporting the psychological condition of employees and coping with work in the times of change and crisis. The "Academy of Efficiency" program was also launched to support the development of sales and service skills for employees who are in daily contact with customers. Approx. 35% of the company's employees took part in it. Training to develop managerial skills was also introduced as part of a program for young managers.

The employees of PGE Baltica mainly developed soft and managerial competencies diagnosed in a training needs survey. The employees of PGE Ekoservis took part in training organised by the Competence Development Centre in Bełchatów, including training for social labour inspectors.

In PGE Dystrybucja, employees mainly participated in mandatory training on the Anti-Corruption Policy, as well as in refresher training on Compliance and the Code of Ethics.

PGE Systemy employees, who are implementing strategic projects related to energy transition based on modern technologies, improved key specialist competences in order to respond to the business needs of internal customers and increase efficiency as a shared IT services centre. The company's employees participate in a dedicated program for the exchange of knowledge and experience in the IT area - Triebes.

PGE Synergy has focused mainly on the development of managerial competencies, therefore it has implemented the Leadership Academy, which aims to develop the competencies of managers and to build a management culture corresponding to the current and future challenges of the market. The following competences are developed at the Academy: building relations, motivating and building engagement, employee development and achieving results.

PGE GiEK employees mainly take advantage of various forms of educational co-financing. With this, they expand their specialist knowledge and already possessed skills during classes organised as part of higher education and post-graduate studies. Managers benefit from skills development as part of MBA studies.

At PGE Energia Odnawialna, wind farm employees participated in soft training aimed at improving cooperation and communication within the team. The company intends to continue this project in 2022.

PGE Energia Ciepła also implemented projects in the field of managerial skills development. The most important development activities included: development of soft skills of mid-level supervisory staff with short seniority and managerial experience (conflict resolution, managing a diverse team, delegating and enforcing



tasks). For newly appointed managers: effective team management, delegation of tasks, coaching sessions, conscious authority building and team building. And for all team leaders - managing a distributed team in the new reality of remote working and the resulting challenges. Other training included:

- Facilitator Academy - providing training on how to increase team effectiveness and create a friendly environment for group collaboration,
- Developing critical thinking - training aimed at learning the methods and tools of critical thinking, rational discussion, practising the principles of logical reasoning and the art of argumentation,
- Managing generational differences - training on developing skills in managing younger generation employees.

PGE Energia Ciepła organised training for managers on energy transition in the climate context and analysis of changes facing the energy sector. During training, the objectives and scale of transition processes in Europe and worldwide as well as the development of green CHPs in European countries were presented.

### **Recognition of HR efforts**

For its activities in 2021, PGE was honoured for the second time in a row with the Friendly Workplace 2022 Special Award from markapracodawcy.pl - the organiser of the Friendly Workplace competition and one of the leading services dedicated to human resources management in Poland. The organisers appreciated the company's commitment to creating a pro-development and, at the same time, health-friendly work environment and the projects it has implemented, such as the Competence Development Centre or the "Leader Profile" survey.

PGE also received the Reliable Employer 2022 Award, which is given to businesses that demonstrate care for safety and working conditions as well as employee development. The Reliable Employer of the Year is an award for employers who promote the most interesting HR solutions in their operations and are characterised by an exemplary personnel policy.

### **Management of employee innovations**

The innovations area plays an important role at PGE, especially when innovations are submitted by employees. At PGE Górnictwo i Energetyka Konwencjonalna, managing employee-submitted improvements has a long tradition. They report a number of solutions to improve daily work, which also makes it possible to increase work safety, optimise complex processes and, as a result, obtain tangible economic benefits.

Examples include a system implemented at the Turów mine that enables the automatic elimination of the source of a fire or its early detection on belt conveyors, or the use of a drone in the Bełchatów power plant to carry out inspections of energy boilers in which ground coal is burned. Proposals of solutions to improve the company's day-to-day operations emerge every year in all branches of PGE Górnictwo i Energetyka Konwencjonalna. They are reviewed from a substantive point of view and then considered and evaluated on the basis of expert opinions, a research report and expected economic effects.

Innovations submitted in 2021 include a profitable optimisation of the boiler start-up process at the Dolna Odra plant, of importance to the operations area and for profitability, modernisation of the technical property protection alarm service station at the Alarm Monitoring Centre or visualisation of operating states in operator cabins used in the development of the SRs 2000 excavator control system.



## Cooperation with trade unions

### | GC-3 |

As of December 31, 2021 there are altogether 127 different trade union organisations at PGE Group, including one trade union at PGE SA - Organizacja Międzyzakładowa nr 2987 NSZZ „Solidarność.” Since January 1, 2016, cooperation with trade unions has been regulated by the Corporate Rules of Social Relations at PGE Group. In accordance with the Trade Union Act, the basic level of cooperation between social partners is a branch or company. Another level of cooperation is the forum of individual PGE Group companies, where topics common to all employers in a given area are discussed. Social dialogue at this level takes place between management boards of companies and trade union platforms, which bring together trade unions operating in workplaces and having convergent sectoral interests. The rules of cooperation at the level of key companies are usually regulated in a dedicated agreement or memorandum, to which employers and companies are also parties.

In matters of strategic importance for the entire PGE Group, social dialogue is conducted at the level of the Corporate Centre between the Management Board of PGE SA and representatives of the social side at PGE Group. In relations with trade unions, the principle of company dialogue prevails and talks are transferred to a higher level in the event that talks at the level of the employer or companies do not yield results.

PGE SA and certain other employers from PGE Group are participants in sectoral social dialogue, which is conducted, inter alia, on the forum of tripartite teams (Tripartite Team for the Lignite Industry and Tripartite Team for the Energy Industry).

#### Cooperation with social partners at PGE Group takes place on three levels:



Fig. Diagram of cooperation with trade unions

## End of collective disputes

On December 29, 2021, an agreement was signed at the level of the Corporate Centre, ending collective disputes at PGE Group employers initiated at the turn of September and October 2020. The document was signed by representatives of the following companies and branches: PGE Dystrybucja, PGE Energia Ciepła, PGE Górnictwo i Energetyka Konwencjonalna and PGE Obrót, as well as representatives of the Protest and Strike Committee of PGE Group (which represented 64 trade unions), with the participation of the Management Board of PGE Polska Grupa Energetyczna SA as guarantor.

This guarantees, inter alia, the implementation of all the obligations arising from agreements signed to date and agreements ending collective disputes at the branch level, and expresses the will to continuously monitor, control and cooperate on the collective documents signed.

Moreover, in the agreements ending collective disputes that were executed at the company or branch level, the parties agreed on, among other things, issues relating to wage increases and full-time employment.

## **Social dialogue during the pandemic**

Sanitary restrictions related to the state of epidemic declared on the territory of Poland had a significant impact on the shape of relations of the social partners.

In 2021, PGE SA continued a series of meetings initiated in 2020 with the Trade Union Organisation and Workers' Council on the epidemic and measures to prevent the spread of coronavirus at the company. More than 20 of these meetings were held. In the current dialogue, emphasis was placed on enabling remote participation in meetings, and during direct talks, adequate distance and necessary protective measures were provided (including publicly available disinfectant fluids and disposable masks).

At PGE Group employers, the counteracting of the pandemic has become a regular topic of discussion with the social side. Concerned for the safety of participants, the hybrid formula of meetings has become a regularly used option.

## **Energy transition - green change**

Changes in PGE Group's business sector dictated by the climate and energy policy, which also influenced PGE Group's new strategy, were a topic widely discussed with trade unions in 2021.

In July 2021, the Ministry of State Assets initiated talks with the social side (represented in the Tripartite Team for the Lignite Sector and the Tripartite Team for the Energy Sector) on the energy-sector transition, including the spin-off of coal assets. This led to the establishment of three working groups, including a team for labour law and collective labour law, the activities of which were coordinated by PGE SA. The fundamental objective guiding the parties is to safeguard employee interests during the restructuring period.

## **Description of the organisation's policies on trade unions**

The organisation has a procedure concerning trade unions - Corporate Rules of Social Relations at PGE Group. This document defines the model and rules for social relations between the Corporate Centre, companies and employers. The main aim of the procedure is to support the implementation of PGE Group's strategy, the achievement of which depends on employees' involvement and acceptance of the social side, by conducting the process of social relations in PGE Group. The Corporate Centre, companies and employers are required not only to conduct social relations in accordance with the generally applicable legal regulations and the applicable acts of internal collective labour law but also with the procedure, which defines the tasks of organisational units for social dialogue at specific levels. In effect, PGE SA receives information on the number of trade unions, trade union costs as well as weekly reports on the activity of trade union organisations in PGE Group.

## **Diversity management**

In 2021, work was in progress on developing the rules for a diversity policy. The policy is expected to be adopted in the first half of 2022. This is a document that will cover all PGE Group companies and will reflect the activities carried out in favour of diversity and respect for individual differences among employees as well as the fostering of a friendly working environment.

## **3.4 Cooperation with contractors**

The PGE Group conducts its activities and commercial relations in a transparent manner, based on internal procedures and strictly defined rules of cooperation with its business partners. Standards in the process of planning and conducting purchases and selection of contractors are defined in PGE Group's General Procurement Procedure, thanks to which the procurement process in the Group has been unified. All PGE Group companies that have adopted the PGE Group Code of Ethics are required to apply the procedure. Certain companies are also required to apply the public procurement regulations. Before a final decision is made on the selection of a contractor, documents are appropriately analysed and assessed to ensure that the supplier meets the requirements specified in a given tender procedure.

In 2021, changes were introduced to the PGE Group's General Procurement Procedure, which increased the competitiveness of procurement procedures conducted at PGE Group. Due to the pandemic situation in the country, negotiations with potential contractors were held remotely. To meet the needs of internal customers,

the Purchasing Department of PGE Polska Grupa Energetyczna S.A. organised workshops for the units responsible for administration and human capital management in order to increase procurement efficiency. Due to the shortage of certain products and materials in the market, PGE Group decided to both extend the deadline for the submission of bids and extend the deadlines for the performance of contracts. As a result of these actions, the level of competitiveness and purchasing efficiency increased, and the attractiveness of bids increased.

Provisions against money laundering have also been introduced into the internal regulations, as well as the evaluation of the contract performance.

In addition, regular online purchase planning meetings for the following year have been introduced with all PGE Group companies, during which guidelines related to the purchase plan are communicated and support is offered in the preparation and implementation of the purchase plan.

In 2021, the Central Anti-Corruption Bureau carried out an audit of PGE Group concerning the disbursement of funds and making purchases and the control mechanisms in place. The external audit body found no violations.

### **PGE's expectations towards its business partners**

| GRI 102-9 | GRI 308-1

The principles governing cooperation with contractors are defined first of all in PGE Group's Code of Ethics, which is a set of values and principles applicable in the entire PGE Group. Among other things, it defines PGE's approach to building business partnerships.

In order to meet the expectations of contractors and business partners, PGE Group has developed the Good Procurement Practices in both Polish and English versions. This is a set of recommended attitudes and principles which should be followed by employees and potential business partners during tenders. The Good Procurement Practices also include the principle of "zero gifts" which covers the employees initiating the purchasing process (submitting a purchase application), members of committees and all persons participating in the process and persons executing contracts concluded as a result of the purchasing process.

PGE Group's expectations towards its business partners have been laid down in the Code of Conduct for Business Partners of PGE Group Companies. Messages outgoing from PGE Group's purchasing system to entities are bilingual and this is used as a form of communication. Innovative solutions are used in the bid evaluation rules, streamlining internal processes by automating them. Thus, paper and water consumption are reduced.

In the course of the purchasing process, contractors are informed of the need to familiarise themselves with the Purchasing System Regulations, which in 2021 was also published in English. The document defines the rules and procedures for using the purchasing system, the rules for submitting offers and other documents in purchase proceedings. Support for contractors is also provided:

- a) Detailed Instructions for the use of PGE Group's Purchasing System,
- b) Contractor guidebook for PGE Group's purchasing system,

available at [www.gkpge.pl/bip/Przetargi](http://www.gkpge.pl/bip/Przetargi) in both Polish and English.

It is also important for PGE Group that Contractors and subcontractors take measures to protect the environment, e.g. by specifying the carbon dioxide emissions (g/km) in the tender for passenger cars).

As part of procurement procedures, PGE Group promotes social clauses, e.g. employment based on a full-time contract, in particular in the following areas: security services, cleaning services, and repair and construction services. In procurement procedures conducted by PGE Group, the following aspects are always taken into account: a contractor's lack of arrears in statutory payments (social insurance, taxes), possession of relevant insurance, permits, or certificates.

PGE Group's General Procurement Procedure allows companies to place a contractor who fails to meet its obligations or does not perform a contract or refuses to sign a contract on a list of suspended contractors. This results in temporary suspension of cooperation with the contractor.

The contracting procedure is currently being revised, with the aim of simplifying the contracting process and its subsequent control.

### Development and unification of PGE Group's purchasing area

More than four years ago, work began on the launch of a common purchasing system for PGE Group companies as a response to market challenges and changing legal regulations - in particular those pertaining to the digitalisation of public procurement. Thanks to the launch of the new procurement system, several thousand employees of PGE Group and contractors started using a platform for electronic handling of procurement processes, which ensures transparency, security and at the same time competitiveness.

PGE Group's Purchasing System (SWPP) is the second largest IT system in PGE Group (after SAP). It is currently used by approx. 8 thousand PGE Group employees, i.e. approx. 21% of all employees.

In 2021, employees of PGE Dystrybucja joined the users group of the purchasing system. As a result, another PGE Group company conducts procurement procedures using modern IT tools. The implementation of the procurement system has contributed to cost optimisation and increased automation of procurement processes, as well as facilitated remote work, which in the current epidemic situation is essential.

Within the procurement area, further professionalisation of tools supporting this area is planned, in particular PGE Group's purchasing system in operation.

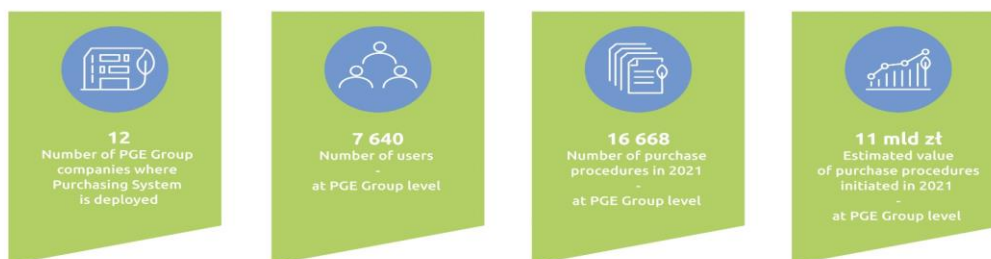


Fig. PGE Group's Purchasing System (SWPP) is the second largest IT system in PGE Group (after SAP).

### Meeting the needs of business partners

In a pandemic situation, it is particularly important to communicate efficiently and openly with current and potential business partners; therefore, during the period of total *lockdown*, PGE Group had a remote work system for all employees of the procurement team in order to carry out tasks on an ongoing basis and have constant contact with business partners and ensure continuity of work. Thanks to the digitalisation of the process, it became possible to conclude contracts with contractors remotely. PGE Group has also increased the flow of information to its contractors. Essential information on PGE Group's cooperation with its business partners is posted on the company's website and on the websites of PGE Group companies.

In purchase procedures conducted in 2021 by the PGE Group, 6 115 individual contractors submitted offers in the purchase system. As a result of the procedures, contracts were signed with 4 428 individual contractors. Nearly 100% of payments were paid to contractors within contractual deadlines. Timely payments amounted to respectively:

|   | Company                | % share of liabilities fully fulfilled on time<br>towards all contractors |
|---|------------------------|---|
| 1 | PGE SA                 | 99.90%  |
| 2 | PGE GiEK               | 99.99%  |
| 3 | PGE Dystrybucja        | 99.60%  |
| 4 | PGE Energia Odnawialna | 96.79%  |
| 5 | PGE Energia Ciepła     | 99.52%  |
| 6 | PGE Obrót              | 99.95%  |
| 7 | PGE Dom Maklerski      | 97.38%  |

This data proves that the PGE Group has a responsible approach to building business relations with its suppliers.

## 3.5 Customers

### | GRI 102-6 |

Partner relations with customers are a vital element of the energy transition. To this end, PGE Group is developing professional energy services and integrated contact and sales channels.

PGE Obrót, which sells electricity within PGE Group, in 2021 provided services to nearly 5.5 million customers, who purchased over 37 TWh of electricity from the company. PGE Dystrybucja, a company licensed to distribute electricity and providing electricity supply services within PGE Group, supplied nearly 38 TWh of electricity in 2021 over an area of 122 400 km<sup>2</sup> (nearly 40% of Poland's area), connecting to the grid nearly 83 000 customers and over 141 000 prosumer installations.

District heating is produced and supplied by PGE Energia Ciepła - Poland's largest producer of electricity and heat generated in a high-efficiency cogeneration process. PGE EC operates 16 cogeneration plants (with a heat capacity of 6.8 GWt and electrical capacity of 2.6 GWe) and 677 km of district heating networks. The company produces and supplies heat to large Polish cities, including: Kraków, Gdańsk, Gdynia, Wrocław, Rzeszów, Lublin, Bydgoszcz, Kielce and Szczecin. The company is also present in Toruń, Zielona Góra, Gorzów Wielkopolski, Zgierz, Siechnice and Gryfino, where it also distributes heat to end customers. It has an approx. 25% share in the domestic market for heat from cogeneration.

### Policies and standards

The high quality of customer service and services is defined in PGE Group's business strategy and in its consistently implemented policies and management standards, such as the Code of Good Practice for Distribution System Operators, Service Quality Guide and Customer Service Procedures. These documents precisely describe processes related to sales, after-sales service, electricity connections and other distribution issues.

Our customer service standards emphasise the speed, quality and comprehensiveness of service. All customer enquiries are processed within 14 days (in the case of additional analysis and investigation - up to 30 days), and each submission is analysed and used to improve service processes. Application of the adopted standards is systematically monitored and reported. For example, complaints submitted by customers are analysed. Conclusions from these analyses often constitute grounds for introducing changes in internal processes, thanks to which service standards are continuously improved. Marketing surveys are also carried out periodically, which allows for multidimensional monitoring of customer satisfaction.

Customer satisfaction is monitored by a marketing research system implemented since 2015, covering key areas and contact points for the company-customer relationship. Multidimensional monitoring of customer

satisfaction makes it possible to verify the application of adopted standards. Conclusions from the surveys and analyses provide grounds for changes in internal processes, contributing to the continuous improvement of the service standards. One of the effects of the analyses was the introduction in 2021 of the possibility to report failures via a smartphone application.

### Customer satisfaction indicators

The two-year-long pandemic and issues related to electricity prices have had a major impact on the manner in which customers are served, and create ever new challenges for consultants and managers. Thanks to their joint efforts, competence and commitment, the Customer Satisfaction Index (CSI) for the work of PGE Obrót's customer service offices remained at a high level in 2021, both among G tariff and C1 tariff customers.

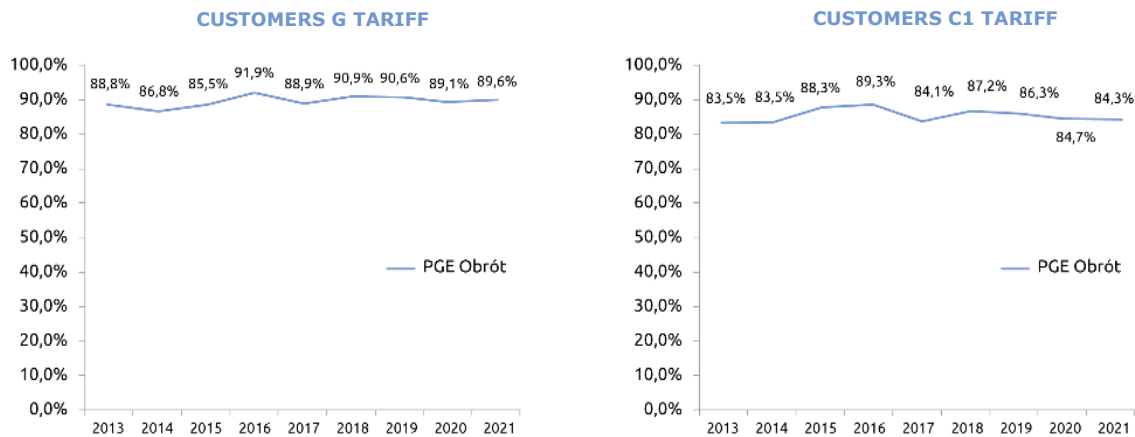


Fig. Customer Satisfaction Index

The Contact Centre, which performs remote service tasks, also maintained a high level of customer satisfaction. The CSI in customer surveys for 2021 was close to 91%.

Thanks to its high service standards, PGE Obrót has obtained the Customer Friendly Company certificate for the ninth time. Its award is preceded by a quality inspection conducted by independent auditors. In this survey, in 2021 PGE Obrót achieved a score of 89%.

### Survey results for certification: Customer Friendly Company

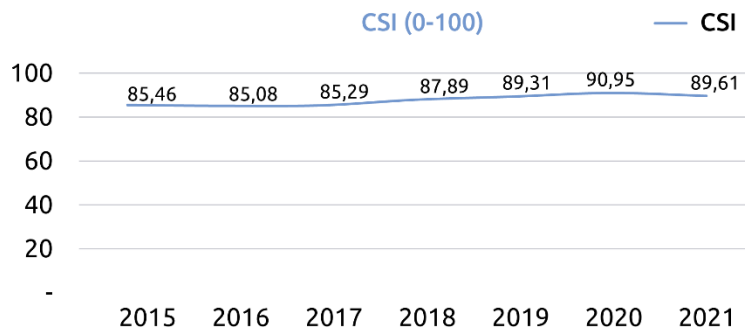
| FPK index                | 89% |
|--------------------------|-----|
| Willingness to recommend | 91% |
| Approach to customers    | 88% |
| Overall satisfaction     | 92% |
| Customer Effort Score    | 84% |
| Quality of service       | 92% |
| Purchasing process       | 90% |

The results of the independent survey confirm that the quality of customer service was maintained at a high level of approx. 90% to date. The final result was influenced by the Customer Effort Score (CES). Its result is related to service conditions during the pandemic, which independently of the company affected the service process (requirements to wear masks, customer limits at service points, etc.).

PGE Obrót also once again passed an audit carried out by the Association of Energy Trading with regard to customer service, in accordance with the Code of Good Practices.

### Satisfaction with electricity supply services

The issue of how electricity is supplied is crucial for customer satisfaction levels. This is why PGE Dystrybucja has been monitoring customer satisfaction with its services for six years. This analysis covers the connection process and contact with the emergency call centre. PGE's customers declare high satisfaction rates with regard to contact with the 991 emergency number. The Consumer Satisfaction Index (CSI) reached almost 90%.



Source: Research agency 4P 2015-2020, ARC Rynek i Opinia 2021

### Satisfaction with PGE Energia Ciepła customer service

In 2021, customer service satisfaction surveys were conducted at PGE Toruń and the Zielona Góra CHP. The surveys made it possible to identify customers' priority needs with regard to service, enabling improvements to be made in line with their expectations.

### Customer service during the pandemic

The main challenge in 2021 was ensuring the continuity of customer service in a pandemic situation. Customer service at PGE Obrót's customer service points and PGE Dystrybucja's distribution customer service points was carried out in a sanitary regime, with the provision of screens separating employees from customers at service stations, disinfectant fluids, masks and gloves. Employees were additionally equipped with visors.

The development of customer contact channels is a key element of PGE Group's strategy. Their integration as well as the enhancement and unification of service standards will be the foundation for further development of the retail area, focusing on ensuring energy and heat comfort for customers. Further initiatives launched in this area will serve this purpose.

PGE Obrót introduced a number of customer service improvements in 2021.

#### *Virtual Agent*

A Virtual Agent robot technology was deployed in June 2021 for PGE Obrót's hotline, supporting the voice communication channel in the area of payments, which accounts for approx. 60% of all calls to the Contact Center. The development of the technology will translate into greater efficiency of service through the hotline.

#### *Optimisation of prepayment code sales*

The purchase of codes for prepayment meters was simplified in 2021. The process has been automated. It is currently performed through submissions in online customer service, e-forms available on the [pge-obrot.pl](http://pge-obrot.pl) website and automatically through the IVR system (Interactive Voice Response) on the PGE Obrót hotline.



### *Executing and rewriting the e-form contract*

The e-form available on pge-obrot.pl has been expanded. It now allows all the necessary data and documents to be collected in order to prepare and submit the contract to the customer for signature, which shortened the time and formalities related to its conclusion.

### *Electronic signatures*

In 2021, the popularisation of the previously implemented process of remote contract conclusion using a secure digital signature continued. To the previously promoted possibilities of signing documents using: trusted profile (free service made available through ePUAP), Qualified Signature (commercial service), eDO App for holders of ID cards with an electronic layer. The possibility to conclude a contract with the use of the Autenti signature has been added. This platform allows to display the content of the contract and sign it digitally. In order to sign the contract, the customer only needs to have an e-mail address and a mobile phone number.

Digital solutions reduce the circulation of traditional documents and costs associated with sending and archiving documents. They also fit in with customers' expectations of simplified service. At the end of 2021, around 80% of contracts in remote channels were concluded using digital signatures, including Autenti.

The benefits for customers of using electronic purchasing channels include time savings, the ability to place an order at any hour, and not having to wait for payments to be booked.

### **Initiatives undertaken by PGE Dystrybucja**

2021 also brought major changes to customer service at PGE Dystrybucja. A smartphone application was deployed (available for Android and IOS systems), allowing customers to report failures without having to call the 991 emergency number. The app also allows customers to view the status of failure removal. At the same time, if PGE Dystrybucja receives a report of a failure involving the customer's point of consumption, the application informs customers of this fact and of the lack of the need to call 991.

The process of connecting new electricity consumers to PGE Dystrybucja's grid is available through the New Customer Portal, thanks to which paper use has been significantly reduced, as almost all formalities are carried out electronically. The New Customer Portal was expanded in 2021 to handle new customer groups, applications for micro-installations and updating the data of an existing micro-installation.

Telephone service at PGE Dystrybucja has also changed. Instead of approx. 200 telephone numbers to individual divisions in Energy Regions, a single number was introduced to serve customers in a given branch. The current seven customer service numbers will eventually be combined into a single number handled by the future PGE Dystrybucja Contact Center.

### **Customer service in district heating**

Thanks to IT systems developed over the years, district heating companies and branches belonging to PGE Energia Ciepła were able to remotely manage the operation of district heating networks, receive and record customer requests and provide comprehensive customer service remotely during the 2020 and 2021 pandemic.

An important system that is used to provide services to customers of PGE Toruń, Zielona Góra CHP and Gorzów Wielkopolski CHP is telemetry, which allows for the remote monitoring of the operation of nodes and receiving installations. The telemetry system also provides information on the location of disturbances in the operation of the network and nodes, so it is possible to react remotely and quickly, even before the disturbance is noticed by the customer.

2021 is the fourth year of operation and development at the Zielona Góra CHP of a system for remote supervision of alarm installations of pre-insulated networks. It allows efficient and fast identification of faults on new networks / connections. Data from alarm system readings is automatically sent to a server via GSM or LAN so that it is possible to monitor the condition of the heating network in real time and obtain information on the occurrence of an alarm. During the period of the system's operation, approx. 20 events related to damage to heating networks were located and removed. The RATMON system currently supports 129 devices located in chambers and rooms of heat substations. Since 2020, a similar system has also been gradually developed by PGE Toruń, where it covered 18 alarm loops by the end of 2021.

Given the fact that the systems are remote, CHP employees can access them from any place and any device (e.g. phone, tablet) with an Internet connection. With such technological solutions in the period of the pandemic, the unchanging and optimal operation of heat distribution networks was and is ensured on the one hand, high quality of customer service is maintained, and on the other hand the safety of employees is preserved.

### Responsibility to customers

Guided by responsibility to its customers, PGE Group draws attention to controversial and often dishonest practices of certain energy vendors who often impersonate proven and reliable brands such as PGE. In order to counteract these phenomena, PGE Group conducts numerous educational and information campaigns in traditional and social media. It also cooperates on an on-going basis with administrative authorities to uncover and eliminate such market practices.

Serving people with disabilities is one of PGE Group's priorities. Over  $\frac{3}{4}$  of PGE Obrót's locations are equipped with ramps for wheelchairs or are located on the ground floor, which facilitates accessibility for customers. This is also supported by appropriate operating standards, including those concerning service priority. During the pandemic period, Quality Ambassadors (persons assisting customers at the customer service office with filling in and initial verification of documents), due to the smaller number of customer visits, supported the work of the Contact Center. The positions of Quality Ambassadors in customer service offices are being systematically restored. All customer service offices at PGE Obrót are also equipped with magnifying glasses for the elderly and visually impaired.

### Encouraging pro-social and pro-environmental activities

More than one million PGE Obrót customers have already opted for electronic invoices instead of paper ones. This is the result of the company's educational and information activities, which strengthen the conscious and ecological choices of consumers. Throughout 2021, the company undertook various activities to encourage the use of electronic invoices, including advertising spots: "Tap the keyboard and take care of the environment" [www.youtube.com/watch?v=vkLAV2dTTW4](https://www.youtube.com/watch?v=vkLAV2dTTW4)

In August 2021, PGE Obrót launched an additional charity action. For each customer who decides to switch to electronic invoices, the company will support - through the PGE Foundation - the activity of carers in the children's hospice run by the Gajusz Foundation. SMS campaigns were also implemented to inform about the possibility of changing the way of receiving invoices from paper to electronic. Recipients who opted for such a solution could count on special discounts in PGE's online store.

PGE Obrót is continuously improving the process of switching to electronic invoicing. Aside from traditional methods, such as filling in a consent form or activating service during a visit to a customer service office, the company has also provided a special online form. The solution offered by PGE Obrót is an expression of concern for the natural environment by reducing paper. It also increases the level of customer service comfort as the invoice is always available to the customer after logging in to PGE's online customer service site ([ebok.gkpgge.pl](https://ebok.gkpgge.pl)). PGE's electronic invoicing also saves time as the document is delivered to the customer the moment it is issued. Security is another important aspect. Electronic invoices in online systems are protected with a password set by the customer.

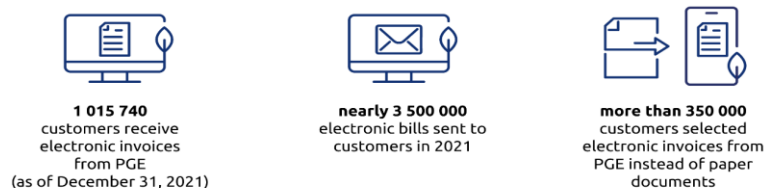


Fig. Electronic invoices in numbers

PGE Energia Ciepła supports the process of connecting customers to the municipal heating network and develops services to increase energy efficiency. Within the framework of the existing Agreement on Sustainability between PGE Energia Ciepła, OPEC Sp. z o.o. and the Municipality of Kosakowo near Gdynia, a workshop on energy efficiency was organised for the employees of the municipality office and teachers. The aim of the meeting was to present practical advice on how to save heat and electricity, how to deal with possible heat losses in homes, and what habits regarding the use of electricity can be beneficial to the household budget and the environment. 2021 saw the 6th seminar for administrators and managers of Gdynia's properties. This aims to raise awareness of environmentally friendly and safe heat from the district heating network. Similar meetings with property administrators and housing associations were also held in Toruń, Kraków, Zielona Góra and other branches of PGE Energia Ciepła.

On the occasion of Earth Day, tree seedlings were distributed among customers who visited Distribution Customer Service Points on April 22 and 23 to be planted in their gardens or on their land. Over two days, 5 000 seedlings were distributed.

### Photovoltaics with PGE

Photovoltaics with PGE is an offering for customers to switch to their own energy. PGE Obrót handles their investment comprehensively, from free valuation and technical audit, submitting an offer prepared by PGE Obrót experts and optimally adjusted to the customers' needs, to professional assembly of the photovoltaic installation. The Photovoltaics with PGE deal includes expert advice and service to customers at every stage of the investment. Providing customers with broad access to green energy is one of the main tasks in the retail area of PGE Group's strategy.

In order to take advantage of the Photovoltaics with PGE deal, the customer just needs to complete an electronic form and specify the energy needs and installation possibilities. Sales managers then contact customers to carry out further formalities. The installations use best-in-class components and the operation of the installation does not require additional work.

Photovoltaics with PGE was on offer since the introduction of the pilot in the agency model, i.e. from May 2021 to February 15, 2022:

|                  | Number of PV units covered by the offering | kWp     |
|------------------|--|---------|
| Retail customers | 442  | 3238.03 |
| Businesses       | 60   | 1414.82 |

### **Dynamic growth in the number of prosumers**

The significant increase in interest in micro-installations is associated with increased workload at the Distribution Customer Service Points. In 2021, PGE Dystrybucja registered 157 000 micro-installations, including more than 99% of photovoltaic installations that were processed in the "based on notification" mode and did not require obtaining connection conditions. PGE Dystrybucja employees showed great commitment in serving a larger number of customers interested in prosumer installations than ever before. On many occasions they provided substantive advice on the capacity of the installed devices, verifying the customer's needs in accordance with the existing consumption.

In the Łódź branch, the "active prosumer" project is being carried out in cooperation with the Technical University of Łódź, Lublin University of Technology and Apator. A solution is being developed that will allow to increase the number of micro-installations in a specific area without disturbing grid operations. The project assumes that the results of the work of the project consortium will also influence the legislative processes concerning the prosumer market in Poland.

## **3.6 Community involvement**

| GRI 102-12 | GRI 203-1 |

For years, PGE Group has been actively involved in pursuing all 17 UN Sustainable Development Goals (SDGs), and has identified in its strategy four SDGs that it particularly supports. These are:

- Goal 7. Affordable and clean energy
- Goal 11. Sustainable cities and communities
- Goal 12. Responsible consumption and production
- Goal 13. Climate action.

Taking into account Goal 11 and cooperation with local communities, its scope is defined in the General Procedure for the Management of Community Involvement Activities (CCI) at PGE Group and in the General Procedure for Planning and Implementing Donations at PGE Group. The Group's approach to building relations with stakeholders is also defined in PGE Group's strategy and PGE Group's Code of Ethics.

### **Measures to support the fight against the pandemic**

In 2021, PGE Group continued its activities supporting the fight against the coronavirus pandemic. Since the beginning of the pandemic, i.e. since March 2020, PGE and its companies and the PGE Foundation have allocated nearly PLN 9 million for this purpose, including over PLN 2 million in 2021. All of these actions were a response to the current needs of the healthcare system. These actions were coordinated with the Ministry of State Assets and the Ministry of Health.

Donations from the PGE Foundation went to tens of hospitals, emergency stations and other medical facilities. They were earmarked for the purchase of necessary medical equipment for the treatment of patients suffering from COVID-19, equipment for automatic disinfection, and personal protective equipment.

PGE supported the construction of Covid wards and equipped them with medical equipment. The PGE Foundation also supported activities for children, young people and adults in the field of psychological assistance and covid rehabilitation. In addition, PGE Group made 10 cars available to hospitals and the Territorial Defence Forces, and supported the Institute of Senior Economy by donating over 100 litres of disinfectant fluids.

### **Volunteering in the era of Covid-19**

PGE volunteers were involved in helping Warsaw Uprising and other veterans, senior citizens and retired PGE employees by offering assistance with shopping, running essential errands and providing meals. At its peak, 52 volunteers were active. They looked after 12 Warsaw Uprising veterans and senior citizen.

In 2021, PGE employees engaged in voluntary work for the wards of a nursing home in Białystok. With the seniors in mind, bibliotherapy classes were organised which lasted from October to December 2021. The program was implemented by the PGE Foundation in cooperation with the Zacztyani.org Foundation as part of the "Reading with PGE" project. As part of the volunteer work, 99 bibliotherapy meetings were held online. They were conducted by 20 employees of PGE Group. During conversations with seniors, the volunteers read excerpts from books and then led discussions on selected topics. The aim of the bibliotherapeutic meetings was to activate senior citizens and create space for conversation and reflection. This volunteering campaign made it possible to establish intergenerational relations. Seniors received support from the volunteers and the volunteers gained new and unique competences.

Volunteering campaign "Bibliotherapy for seniors" in figures:

- 2 information meetings for PGE volunteers interested in participating in the program,
- 33 PGE volunteers were trained in bibliotherapy,
- 3 training meetings for volunteers with a total duration of 12 hours,
- 1 integration and training meeting for volunteers.
- 99 meetings between PGE volunteers and senior citizens in the form of bibliotherapy.

Employees of PGE Group companies are involved not only in pre-Christmas campaigns, fulfilling dreams of children from orphanages, children in foster care and community centres. This includes:

- PGE Baltica, for the benefit of orphanages in Ustka,
- PGE Górnictwo i Energetyka Konwencjonalna in all its locations as part of the campaign: "Santas to Dreamers,"
- PGE Dystrybucja for over a dozen care and educational institutions in its area of operation as part of the "For the Child's Smile" project,
- PGE Energia Ciepła within the framework of the "Gwiazdor" campaign. In addition, in cooperation with the City Social Welfare Centre in Gdynia, the company prepared Christmas parcels for senior citizens,
- PGE Energia Odnawialna for the benefit of pupils of the "Antares" Care and Education Centre in Sochaczew.

Employees of PGE Group companies support on an on-going basis educational and hospital care facilities in their areas of operations and take part in the "Noble Box" campaign. The organise donation and gift collection drives and prepare gift boxes for families in need.

### **Social campaign "Polish - I'm buying it!"**

PGE has also become involved in efforts promoting responsible consumer attitudes. It initiated the nationwide social campaign "Polish – I'm buying it!" encouraging Poles to choose local producers and service providers and to make conscious consumer choices. The project was initiated by PGE Group employees and held under the patronage of the Ministry of State Assets.

In 2020, the blog "Polish – I'm buying it!" was launched in the internal media of PGE Group. And a dedicated website - [polskiekupujeto.pl](https://polskiekupujeto.pl) - was launched with a guide section, educational spots and posts encouraging people to choose Polish products. PGE Group companies from all over Poland were involved in creating content for the internal blog and the public website.

In developing the social campaign "Polish – I'm buying it!" PGE established cooperation with the creators of the Pola application, thanks to which it is possible to easily and quickly check whether a given product has been manufactured in Poland. Thanks to the cooperation with PGE, the application is being constantly developed, and the database of Polish products and companies is steadily expanding. PGE has also prepared an advertising spot and a tutorial showing how to use the Pola app and identify Polish products and brands both when shopping in stationary and online shops.

In the run-up to Christmas, PGE Polska Grupa Energetyczna launched a Christmas edition of the "Polish – I'm buying it!" campaign under the slogan "Let's Support Polish Entrepreneurs and Manufacturers. Not only for Christmas!". A guidebook was also prepared: "How to safely buy Polish products in online shops" available on [polskiekupujeto.pl](https://polskiekupujeto.pl). It consists of articles focusing on the safety of online transactions and conscious consumer choices. It also contains information on how to use the Pola application when shopping online.

In mid-2021, PGE Polska Grupa Energetyczna conducted a survey asking Poles what influences their shopping decisions. The aim was to identify Poles' shopping attitudes as well as to obtain their opinions on what should be improved to make the choice of Polish products easier for them. The survey results show that providing

consumers with easy identification of the product's origin at the time of shopping can have a real impact on the decision of what goes into their shopping basket. The survey was conducted as part of PGE's social campaign "Polish – I'm buying it!" The survey results are available at: <https://polskiekupujeto.pl/blog/pochodzenie-produktu-a-decyzje-zakupowe/>

PGE Group also asked its employees to share their thoughts and approaches to everyday purchasing decisions. To this end, in December 2021 PGE conducted another survey of shopping preferences addressed this time to PGE Group employees. Almost 2 000 employees took part in the survey, which ended on January 14, 2022. The results show that internal educational activities as part of the "Polish – I'm buying it!" social campaign have a real impact on the purchasing decisions of PGE Group employees and their awareness of the need to support the Polish economy, especially during the pandemic.

The Jagiellonian Club, publisher of the Pola application, in cooperation with PGE Polska Grupa Energetyczna, published a report in November 2021: "Leaders of conscious consumption. The most scanned companies of the Pola app," which indicates the Polish products that most often find their way into the shopping basket of Poles. The full report is available at: <https://polskiekupujeto.pl/blog/aplikacja-pola-odzwierciedla-preferencje-zakupowe-polakow/>

### **PGE shares the heat**

For many years, PGE Energia Ciepła has been running the "Let's Share the Heat" program, supporting the most in-need recipients in covering their heat and hot water bills.

"Let's Share the Heat" aims to support individuals and institutions by subsidising their heat and hot water bills. The program is addressed to the most in-need recipients, including public benefit organisations using district heating in towns where PGE Energia Ciepła has its CHP plants.

### **Nurturing the national identity**

PGE has been a strategic partner of the Warsaw Uprising Museum since July 2020, but has cooperated with the Museum since 2016, when it became its partner. In 2021, the Warsaw Uprising Museum prepared 225 stationary museum lessons and 433 online lessons. The stationary museum lessons were attended by 4 588 primary and secondary school students, while the number of views of the museum lessons online live within the framework of the Warsaw Uprising Museum Virtual Academy was 8 990. The COVID-19 pandemic has forced new standards of visiting and contacting people interested in the Warsaw Rising Museum. In 2021 the museum was visited by 266 173 people stationary, and 1.2 million online.

In 2021, PGE continued and expanded its cooperation with the Warsaw Uprising Museum. As part of this relationship, PGE is the patron of the museum's original program: "Family meetings with history." The aim of the program is historical education and the conveying of testimony of the participants of the uprising through family visits to this unique place and participation in activities conducted by educators from the museum in the form of an interactive game.

Within the framework of expanding the cooperation with the Warsaw Uprising Museum, PGE has financed the expansion of the audio-guide by adding more language versions, including German, French and Spanish. In recent years, the scope of cooperation has been expanding significantly and PGE has extended its patronage over multiple initiatives of the Museum. PGE also provides additional funding for purchasing valuable documents concerning the Warsaw Uprising. The documents supplement the priceless collection of archival materials. In 2021, with the support of the PGE Foundation, the Museum purchased a unique, previously unknown collection of German photographs of Warsaw from the period of the Warsaw Uprising.

In 2021, PGE once again joined the anniversary celebrations to mark the outbreak of the Warsaw Uprising. "Energy Workers in the Uprising" is a series of ceremonies that pay tribute to the energy engineers from the Warsaw power plant in Powiśle, who supplied electricity to the fighting capital city.

The ceremony on August 1, 2021 was specifically dedicated to the memory of Captain Stanisław Skibniewski "Cubryna," who commanded a unit of employees from the Powiśle plant. On this occasion, PGE organised the premiere screening of a documentary film: "Nom de Guerre Cubryna" <https://youtu.be/VHylSm1VNiM> and a concert by musicians from the National Philharmonic in Warsaw, who performed a repertoire specially prepared for the occasion.



PGE also commemorated other anniversaries and holidays important to Poland. On the National Cursed Soldiers Remembrance Day, PGE prepared an animation to the song "One Moment" performed by #KasiaMalejonek and #Maleo Reggae Rockers from the "Panny Wyklęte" project. In this way, the company honoured the Unbroken Women - often anonymous Polish heroes who fought for independence: <https://www.youtube.com/watch?v=ZzI4bgom1ag>.

On Independence Day, PGE prepared a film entitled "Energy Independence," which presents the development of the renewable energy sector in the reborn Poland. In this way the company commemorated the 103rd anniversary of Poland's regaining independence: [https://youtu.be/jAe89Zn9B\\_w](https://youtu.be/jAe89Zn9B_w)

On Flag Day of the Republic of Poland, which is May 2, the PGE Foundation prepared a patriotic animation, reminding of the role of the national colours in recent Polish history. The animation is available here: <https://youtu.be/MkYFRdhrcHg>

## **PGE Foundation**

Socially responsible activities are also carried out by the PGE Foundation, which is an important element of PGE Group's corporate social responsibility. The foundation's activity profile results from PGE Group's strategy, communication and marketing and brand strategy.

The Foundation supports historical, educational, environmental and social activities. It pursues its mission through its own and partner projects. It also makes charitable donations, projects in the field of cultivating historical memory and national identity, projects in the field of education, upbringing and sport. It supports health protection and promotion projects, projects related to environmental protection and ecology and many other. In 2021, the PGE Foundation received nearly 1 000 requests for donations. The Foundation made almost 500 donations for a total amount of over PLN 10 million.

In 2021, the PGE Foundation became a patron of the Virtual Museum of the Polish Underground State, which is an original project of the Foundation for Great Stories. A unique museum commemorating the Polish Underground State is being created in virtual space. More information about it is available here: [https://youtu.be/Bj\\_n0d8VhnM](https://youtu.be/Bj_n0d8VhnM)

On Women's Day, the PGE Foundation, the Foundation for Great Stories and the Virtual Museum of the Polish Underground State prepared an animation about Wanda Modlibowska, a Polish aviator, glider pilot and pioneer of domestic aviation: <https://youtu.be/8aP9OjRg7Mg>

The PGE Foundation, in cooperation with the Institute of National Remembrance and under the honorary patronage of the Minister of Culture, National Heritage and Sport, is carrying out a project entitled "Memory Plates." The idea behind the project is to supplement and promote information on historical facts of occupied Warsaw among the inhabitants of Warsaw and Polish and foreign tourists.

Karol Tchorek's plates are testimony to remembrance of the consistent plan of the Germans to exterminate the inhabitants of Warsaw during World War II. Through its activities, PGE promotes and increases the recognition of memorial sites and reaches foreign tourists with historical information. Within the framework of the project, next to each Karol Tchorek plate, PGE places a plate with information in Polish and English together with a QR code leading to a specially developed mobile application which enables the localisation of the existing plaques as well as learning about the history of each memorial site of German crimes. A website, [tablicepamieci.pl](http://tablicepamieci.pl), has also been created, where one can follow updates on the project. In the autumn of 2021, a concert entitled Warsaw – City of Heroes was held at Plac Piłsudskiego. It was a tribute to all inhabitants of the capital, whose heroism and courage during the German occupation is often forgotten. The concert and accompanying exhibition were prepared by the Society for Educational Projects in collaboration with the PGE Foundation as part of the "Memory Plates" project.

In June 2021, PGE and the PGE Foundation started cooperation with the Zacztyani.org Foundation. Several projects were jointly carried out under the common motto "Reading with PGE." These included a collection of books, creation of an Enchanted Library for seniors, employee volunteer work "Bibliotherapy for seniors" and a fairy tale writing competition for children entitled "The Tale of the Crooked Forest." Books were collected in 47 locations in PGE Group. More than 4 000 books were distributed to Enchanted Libraries located in hospital wards, children's homes, senior citizens' homes, centres for people in crisis of homelessness, social welfare homes, hospices and others.



## Educational campaign "The Adventures of Ciepłosław the Cat"

In school year 2020/2021, the educational project "The Adventures of Ciepłosław the Cat" for children in primary school grades 1-3, prepared by PGE Energia Ciepła, was continued. Its aim is to raise environmental awareness in the youngest children, to convey knowledge about how heat is generated and where electricity comes from. The project takes into account the core curriculum of computer science lessons for children in grades 1-3, encouraging ecological attitudes, including saving heat and electricity and using system heat. At the end of the school year, as part of the project "The Adventures of Ciepłosław the Cat," PGE prepared an educational campaign for children entitled "Safe Holidays with Ciepłosław." As part of the campaign, posters with tips for children on what rules to follow in the summer were prepared. In school year 2020/2021, 521 schools took part in the program.

## Sponsorship activities

In 2021, PGE Group's sponsoring policy was streamlined. A sponsoring strategy was adopted which separates sponsoring programs within which individual activities in the area of sponsoring culture, sport and industry events will be carried out in the coming years.

| Sponsorship programs          | Projects/actions implemented under the programs   |
|-------------------------------|---|
| MOCna Liga PGE                | <ul style="list-style-type: none"> <li>• PGE Narodowy</li> <li>• Sports clubs: PGE Skra Bełchatów, PGE Spółnia Stargard, PGE FKS Stal Mielec, Stal Stalowa Wola, PGE Turów Zgorzelec</li> <li>• PGE Ekstraliga</li> </ul> |
| MOC e-mocji                   | <ul style="list-style-type: none"> <li>• PGE Polish Esport League</li> <li>• PGE Turów Zgorzelec (esport section)</li> </ul>  |
| Sport winter with PGE         | <ul style="list-style-type: none"> <li>• PGE Narodowy in winter</li> <li>• Polish Figure Skating Federation</li> <li>• Polish Speed Skating Federation</li> </ul>   |
| Power of Wind                 | <ul style="list-style-type: none"> <li>• Polish Sailing Association</li> <li>• Zofia Klepacka</li> </ul>  |
| PGE Junior                    | <ul style="list-style-type: none"> <li>• Sports academies (e.g. GKS Bełchatów, KPR Gryfino, MKS Lublin), local sports event</li> </ul>  |
| PGE - a cultural energy group | <ul style="list-style-type: none"> <li>• Philharmonics,</li> <li>• National museums,</li> <li>• Local and regional cultural events</li> </ul>   |
| PGE Proud of History          | <ul style="list-style-type: none"> <li>• Warsaw Uprising Museum</li> <li>• Local historical events</li> </ul>   |
| PGE Leading in Green Change   | <ul style="list-style-type: none"> <li>• Congresses and conferences</li> </ul>  |

## Cultural sponsorship

Support for Polish high culture is an important element of PGE's commitment to the promotion of Polish music and the preservation of Polish traditions. In 2021, PGE Group supported 14 philharmonics across Poland, making it one of the most recognisable patrons of high culture in the country. PGE supports the National Philharmonic in Warsaw, where it has been Patron of the Year since 2012.

This year, together with the National Philharmonic, PGE began celebrating the 120th anniversary of the philharmonic. Within the framework of the anniversary artistic season the philharmonic offered its listeners many exceptional events, not only musical ones. One of them was the Polish Tour of the National Philharmonic Orchestra, in the framework of which the musicians visited philharmonics all over the country popularising Polish classical music. In 2021 PGE started cooperation with the Henryk Mikołaj Górecki Silesian Philharmonic in Katowice and the Podlasie Opera and Philharmonic - European Centre for the Arts in Białystok named after Stanisław Moniuszko.

In 2021, PGE took patronage of the Grand Theatre in Łódź, which for 54 years has been one of the most prestigious and recognisable places on the cultural map of the Łódź Voivodeship.

PGE Energia Ciepła continued its cooperation with the Polish Baltic Philharmonic in Gdańsk, Karol Szymanowski Philharmonic in Kraków, the National Forum of Music in Wrocław, Toruń Symphony Orchestra, the Tadeusz Baird Philharmonic in Zielona Góra, Podkarpackie Philharmonic named after A. Malawski in Rzeszów, Gorzów Philharmonic - Centre for Artistic Education in Kielce, and the Henryk Wieniawski Philharmonic in Lublin. Malawski in Rzeszów, Gorzów Philharmonic - Centre for Artistic Education, Świętokrzyska Philharmonic in Kielce, and the Henryk Wieniawski Philharmonic in Lublin, while PGE Górnictwo i Energetyka Konwencjonalna supported the Mieczysław Karłowicz Philharmonic in Szczecin and the Opole Philharmonic.

1. National Philharmonic in Warsaw
2. Polish Baltic F. Chopin Philharmonic in Gdańsk
3. Opera Nova in Bydgoszcz
4. Gorzów Philharmonic
5. Oscar Kolberg Philharmonic in Kielce
6. Henryk Wieniawski Philharmonic in Lublin
7. Artur Malawski Philharmonic in Rzeszów
8. Toruń Symphonic Orchestra
9. Witold Lutosławski National Music Forum in Wrocław
10. Józef Elsner Philharmonic in Opole
11. Mieczysław Karłowicz Philharmonic in Szczecin
12. Karol Szymanowski Philharmonic in Kraków
13. Podlasie Opera and Philharmonic in Białystok
14. T. Baird Philharmonic in Zielona Góra
15. Silesia Philharmonic in Katowice

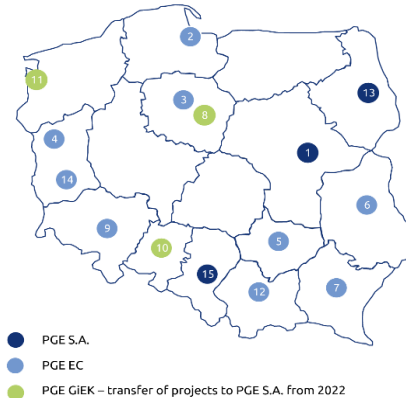


Fig. PGE Group's patronage of philharmonics across the country

In the spring of 2021, cultural institutions reopened to art lovers, and PGE prepared an image campaign under the slogan "Cultural Energy Group" to support philharmonics under PGE's patronage returning to normal operations.

In 2021, PGE became Patron of the 19th Century Art Gallery of the National Museum in Warsaw, which houses some of the most important works of Polish national heritage. With PGE's support, it was possible to rearrange the gallery. Currently, the exhibition features masterpieces of Polish painting (including Wyspiański's pastels, which have not been exhibited for a long time) and sculptures - around 300 objects in total, presented in a new colour and infographic setting.

PGE Polska Grupa Energetyczna has also become the Patron of Education of the Wawel Royal Castle and the New Crown Treasury, which has been one of the most important museums in Poland for over 90 years. Its collections include some of the most valuable monuments and testimonies of Polish history.

## Sports sponsorship

Since 2015, PGE Polska Grupa Energetyczna has been the title partner of the PGE Narodowy stadium, which hosts the largest sport, cultural and business events. In 2021, the sponsorship of the facility was extended for a further five years. At the same time, the arena was named after legendary football coach Kazimierz Górski.

In 2021, the cooperation with clubs playing in the highest competition classes of the most popular disciplines: Stalowa Mielec (PKO BP Ekstraklasa) and Spójnia Stargard (Energia Basket Liga, basketball), was extended. Within the scope of signed agreements for titular sponsoring, these teams participate in matches under names containing the PGE brand - PGE FKS Stal Mielec and PGE Spójnia Stargard, similarly to one of the best volleyball teams in Poland - PGE Skra Bełchatów, with which PGE has cooperated since 2009.

The brand of the largest energy company in Poland for the seventh time accompanied speedway racers competing in the best speedway league in the world - PGE Ekstraliga. In the 2021 season the cooperation with the organiser of these competitions covered many pro-environmental CSR actions. Special video spots were prepared in which the speedway racers talked about ecological aspects of their profession, such as utilisation of used oil or composition of the track surface. The PGE Ekstraliga clubs also conducted educational campaigns

for young speedway fans. A logo for "EKO PGE Ekstraliga" has been developed and it will be used for pro-ecological activities in subsequent seasons of the competition. They can also be followed on a special website <https://speedwayekstraliga.pl/eko/>

## **New area - esports**

2021 was a breakthrough year for PGE's sponsoring activities due to a new sponsoring area - esports. The company gained its first experience in this field in 2020, when it became the sponsor of the e-sports section of PGE Turów Zgorzelec. In February 2021 the company's involvement in this dynamically developing sector was significantly expanded - PGE Polska Grupa Energetyczna became the title sponsor of the Champions Division of the Polish Esports League, becoming one of the most important sponsors of e-sports in Poland and opening up to modern ICT services and solutions in business, in line with its business strategy.

## **Individual sponsorship**

In 2021, PGE also continued its cooperation with Zofia Klepacka, a leading Polish windsurfer who participated in the Tokyo 2021 Olympic Games. The athlete also participated in a social campaign organised together with the PGE Foundation, visiting Polish families in Ukraine and educational institutions, donating parcels from the PGE Foundation.

Support for sailing is also provided through an agreement with the Polish Sailing Association signed at the end of 2021, according to which PGE is the main sponsor of the association, including the PGE Sailing Team Poland, national competitions, e-sailing competitions and sailing education activities. This is a response to the Group's business objectives - investments in offshore wind farms. It will make it possible to consolidate the image of PGE as a company leading the green change.

The PGE brand was also promoted in 2021 on the basketball courts of the Suzuki 1 Men's League. The PGE Turów Zgorzelec team, supported by PGE since the season 2021/2022, plays in this league. PGE also established cooperation with Stalowa Wola, becoming a strategic sponsor of the club participating in the 3rd Football League.

## **Supporting the sports passions of children and young people**

PGE's aim is to support the sporting development of children and youth. This is realised by sponsoring children's sports clubs, mainly in regions where PGE does business.

In 2021, under the PGE Junior project, PGE supported 16 amateur clubs in various disciplines. The company continued its cooperation with the GKS Bełchatów Academy (football, wrestling), where approx. 350 young players are trained. Further sponsorship contracts were signed with PGE Turów Zgorzelec (basketball, e-sport), Akademia Widzewa Łódź (football), TS Legionovia (girls' volleyball), Młode Żubry Białystok (basketball) and MKS Avia Świdnik (football, boxing section). The support of young athletes continues to be an important element of the sponsorship agreements concluded with PGE Spółnia Stargard (basketball), PGE Stal Mielec (football) and PGE Skra Bełchatów (volleyball). In 2021, PGE started cooperation with the Wilfredo Leon Academy (volleyball), founded by one of the most popular Polish national team players. In the autumn of 2021, PGE supported the activities of the ABRM Warszawa Academy (badminton), whose athletes join the Polish national team in all age categories and successfully compete for medals at international events. ABRM trains over 200 young students across five locations in Warsaw.

Other children and youth teams supported by PGE in 2021 include PGE Młode Perły Lublin (girls' football), PGE KPR Gryfino (handball), Stalowa Wola (football), MKS Lublin (girls' handball), GKS Glinik Gorlice (football), MKS Pruszków (basketball), KS Łomża (football) and FC Lesznów (football). In total, over 2500 students train in children's and youth groups supported by PGE.

An exceptional event which has been supported by PGE for several years now is the "PGE Biggest PhysEd Lesson." The project is addressed to primary school pupils from all over Poland. The idea behind the event, which is organised by the Akademia Sportu Artur Siódmiak Association, is to give children and young people from all over the country the opportunity to participate in interdisciplinary sports competition. The long-term goal - to encourage the youngest to participate regularly in school PE classes and to improve their general fitness, to become interested in practising sports and being physically active. In 2021, a total of 4 000 participants appeared at the "PGE Biggest PhysEd Lesson" in rounds. The students were divided into a dozen or so groups, training in the form of station circuits, thanks to which everyone could try their hand at many competitions and prove themselves in various tasks. The proper course of the training was supervised by coaches and volunteers led by Artur Siódmiak, a former Polish handball representative.

## **Support for the development of skating**

PGE Polska Grupa Energetyczna has signed an agreement to support the first Winter PGE National tour in 2021. Project implementation commenced in 2022. The event, which has so far been hosted at PGE Narodowy, has been moved to 10 cities in Poland: Kielce, Gorzów Wielkopolski, Bydgoszcz, Toruń, Białystok, Szczecin, Gdańsk, Lublin, Rzeszów and Łódź. The goal of the "Winter PGE National Tour" is to promote health and sports activities among Poles. Winter attractions include "Mornings for Children with PGE", during which skating classes for the youngest are held. All classes are conducted under the supervision of professional trainers and in a sanitary regime. At the ice rinks, an information and awareness campaign #SzczepimySię, aimed at promoting vaccination against COVID-19, is conducted in parallel.

PGE extended its involvement in skating by signing cooperation agreements with the Polish Figure Skating Federation and the Polish Speed Skating Association. The agreements ensured the presence of the PGE brand at the majority of national and international figure and speed skating competitions and at anniversary events related to the 100th anniversary of the Figure Skating and Speed Skating Federations. Together with the Polish Figure Skating Federation, PGE Energia Ciepła implemented the "Come on Skates" program for children and young people from primary schools.

## 4. GOVERNANCE

The basic management rules are the basis for the efficient functioning of an organisation and the achievement of its financial and non-financial objectives. They are of particular importance in a group as complex as PGE.

### 4.1 Corporate governance

| GRI 102-5 | GRI 102-18 | GRI 102-22 | GRI 102-23 | GRI 102-24 |

PGE Polska Grupa Energetyczna S.A. is a joint stock company. Pursuant to the Polish Commercial Companies Code, a joint stock company has the following corporate bodies:

- General meeting, which is where the company's shareholders (co-owners) meet;
- Supervisory board;
- Management board.

Competences of the governing bodies are specified in the company's statutes, the content of which is established by the company's general meeting.

The following diagram presents a simplified management structure:

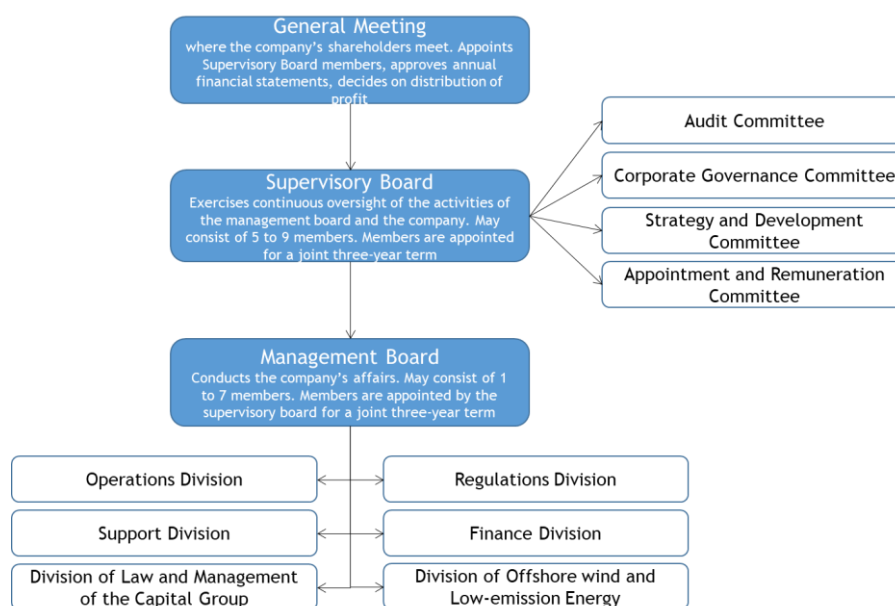


Fig. Management structure

The Management Board of PGE SA conducts the company's affairs and represents it in all activities in and out of court. Statements of will on behalf of the company must be made by two management board members or a management board member and a proxy. May consist of 1 to 7 members, including the president may consist of 1 to 7 members, including the president; the remaining members act as vice-presidents. Members are appointed board for a joint three-year term.

The Management Board and particular members are appointed and dismissed by the supervisory board, following a competitive procedure intended to test and evaluate the candidates' qualifications and to select the best candidate for the position of Management Board member, with the stipulation that candidates for this post must meet the conditions specified in § 15 sec. 2, 3 and 4 of PGE's Statutes. In addition, each member of the Management Board may be recalled or suspended by the General Meeting or, for major reasons, suspended by the Supervisory Board. A resolution of the Supervisory Board on the suspension of a member of the Management Board must include a justification. The Supervisory Board may delegate members of the Supervisory Board to perform activities of the members of the Management Board on a temporary basis. A member of the Management Board submits his/her resignation in writing to the Supervisory Board at the address of the registered office of the Company.

As at December 31, 2021 and at the publication date of this report, the Management Board has 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 Regulatory Affairs | from September 1, 2020 |
| Paweł Cioch                              | Vice-President for Corporate Affairs  | from February 24, 2020 |
| Lechosław Rojewski                       | Vice-President for Finance            | from June 9, 2021      |
| Paweł Śliwa                              | Vice-President for Innovations        | from February 20, 2020 |
| Ryszard Wasilek                          | Vice-President for Operations         | from February 20, 2020 |

In turn, the Supervisory Board of the company is a controlling body in relation to the company's management board and exercises continuous oversight of the activities of the management board and the company. According to the valid Statutes, Members of the Supervisory Board are appointed for a joint term of office of three years. The Supervisory Board consists of five to nine members appointed and recalled by the General Meeting. The Supervisory Board elected by way of group voting shall consist of five members. Member of the Supervisory Board may be appointed and dismissed by the General Meeting at all times, with the exception of the Supervisory Board member appointed by the State Treasury by way of a written declaration submitted to the Management Board (State Treasury's entitlement is valid until it remains a shareholder). Moreover, a half of members of the Supervisory Board (except the Supervisory Board member mentioned in the previous sentence), shall be elected from among persons identified by the State Treasury, until its stake in the share capital falls below 20%. At the time when this right of the State Treasury expires, another shareholder with the highest stake in the Company's share capital acquires that right, provided that he holds at least 20% in the Company's share capital.

According to the provisions of the Statutes, the Supervisory Board shall include at least one person appointed by the General Meeting from among persons meeting the criteria of independence specified in the principles of corporate governance adopted by the Board of the Warsaw Stock Exchange. Proposing a candidate for this position a shareholder nominating such candidate shall be obliged to submit to the minutes of the General Meeting such candidate's written declaration confirming his/her independency.

The State Treasury's failure to appoint one member of the Supervisory Board or the General Meeting's failure to elect members of the Management Board meeting the criteria of independence or the absence of such persons in the composition of the Supervisory Board shall not prevent the Supervisory Board from adopting valid resolutions.

The following standing committees are currently part of the PGE's Supervisory Board:

- the Audit Committee - the task of the Audit Committee is assessment of the correctness and effectiveness of internal control at PGE S.A. and PGE Group and cooperation with the statutory auditors of the Company. The Audit Committee's tasks include in particular defining the rules for selecting an audit firm to audit the Company's financial statements and monitoring the Company's financial reporting.
- the Corporate Governance Committee - evaluates the implementation of the corporate governance principles in the Company and presents the Supervisory Board with initiatives in this area, provides opinions on normative acts and other documents of the Company presented to the Supervisory Board, which considerably affect the corporate governance, initiates and prepares proposals of changes for normative acts of the Supervisory Board.
- the Strategy and Development Committee - provides opinions and recommendations to the Supervisory Board regarding planned investments which considerably affect the Company's assets. In particular, the duties of the Strategy and Development Committee include provision of opinions on strategies and strategic plans submitted to the Supervisory Board by the Management Board.
- the Appointment and Remuneration Committee - is responsible for facilitating achievement of strategic goals of the Company by presenting the Supervisory Board with opinions and motions on the development of the management structure, including remuneration system and selection of properly qualified personnel.

As at December 31, 2021 and at the date of publication of this report the Supervisory Board works 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               |
| Zbigniew Gryglas <sup>1</sup> | Supervisory Board Member - independent               |
| Tomasz Hapunowicz             | Supervisory Board Member - independent               |
| Marcin Kowalczyk              | Supervisory Board Member                             |
| Mieczysław Sawaryn            | Supervisory Board Member - independent               |
| Radosław Winiarski            | Supervisory Board Member                             |

<sup>1</sup> On January 18, 2022, Zbigniew Gryglas submitted a statement regarding the independence criteria.

### Management rules in PGE Group

PGE Polska Grupa Energetyczna S.A. is the dominant entity in the PGE Capital Group. Furthermore, it acts as the Corporate Centre that manages the Group. The Corporate Centre makes important decisions concerning the activity of particular business lines and the strategic directions of their development.

As part of these tasks, the Corporate Centre is responsible, among others, for:

- shaping PGE CG's Strategy,
- margin I management and planning of the optimal utilisation of production units,
- supervising and optimising PGE Group's operating and investing activities,
- regulatory management,
- risk management;
- direct ownership supervision over the Group's companies,
- building innovation strategies and supervising their implementation,
- building PGE's image and brand,
- developing the Group's human resources management strategy,
- finance and insurance management.

Companies managing business lines are responsible for:

- implementing segment strategies compliant with the PGE Group's strategy,
- focusing on carrying out operating and investing activities,
- striving to improve the efficiency of operational processes,
- supporting decision-making processes at the Corporate Centre.

A Holding Council was set up at PGE Group. Its purpose is to increase the efficiency of the Group's operations. The Holding Council performs advisory functions, defines potential risks and recommends solutions as a result of exchange of relevant information and experience on the Council's forum. Its task is also to supervise the implementation of the Group's strategy. The Holding Council is composed of: The President of the Management Board of PGE SA, as the Chairperson of the Council, the other members of PGE's Management Board, the Chairpersons of the Supervisory Boards and the Presidents of the Management Boards of key Group companies, the Directors of the Divisions in PGE Polska Grupa Energetyczna, as well as the Director of the Corporate Communication and Marketing Department and the Director of the Legal and Corporate Management Department in PGE Polska Grupa Energetyczna.

The Holding Council is also empowered to establish working groups to analyse specific issues related to the operations of PGE Group companies.



Simplified organisational structure of PGE Capital Group. As at December 31, 2021.

| GRI 102-45 |

| PGE Polska Grupa Energetyczna – parent company, Corporate Centre of PGE Group |   |   |   |                           |                                    |
|---|---|---|---|---------------------------|------------------------------------|
| PGE Górnictwo i Energetyka Konwencjonalna SA                                  | Rybnik power plant                                  | Bełchatów power plant                           | Turów power plant   |                           | Opole power plant                  |
|   | Turów lignite mine                                  | Bełchatów lignite mine                          | Zespół Elektrowni Dolna Odra  |                           |                                    |
| PGE Energia Ciepła SA   | CHP plant in Bydgoszcz                              | CHP plant in Gorzów Wielkopolski                | CHP plant in Lublin Wrotków   |                           | Branch no. 1 in Cracow             |
|   | CHP plant in Kielce                                 | CHP plant in Zgierz                             | Branch Wybrzeże in Gdańsk   |                           | Branch in Szczecin                 |
|   | CHP plant in Rzeszów                                |   |   |                           |                                    |
|   | Zespół Elektrociepłowni Wrocławskich KOGENERACJA SA |   |   |                           |                                    |
| PGE Energia Odnawialna SA   | Żarnowiec hydro power plant                         | Group of hydro power plants Porąbka - Żar       | Group of hydro power plants Solina - Myczkowce  |                           | Group of hydro power plants Dychów |
| PGE Dystrybucja SA  | Branch Warsaw                                       | Branch Białystok                                | Branch Łódź   |                           | Branch Lublin                      |
|   | Branch Zamość                                       | Branch Skarżysko-Kamienna                       | Branch Rzeszów  |                           |                                    |
| PGE Obrót SA  | Branch with seat in Zamość                          | Branch with seat in Łódź                        | Branch with seat in Lublin  |                           |                                    |
|   | Branch with seat in Skarżysko Kamienna              | Branch with seat in Białystok                   | Branch with seat in Warsaw  |                           |                                    |
| PGE Baltica sp. z o.o.  | PGE Baltica 2 sp. z o.o.                            | PGE Baltica 3 sp. z o.o.                        | Elektrownia Wiatrowa Baltica 4 sp. z o.o.<br>Elektrownia Wiatrowa Baltica 1 sp. z o.o.<br>Elektrownia Wiatrowa Baltica 4 sp. z o.o.<br>Elektrownia Wiatrowa Baltica 5 sp. z o.o.<br>Elektrownia Wiatrowa Baltica 6 sp. z o.o.<br>Elektrownia Wiatrowa Baltica 8 sp. z o.o.<br>Elektrownia Wiatrowa Baltica 9 sp. z o.o.<br>Elektrownia Wiatrowa Baltica 10 sp. z o.o.<br>Elektrownia Wiatrowa Baltica 11 sp. z o.o.<br>Elektrownia Wiatrowa Baltica 12 sp. z o.o. |                           |                                    |
|   | PGE Baltica 6 sp. z o.o.                            | PGE Baltica 5 sp. z o.o.                        |   |                           |                                    |
|   | Elektrownia Wiatrowa Baltica 2 sp. z o.o. (50%)     | Elektrownia Wiatrowa Baltica 3 sp. z o.o. (50%) |   |                           |                                    |
| PGE Dom Maklerski SA  | Towarzystwo Funduszy Inwestycyjnych Energia SA      | PGE Trading GmbH                                | PGE Sweden AB   | PGE Ekoserwis SA          | PGE Gryfino 2050 sp. z o.o.        |
| PGE Ventures sp. z o.o.   | PGE Nowa Energia sp. z o.o.                         | PGE Centrum sp. z o.o.                          | PGE Systemy SA  | PGE Synergia sp. z o.o.   | Rybnik 2050 sp. z o.o.             |
| RAMB sp. z o.o.   | ELMEN sp. z o.o.                                    | ELTUR-SERWIS sp. z o.o.                         | MEGAZEC sp. z o.o.  | BESTGUM POLSKA sp. z o.o. |                                    |
| BETRANS sp. z o.o.  | MegaSerwis sp. z o.o.                               | ELBIS sp. z o.o.                                | ELBEST Security sp. z o.o.  | ELBEST sp. z o.o.         |                                    |

Companies with 100% shareholding (unless otherwise stated).

PGE Energia Ciepła SA holds 58.07 % in the share capital of Zespół Elektrociepłowni Wrocławskich KOGENERACJA SA.

## 4.2 Approach to managing ESG issues

The adoption of PGE Group's strategy until 2030 with an outlook to 2050, which defines the directions of the energy transition, decarbonisation of generation and the path towards climate neutrality, was the first step to implement a systematic management of the ESG area in the Group (E - environment, S - social, G - governance).

The basis for development of PGE Group's ESG area is experience in communication with stakeholders through reporting of non-financial information. In this field, PGE Group already has nearly 10 years of experience and meets the growing expectations of stakeholders on an ongoing basis. PGE Group's first social report was developed for the years 2013-2014 and was based on the Global Reporting Initiative (GRI) international reporting standard at the CORE level. The following year, PGE began publishing cyclical integrated reports, also keeping in mind the expectations of investors and other financial institutions. Since 2016, i.e. one year before the Non-financial Reporting Directive (NFRD) came into force, PGE Group has published information in accordance with its requirements. Continuously since 2011, PGE has been present first in the "Respect Index" and then in the WIG-ESG index, which consists of companies with mature ESG management practices. Participation in the Responsible Companies Ranking earned PGE the title of industry leader in responsible business for three years in a row.

PGE Group is fully aware that reporting on ESG factors is the first step in managing the area of sustainable development in the company. The next step is to define ESG goals and implement them effectively. This is a current challenge for PGE Group. Incorporating ESG issues into the framework of the organisation's operations requires remodelling the management system. To this end, on December 21, 2021, the Management Board of PGE Polska Grupa Energetyczna S.A., by way of a resolution, appointed the Management Board's proxy for ESG, as well as the Sustainable Development Committee - headed by Wojciech Dąbrowski, President, and Lechosław Rojewski, Vice-President for Finance. The Committee's task is to ensure the integrity of the area of sustainable development at PGE Group by supervising the implementation of processes in the ESG area. The wide range of tasks to be implemented in the Group requires the involvement of many organisational structures, which is reflected in the composition of the Committee, the members of which are directors of organisational units of key importance to the ESG area.

The ESG process is operationally coordinated by the investor relations and sustainability team, which is also responsible for ESG communications, stakeholder dialogue and non-financial reporting.

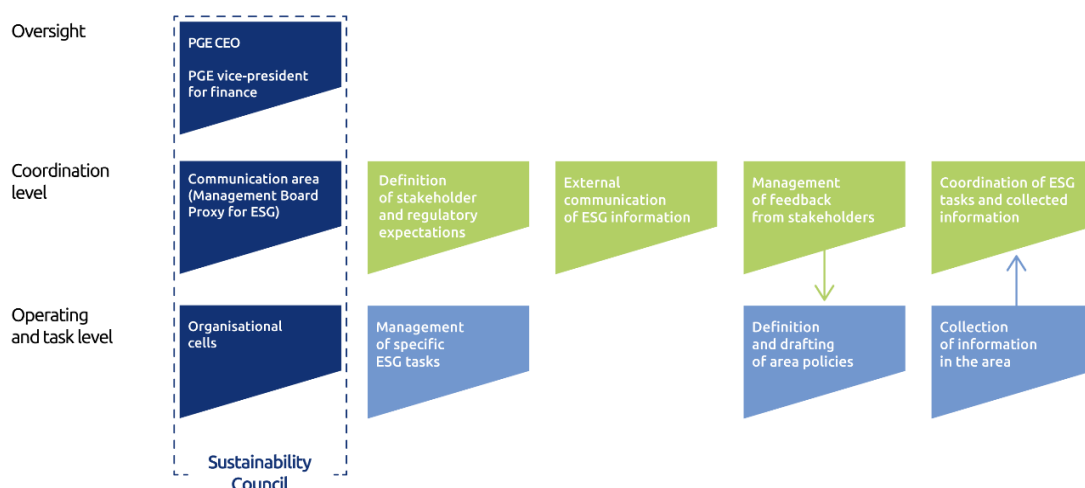


Fig. Distribution of roles and responsibilities in the ESG area

The development of PGE Group's ESG system is based on the continuous identification of key expectations of stakeholders and ongoing implementation of regulatory requirements in the area. This encompasses setting short-term and long-term goals consistent with the Group's strategy. To ensure the achievement of objectives for the entire Group, in the case of new expectations it is necessary to develop detailed management rules, primarily encompassing cooperation between Group companies.

In 2021, the largest project in collecting ESG data describing the company's impact on the environment was the carbon footprint calculation project, in all three scopes (Scope 1, 2 and 3). PGE Group carried it out using the knowledge of in-house experts, but also initiated a joint project within the Polish Professional Energy Association to create a guide for the power sector. Data on PGE Group's carbon footprint is available in chapter 2.2.

PGE Group cares about disseminating ESG knowledge among Polish companies and its suppliers in order to create an "ESG value chain." In its brand strategy, PGE has adopted the role of a leading company in green change: in the literal sense of the word, both as a leader of change on the Polish power market, but also as a guardian and advisor in the area of green energy. For PGE Group, a sustainable company is one that not only meets standards but also consciously selects its suppliers - companies that operate in an ethical manner and monitor their carbon footprint. Through its actions, PGE Group meets the expectations of its customers, not only individual but also institutional ones, who expect green energy supplies, which has a major impact on the carbon footprint of their products and services.

As part of dialogue and experience sharing in the ESG area with the external environment, the Management Board's ESG Proxy actively participates in debates and conferences related to corporate sustainability.

## 4.3 Compliance

| GRI 102-12 | GC-1 |

The compliance management system in place at PGE Group supports the implementation of all of the company's strategic objectives, in particular with respect to building an efficient and effective organisation and carrying out a sustainable energy transition.

The Compliance area focuses on:

- promoting fair business principles at PGE Group, including the application of the provisions of PGE Group's Code of Ethics.
- carrying out preventive anti-fraud actions, in particular with regard to combating corruption, money laundering and financing of terrorism.
- supporting the organisation in terms of:
  - fostering good employer-employee relations,
  - managing conflicts of interest,
  - ensuring the transparency of processes, in particular as regards projects and investments, trading in energy (electricity, heat and gas) and related products, and procurement,
  - ensuring the protection of competition and consumers, environmental protection and IT security.

PGE Group's compliance management system is based on the guidelines of ISO 19600 Compliance Management Systems (CMS), which was replaced in April 2021 by the new ISO 37301:2021 Compliance Management Systems certifiable standard with a number of requirements. Work is currently under-way to prepare for a system review and adapt to the detailed requirements described in the new standard.

The system is also consistent with the standards set by the Warsaw Stock Exchange: "Recommended standards for a compliance management system with respect to counteracting corruption and a whistleblower protection system in companies listed on the markets organised by the Warsaw Stock Exchange", as well as with the Universal Declaration of Human Rights, the standards of the International Labour Organisation and the obligations of the United Nations Global Compact.

The PGE Group has an organizational structure dedicated to the performance of Compliance tasks. In PGE SA, it is the Compliance Department, whose director reports directly to the Audit Committee of the PGE Supervisory Board. The companies and branches of the PGE Group appoint Compliance Coordinators who report to the head of the Compliance Department in PGE SA with respect to the performance of their tasks. These persons are also provided with an appropriate direct reporting path to the Management Board of a given company. Currently, there are 52 Compliance Coordinators in the PGE Group.

The Compliance Management System in the PGE Group comprises the Corporate Centre and 21 direct subsidiaries of PGE SA, actively conducting business activities.

In indirect subsidiaries, the Compliance system is implemented through their supervisory companies. The implemented solutions apply to all employees of the PGE Capital Group and other persons performing work for the Group, regardless of their positions.

## Code of Ethics

| GRI 102-16 | GC-10 |

The main document in the area of ethics and compliance is the PGE Group Code of Ethics, which constitutes an overarching declaration and basis for other internal regulations and guidelines. The values of the Code of Ethics were selected by representatives of the management staff of PGE Group companies during workshops in 2016, and then adopted by resolutions of the management boards of individual companies. The document describes basic ethical values and standards which the organisation expects from all employees and other persons performing work for the PGE Group. The values of the PGE Group are: Partnership, Development, Responsibility.



Fig. The values of the PGE Group

The 12 principles of the Code of Ethics fall into four thematic blocks:

### We are here for our customers

- ✓ We are here for our clients
- ✓ We care for the natural environment
- ✓ We care for the sustainable development of PGE Group

### Fair external relations

- ✓ We care for good relations with our business partners
- ✓ We foster relations with local communities
- ✓ We build trust by duly informing about our business

### People at our company

- ✓ We strive for favourable working conditions
- ✓ We work on self-improvement and we are pro-active, we take the initiative
- ✓ Employee health and safety are our priorities

### Integrity at our company

- ✓ We compete fairly
- ✓ We do not tolerate corruption or unfair practices
- ✓ We treat company information in a responsible manner

Fig. 12 principles of the Code of Ethics

In 2021, after five years, the Code was updated. The changes took into account, among other things, its adaptation to the existing organisational changes, including supplementing it with PGE Group's activity in the field of heat generation and supply. The document also emphasises PGE's support for the idea of economic patriotism, i.e. the obligation to support the Polish economy and local suppliers, while preserving the transparency of procurement processes. The obligation of employees towards protected information has also been regulated, and information on PGE Group's system for reporting and explaining inconsistencies has been updated. Information on contact details, cooperation and tools used was also updated. The values and ethical principles of PGE Group have remained unchanged. The full text of PGE Group's Code of Ethics is available here: [https://www.gkpge.pl/compliance/content/download/57596/file/2021-07-19\\_kodeks-etyki-pge.pdf](https://www.gkpge.pl/compliance/content/download/57596/file/2021-07-19_kodeks-etyki-pge.pdf)

Ensuring that employees and other persons performing work for and on behalf of PGE Group companies have access to information on PGE Group's Code of Ethics - its values and common principles - is an important element of the compliance system. The President of the Management Board of PGE SA, Wojciech Dąbrowski, is directly involved in promoting and implementing the provisions of the Code of Ethics into the life of the organisation - as the person responsible on the side of the Management Board for the Compliance area. In 2021, activities aimed at building an organisational culture in PGE Group based on ethical values were intensified by operationalising the provisions of the Code of Ethics, i.e. translating the values and principles of the Code into the practical language of attitudes and behaviours in specific situations. In 2021, PGE Group companies carried out a number of activities, following PGE SA's guidelines, with regard to the practical implementation of the elements of the Code of Ethics in everyday life. Examples of appropriate behaviours and attitudes were introduced into internal regulations, training in various areas, communication of the Management Board and managers with employees, internal communications, instructions or the content of briefings.

A significant part of practical guidelines concerning examples of attitudes and behaviours have been included in the document "Employee Management - A Guide for Managers at PGE SA" issued by the unit responsible for human capital management, where an entire chapter is dedicated to the manager's role in building an organisational culture based on compliance with the law, internal regulations and ethical standards.

Communication on ethical issues is carried out on an on-going basis. The contents of the Code of Ethics and the Code of Conduct for Business Partners of PGE Group companies are available to employees and stakeholders - in Polish and English - on the websites of PGE Group and individual companies. At each branch, there are posters and leaflets with values and principles along with the contact details for reporting irregularities.

In 2021, employees were reminded of the ethical principles through the available internal channels: in the public "Under the Umbrella" on PGE Group's Intranet, in PGE Group's newsletter, in the HR newsletter and the Health & safety newsletter as well as on screens in PGE SA's headquarters.

On the occasion of the 5th anniversary of the adoption of the Code of Ethics, a number of activities were carried out to draw attention to the benefits resulting from fair conduct. The campaign comprised competitions, including ones for the children of the employees of PGE Group companies, publications featuring comments from managers and executives, a video summarising the 5-year anniversary of PGE Group's Code of Ethics with a statement by the President of the Management Board of PGE SA.

Ethics rules are also introduced into internal regulations for selected business and operational areas. These actions are intended to translate values and principles into the language of practical conduct and attitudes.

## **Compliance training**

Compliance training is a continuous and important part of the compliance process. The training ensures that employees and other persons are properly informed about applicable regulations and practical examples of their application. Training sessions are conducted by designated employees on the basis of materials consistent for PGE Group, including hands-on examples. In spite the pandemic situation, training sessions are continued in formulas which take into account the current restrictions. Training sessions are documented.

In 2021, compliance training at PGE Group included:

#### ADAPTIVE TRAINING

This training is mandatory for all new employees in companies where the compliance management system is implemented. The scope of the training covers basic compliance issues necessary in the first days of starting work or cooperation with a PGE Group company. It is conducted once for each person.

#### TRAINING ON PGE GROUP'S CODE OF ETHICS

This training is mandatory for all new employees in companies where the compliance management system is implemented. The training takes place within 3 months of commencing work or cooperation with a PGE Group company. As a rule, it is conducted in-class (i.e. directly), in the form of interactive workshops (during the pandemic with the use of available means of communication, i.e. remotely). E-learning courses are also used. The validity of the training is 3 years. After this period, it is repeated as refresher training. After the first training session, participants submit a declaration confirming that they have read and understand the content provided and that they undertake to observe it.

#### TRAINING ON ANTI-CORRUPTION REGULATIONS AT PGE GROUP

Training on the anti-corruption regulations in place at PGE Group, just as training on PGE Group's Code of Ethics, is mandatory for all new hires in companies where the compliance management system is implemented. This training is also conducted within 3 months of commencing work or cooperation with a PGE Group company. The validity of this training is 3 years, after which it is repeated as refresher training. After the first training session, the participants submit a declaration confirming that they have familiarised themselves with the contents provided and undertake to observe them.

In addition, depending on the needs, knowledge on anti-corruption may be supplemented with dedicated, in-depth anti-corruption training, taking into account the specifics of the area and the scope of risks and responsibilities in the field of anti-corruption, specific to individual positions and/or areas. In 2021, as part of such dedicated training, a training course was held: "Problems in implementing IT projects, including public procurement," the aim of which was to build a culture of security in procurement procedures. The training was conducted by representatives of the Central Anti-Corruption Bureau. The course was attended by employees from the area of purchases and IT from the PGE Group.

#### Other compliance management system regulations

PGE Group has had anti-corruption regulations in place since 2017, updated in 2021. The following are currently in effect.

#### ANTI-CORRUPTION POLICY AT PGE GROUP

PGE Group's Anti-Corruption Policy as a declaration addressed to all internal and external stakeholders. This document, which represents a strong and unequivocal commitment to zero tolerance for corruption at PGE Group, defines the key rules and responsibilities for counteracting corruption in the company. It is available on external websites, implementing one of the stock exchange guidelines: "Recommended standards for the anti-corruption compliance management system and whistleblower protection system in companies listed on markets organised by the Warsaw Stock Exchange".

#### GENERAL PROCEDURE - PREVENTION OF CORRUPTION AT PGE GROUP

It contains detailed organisational solutions for the implementation of objectives and principles defined in the policy. The procedure defines the responsibilities and activities implemented within PGE Group's counter-corruption framework, principles concerning business gifts, transparent cooperation with business partners and avoiding conflicts of interest. The document also indicates the procedure for reporting suspected breaches of the rules or provisions of the generally applicable law related to corruption and bribery.

#### CODE OF CONDUCT FOR BUSINESS PARTNERS OF PGE GROUP COMPANIES

The Code of Conduct for Business Partners of PGE Group Companies is a tool for communicating requirements regarding operating standards to suppliers and contractors of the PGE Group companies. This document presents in a transparent way minimum expectations from business partners of the PGE Group companies in terms of ethics and compliance with the law. Business partners are familiarised with this document during



registration in the database of potential contractors of PGE Group companies. References to the document are also part of procurement documentation, and relevant provisions are included in contractual clauses. As of 2021, the obligation to apply contractual clauses has been introduced to PGE Group by including it within the general procedure for counteracting corruption in PGE Group.

The Code of Conduct for Business Partners of PGE Group Companies was amended in 2021, ensuring in particular that its provisions are consistent with the new strategy of PGE Group, amended Code of Ethics, and amended anti-corruption regulations.

Besides codes and policies, the PGE Group has also adopted regulations defining how the compliance management system is organised. These are:

- The Regulations of Compliance Management in the PGE Capital Group, specifying the principles of compliance management in the PGE Group and responsibility.
- The general procedure for reporting and handling non-compliance incidents in the PGE Group and for protecting whistleblowers.

The procedure defines in detail the principles for handling reports or information on suspected or factual non-compliance incidents that occur in the PGE Capital Group companies.

The compliance management system in the PGE Group is monitored and improved on an ongoing basis based on gained experience. It is adjusted to changes in the applicable legal regulations and new guidelines, for example:

- Directive (EU) 2019/1937 of the European Parliament and of the Council of October 23, 2019 on the protection of persons who report breaches of Union law,
- the CBA publication of December 2020: "Anti-corruption guidelines for public administration on uniform institutional arrangements and rules of conduct for officials and persons belonging to the PTEF group",
- "Recommended standards for a compliance management system with respect to counteracting corruption and a whistleblower protection system in companies listed on the markets organised by the Warsaw Stock Exchange".
- The company monitors the work on the draft act on the protection of persons reporting breaches of the law in order to immediately include legal requirements in internal regulations.
- Procedura Ogólna – Przeciwdziałanie Praniu Pieniędzy oraz Finansowaniu Terroryzmu w PGE Polska Grupa Energetyczna SA oraz spółkach Grupy PGE.
- The procedure defines uniform responsibilities and activities carried out in the PGE Capital Group resulting from the Act of March 1, 2018 on counteracting money laundering and financing of terrorism, including in particular:
- defines the obligations regarding the registration and updating of data of beneficial owners in the Central Register of Beneficial Owners,
- obliges PGE Group companies, which are obligated institutions, to prepare and implement individual internal regulations in this area,
- describes the way of acting in relation to contractors with whom business relations are established, allowing to limit the risk of using the organization for illegal and criminal purposes and the resulting sanctions, or damage to the reputation and good name of the PGE Group.

## **Mechanisms for obtaining advice on ethical issues**

### **| GRI 102-17 |**

The structure of PGE Group's compliance management system includes Compliance coordinators at PGE SA and PGE Group companies. One of their roles is to consult ethical concerns related to compliance with internal regulations such as Code of Ethics, Code of Procedure for PGE Group Companies' Business Partners, anti-corruption regulations.

Employees and other stakeholders have the right and duty to report alleged incidents of non-compliance, including suspected or occurring irregularities. Everybody can be a whistleblower, in particular an employee, consultant, contractor, subcontractor or supplier. This is a person who reports irregularities, information on suspicion or occurrence of a non-compliance incident, the consequences of which may be detrimental to PGE Group companies. Report may relate to criminal and corrupt activities, violations of employee rights or conflicts of interest.



Incidents may be reported in several ways, including a notification sent to:

- the immediate superior,
- the relevant compliance unit,
- the email address: [uczciwybiznespge@gkpge.pl](mailto:uczciwybiznespge@gkpge.pl),
- using the hotline at + (48) 22 340 12 02,
- and by post to the Director of the Compliance Department at the following address: ul. Mysia 2, 00-496 Warsaw, with an envelope marked as "for the attention of Compliance Officer", including anonymously,
- and through a staff notification form in the "Compliance" section of the internal Intranet site.
- in special cases - to the Supervisory Board of PGE SA by sending an email to: [rada\\_nadzorcza\\_PGESA@gkpge.pl](mailto:rada_nadzorcza_PGESA@gkpge.pl)

Individuals who report non-compliance are granted the whistleblower status and are protected. A whistleblower may not face retaliation from employees, other persons or the employer for reporting a non-compliance event.

The organisational units, managing the documentation concerning reported persons, containing personal data collected in the framework of non-compliance incident reports, process such documentation with particular care, in a way that complies with the provisions on personal data protection and relevant internal regulations, including guaranteeing personal data security and only authorised access to them.

The register of cases is maintained internally in the Compliance Department. In 2021, approximately 37% of reports on suspected irregularities at PGE Group companies concerned the area of human rights, broadly defined. These reports concerned, for example, the form of communication between employees or between employees and their superiors, team atmosphere, work culture, conflicts in teams. Some of the reports may have resulted from the situation related to the pandemic and its impact on mutual relations at work.

## Human rights

| GC-1 | GC-2 | GC-4 | GC-9 | GC-5 | GC-6 |

PGE Group's Code of Ethics and the Code of Conduct for Business Partners of PGE Group companies refer to issues related to human rights, including child labour. Risks related to compliance with human rights, such as discrimination in employment, mobbing and harassment, employment of children, "black market" employment, employment in dangerous conditions, are eliminated by using a permanent employment contract as the basic form of employment, ensuring the highest standards of organising a safe working environment, objective and non-discriminatory criteria of hiring and promoting employees. Respect for diversity is understood in terms of race, gender, sexual orientation, age, culture, marital status, as well as religious and political beliefs, freedom of membership in social and professional organisations. PGE also fulfils all obligations related to the protection of health and life in the workplace.

The same standards of observing human rights are expected of business partners of PGE Group companies; therefore, contracts with business partners include ethical clauses regulating this issue, and business partners declare that they have familiarised themselves with the principles described in the Code of Conduct for Business Partners of PGE Group Companies.

The Code of Conduct for Business Partners prohibits partners from using child labour in any form. Where minors are legally employed, they may only perform light work that does not endanger their life, health or development and does not impede the fulfilment of compulsory schooling. The content of the Code of Conduct for Business Partners, updated in 2021, additionally strengthened the provisions on the prohibition of forced labour by business partners of PGE Group companies and their subcontractors.

## 4.4 Anti-corruption

| GRI 205-2 | GC-10 |

The implementation and continuous improvement of anti-corruption solutions and mechanisms is an element of strengthening the efficient and effective organisation of PGE Group, maintaining compliance with anti-corruption regulations, following the Warsaw Stock Exchange's standards in the area of anti-corruption, meeting and promoting the highest ethical standards and transparency in business.

Since April 2021, two anti-corruption regulations are in force in PGE Group:

- revised the Anti-Corruption Policy, also addressed to external stakeholders, indicating, inter alia, the commitment to prevent corruption, key anti-corruption principles, responsibilities regarding their observance and how to respond to suspected irregularities in this regard; and
- new General Procedure - Counteracting Corruption in PGE Group, replacing the previous Anti-Corruption Policy, binding on employees and persons acting for and on behalf of PGE Group companies, specifying in detail the tasks, roles and responsibilities with respect to counteracting corruption in the Group.

The main changes to the anti-corruption regulations introduced in 2021 are as follows:

- anti-corruption regulation addressed and communicated to external stakeholders, thus implementing the recommendations from the "Recommended Standards for a Compliance Management System for Anti-corruption and a System for the Protection of Whistleblowers in Companies Listed on Markets Organised by the Warsaw Stock Exchange",
- clarifying the responsibilities of individual organisational units,
- reference to the WSE's anti-corruption standards and the CBA's anti-corruption guidelines (in the latter case, to the extent relevant to the company),
- requirement to ensure that reviews, including, inter alia, analyses of transactions and financial flows, potential errors and deviations, are carried out at least once a year to verify that no corrupt funds are operating within the companies' structures,
- clarifying the rules of cooperation with business partners (e.g. exercising due diligence in verifying information on possible proceedings and/or convictions, considering, depending on the situation of termination of cooperation, additional supervisory measures, caution in meetings with these partners, good practice in documenting meetings),
- inclusion of 'ethics clauses' and rules for their application in the appendix to the General Procedure - Counteracting Corruption at PGE Group
- consistency of approach to training - validity for three years for all staff, plus in-depth/dedicated training for selected groups - depending on needs and specificities,
- amendments concerning the avoidance of conflicts of interest.

The amended anti-corruption regulations are implemented in all PGE Group companies.

### **Raising awareness among employees most exposed to corruption risk**

Preventive actions and education of groups working in areas most exposed to risks significant to the organisation are an element of building a safe, transparent and business-efficient working environment. Such activities allow these people to avoid dangerous situations and react appropriately in the event of their occurrence, thus positively influencing the performance of the company and PGE Group.

As part of the implementation, the Internal Supervision Department has identified groups of PGE SA employees particularly exposed to the risk of corruption.

In the Compliance Assessment, most companies of PGE Group declare that they have also identified groups particularly exposed to the risk of corruption, mainly including persons from the areas for which extended anti-corruption training was dedicated in the previous version of the anti-corruption regulations and/or the areas specified in the Procedure, i.e. primarily in the following areas: purchasing, trade, supply of raw production materials, retail sales, investor relations, communication, administration, human resources management, accounting and bookkeeping, as well as persons from other areas, maintaining business relations with business partners as part of their tasks. Most companies in the Compliance Assessment also declare that measures have been taken to inform these persons that they belong to a group with a higher risk of corruption.

## Application of rules for giving and receiving business gifts

The implementation of business gift rules serves the purpose of transparency of decision-making processes in relations with business partners, as well as reducing the risks of irregularities and/or abuses within these relations, in particular the risks of actions contrary to the provisions of generally applicable laws. This action also follows the guidelines of the "Recommended Standards for a Compliance Management System for Anti-Corruption and Whistleblower Protection in Companies Listed on Markets Organised by the Warsaw Stock Exchange SA, 2018." It is recommended that the company develops and applies an internal policy or regulation that sets out the general standards and rules for the provision and acceptance of occasional gifts (including invitations), including those of a marketing nature. It is also recommended that the company designates in the Anti-Corruption Code rules for the creation of a detailed register of all gifts, including invitations, given or received by company employees.

In December 2020, an amendment to the rules for giving and receiving gifts was implemented in PGE Group, under which the following changes were introduced:

- it was established that gifts received are recorded only when their value exceeds PLN 200 gross, i.e. when they are one of the types of conditionally permissible gifts. The rules for keeping records of gifts given remained unchanged,
- the responsibility of gift recipients is clarified,
- records of gifts received are kept by the company's compliance department or another designated organisational unit, ensuring that the information is accessible to Compliance on an on-going basis. records of gifts given may be kept by another designated organisational unit within the company, also with access for Compliance,
- a prohibition is introduced on giving gifts to persons exercising public functions in situations that could give the impression of a corrupt transfer of a financial advantage,
- between the companies of PGE Group, only the exchange of gifts of symbolic value and participation in traditional, jubilee or industry celebrations, such as "Barbórka", and during important holidays is permitted, subject to gifts presented at such events.

The amended rules on gifts have been implemented in all companies. Companies report gifts received and given to the Compliance function on a quarterly basis, indicating the information or lack of gifts to be recorded in the period.

## 4.5 Improving the process of avoiding conflicts of interest

### | GRI 102-25 |

The prevention of conflicts of interest serves to ensure that decisions in PGE Group companies are made on the basis of merit criteria, in a transparent manner and in accordance with the best interests of PGE Group.

Regulating the approach to conflicts of interest is required under:

- guidelines of the "Recommended standards for a compliance management system concerning anti-corruption and protection of whistleblowers in companies listed on the markets organised by the Warsaw Stock Exchange.",
- "Good Practices of Companies Listed on the WSE 2021",
- additionally, to the extent relevant to PGE SA, the "CBA Anti-Corruption Guidelines for Public Administration" apply.

The avoidance of conflicts of interest in PGE Group results from the following internal regulations:

- PGE Group's Code of Ethics of - the principle "We do not tolerate corruption and dishonest behaviour",
- PGE Group's Anti-Corruption Policy,
- General Procedure - Counteracting Corruption at PGE Group,
- work regulations applicable to some of the employers operating within PGE Group (e.g. PGE SA).

The requirement to implement and apply principles of avoidance of conflict of interest applies to all PGE Group companies covered by the Compliance system. The obligation to avoid conflicts of interest is implemented in PGE Group through:

- the submission of declarations of interest (in accordance with the applicable model) by employees and other persons (except when another formal solution of identical or broader scope is applied (e.g. a provision in the contract),

- in the case of new employees, the statement is forwarded to the Human Capital Management Department for signature. Signature of the declaration is expected within the first 3 months of employment. quarterly training sessions are held for staff where the issue of conflict of interest is discussed,
- placing the statement in the employee's personnel file, next to the contract, and in companies using SAP HCM, also marking in a dedicated field in SAP HCM, in order to better monitor the status of the statements made,
- the use of additional contractual clauses regarding the avoidance of conflicts of interest in contracts for consultancy and legal services.

In order to implement a uniform standard of conduct in Group companies, guidelines for prevention of conflict of interest were developed for implementation in the companies. The guidelines include, among others, the recommendation to implement solutions concerning the avoidance of a conflict of interest in the situation of a change of employer within PGE Group, changes in employees' work and pay conditions, and in civil law contracts, with particular consideration given to contracts for services which are particularly exposed to the risk of a conflict of interest.

To promote awareness of the issue of conflicts of interest, as well as an increasing understanding of the purpose and approach to avoiding it, the following activities were carried out in 2021:

- internal communication to employees (publications in: company magazine, PGE Group newsletter, Lunch and Learn workshops),
- keeping up-to-date records of enquiries, replies and actions taken,
- on-going support to companies from the Compliance Department of PGE SA with regard to queries and doubts received.

| Individual communication activities in companies. Task completed in 2021  |
|---|
| Continued the process of collecting declarations of interest, implemented reporting in this regard  |
| Developed and implemented guidelines and improvement measures regarding behaviour in the area of avoiding and managing a conflict of interest for PGE Group companies   |
| Revised and clarified the rules on avoidance of conflict of interest in the General Procedure - Anti-corruption and revised the content of declaration of absence of conflict of interest.  |
| Amended the form "Application for change of conditions of employment" by adding a provision confirming that the employee's declaration of no conflict of interest is up to date, in order to ensure that in the event of a change of position and/or organisational unit, the declaration of no conflict of interest previously submitted to the employee's personal file remains valid. This reduces the risk that a conflict of interest could arise after a change in the terms and conditions of employment and that the obligation to notify the employee of such a situation would not be fulfilled |
| Applied additional conflict of interest clauses to consultancy and legal services contracts   |
| Consideration of provisions in civil law contracts  |

## 4.6 Information security management

PGE Group takes a responsible and comprehensive approach to the security and protection of personal data. PGE Polska Grupa Energetyczna SA as a corporate centre provides:

- functioning of a coherent organisation of the personal data protection area in PGE Group,
- continuous development of the data protection standard,
- minimising the risk of data protection violations while maintaining the required quality standards and the interests of PGE Group,
- compliance with personal data protection regulations, including first of all separateness and independence of particular companies in PGE Group as personal data controllers.

PGE SA took steps towards an effective and standardised organisation of the data protection area already in 2017 by establishing a program aimed at implementing new EU regulations and developing principles for their operationalisation in PGE Group companies. All companies participated in the program as independent personal data controllers. As part of the work, the legal and organisational requirements for effective organisation of the data protection area were collected, taking into account the diversity of individual entities in the Group, the characteristics of individual business segments and the security measures applied in data protection. In effect, all companies received model data protection documentation in order to adapt it to the business and organisational conditions of a given company and implement it for use. As part of the program, a number of trainings and workshops were organised, and tools were developed to facilitate the management of the personal data protection area and to meet the accountability principle expressed in GDPR.

The data protection management strategy adopted in 2017 is still in place. The main objectives in managing data protection in PGE Group are as follows:

- ensuring the robustness of personal data protection through identification of strategic areas for personal data protection management in PGE Group companies and their proper management,
- taking measures to optimise the protection of personal data,
- organising the work of companies in carrying out their duties as controllers or processors,
- standardisation of internal regulations in the area of personal data protection in PGE Group, taking into account the specificity of operation of individual companies and guaranteeing transparency of the data protection process,
- raising awareness in the area of personal data at PGE Group level using internal communication tools (IPK, newsletters, legal alerts, joint training actions at PGE Group level),
- close cooperation between Personal Data Protection Officers (DPO) in individual companies in the form of PGE Group DPO Forum.

## 4.7 ICT security

Being aware of the importance of PGE Group's infrastructure for the country's energy system and due to progressing digitisation, PGE treats ICT security issues as a priority. PGE Systemy, a PGE Group company, is responsible for ICT infrastructure management and ensuring ICT security. Infrastructure security is subordinated to the Cyber Security Department in PGE Systemy, which also includes a specialised PGE-CERT team responsible for handling ICT security incidents and minimising their potential effects. Counteracting cyberattacks takes place on many levels. PGE-CERT monitors threats to system security, reacts to detected incidents and undertakes actions related to the coordination of incident handling. PGE Systemy continuously improves competences and skills of the Cybersecurity Department employees through training. The PGE-CERT team has an international accreditation of the Trusted Introducer organisation, it is also a member of FIRST.org, a leading organisation associating teams responding to incidents. Since 2020, it has had the status of a certified CERT team. It has also undergone independent certification for compliance with ISO 22301 and 27001.

To secure the infrastructure, technical safeguards are in place to protect PGE Group against malware, targeted attacks and denial of service attacks. Thanks to the implemented software, computers operating in PGE Group network are monitored on a regular basis. Procedures regulating employees' rights and obligations with respect to IT security have been implemented in the entire company. Among other things, it is prohibited to use company IT devices for private purposes, to use social media except when it is necessary (PGE Group profiles), to log into private email accounts and to use unsecured Wi-Fi networks.

It is exceptionally important to build IT security awareness among the employees of PGE Group through education and on-going information on possible and existing threats, reminding of the principles of safe use

of computers, the Internet and company mobile phones. Articles and information on this topic are published in internal company media.

Access to corporate resources from the Internet is based on encrypted VPN connections. In order to enable remote work by PGE Group employees, the VPN infrastructure and group communication and teleconferencing environment have been developed.

Employees are equipped with PKI (Public Key Infrastructure) certificates, which are used to secure e-mail messages and electronically sign documents. Computer equipment used for remote work has disk content encryption enabled. We have also developed instructions and advice on IT security rules for remote work, which have been published on PGE Group intranet.

## 4.8 Risk management

### | GRI 102-11 |

As the Corporate Centre, PGE SA creates and implements solutions in the area of integrated risk management architecture. PGE SA develops risk management policies, standards and practices. It is at the central level that the Company designs and develops internal IT tools supporting the process referred to as "appetite for risk", i.e. the level of risk that the PGE Capital Group is prepared to accept in the pursuit of its business objectives, and determines adequate risk limits and the levels of their use are monitored.

The Risk Committee operates at the highest management level. It is responsible for controlling risk exposures and reducing the scope of incurred risks to an acceptable level in relation to the implementation of the strategy and the achievement of business objectives. The Risk and Insurance Department of PGE SA integrates risk management processes in the Group, measures and reports market and corporate risk, as well as manages credit risks and insurance. The recipients of information and reports on risk are primarily the Management Board of PGE SA and the Management Boards of the PGE Group companies. The principles of managing these issues in the PGE Group are described in the following procedures: insurance management, market risk management in trading activities, corporate risk management, internal rating determination, credit risk management as well as in the Risk Committee Regulations and the policy of corporate risk management in the PGE Capital Group.

When analysing risks, PGE does not focus only on their negative aspects, but also treats them as challenges and takes advantage of opportunities which may arise from dynamically changing conditions in which the PGE Group operates. Such an approach allows PGE Group to build and strengthen its market position. Effective implementation of solutions developed in the Group translates into more effective management of the Group's resources throughout the entire value chain and affects the quality of energy services provided.

Risk identification covers the full spectrum of the Group's activities. The scope and complexity of the analysis is determined by the significance of a given risk with respect to both a particular company and the entire PGE Group. The higher a given risk is ranked, the more thorough its analysis and the more complex and rigorous reporting rules apply. Such an approach, on the one hand, guarantees the acquisition of full knowledge of the most important risks and the applied mitigating tools, and, on the other hand, it ensures that no stakeholder is overlooked in the reporting process.

The division specifying the type of risk assessment determines the time horizon in which the risks are allocated:

- current outlook – risk assessment for the next year,
- medium-term outlook - from 2 to 5 years, applies to investment initiatives,
- long-term outlook (over 5 years) - concerns the impact of technological, economic and social trends on the activities of the PGE Group.

Climate risk is assessed as a separate category in similar time horizons, defined as the impact of awareness of the irreversible consequences of climate change and the related regulatory policy on business activities.

### **Current outlook**

The most important objective of risk assessment is to support decision-making processes carried out at the level of both the Corporate Centre and the subsidiaries of the PGE Group. Assessment are made with a time



horizon of the following year. Due to the wide range of issues subject to assessment, the process is carried out in three stages:

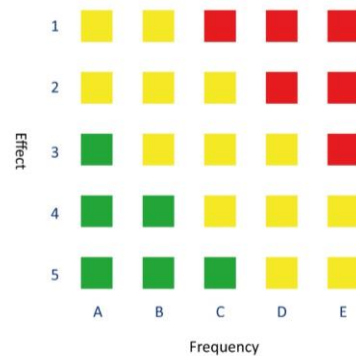


Fig. risk map drawn up for each of the risks identified in current operations: from A1 to E5 – low/medium/hig risk

**Stage 1:** An initial assessment and analysis of all identified risks, where each risk is assessed against two aspects: frequency (probability) of materialisation and consequences of potential materialisation. The highest rated risks are moved to the next stage of assessment.

**Stage 2:** A quantitative assessment and an additional risk analysis to estimate the impact of each risk on financial performance and to determine the significance of the impact of individual factors that could cause a given risk to materialise. In the next step, mitigating tools and their effectiveness are identified and a method for dealing with the risk is defined.

**Stage 3:** The most significant risks for the PGE Group are selected from the risks qualified for stage 2, for which A separate report is prepared for each of them, including an in-depth risk analysis.

In the outlook for 2022, the following risks were qualified to the third stage, i.e. the most significant risks for PGE Group:

- environmental risk at PGE Górnictwo i Energetyka Konwencjonalna,
- environmental risk at PGE Energia Ciepła,
- environmental risk at PGE Energia Odnawialna,
- environmental risk at PGE SA,
- risk of development and adaptive investments at PGE Energia Ciepła,
- risk of development and adaptive investments at PGE Energia Odnawialna,
- ICT systems cybersecurity risk at PGE Dystrybucja,
- risk associated with tariff G for regulated customers at PGE Obrót,
- risk of ineffective hedging of electricity for sales contracts at PGE Obrót,
- counterparty credit risk at PGE SA,
- tangible investments risk at PGE Systemy.

### Medium-term outlook – investment risks

The description of risks, threats and limitations in the medium term concerns the most important investment initiatives implemented in the PGE Group, which have a significant impact on the direction of the Group's development. The main obstacles to their implementation and the potential effects of delays are identified. The time horizon of undertakings varies, depending on the specific task. It ranges from approx. 2 years for PV projects to approx. 5 years for offshore wind farms.

### Long-term outlook

The purpose of the assessment is determined by the challenges and threats that will arise for the PGE Group in the next decade. Each of the long-term risks is assessed in terms of its impact on the achievement of business goals, the company's image and business continuity:



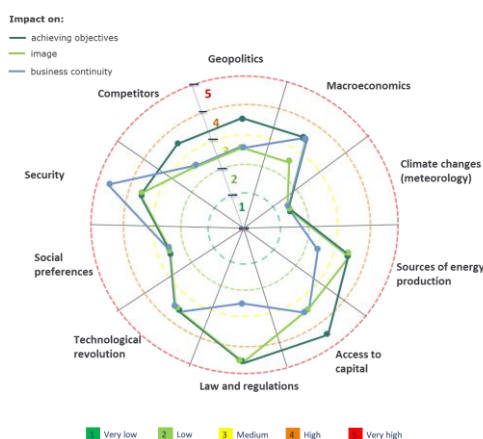


Fig. Map of long-term risks

The following are assessed from a long-term perspective:

- geopolitics - risk stemming from changes in geopolitical factors and trends (e.g. EU politics, diverging interests, war in Ukraine), causing limited access to raw material supply for PGE Group.
- Macroeconomics - risk resulting from changes in economic situation, causing swings in macroeconomic indicators and commodity and fuels prices that have impact on PGE Group's activities (economic changes that may affect the deterioration of the financial ratios of PGE Group companies).
- climate change<sup>3</sup> - risk deriving from physical hazards related to the occurrence of extreme weather events and an increase in their frequency, as a result of which the PGE Group's assets may be damaged, as well as climate changes affecting the demand for electricity and heat.
- energy generation sources - risk associated with failure to develop generation resources from new energy sources at the expected volume (energy and heat) and achieving stable EBITDA of PGE Group.
- access to capital - risk associated with failure by PGE Group to raise capital for planned investments.
- law and regulations - risk associated with changes in the legal system and regulatory uncertainty, including unexpected changes such as the future shape of support systems, regulatory burdens resulting from environmental requirements having an impact on PGE Group.
- technological revolution - risk arising from technological development, which has a considerable impact on the direction of changes on the energy market, including as to the ways of generating energy.
- social preferences - the risk that social preferences in terms of the expectations of mass customers, assessment of the employer's attractiveness and public opinion will have a negative impact on the PGE Group. It results from the expected further evolution of social preferences towards caring for the environment, conducting sustainable activities and social responsibility..
- security - risk associated with a negative impact of the geopolitical situation on both physical security and cybersecurity to PGE Group's business, including intentional disruption of the correct functioning of information processing and exchange space created by IT systems in place at PGE Group (interference in any element of PGE Group's infrastructure resulting in disruption of work of IT and OT (Operational Technology) infrastructure and as a consequence - disruption of work of a process supported by this infrastructure).
- competition - risk resulting from structural changes in the energy sector, affecting the competitive environment of PGE Group (e.g. building competitive advantage through distributed sources, development of the prosumer market, development of competitors' product offerings and their structural strengthening on the energy market).

<sup>3</sup> It concerns only physical phenomena, it does not take into account the EU climate policy. The context of climate risks is described in the p. 4.8.1.

## 4.8.1 Climate risks

### | GRI 201-2 |

At PGE Group, climate risk is analysed both in the context of the impact of climate change on business as well as the impact of business on climate change. Impact on climate is managed and minimised by identifying and analysing climate-related risks and continuously improving pre-environmental solutions and control tools, while ensuring financial performance for PGE Group. The solutions developed by PGE Group are aimed at its development and sustainable transition in line with climate requirements and with concern for all stakeholders.

Climate risk issues are subject to rigours and guidelines originating from the corporate risk management process. The President of the Management Board of PGE Polska Grupa Energetyczna, Wojciech Dąbrowski, is responsible for oversight of issues related to the reduction of PGE Group's impact on climate. The Risk Committee is responsible for supervising the risk management process at PGE Group with regard to financial and non-financial risks (including climate risk). Having a Risk Committee at the highest management level that reports directly to the Management Board ensures supervision over the effectiveness of risk management processes across the entire Group. Defining this function as part of the enterprise risk management framework allows for an independent assessment of individual risks, their impact on PGE Group and the mitigation and control of material risks using dedicated instruments.

The approach to the issue of climate risks is inspired by the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD), however, the adopted method of inventory and risk assessment, and the assumptions adopted, are an internal PGE concept.

PGE Group defines climate risk across five areas:

- **raising support funds and investment incentives in national regulations** - related to the growing impact of climate requirements relevant to the granting of aid funds and investment incentives in national regulations,
- **international regulations** – related to EU legislation as regards energy and climate policy, in particular the Fit for 55 package,
- **CO2 emissions** – related to the rising costs of emission allowances, which could adversely affect the profitability of generating assets or bring these assets to a halt,
- **operations** – related to extreme weather events or changes in climate conditions, which could negatively influence PGE Group's assets and operating activities,
- **investments** – concerning a failure by PGE Group to fulfill investment commitments aimed at the green transition, at the EU and domestic level and for own strategic purposes, which could adversely influence PGE Group's operational capacity, financial standing and reputation.

Each of these areas of climate risk is assessed in:

- the short term (year 2022),
- medium term (2022-2026) and
- long term (2022-2030).

For all terms, the climate risk was assessed as high.

Risks arising from the possibility of non-compliance with environmental requirements at companies: PGE Energia Ciepła, PGE Górnictwo i Energetyka Konwencjonalna and PGE Energia Odnawialna, were assessed in 2021 as the most material across the Group and entered the stage of in-depth analysis (stage 3).

## 4.8.2 Identification of ESG risks

Identified risks and management measures in the environmental area at PGE Group and PGE SA

| ENVIRONMENTAL MATTERS AT PGE GROUP  |   |
|---|---|
| Risk of lack of legal compliance for activities in the context of climate protection  |   |
| resulting from the non-compliance of PGE Group's activities with the environmental regulations in force in all aspects, in particular the standards for emission of pollutants to the atmosphere, water and soil  |   |
| Current perspective   | Long-term perspective   |
| Risk that legal requirements relating to climate protection will not be met   | Risk connected with stricter environmental restrictions applicable to electricity and heat production and mining activities |
| Mitigation measures   |   |
| <p>Monitoring legal regulations related to environmental protection, with particular emphasis on:</p> <ul style="list-style-type: none"> <li>BAT conclusions, IED Directive, ETS Directive</li> <li>management of water and wastewater</li> <li>management of waste</li> <li>measurement of emissions</li> </ul> <p>Analysis of interrelation of environmental aspects with activities of particular companies of PGE Group and products and services offered by them (List of Environmental Aspects together with analysis of Risks and Opportunities)</p> <p>Reducing interference with the natural environment:</p> <ul style="list-style-type: none"> <li>adaptation of units to BAT conclusions</li> <li>use of the most efficient solutions for waste water treatment, exhaust gas treatment, water abstraction</li> <li>work on a new concept for the use of combustion waste and by-products</li> <li>ensuring supply of coal with appropriate parameters (lower ash and sulphur content)</li> <li>Environmental Management System enabling, inter alia, monitoring and supervision of the quantities of the main pollutants emitted into the air (SO<sub>2</sub>, NO<sub>x</sub>, dust) from individual installations</li> </ul> |   |
| Risk of impact of volatility in the prices of CO <sub>2</sub> emission allowances   |   |
| resulting from the modification of the CO <sub>2</sub> emission trading scheme (ETS), their price volatility and exchange rate fluctuations   |   |
| Current perspective   | Long-term perspective   |
| Risk associated with uncertainty of future level of market commodity prices in the context of open positions of PGE Group   | Risk associated with fluctuations in macroeconomic indicators and prices of raw materials affecting PGE Group's operations  |
| Mitigation measures   |   |
| <p>Optimisation of generation assets with the definition of generation scenarios for updated market parameters for electricity and CO<sub>2</sub></p> <p>Monitoring of energy markets, CO<sub>2</sub>, gas, coal, certificates and trends in the sector</p> <p>Monitoring of risk exposure, determination of risk limits and hedging strategies for trading activities</p>  |   |

| Risk of fluctuating electricity output   |  |
|--|--|
| resulting from a reduction in generation capacity or from interruptions in electricity generation  |  |
| Current perspective  | Long-term perspective                      |
| Electricity production volume risk   | Risks associated with technological change |
| Mitigation measures  |  |
| Production planning taking into account equipment failure rates and greenhouse gas emission limits<br>System for real-time monitoring of the status and operating parameters of generating units<br>Service agreements for efficient and rapid remediation<br>Business continuity plans<br>Qualified workers with the required authorisations            |  |
| Risk of technological revolution   |  |
| resulting from the use of insufficiently tested new technologies and an insufficient level of competence in this area  |  |
| Current perspective  | Long-term perspective                      |
| Risks associated with the direction and process of investment  | Risks associated with technological change |
| Mitigation measures  |  |
| Risks related to technological change<br>Investment-specific risk analysis<br>Public consultations<br>Cooperation with state and local government authorities<br>Monitoring of expected available connection capacities for generating sources<br>Safeguards in contracts with contractors<br>Analyses of the impact of installations on the environment |  |

### Risk of changing customer behaviour and preferences

resulting from unattractive sales offerings and poor customer service

#### Current perspective

Risks related to customer retention and acquisition

#### Long-term perspective

Risks arising from changing ways of selling electricity  
and building offerings

#### Mitigation measures

Customer needs survey  
Differentiation of the product offering  
Customer satisfaction surveys  
Monitoring of products and prices offered by competitors  
eCommerce development as an opportunity to use additional ideas for implementing new product solutions  
Counterparty credit risk management system

### Reputation risk

resulting from adverse events and information published in the media as well as from inadequate brand  
management and information policy with regard to the internal and external environment

#### Current perspective

Risks related to reputation and management of the  
PGE brand

#### Long-term perspective

Reputational impact is one of the criteria for assessing  
each of the long-term risks. It examines the extent of  
the impact on reputation and image, and the strength  
with which the materialisation of the risk could affect  
these aspects

#### Mitigation measures

Cooperation with the media and monitoring of the media environment, including social media  
Crisis communication procedure  
Assessing the effectiveness of communication channels  
Brand strategy and its monitoring  
Systematic internal communication  
Meetings of management with employees  
Dialogue with the social side

## ENVIRONMENTAL MATTERS AT PGE SA

### Environmental risk

resulting from the consequences of inadequate environmental protection measures or the possibility of exceptional occurrences

### Mitigation measures

Monitoring of technical condition and modernisation of equipment and installations  
Monitoring of environmental laws and regulations  
Adaptation of the company's internal regulations and its environmental protection activities to changing legal regulations  
Reporting to competent authorities and institutions responsible for environmental management  
Reducing interference with the environment  
Use of the most effective solutions and highly efficient environmental technologies  
Outsourcing the disposal of harmful substances to a specialised company with a waste management licence

## Identified risks and management measures in the labour area at PGE Group and PGE SA

### LABOUR MATTERS AT PGE GROUP

#### Workplace health and safety risk

resulting from the consequences of non-compliance by companies, employees and persons working for the company with health and safety regulations and rules

#### Mitigation measures

Control of work environment  
Training of employees in occupational health and safety and carrying out job-specific instruction before an employee is allowed to work in a particular position  
Employing staff with qualifications and health conditions appropriate to the needs of the company  
Initial and periodic medical examinations  
Periodic assessment of the technical condition of buildings, equipment and installations  
Rules regarding use of protective equipment and work tools

#### Risk of social dialogue

connected with a failure in achieving agreement between the companies' management and employees, what could lead to strikes/collective labour disputes

#### Mitigation measures

Organisation of meetings concerning the market situation of PGE Group  
Information meetings on how and to what extent changes are being made  
Conducting employee surveys  
Continuous analysis of trade union activities  
Dialogue with the social side

#### HR risk

resulting in an undesirable turnover of staff

#### Mitigation measures

Competitive remuneration system, comparing to other employers  
Rules regarding recruitment  
Managing employee development  
Work with high schools and colleges offering energy-related studies  
Mentoring  
Training on the Code of Ethics



## LABOUR MATTERS AT PGE S.A.

### Workplace health and safety risk

resulting from the consequences of non-compliance by companies, employees and persons working for the companies with health and safety regulations and rules

#### Mitigation measures

Control of work environment (measurements, inspections)  
Training for employees on workplace health and safety and workplace instructions prior to start of work at given workplace  
Employing staff with qualifications and health conditions appropriate to the needs of the company  
Initial and periodic medical examinations  
Rules regarding first aid during workplace accidents  
Periodic inspection of workplaces  
Periodic technical state assessments (inspections of buildings and installations)  
Continuous analysis of costs related to ensuring appropriate conditions for safe work

### Risk of social dialogue

connected with a failure in achieving agreement between the companies' management and employees, what could lead to strikes/collective labour disputes

#### Mitigation measures

Organisation of meetings concerning the market situation of PGE Group  
Informing employees about the company's current situation and future plans (effective internal communication)  
Information meetings on how and to what extent changes are being made  
Dialogue with the social side  
Continuous analysis of trade union activities

### HR risk

resulting in an undesirable turnover of staff

#### Mitigation measures

Implemented rules for the employment and remuneration of employees  
Monitoring of the labour market with regard to remuneration and incentive systems  
Planning professional development according to the needs of staff and individual business units  
Training on Code of Ethics  
Linking salaries and incentive payments to periodic performance appraisals  
Internal and external training

## Identified risks and management measures in the social area at PGE Group and PGE SA

### SOCIAL MATTERS AT PGE GROUP

#### Risk of damage to third parties

associated with the possibility of material, personal or financial damage resulting from the core business of the companies

#### Mitigation measures

Monitoring the technical state of equipment and installations  
Control of work environment  
Noise and electromagnetic field measurements  
Use of protective means to reduce harm for the natural environment  
Employee training  
Appropriate preparation of workplaces  
Periodic inspection of the security of facilities and assets

#### Risk associated with violating collective interests of consumers

resulting from a possible lack of due diligence in the field of competition and consumer protection

#### Mitigation measures

Use of case law of the SOKiK and opinions of the President of the UOKiK  
Compliance with internal standards on information labelling  
Ensuring universal access to company regulations  
Employee training  
Verification of the legality of contracts  
Verification of existing internal regulations as regards abuse of dominant position  
Legal consultations  
Regulatory environment monitoring

#### Reputation risk

resulting from adverse events and information published in the media as well as from inadequate brand management and information policy with regard to the internal and external environment

#### Mitigation measures

Cooperation with the media and monitoring of the media environment, including social media  
Observing procedures for managing internal, external and crisis communications  
Assessing the effectiveness of communication channels  
Brand strategy and its monitoring  
Systematic internal communication  
Meetings of management with employees  
Internal management training

## SOCIAL MATTERS AT PGE SA

### HR risk

resulting in an undesirable turnover of staff

### Mitigation measures

Competitive remuneration system, comparing to other employers  
 Competitive remuneration system in relation to other employers  
 Monitoring of the labour market with regard to remuneration and incentive systems  
 Development of bonus regulations based on regulations benefiting from transparent and uniform motivation principles  
 Use of objective performance appraisal methods  
 Linking salaries and incentive payments to periodic performance appraisals  
 Planning professional development according to the needs of staff and individual business units  
 Internal and external training  
 Friendly working atmosphere

## Identified risks and management measures in the human rights area at PGE Group and PGE SA

### HUMAN RIGHTS MATTERS AT PGE GROUP

#### Risk of harassment and molestation

related to the possibility of material, personal or financial damage resulting from the actions of employees

#### Mitigation measures

Training for employees and management  
Whistleblower function - possibility to submit irregularities observed in the organisation  
Fostering a friendly working environment, appropriate rules of social coexistence and respecting the dignity and personal rights of employees

#### Risk of discriminatory actions against employees

resulting from the possible commission of unlawful acts

#### Mitigation measures

Work regulations  
Employee training  
Internal standards for whistleblowing and information

## HUMAN RIGHTS MATTERS AT PGE SA

### Risk of harassment and molestation

related to the possibility of material, personal or financial damage resulting from the actions of employees

#### Mitigation measures

Training for employees and management  
Whistleblower function - possibility to submit irregularities observed in the organisation  
Impartial Advisor function - possibility to contact an external company in cases related to mobbing

### Risk of discriminatory actions against employees

resulting from the possible commission of unlawful acts

#### Mitigation measures

Work regulations  
Employee training  
Internal standards for whistleblowing and information

## Identified risks and management measures in the anti-corruption area at PGE Group and PGE SA

### FRAUD AND CORRUPTION MATTERS AT PGE GROUP

#### Fraud and corruption risk

resulting from the possible commission of unlawful acts

#### Mitigation measures

PGE Group's Code of Ethics  
PGE Group's anti-corruption policy  
Employee training  
Monitoring of business activities to identify and explain events that are unusual for a reasonably run business  
Fraud reporting system in place to ensure the confidentiality of the person reporting the fraud  
Internal monitoring (compliance control) of the company's processes and internal regulations  
Universal access to company regulations (codes, regulations, rules)  
Employees' declarations of interest

#### Procurement risk

resulting from possible errors in the process of procuring materials and services

#### Mitigation measures

PGE Group's Purchasing Policy and PGE Group's General Procurement Procedure  
Code of Conduct for PGE Group Companies' Business Partners  
Mandatory observance of Good Procurement Practices and Code of Ethics  
Analysis of the provisions of the ToR before their approval, in particular the conditions for participation and the ToR  
Employee communication and training  
Application of the system for the evaluation and qualification of contractors  
Random additional verification of individual purchase procedures and the purchasing plan  
Exemption declarations by participants in procedures  
Documentation of the procurement procedure

## FRAUD AND CORRUPTION MATTERS AT PGE SA

### Fraud and corruption risk

resulting from the possible commission of unlawful acts

#### Mitigation measures

PGE Group's Code of Ethics  
PGE Group's anti-corruption policy  
Universal access to company regulations (codes, regulations, rules)  
Cyclical review of internal regulations  
Initial and periodic training for employees  
Employees' declarations of interest  
Monitoring of business activities to identify and explain events that are unusual for a reasonably run business  
Monitoring of actions carried out with regard to powers of attorney  
Ongoing supervision of the tasks assigned to employees and monitoring the compliance of these tasks with the assigned responsibilities  
Fraud reporting system in place to ensure the confidentiality of the person reporting the fraud  
Internal monitoring (compliance control) of the company's processes and internal regulations

### Procurement risk

resulting from possible errors in the process of procuring materials and services

#### Mitigation measures

PGE Group's Purchasing Policy and PGE Group's General Procurement Procedure  
Code of Conduct for PGE Group Companies' Business Partners  
Obligation to comply with  
Good Procurement Practices and Code of Ethics  
Analysis of the provisions of the Terms of Reference (ToR) prior to their approval, in particular the conditions of participation and the Description of the Subject of Tender  
Employee communication and training  
Application of the system for the evaluation and qualification of contractors  
Random additional verification of individual purchase procedures and the purchasing plan  
Exemption declarations by participants in procedures  
Documentation of the procurement procedure



## 5. Indicators and tables

### 5.1 GRI content index and Global Compact principles

|GRI 102-55|

The GRI Standards indices and the Global Compact principles included in this statement and applicable to the PGE Capital Group and the company PGE SA.

| Index                      |   | Global Compact principles                                | Page                                |
|----------------------------|---|--|-------------------------------------|
| <b>Profile disclosures</b> |   |  |                                     |
| <b>GRI-102-1</b>           | Name of the organisation  |  | 5                                   |
| <b>GRI-102-2</b>           | Activities, brands, products and services   |  | 5                                   |
| <b>GRI-102-3</b>           | Location of headquarters  |  | Poland, Warsaw                      |
| <b>GRI-102-4</b>           | Location of operations  |  | PGE Group operates mainly in Poland |
| <b>GRI-102-5</b>           | The form of ownership and the legal structure of the organization   |  | 90                                  |
| <b>GRI-102-6</b>           | Markets served  |  | 73                                  |
| <b>GRI-102-7</b>           | Scale of the organisation   |  | 5-8                                 |
| <b>GRI-102-9</b>           | Supply chain description  |  | 70-72                               |
| <b>GRI-102-11</b>          | Risk management in the organization   |  | 102-117                             |
| <b>GRI-102-12</b>          | Economic, environmental and social declarations, principles and other external initiatives adopted or supported by the organization                       | <b>GC-1</b><br><b>GC-7</b><br><b>GC-8</b><br><b>GC-9</b> | 79,92                               |
| <b>GRI-102-13</b>          | Membership in associations and organizations  |  | 55-56                               |
| <b>GRI-102-14</b>          | Statement from senior decision maker  | <b>GC-7</b><br><b>GC-8</b><br><b>GC-9</b>                | 3                                   |
| <b>GRI-102-16</b>          | Values, principles, standards and norms of behaviour such as a code of conduct or a code of ethics  | <b>GC-10</b>   | 93-94                               |
| <b>GRI-102-17</b>          | Mechanisms for advice and concerns about ethics and legal issues and matters related to the integrity of the organization                                 |  | 97                                  |
| <b>GRI-102-18</b>          | The governance structure of the organization, including committees reporting to the highest governance body   |  | 87-89                               |
| <b>GRI-102-22</b>          | Composition of the highest governance body and its committees   |  | 88-89                               |
| <b>GRI-102-23</b>          | Chair of the highest governance body  |  | 88-89                               |
| <b>GRI-102-24</b>          | Nominating and selecting the highest governance body  |  | 89                                  |
| <b>GRI-102-25</b>          | Conflicts of interest   |  | 99-100                              |
| <b>GRI-102-40</b>          | List of stakeholder groups  |  | 53                                  |
| <b>GRI-102-43</b>          | Approach to stakeholder engagement including frequency of engagement by type and stakeholder group  |  | 54-59                               |
| <b>GRI-102-44</b>          | Key topics and concerns raised by stakeholders in stakeholder engagement processes  |  | 54                                  |
| <b>GRI-102-45</b>          | Entities included in the consolidated financial statements with the distinction of main departments, subsidiaries and related entities and joint-ventures |  | 90                                  |

| Index                       |   | Global<br>Compact<br>principles           | Page   |
|-----------------------------|---|---|--|
| <b>GRI-102-46</b>           | Defining report content   |   | 4  |
| <b>GRI-102-47</b>           | List of material topics   |   | 54   |
| <b>GRI-102-50</b>           | Reporting period  |   | January 1, 2021 – December 31, 2021                          |
| <b>GRI-102-51</b>           | Date of most recent report  |   | March 2021<br>(non-financial information statement for 2020) |
| <b>GRI-102-52</b>           | Reporting cycle   |   | annual   |
| <b>GRI-102-53</b>           | Contact   |   | 157  |
| <b>GRI-102-55</b>           | GRI content index   |   | 118-121  |
| <b>Economic performance</b> |   |   |  |
| <b>GRI-201-1</b>            | Direct economic value, generated and distributed  |   | 5  |
| <b>GRI-201-2</b>            | Financial implications, other risks and opportunities due to climate change   |   | 105  |
| <b>Environmental issues</b> |   |   |  |
|                             | Approach to the natural environment   | <b>GC-7</b><br><b>GC-8</b><br><b>GC-9</b> | 19-49  |
| <b>GRI 301-3</b>            | Energy consumption in the organization  |   | 122  |
| <b>GRI 302-1</b>            | Reclaimed products  |   | 122  |
| <b>GRI 303-1</b><br>(2018)  | Interactions with water as a shared resource  | <b>GC-8</b><br><b>GC-9</b>                | 30-35  |
| <b>GRI 303-2</b><br>(2018)  | Water management  | <b>GC-8</b><br><b>GC-9</b>                | 30-35  |
| <b>GRI 303-3</b><br>(2018)  | Water withdrawal by source  |   | 123-124  |
| <b>GRI 303-4</b><br>(2018)  | Total volume of wastewater by quality and destination   |   | 124-125  |
| <b>GRI 304-1</b>            | Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas | <b>GC-8</b>                               | 44-49  |
| <b>GRI 304-2</b>            | Significant impact of activities, products and services on biodiversity   |   | 44-49  |
| <b>GRI 304-4</b>            | IUCN Red List species and national conservation list species with habitats in areas affected by operations                                |   | 47   |
| <b>GRI 305-1</b>            | Direct greenhouse gas emissions   |   | 122  |
| <b>GRI 305-7</b>            | Emission of NOx, SO2 and other significant compounds emitted to the air   |   | 123  |
| <b>GRI 306-2</b>            | Management of significant waste-related impacts   |   | 39-41  |
| <b>GRI 306-3</b>            | Total weight of waste by type of waste and disposal method  |   | 126-127  |
| <b>GRI 306-4</b>            | Waste diverted from disposal  |   | 126-127  |
| <b>GRI 306-5</b>            | Waste directed to disposal  |   | 126-127  |
| <b>GRI 307-1</b>            | Monetary value of fines and total number of non-financial sanctions for non-compliance with environmental laws and regulations            | <b>GC-8</b>                               | 128-130  |
|                             | Application and dissemination of environmentally friendly technologies.   | <b>GC-9</b>                               | 19-24  |
| <b>GRI 308-1</b>            | New suppliers that have been verified using environmental criteria  |   | 71-72  |
| <b>GRI -EU5</b>             | Allocation of carbon dioxide emission allowances or its equivalent according to the division into emission trading systems                |   | 122  |

| Index                   |  | Global<br>Compact<br>principles        | Page    |
|-------------------------|--|--|---------|
| <b>Social issues</b>    |  |  |         |
| <b>GRI-203-1</b>        | Contribution to the development of infrastructure and the provision of services to society through commercial activities, the transfer of goods and pro bono activities                                      |  | 79-88   |
| <b>GRI-414-1</b>        | Percentage of new suppliers that have been assessed according to social criteria   |  | 100%    |
| <b>GRI-418-1</b>        | Total number of legitimate complaints about breach of customer privacy and data loss   |  | 144-145 |
| <b>GRI-EU28</b>         | SAIFI  |  | 143     |
| <b>GRI-EU29</b>         | SAIDI  |  | 143     |
| <b>Employee issues</b>  |  |  |         |
|                         | Human rights   | <b>GC-2<br/>GC-4<br/>GC-5<br/>GC-6</b> | 97      |
|                         | Freedom of association and the right to collective bargaining  | <b>GC-3</b>                            | 69-70   |
| <b>GRI-102-8</b>        | Total number of employees by type of employment and type of employment contract, broken down by gender   | <b>GC-6</b>                            | 132-133 |
| <b>GRI-102-41</b>       | The number of employees covered by the collective agreement  | <b>GC-3</b>                            | 134     |
| <b>GRI 401-1</b>        | The total number of newly hired employees, departures, and the rate of hiring and fluctuation of employees by age group, gender, broken down by company  | <b>GC-6</b>                            | 134-135 |
| <b>GRI 401-2</b>        | Benefits provided to full-time employees that are not provided to temporary or part-time employees, by major operating units   |  | 64      |
| <b>GRI 403-1 (2018)</b> | Occupational health and safety management system   |  | 64-67   |
| <b>GRI 403-2 (2018)</b> | Hazard identification, risk assessment and accident investigation  |  | 65-66   |
| <b>GRI 403-3 (2018)</b> | Occupational health and safety services  |  | 64      |
| <b>GRI 403-4 (2018)</b> | Employee participation, consultation and communication on occupational health and safety   |  | 66-67   |
| <b>GRI 403-5 (2018)</b> | Employee training in occupational health and safety  |  | 66-67   |
| <b>GRI 403-6 (2018)</b> | Health promotion programmes for employees  |  | 64      |
| <b>GRI 403-7 (2018)</b> | Prevention and mitigation of impacts on health and safety in the workplace   |  | 66-67   |
| <b>GRI 403-9 (2018)</b> | Type and rate of work-related injuries by gender   |  | 141-142 |
| <b>GRI 404-1</b>        | Average hours of training per year per employee by employment category and gender  | <b>GC-6</b>                            | 135-136 |
| <b>GRI 404-2</b>        | Programmes for upgrading employee skills and transition assistance programmes, which support the continuity of employment of employees and facilitate the management of the end of their professional career |  | 67-68   |

| Index                         |  | Global Compact principles | Page                              |
|-------------------------------|--|---------------------------|-----------------------------------|
| <b>GRI 404-3</b>              | The percentage of employees undergoing regular work performance assessments and career development reviews broken down by gender | <b>GC-6</b>               | 136                               |
| <b>GRI 405-1</b>              | Composition of management, supervisory and employee bodies by gender, age, minority membership and other diversity indicators    | <b>GC-6</b>               | 136-137                           |
| <b>GRI –EU15</b>              | Percentage of employees who will become entitled to retire in 5 and 10 years, broken down by type of work                        |                           | 139-140                           |
| <b>Human rights issues</b>    |  |                           |                                   |
| <b>GRI 406-1</b>              | Total number of incidents of discrimination and corrective actions taken in 2021   | <b>GC-2<br/>GC-6</b>      | 146                               |
| <b>GRI 408-1</b>              | Operations and suppliers where child labor may occur   |                           | PGE Group regulations prohibit it |
| <b>GRI 409-1</b>              | Operations and suppliers among which cases of forced labor may occur   |                           | PGE Group regulations prohibit it |
| <b>GRI 412-2</b>              | Total number of employee training hours on human rights policies and percentage of employees trained                             | <b>GC-2</b>               | 146                               |
| <b>Anti-corruption issues</b> |  |                           |                                   |
| <b>GRI-205-1</b>              | Total number and percentage of business units analyzed for risks related to corruption   | <b>GC-10</b>              | 147                               |
| <b>GRI-205-2</b>              | Communication and training about anti-corruption policies and procedures   | <b>GC-10</b>              | 98-99, 149                        |
| <b>GRI-205-3</b>              | Confirmed cases of corruption and actions taken in response to them  | <b>GC-10</b>              | 0 cases                           |

## 5.2 Significant indices regarding the PGE Capital Group and the company PGE SA

Selected indices relating to environmental issues In the PGE Group:

### Energy

Energy consumption in the organization

| GRI 302-1 |

| Total energy consumption in the organization | 2021           |
|--|----------------|
| <b>Electricity (kWh)</b>                     | 11 152 880 829 |
| <b>Heat (GJ)</b>                             | 2 501 120.11   |

| Volumes sold:            | 2021            |
|--------------------------|-----------------|
| <b>Electricity (kWh)</b> | 107 633 043 564 |
| <b>Heat (GJ)</b>         | 53 675 235.06   |
| <b>Cooling (GJ)</b>      | 0               |
| <b>Steam (GJ)</b>        | 1 398 948.94    |

### CO<sub>2</sub> emissions

CO<sub>2</sub> emissions from the Group's main plants and allocation of free CO<sub>2</sub> emission allowances for 2021.

| GRI 305-1 | GRI EU-5 |

|   | CO <sub>2</sub> emissions in 2021* | Allocation of allowances for CO <sub>2</sub> emissions in 2021** | CO <sub>2</sub> emissions in 2020* | CO <sub>2</sub> emissions in 2019 | CO <sub>2</sub> emissions in 2018 |
|---|------------------------------------|--|------------------------------------|-----------------------------------|-----------------------------------|
| <b>Total for power plants and CHP plants of PGE Capital Group</b> | <b>70 746 383</b>                  | <b>638 274</b>   | <b>59 518 765</b>                  | <b>60 663 255</b>                 | <b>70 186 803</b>                 |

The volume of CO<sub>2</sub> emissions indicated above relates to all installations of the PGE Capital Group that operate under the EU ETS system. The volume of CO<sub>2</sub> emissions is calculated on the basis of and in accordance with the legal regulations applicable to the ETS system, in particular with decisions of competent authorities allowing the emission of greenhouse gases from installations.

## Other emissions

Emission of NO<sub>x</sub>, SO<sub>2</sub> and other relevant compounds emitted to atmosphere by PGE GiEK and PGE EC in 2021.

| GRI 305-7 |

|  | PGE GiEK |        |        | PGE EC |       |        |
|--|----------|--------|--------|--------|-------|--------|
| Weight of relevant air emissions [tonnes]  | 2021     | 2020   | 2019   | 2021   | 2020  | 2019   |
| NO <sub>x</sub>  | 44 612   | 36 278 | 37 179 | 8 206  | 7 298 | 12 120 |
| SO <sub>2</sub>  | 54 243   | 39 012 | 36 831 | 8 688  | 7 997 | 9 689  |
| Particulate matter   | 1 494    | 1 268  | 1 324  | 539    | 560   | 821    |
| <b>Emissions for net power produced from all generation capacities [kg/MWh]:</b>   |          |        |        |        |       |        |
| NO <sub>x</sub>  | 0.76     | 0.78   | 0.86   | 0.36   | 0.35  | 0.47   |
| SO <sub>2</sub>  | 0.92     | 0.83   | 0.85   | 0.38   | 0.38  | 0.38   |
| Particulate matter   | 0.03     | 0.03   | 0.03   | 0.02   | 0.03  | 0.03   |
| <b>Emissions for gross power produced from all generation capacities [kg/MWh]:</b> |          |        |        |        |       |        |
| NO <sub>x</sub>  | 0.69     |        |        | 0.34   |       |        |
| SO <sub>2</sub>  | 0.84     |        |        | 0.36   |       |        |
| Particulate matter   | 0.02     |        |        | 0.02   |       |        |

## Water and wastewater management

Water withdrawal for production purposes by source in 2021.

| GRI 303-3 (2018) |

|   | PGE GiEK             |                       |                    |
|---|----------------------|-----------------------|--------------------|
|   | 2021                 | 2020                  | 2019               |
| <b>Total volume of water withdrawn for production purposes from the following sources</b> | <b>1 276 103 871</b> | <b>1 242 021 026*</b> | <b>823 248 035</b> |
| surface water, including water from wetlands, rivers and lakes                            | 1 275 221 316        | 1 239 164 139         | 821 829 162        |
| groundwater   | 758 401              | 2 530 558             | 1 204 452          |
| rainwater directly collected and stored by the organisation                               | 0                    | 0                     | 0                  |
| wastewater from another organisation  | 0                    | 39 704                | 2 297              |
| municipal water supply and supply from other water companies                              | 124 154              | 286 625*              | 212 124            |

\* data updated

|   | PGE EC             |                   |                    |
|---|--------------------|-------------------|--------------------|
|   | 2021*              | 2020              | 2019               |
| <b>Total volume of water withdrawn for production purposes from the following sources</b> | <b>123 400 179</b> | <b>46 191 007</b> | <b>588 941 446</b> |
| surface water, including water from wetlands, rivers and lakes                            | 119 912 532        | 42 809 425        | 578 765 341        |
| groundwater   | 2 027 597          | 1 814 720         | 8 417 680          |
| rainwater directly collected and stored by the organisation                               | 0                  | 0                 | 16 867             |
| wastewater from another organisation  | 1 800              | 0                 | 1 744              |
| municipal water supply and supply from other water companies                              | 1 458 250          | 1 566 862         | 1 739 814          |

\* data relate to branches of PGE Energia Ciepła and subsidiaries

|   | PGE EO                |                       |                      |
|---|-----------------------|-----------------------|----------------------|
|   | 2021*                 | 2020**                | 2019                 |
| <b>Total volume of water withdrawn for production purposes from the following sources</b> | <b>25 129 615 394</b> | <b>10 161 924 065</b> | <b>9 569 414 678</b> |
| surface water, including water from wetlands, rivers and lakes                            | 25 129 600 614        | 10 161 910 826        | 9 569 400 094        |
| groundwater   | 5 943                 | 4 810                 | 5 228                |
| rainwater directly collected and stored by the organisation                               | 0                     | 0                     | 0                    |
| wastewater from another organisation  | 0                     | 0                     | 0                    |
| municipal water supply and supply from other water companies                              | 8 837                 | 8 429                 | 9 356                |

\* the non-financial statements for previous years included data on large hydropower plants, run-off and run-of-flow reservoirs - located in PGE Energia Odnawialna branches and three large run-of-river power plants, such as: EW Dębe, Nielisz and Smardzewice. So far, the flows in small run-of-river power plants (MEW Dychów) have not been taken into account

\*\* data updated

Total volume of wastewater by quality and destination in 2021.

**| GRI 303-4 (2018) |**

|   | PGE GIEK          |                   |                   |
|---|-------------------|-------------------|-------------------|
|   | 2021              | 2020*             | 2019              |
| <b>Factual total wastewater volume</b>                                      | <b>25 110 513</b> | <b>23 864 603</b> | <b>21 856 562</b> |
| Volume of wastewater broken down by:  |                   |                   |                   |
| rivers  | 23 294 196        | 20 639 905        | 21 838 460        |
| lakes   | 1 809 788         | 3 211 910         | -                 |
| soil  |                   | 0                 | -                 |
| municipal companies – sewerage system                                       | 6 529             | 12 788            | 18 102            |
| Water from mine drainage / mine water – treatment                           | 199 056 878       | 200 947 318       | 213 285 383       |
| Cooling water from the open cooling circuit that does not require treatment | 1 138 299 971     | 1 120 985 988     | 706 037 989       |

\* data updated



|   | PGE EC           |                  |                   |
|---|------------------|------------------|-------------------|
|   | 2021             | 2020             | 2019              |
| <b>Factual total wastewater volume</b>                                      | <b>6 984 362</b> | <b>4 899 580</b> | <b>13 856 612</b> |
| Volume of wastewater broken down by:  |                  |                  |                   |
| rivers  | 5 638 663        | 3 705 975        | 7 570 498         |
| lakes   | -                | 112 949          | 1 107 433         |
| soil  | -                | -                | -                 |
| municipal companies – sewerage system                                       | 1 345 699        | 1 080 656        | 1 356 110         |
| Water from mine drainage / mine water – treatment                           | n/a              | n/a              | n/a               |
| Cooling water from the open cooling circuit that does not require treatment | 107 291 008      | 33 194 176       | 542 577 388       |

|   | PGE EO        |               |                |
|---|---------------|---------------|----------------|
|   | 2021          | 2020          | 2019           |
| <b>Factual total wastewater volume</b>                                      | <b>80 890</b> | <b>90 563</b> | <b>107 699</b> |
| Volume of wastewater broken down by:  |               |               |                |
| rivers  | 70 272        | 83 793        | 99 636         |
| lakes   | -             | -             | -              |
| soil  | -             | -             | -              |
| municipal companies – sewerage system                                       | 9 698         | 6 769         | 8 063          |
| Water from mine drainage / mine water – treatment                           | n/a           | n/a           | n/a            |
| Cooling water from the open cooling circuit that does not require treatment | 920           | 851           | 1 000          |

|   | PGE Dystrybucja |            |            |
|---|-----------------|------------|------------|
|   | 2021            | 2020       | 2019       |
| <b>Factual total wastewater volume</b>                                      | <b>3 905*</b>   | <b>684</b> | <b>617</b> |
| Volume of wastewater broken down by:  |                 |            |            |
| rivers  | 3 201           | 72         | 52         |
| lakes   | -               | -          | -          |
| soil  | 704             | 612        | 565        |
| municipal companies – sewerage system                                       | -               | -          | -          |
| Water from mine drainage / mine water – treatment                           | n/a             | n/a        | n/a        |
| Cooling water from the open cooling circuit that does not require treatment | n/a             | n/a        | n/a        |

\* The reason for the increase in the amount of wastewater is mainly due to the change in the water permit, according to which, from 2021, the sum of rainwater and wastewater in the Rzeszów branch is included as wastewater, because they are discharged through one collector and from the intake of wastewater from GPZ Rożki 220/110 kV on in the Skarżysko-Kamienna branch.

## Waste management

Total weight of waste broken down by waste type and disposal method in 2020.

| GRI 306-3 | GRI 306-4 | GRI 306-5 |

|  | PGE GiEK         |                  |                  |
|--|------------------|------------------|------------------|
|  | 2021             | 2020             | 2019             |
| <b>Volume of hazardous waste broken down by disposal method:</b>     | <b>1 003</b>     | <b>1 188</b>     | <b>1 385</b>     |
| Recovery (including energy recovery)                                 | 760              | 859              | 523              |
| Recycling  | 285              | 270              | 304              |
| Mass burn  | -                | -                | -                |
| Neutralisation   | 130              | 133              | 188              |
| Storage at landfills   | -                | -                | 38               |
| On-site storage and warehousing                                      | 113              | 173              | 323              |
| Other (e.g. transfer to authorised recipients)                       | -                | -                | -                |
| <b>Volume of non-hazardous waste broken down by disposal method:</b> | <b>5 785 030</b> | <b>4 843 940</b> | <b>5 665 324</b> |
| Recovery (including energy recovery)                                 | 1 941 937        | 1 256 648        | 1 714 784        |
| Recycling  | 5 140            | 7 061            | 20 700           |
| Mass burn  | -                | -                | -                |
| Neutralisation   | 3 320            | 13 913           | 9 558            |
| Storage at landfills   | 3 819 945        | 3 537 658        | 3 938 929        |
| On-site storage and warehousing                                      | 10 462           | 30 605           | 1 951            |
| Other (e.g. transfer to authorised recipients)                       | -                | -                | -                |

|  | PGE EC         |                |                |
|--|----------------|----------------|----------------|
|  | 2021           | 2020           | 2019           |
| <b>Volume of hazardous waste broken down by disposal method:</b>     | <b>5 095</b>   | <b>4 669</b>   | <b>4 691</b>   |
| Recovery (including energy recovery)                                 | 70             | 290            | 4 430          |
| Recycling  | 306            | 57             | 36             |
| Mass burn  | -              | -              | -              |
| Neutralisation   | 1              | 37             | 725            |
| Storage at landfills   | -              | -              | 1              |
| On-site storage and warehousing                                      | 4 718          | 4 285          | 1,3            |
| Other (e.g. transfer to authorised recipients)                       | -              | -              | 0,2            |
| <b>Volume of non-hazardous waste broken down by disposal method:</b> | <b>408 638</b> | <b>432 622</b> | <b>366 606</b> |
| Recovery (including energy recovery)                                 | 312 845        | 161 558        | 481 603        |
| Recycling  | 10 766         | 194 833        | 4 718          |
| Mass burn  | -              | -              | 85 459         |
| Neutralisation   | 4              | 27 744         | 7 376          |
| Storage at landfills   | 46 364         | 2 256          | 12 772         |
| On-site storage and warehousing                                      | 35 500         | 47 157         | 231            |
| Other (e.g. transfer to authorised recipients)                       | 3 158          | 25             | 219            |

|  | PGE EO       |            |            |
|--|--------------|------------|------------|
|  | 2021         | 2020       | 2019       |
| <b>Volume of hazardous waste broken down by disposal method:</b>     | <b>70</b>    | <b>285</b> | <b>11</b>  |
| Recovery (including energy recovery)                                 | 0            | -          | 1          |
| Recycling  | 0            | -          | -          |
| Mass burn  | 0            | -          | -          |
| Neutralisation   | 47,9         | 39         | 3          |
| Storage at landfills   | 20,4         | 21,5       | 1,5        |
| On-site storage and warehousing                                      | 1,5          | 220        | 3,5        |
| Other (e.g. transfer to authorised recipients)                       | 0            | 4,7        | 2          |
| <b>Volume of non-hazardous waste broken down by disposal method:</b> | <b>1 182</b> | <b>218</b> | <b>213</b> |
| Recovery (including energy recovery)                                 | 0            | -          | -          |
| Recycling  | 0            | -          | -          |
| Mass burn  | 0            | -          | 2          |
| Neutralisation   | 3            | 171        | 3          |
| Storage at landfills   | 38           | 10         | 12         |
| On-site storage and warehousing                                      | 750          | 297        | 164        |
| Other (e.g. transfer to authorised recipients)                       | 391          | 47         | 32         |

|  | PGE Dystrybucja |              |              |
|--|-----------------|--------------|--------------|
|  | 2021            | 2020         | 2019         |
| <b>Volume of hazardous waste broken down by disposal method:</b>     | <b>815</b>      | <b>1 969</b> | <b>2 253</b> |
| Recovery (including energy recovery)                                 | -               | -            | -            |
| Recycling  | -               | -            | -            |
| Mass burn  | -               | -            | -            |
| Neutralisation   | -               | -            | -            |
| Storage at landfills   | -               | -            | -            |
| On-site storage and warehousing                                      | -               | -            | -            |
| Other (e.g. transfer to authorised recipients)                       | 815             | 1 969        | 2 253        |
| <b>Volume of non-hazardous waste broken down by disposal method:</b> | <b>2 659</b>    | <b>4 561</b> | <b>4 821</b> |
| Recovery (including energy recovery)                                 | -               | -            | -            |
| Recycling  | -               | -            | -            |
| Mass burn  | -               | -            | -            |
| Neutralisation   | -               | -            | -            |
| Storage at landfills   | -               | -            | -            |
| On-site storage and warehousing                                      | -               | -            | -            |
| Other (e.g. transfer to authorised recipients)                       | 2 659           | 4 561        | 4 821        |

Monetary value of penalties and total number of non-financial sanctions for non-compliance with environmental laws and regulations in companies with the highest environmental impact [PLN].

| GRI 307-1 |

| PGE EC  | 2021              | comment  |
|---|-------------------|--|
| <b>Value of fines not yet imposed but assessed for non-compliance with environmental laws and regulations</b>       | <b>PLN 52 179</b> | <p>I. The fine imposed by the Provincial Inspector for Environmental Protection (WIOŚ) in December 2021 in the amount of PLN 43 009 related to exceeding the parameters of wastewater from IMOS at EC Wrocław, in particular with regard to the COD parameter from periodic measurements and related to 2018.</p> <p>An application was submitted to the Provincial Inspectorate of Environmental Protection in order to include a fine towards the modernization of the IMOS installation.</p> <p>II. Penalty imposed by VIEP on KOGENERACJA / Czechnica Branch in the amount of PLN 9,170 for exceeding noise emissions in 2021. The company appealed to the Chief Inspectorate of Environmental Protection on the matter - administrative proceedings are pending.</p>  |
| <b>Value of fines reduced (remitted) in a given year for non-compliance with environmental laws and regulations</b> | <b>PLN 13 052</b> | <p>On January 12, 2021, two applications were submitted to VIEP to reduce fines and include them in the funds incurred for the implementation of projects for the Lublin EC Branch. The penalties concerned:</p> <p>1) a penalty for 2018 in the amount of PLN 7,999 for exceeding the permissible amount of 48-hour average dust exceeding 110% of the permissible value specified in the PZ.</p> <p>2) a fine for 2019 in the amount of PLN 5,053 for exceeding the dust emission standard in terms of the average monthly concentration in October 2019.</p> <p>On February 8, 2021, the Provincial Inspectorate of Environmental Protection issued two decisions reducing the administrative fines imposed for the years 2018 and 2019 to zero.</p>  |
| <b>Value of fines not yet imposed but assessed for non-compliance with environmental laws and regulations</b>       | <b>PLN 8 456</b>  | <p>For the EC Wybrzeże branch, fines were estimated for 2021 in the amount of PLN 8,456 for:</p> <p>1) PLN 8,436 - for the daily average SO<sub>2</sub> standards and for dust on the E2 emitter - for EC Wybrzeże. The SO<sub>2</sub> exceedances were related to the higher sulfur content in coal and the failure of the belt feeding the coal to peak boilers. The dust exceedances resulted from the optimization of the modernized electrostatic precipitator in connection with the adaptation to the BAT conclusions.</p> <p>2) PLN 20 for the excesses of cadmium and mercury in sewage - these occurred in connection with the optimization of the IMOS treatment plant operation with the use of a new preparation.</p> <p>If WIOŚ initiates proceedings in this respect and penalties are charged, the Wybrzeże branch plans to apply for a reduction in fines and include them in the funds incurred for the implementation of investment projects.</p> |

| PGE GIEK  | 2021                | comment   |
|---|---------------------|---|
| <b>Value of fines imposed in a given year for non-compliance with environmental laws and regulations</b>  | <b>PLN 4 170</b>    | Increased fee in the amount of PLN 4,170 imposed by the decision of the Lower Silesian Voivodship Inspector for Environmental Protection of June 25, 2021 for the Turów Brown Coal Mine Division for the discharge of sewage from a mechanical and biological sewage treatment plant in 2019, exceeding the conditions of using the environment.  |
|   | <b>PLN 27 540</b>   | A fine of PLN 27,540 imposed by the decision of the Lower Silesian Voivodship Inspector for Environmental Protection of March 9, 2021 for the Turów Power Plant Branch for exceeding the permissible mercury emissions from power units 5 and 6 in 2019.  |
|   | <b>PLN 36 152</b>   | A fine in the amount of PLN 36,152 imposed by the decision of the Lower Silesian Voivodship Inspector for Environmental Protection of March 9, 2021 for the Turów Power Plant Branch for exceeding the permissible mercury emission from power unit 5 in 2018.  |
| <b>Value of financial penalties for which the authorities conduct proceedings or issued a decision to postpone the payment deadline of penalties in a given year for non-compliance with environmental laws and regulations</b> | <b>PLN 4 170.00</b> | Turów Brown Coal Mine<br>By letter of June 29, 2021, an application was submitted to reduce the increased fee, established by the decision of the Lower Silesian Environmental Protection Inspector of June 25, 2021 for the discharge of wastewater from a mechanical and biological wastewater treatment plant (OSA-2) in 2019, exceeding the conditions for using the environment. The proceedings are in progress. The authority indicated the date of the case until August 31, 2022 and informed that the application could not be considered on time due to the need to confirm the proper functioning of the installation, i.e. to submit reports on the results of the tests from the full assessment period - from June 2021 to August 19, 2022   |
|   | <b>PLN 3 523</b>    | Turów Lignite Mine<br>By the decision of the Lower Silesian Environmental Protection Inspector of March 4, 2021, the deadline for the payment of a fine of PLN 3,523 was postponed, established by the decision of the Lower Silesian Environmental Protection Inspector of December 24, 2020 for the discharge of sewage from a mechanical and biological sewage treatment plant (OSA-2) in 2017, exceeding conditions for using the environment. The penalty may be remitted after the correct functioning of the installation is confirmed, i.e. the reports on the test results from the full evaluation period are presented - from June 2021 to August 19, 2022.  |
|   | <b>PLN 27 540</b>   | Turów Power Plant<br>By the decision of the Lower Silesian Environmental Protection Inspector of April 29, 2021, the deadline for the payment of a fine in the amount of PLN 27 540 was postponed, determined by the decision of the Lower Silesian Environmental Protection Inspector of March 9, 2020, provided that the investment project is carried out on time. The deadline was set for November 30, 2021. On November 23, 2021, the Contractor of the Bromine salt dosing unit informed the Employer about the impossibility of completing the investment on time. On December 22, 2021, the company's Management Board signed an annex with the Contractor, extending the investment completion date. Due to the expiry of the deadline for submitting an application for amending decisions deferring the payment of penalties, the Branch applied to DWIOŚ with a request to restore the deadline for submitting an application for changing the deferment decisions. An application was submitted to change the investment completion date until December 31, 2022. |

|  |                       |  |
|--|-----------------------|--|
|  | <b>PLN 36 152</b>     | <p><b>Turów Power Plant</b><br/>By the decision of the Lower Silesian Environmental Protection Inspector of April 29, 2021, the deadline for the payment of a fine in the amount of PLN 36 152 was postponed, determined by the decision of the Lower Silesian Environmental Protection Inspector of March 9, 2020, provided that the investment project was carried out on time. The deadline was set for November 30, 2021. On November 23, 2021, the Contractor of the Bromine salt dosing unit informed the Employer about the impossibility of completing the investment on time. On December 22, the Management Board of the Company signed an annex with the Contractor, extending the term of the investment. Due to the expiry of the deadline for submitting an application for amending decisions deferring the payment of penalties, the Branch applied to DWIOŚ with a request to restore the deadline for submitting an application for changing the deferment decisions. An application was submitted to change the investment completion date until December 31, 2022</p>                |
|  | <b>PLN 5 100</b>      | <p><b>Turów Power Plant</b><br/>By the decision of the Lower Silesian Environmental Protection Inspector of February 26, 2021, the deadline for the payment of a fine in the amount of PLN 5,100.00, determined by the decision of the Lower Silesian Environmental Protection Inspector of December 17, 2020, was postponed, provided that the investment project is implemented on time. The deadline was set for November 30, 2021. On November 23, 2021, the Contractor of the Bromine salt dosing unit informed the Employer about the impossibility of completing the investment on time. On December 22, 2021, the Management Board of the Company signed an annex with the Contractor, extending the term of the investment. Due to the expiry of the deadline for submitting an application for amending decisions deferring the payment of penalties, the Branch applied to DWIOŚ with a request to restore the deadline for submitting an application for changing the deferment decisions. An application was submitted to change the investment completion date until December 31, 2022</p> |
| <b>Value of fines paid / to be paid in a given year for non-compliance with environmental laws and regulations</b> | <b>PLN 7 260</b>      | <p>By the decision of the Łódź Environmental Protection Inspector of February 15, 2021, the authority reduced the fine imposed in 2020 for exceeding the permissible noise levels in Kamień 35. The decision was a consequence of the purchase of the Kamień 35 real estate by the Branch in 2018, which eliminated the reason for the penalty.</p>  |
| <b>Value of fines not yet imposed but assessed for non-compliance with environmental laws and regulations</b>      | <b>PLN 346 705.39</b> | <p>In the case of materialization of penalties related to noise propagation in 2021, the following estimated costs should be taken into account in the following areas:</p> <ul style="list-style-type: none"> <li>• Kamień 35 - fine for 2018 PLN 29,475.60;</li> <li>• Kamień 36 - penalty PLN 24,212.10 (for 2018), PLN 62,156.58 (for 2019), 63,138.80 (for 2020), 64,599.53 (for 2021);</li> <li>• Janówka 57 - fine of 28,955.80 (for 2020), 70,216.88 (for 2021);</li> <li>• Chabielice Kol. - penalty for exceeding the permissible noise standard by 3.5 dB at night, on the basis of the test report carried out on November 16, 2021 (in accordance with the environmental decision). The amount for 44 days of 2021 may be approximately PLN 3,950.10</li> </ul>   |
|  | <b>PLN 222 000</b>    | <p>Estimated amount of the fine for exceeding the average annual mercury emission level on the emitter of unit 14 (cooling tower) at the Bełchatów Power Plant.</p>  |
|  | <b>PLN 609 000</b>    | <p>Estimated amount of the fine for exceeding the average annual emission level of carbon monoxide on the emitter of unit 7 (cooling tower) at the Turów Power Plant. Due to the fact that the exceeded value has been specified in the integrated permit as an indicative level, in this case the authority may not take actions related to the imposition of a penalty. In the event of issuing a decision imposing a fine, the Company will use the path provided for in the procedural and administrative regulations.</p>   |

## Selected indices relating to environmental issues in PGE SA:

The indices below present the Company's approach to managing its environmental impact in terms of energy, water and paper consumption at the headquarters of PGE SA.

| Annual electricity consumption at the PGE SA headquarters                    |       |       |       |
|--|-------|-------|-------|
|  | 2021  | 2020  | 2019  |
| <b>Energy for administrative purposes (MWh)</b>                              | 1 716 | 1 594 | 1 698 |
| <b>Energy for administrative and technical purposes (server rooms) (MWh)</b> | 914   | 909   | 1 084 |

The consumption of energy for administrative purposes slightly increased compared to the previous year. This could have been influenced by the return of employees to the company after working remotely due to COVID-19.

| Annual thermal energy consumption at the PGE SA headquarters      |       |       |       |
|---|-------|-------|-------|
|   | 2021  | 2020  | 2019  |
| <b>Annual consumption of thermal energy (in GJ)</b>               | 8 460 | 6 980 | 6 675 |
| <b>Annual consumption of thermal energy (in GJ/m<sup>3</sup>)</b> | 0.08  | 0.06  | 0.06  |

The annual consumption of thermal energy slightly increased year on year due to the earlier heating season.

| Annual consumption of sheets of paper at the PGE SA headquarters |         |         |           |
|--|---------|---------|-----------|
|  | 2021    | 2020    | 2019      |
| <b>Office Printing Paper (translated into A4-size sheets)</b>    | 841 958 | 873 085 | 1 139 950 |
| <b>Paper consumption for office printing (A4 sheets/person)</b>  | 1 201   | 1 317   | 1 768     |

The consumption of paper per one employee of PGE SA is regularly decreasing. This may be influenced by trainings on the principles of a green office.

| Annual water consumption and sewage disposal at the PGE SA headquarters    |       |       |       |
|--|-------|-------|-------|
|  | 2021  | 2020  | 2019  |
| <b>Annual water consumption and sewage disposal (m<sup>3</sup>)</b>        | 4 711 | 4 152 | 7 391 |
| <b>Annual water consumption and sewage disposal (m<sup>3</sup>/person)</b> | 6.7   | 6.3   | 11.5  |

The return of employees to the company after working remotely, as well as the responsible attitude of employees in following the recommendations related to the prevention of the spread of COVID-19 and frequent washing of hands, could have contributed to the increase in water consumption and discharged sewage.

| Annual consumption of toner cartridges at the PGE SA headquarters |      |      |      |
|---|------|------|------|
|   | 2021 | 2020 | 2019 |
| <b>Annual consumption of toner (cartridges)</b>                   | 130  | 183  | 173  |
| <b>Annual consumption of toner (cartridge/person)</b>             | 0.18 | 0.27 | 0.26 |

| Energy-saving LED fixtures at the PGE SA headquarters |      |      |      |
|---|------|------|------|
|   | 2021 | 2020 | 2019 |
| <b>LED fixtures (percent)</b>                         | 71   | 66   | 65   |

Due to the pandemic period, renovation works were suspended, and therefore the luminaires were slightly replaced.



## Selected indices relating to employee issues in the PGE Group and PGE SA:

The number of employees broken down by type of employment, type of employment contract and gender (in persons).

As at December 31.

| GRI 102-8 | GC-6 |

| PGE Group  | Data for 2021 |        |               | Data for 2020 |        |               | Data for 2019 |        |               |
|--|---------------|--------|---------------|---------------|--------|---------------|---------------|--------|---------------|
|  | Women         | Men    | Total         | Women         | Men    | Total         | Women         | Men    | Total         |
| <b>Total number of employees</b>                                       | 7 735         | 30 564 | <b>38 299</b> | 8 173         | 32 271 | <b>40 444</b> | 8 704         | 33 576 | <b>42 280</b> |
| Number of employees employed on a full-time basis                      | 7 667         | 30 485 | <b>38 152</b> | 8 083         | 32 170 | <b>40 253</b> | 8 613         | 33 462 | <b>42 075</b> |
| Number of employees employed on a part-time basis                      | 68            | 79     | <b>147</b>    | 90            | 101    | <b>191</b>    | 91            | 114    | <b>205</b>    |
| Number of employees with employment contracts for an indefinite period | 6 960         | 28 679 | <b>35 639</b> | 7 318         | 30 099 | <b>37 417</b> | 7 590         | 30 835 | <b>38 425</b> |
| Number of employees with employment contracts for a definite period    | 775           | 1 885  | <b>2 660</b>  | 855           | 2 172  | <b>3 027</b>  | 1 114         | 2 741  | <b>3 855</b>  |
| Employees with contracts of mandate (A)                                | 225           | 532    | <b>757</b>    | 157           | 483    | <b>640</b>    | 283           | 504    | <b>787</b>    |
| Employees with contracts for specific work (B)                         | 5             | 7      | <b>12</b>     | 0             | 6      | <b>6</b>      | 0             | 3      | <b>3</b>      |
| Number of self-employed workers  | 5             | 12     | <b>17</b>     | 3             | 7      | <b>10</b>     | 0             | 22     | <b>22</b>     |
| Ratio of self-employed workers to all employees                        | 0.065%        | 0.039% | <b>0.044%</b> | 0.037%        | 0.022% | <b>0.025%</b> | 0.000%        | 0.066% | <b>0.052%</b> |

| PGE SA   | Data for 2021 |     |            | Data for 2020 |     |            | Data for 2019 |     |            |
|--|---------------|-----|------------|---------------|-----|------------|---------------|-----|------------|
|  | Women         | Men | Total      | Women         | Men | Total      | Women         | Men | Total      |
| <b>Total number of employees</b>                                       | 356           | 345 | <b>701</b> | 311           | 307 | <b>618</b> | 331           | 336 | <b>667</b> |
| Number of employees employed on a full-time basis                      | 350           | 340 | <b>690</b> | 302           | 300 | <b>602</b> | 322           | 327 | <b>649</b> |
| Number of employees employed on a part-time basis                      | 6             | 5   | <b>11</b>  | 9             | 7   | <b>16</b>  | 9             | 9   | <b>18</b>  |
| Number of employees with employment contracts for an indefinite period | 338           | 323 | <b>661</b> | 295           | 290 | <b>585</b> | 311           | 308 | <b>619</b> |
| Number of employees with employment contracts for a definite period    | 18            | 22  | <b>40</b>  | 16            | 17  | <b>33</b>  | 20            | 28  | <b>48</b>  |
| Employees with contracts of mandate (A)                                | 0             | 6   | <b>6</b>   | 1             | 1   | <b>2</b>   | 4             | 3   | <b>7</b>   |
| Employees with contracts for specific work (B)                         | 0             | 1   | <b>1</b>   |               | 1   | <b>1</b>   | 0             | 2   | <b>2</b>   |
| Number of self-employed workers  | 0             | 0   | <b>0</b>   |               |     | <b>0</b>   |               |     | <b>0</b>   |
| Ratio of self-employed workers to all employees                        | 0             | 0   | <b>0</b>   | 0             | 0   | <b>0</b>   | 0             | 0   | <b>0</b>   |

The number of employees covered by collective bargaining agreements. As at December 31.

**| GRI 102-41 | GC-3 |**

| PGE Group  | Data for 2021 | Data for 2020 | Data for 2019 |
|--|---------------|---------------|---------------|
| Number of employees  | 38 299        | 40 444        | 42 283        |
| Number of employees covered by collective bargaining agreements                                    | 29 486        | 30 861        | 32 339        |
| Percentage of employees covered by collective bargaining agreements (in relation to all employees) | 77.0%         | 76.3%         | 76.5%         |

| PGE SA   | Data for 2021 | Data for 2020 | Data for 2019 |
|--|---------------|---------------|---------------|
| Number of employees  | 701           | 618           | 667           |
| Number of employees covered by collective bargaining agreements                                    | 0             | 1             | 1             |
| Percentage of employees covered by collective bargaining agreements (in relation to all employees) | 0%            | 0%            | 0%            |

Total number of newly hired employees, employees who left the workforce and employee turnover broken down by age and gender (in persons). As at December 31.

**| GRI 401-1 | GC-6 |**

| PGE Group   | Data for 2021 | Data for 2020 | Data for 2019 |
|---|---------------|---------------|---------------|
| <b>Total number of employees</b>  | <b>38 299</b> | <b>40 444</b> | <b>42 283</b> |
| <b>Total number of newly hired employees in the reporting period, including:</b>                | <b>1 973</b>  | <b>1 927</b>  | <b>3 040</b>  |
| Women   | 659           | 579           | 1 065         |
| Men   | 1 314         | 1 348         | 2 935         |
| Persons aged below 30   | 537           | 568           | 1 274         |
| Persons aged between 30 and 50  | 1 222         | 1 076         | 2 221         |
| Persons aged over 50  | 214           | 283           | 465           |
| <b>Percentage of newly hired employees in the reporting period, including:</b>                  | <b>5%</b>     | <b>5%</b>     | <b>7%</b>     |
| Women   | 2%            | 1%            | 3%            |
| Men   | 3%            | 3%            | 7%            |
| Persons aged below 30   | 1%            | 1%            | 3%            |
| Persons aged between 30 and 50  | 3%            | 3%            | 5%            |
| Persons aged over 50  | 1%            | 1%            | 1%            |
| <b>Total number of employees who left the workforce during the reporting period, including:</b> | <b>4 232</b>  | <b>3 695</b>  | <b>2 711</b>  |
| Women   | 1 053         | 1 031         | 698           |
| Men   | 3 179         | 2 664         | 2 080         |
| Persons aged below 30   | 420           | 394           | 398           |
| Persons aged between 30 and 50  | 1 356         | 1 078         | 887           |
| Persons aged over 50  | 2 456         | 2 223         | 1 493         |
| <b>Percentage of employees who left the workforce during the reporting period, including:</b>   | <b>11%</b>    | <b>9%</b>     | <b>6%</b>     |
| Women   | 3%            | 3%            | 2%            |
| Men   | 8%            | 7%            | 5%            |
| Persons aged below 30   | 1%            | 1%            | 1%            |
| Persons aged between 30 and 50  | 4%            | 3%            | 2%            |
| Persons aged over 50  | 6%            | 5%            | 4%            |

| PGE SA  | Data for 2021 | Data for 2020 | Data for 2019 |
|---|---------------|---------------|---------------|
| <b>Total number of employees</b>  | <b>701</b>    | <b>618</b>    | <b>667</b>    |
| <b>Total number of newly hired employees in the reporting period, including:</b>                | <b>201</b>    | <b>83</b>     | <b>77</b>     |
| Women   | 90            | 33            | 36            |
| Men   | 111           | 50            | 41            |
| Persons aged below 30   | 32            | 11            | 31            |
| Persons aged between 30 and 50  | 153           | 61            | 43            |
| Persons aged over 50  | 16            | 11            | 3             |
| <b>Percentage of newly hired employees in the reporting period, including:</b>                  | <b>29%</b>    | <b>13%</b>    | <b>12%</b>    |
| Women   | 13%           | 5%            | 5%            |
| Men   | 16%           | 8%            | 6%            |
| Persons aged below 30   | 5%            | 2%            | 5%            |
| Persons aged between 30 and 50  | 22%           | 10%           | 6%            |
| Persons aged over 50  | 2%            | 2%            | 0%            |
| <b>Total number of employees who left the workforce during the reporting period, including:</b> | <b>114</b>    | <b>132</b>    | <b>40</b>     |
| Women   | <b>47</b>     | <b>53</b>     | <b>16</b>     |
| Men   | 67            | 79            | 24            |
| Persons aged below 30   | 14            | 19            | 9             |
| Persons aged between 30 and 50  | 73            | 77            | 24            |
| Persons aged over 50  | 27            | 36            | 7             |
| <b>Percentage of employees who left the workforce during the reporting period, including:</b>   | <b>16%</b>    | <b>21%</b>    | <b>6%</b>     |
| Women   | 7%            | 9%            | 2%            |
| Men   | 10%           | 13%           | 4%            |
| Persons aged below 30   | 2%            | 3%            | 1%            |
| Persons aged between 30 and 50  | 10%           | 12%           | 4%            |
| Persons aged over 50  | 4%            | 6%            | 1%            |

The average annual number of training days per employee broken down by gender and employment structure (in persons). As at December 31.

**| GRI 404-1 | GC-6 |**

| PGE Group   | Data for 2021    | Data for 2020    | Data for 2019    |
|---|------------------|------------------|------------------|
| <b>Total number of training days (total in given year)</b>                                  | <b>50 034,28</b> | <b>42 105,00</b> | <b>48 487,75</b> |
| <b>Total number of employees</b>  | <b>38 299</b>    | <b>40 444</b>    | <b>42 280</b>    |
| <b>Average number of training days per employee in the reporting period – total</b>         | <b>1.31</b>      | <b>1.04</b>      | <b>1.15</b>      |
| <b>Average number of training days per employee during the reporting period, including:</b> | <b>1.85</b>      | <b>3.62</b>      | <b>2.25</b>      |
| Women   | 1.52             | 1.38             | 1.14             |
| Men   | 1.23             | 0.96             | 1.15             |
| Top management (Management Board and directors)   | 2.96             | 3.38             | 7.08             |
| Managerial positions  | 2.09             | 1.90             | 2.37             |
| Other employees   | 1.21             | 0.95             | 1.00             |

Average hours of training per year per employee broken down by employment category and gender.

| GRI 404-1 |

| PGE SA  | Data for 2021 | Data for 2020 | Data for 2019   |
|---|---------------|---------------|-----------------|
| <b>Total number of training days (total in given year)</b>                                  | <b>333.00</b> | <b>492.00</b> | <b>2 481.25</b> |
| <b>Total number of employees</b>  | <b>701</b>    | <b>618</b>    | <b>667</b>      |
| <b>Average number of training days per employee in the reporting period – total</b>         | <b>0.48</b>   | <b>0.80</b>   | <b>3.72</b>     |
| <b>Average number of training days per employee during the reporting period, including:</b> | <b>0.48</b>   | <b>0.70</b>   | <b>3.84</b>     |
| Women   | 0.64          | 1.18          | 3.36            |
| Men   | 0.65          | 0.82          | 4.07            |
| Top management (Management Board and directors)   | 0.96          | 1.57          | 6.62            |
| Managerial positions  | 0.75          | 1.25          | 4.03            |
| Other employees   | 0.57          | 0.97          | 3.35            |

The percentage of employees undergoing regular work performance assessments and career development reviews broken down by gender. As at December 31.

| GRI 404-3 | GC-6 |

| PGE Group  | Data for 2021 | Data for 2020 | Data for 2019 |
|--|---------------|---------------|---------------|
| <b>Percentage of employees undergoing regular work performance assessments broken down by gender:</b>  | <b>16.4%</b>  | <b>15.4%</b>  | <b>23.5%</b>  |
| Number of employees receiving regular work performance assessments   | 6 286         | 6 228         | 9 923         |
| Number of women receiving regular work performance assessments   | 2 472         | 2 396         | 2 899         |
| Number of men receiving regular work performance assessments   | 3 814         | 3 832         | 7 024         |
| Number of managers/directors (managerial positions, names may vary from company to company)  | 1 034         | 1 119         | 1 256         |
| <b>Percentage of employees receiving regular work performance assessments (women and men together – percentage of total number of all employees)</b> |               |               |               |
| Women (percentage of all women)  | 32.0%         | 29.3%         | 33.3%         |
| Men (percentage of men out of all men)   | 12.5%         | 11.9%         | 20.9%         |
| Directors, managers  | 35.9%         | 38.3%         | 43.7%         |

| PGE SA   | Data for 2021 | Data for 2020 | Data for 2019 |
|--|---------------|---------------|---------------|
| <b>Percentage of employees undergoing regular work performance assessments broken down by gender:</b>  | <b>100%</b>   | <b>100%</b>   | <b>100%</b>   |
| Number of employees receiving regular work performance assessments   | 701           | 618           | 667           |
| Number of women receiving regular work performance assessments   | 356           | 311           | 331           |
| Number of men receiving regular work performance assessments   | 345           | 307           | 336           |
| Number of managers/directors (managerial positions, names may vary from company to company)  | 159           | 151           | 156           |
| <b>Percentage of employees receiving regular work performance assessments (women and men together – percentage of total number of all employees)</b> |               |               |               |
| Women (percentage of all women)  | 100%          | 100%          | 100%          |
| Men (percentage of men out of all men)   | 100%          | 100%          | 100%          |
| Directors, managers  | 100%          | 100%          | 100%          |

The composition of governing and supervising bodies, as well as the personnel broken down by gender and age. As at December 31.

| GRI 405-1 | GC-6 |

| PGE Group   | Data for 2021 | Data for 2020 | Data for 2019 |
|---|---------------|---------------|---------------|
| <b>Number of members of the Management Board</b>                  | <b>81</b>     | <b>89</b>     | <b>95</b>     |
| <b>Number of members of the Management Board, including:</b>      |               |               |               |
| Women   | 8             | 9             | 8             |
| Men   | 73            | 80            | 87            |
| age: under 30   | 1             | 0             | 0             |
| age: 30-50  | 49            | 62            | 55            |
| age: over 50  | 31            | 27            | 38            |
| <b>Number of members of the Supervisory Board</b>                 | <b>191</b>    | <b>197</b>    | <b>190</b>    |
| <b>Number of members of the Supervisory Board, including:</b>     |               |               |               |
| Women   | 52            | 54            | 57            |
| Men   | 139           | 143           | 133           |
| age: under 30   | 1             | 2             | 3             |
| age: 30-50  | 130           | 137           | 128           |
| age: over 50  | 60            | 58            | 57            |
| <b>Total number of employees</b>                                  | <b>38 299</b> | <b>40 444</b> | <b>42 281</b> |
| <b>Number of employees in each of the following categories:</b>   |               |               |               |
| Women   | 7 735         | 8 173         | 8 706         |
| Men   | 30 564        | 32 271        | 33 575        |
| age: under 30   | 2 864         | 3 059         | 3 457         |
| age: 30-50  | 18 261        | 19 550        | 20 641        |
| age: over 50  | <b>17 174</b> | <b>17 835</b> | <b>18 183</b> |
| <b>Percentage of members of the Management Board, including:</b>  |               |               |               |
| Women   | 9.9%          | 10.1%         | 8.4%          |
| Men   | 90.1%         | 89.9%         | 91.6%         |
| age: under 30   | 1.2%          | 0.0%          | 0.0%          |
| age: 30-50  | 60.5%         | 69.7%         | 57.9%         |
| age: over 50  | 38.3%         | 30.3%         | 40.0%         |
| <b>Percentage of members of the Supervisory Board, including:</b> |               |               |               |
| Women   | 27.2%         | 27.4%         | 30.0%         |
| Men   | 72.8%         | 72.6%         | 70.0%         |
| age: under 30   | 0.5%          | 1.0%          | 1.6%          |
| age: 30-50  | 68.1%         | 69.5%         | 67.4%         |
| age: over 50  | 31.4%         | 29.4%         | 30.0%         |
| <b>Percentage of employees, including:</b>                        |               |               |               |
| Women   | 20.2%         | 20.2%         | 20.6%         |
| Men   | 79.8%         | 79.8%         | 79.4%         |
| age: under 30   | 7.5%          | 7.6%          | 8.2%          |
| age: 30-50  | 47.7%         | 48.3%         | 48.8%         |
| age: over 50  | 44.8%         | 44.1%         | 43.0%         |

| PGE SA  | Data for 2021 | Data for 2020 | Data for 2019 |
|---|---------------|---------------|---------------|
| <b>Number of members of the Management Board</b>                  | <b>6</b>      | <b>6</b>      | <b>6</b>      |
| <b>Number of members of the Management Board, including:</b>      |               |               |               |
| Women   | 1             | 1             |               |
| Men   | 5             | 5             | 6             |
| age: under 30   | 1             |               |               |
| age: 30-50  | 3             | 5             | 2             |
| age: over 50  | 2             | 1             | 4             |
| <b>Number of members of the Supervisory Board</b>                 | <b>9</b>      | <b>8</b>      | <b>8</b>      |
| <b>Number of members of the Supervisory Board, including:</b>     |               |               |               |
| Women   | 2             | 2             | 2             |
| Men   | 7             | 6             | 6             |
| age: under 30   |               |               |               |
| age: 30-50  | 4             | 4             | 4             |
| age: over 50  | 5             | 4             | 4             |
| <b>Total number of employees</b>                                  | <b>701</b>    | <b>618</b>    | <b>667</b>    |
| <b>Number of employees in each of the following categories:</b>   |               |               |               |
| Women   | 356           | 311           | 331           |
| Men   | 345           | 307           | 336           |
| age: under 30   | 68            | 54            | 78            |
| age: 30-50  | 548           | 480           | 499           |
| age: over 50  | 85            | 84            | 90            |
| <b>Percentage of members of the Management Board, including:</b>  |               |               |               |
| Women   | 16.7%         | 16.7%         | 0%            |
| Men   | 83.3%         | 83.3%         | 100%          |
| age: under 30   | 16.7%         | 0.0%          | 0.0%          |
| age: 30-50  | 50.0%         | 83.3%         | 33.3%         |
| age: over 50  | 33.3%         | 16.7%         | 66.7%         |
| <b>Percentage of members of the Supervisory Board, including:</b> |               |               |               |
| Women   | 22.2%         | 25.0%         | 25.0%         |
| Men   | 77.8%         | 75.0%         | 75.0%         |
| age: under 30   | 0.0%          | 0.0%          | 0.0%          |
| age: 30-50  | 44.4%         | 50.0%         | 50.0%         |
| age: over 50  | 55.6%         | 50.0%         | 50.0%         |
| <b>Percentage of employees, including:</b>                        |               |               |               |
| Women   | 50.8%         | 50.3%         | 49.6%         |
| Men   | 49.2%         | 49.7%         | 50.4%         |
| age: under 30   | 9.7%          | 8.7%          | 11.7%         |
| age: 30-50  | 78.2%         | 77.7%         | 74.8%         |
| age: over 50  | 12.1%         | 13.6%         | 13.5%         |



Percentage of employees who will become entitled to retire in 5 and 10 years, broken down by type of work.  
As of December 31.

| GRI EU15 |

| PGE Group   | Data for 2021 |
|---|---------------|
| <b>Number of employees entitled to retirement within 5 years</b>                        | <b>5 905</b>  |
| Directors   | 136           |
| Managers  | 555           |
| Experts   | 302           |
| Office positions  | 1 019         |
| Operating positions   | 3 445         |
| Others  | 448           |
| <b>Percentage of employees entitled to retirement within 5 years</b>                    |               |
| Directors   | 22%           |
| Managers  | 24%           |
| Experts   | 15%           |
| Office positions  | 18%           |
| Operating positions   | 14%           |
| Others  | 16%           |
| <b>Number of employees entitled to retirement within 10 years<br/>(cumulative data)</b> | <b>12 402</b> |
| Directors   | 189           |
| Managers  | 790           |
| Experts   | 533           |
| Office positions  | 1 643         |
| Operating positions   | 8 397         |
| Others  | 850           |
| <b>Percentage of employees entitled to retirement within 10 years</b>                   |               |
| Directors   | 31%           |
| Managers  | 35%           |
| Experts   | 27%           |
| Office positions  | 29%           |
| Operating positions   | 34%           |
| Others  | 31%           |

Percentage of employees who will become entitled to retire in 5 and 10 years, broken down by type of work.  
As of December 31.

| PGE SA  |  | Data for 2021 |
|---|--|---------------|
| <b>Number of employees entitled to retirement within 5 years</b>                        |  | <b>17</b>     |
| Directors   |  | 1             |
| Managers  |  | 2             |
| Experts   |  | 10            |
| Office positions  |  | 4             |
| Operating positions   |  |               |
| Others  |  |               |
| <b>Percentage of employees entitled to retirement within 5 years</b>                    |  |               |
| Directors   |  | 1%            |
| Managers  |  | 3%            |
| Experts   |  | 3%            |
| Office positions  |  | 2%            |
| Operating positions   |  | 0%            |
| Others  |  | 0%            |
| <b>Number of employees entitled to retirement within 10 years<br/>(cumulative data)</b> |  | <b>34</b>     |
| Directors   |  | 6             |
| Managers  |  | 4             |
| Experts   |  | 16            |
| Office positions  |  | 8             |
| Operating positions   |  |               |
| Others  |  |               |
| <b>Percentage of employees entitled to retirement within 10 years</b>                   |  |               |
| Directors   |  | 8%            |
| Managers  |  | 5%            |
| Experts   |  | 5%            |
| Office positions  |  | 4%            |
| Operating positions   |  | 0%            |
| Others  |  | 0%            |

Implementation of the Voluntary Leave Programme (VLP) (persons).

| PGE Group          |     |
|--------------------|-----|
| <b>VLP in 2021</b> | 52  |
| <b>VLP in 2020</b> | 135 |
| <b>VLP in 2019</b> | 26  |

| PGE SA             |    |
|--------------------|----|
| <b>VLP in 2021</b> | 52 |
| <b>VLP in 2020</b> | 22 |
| <b>VLP in 2019</b> | 0  |

Type and rate of injuries, occupational diseases, lost days and absenteeism, as well as the total number of work-related fatal accidents broken down by gender.

| GRI 403-9 |

| PGE Group  | Data for 2021 | Data for 2020 | Data for 2019 |
|--|---------------|---------------|---------------|
| <b>Total number of all accidents at work, including:</b> | <b>160</b>    | <b>176</b>    | <b>171</b>    |
| Women [number of injured]                                | 13            | 13            | 15            |
| Men [number of injured]                                  | 147           | 164           | 158           |
| <b>Number of fatal accidents</b>                         | <b>0</b>      | <b>3</b>      | <b>1</b>      |
| Women [number of injured]                                | 0             | 0             | 0             |
| Men [number of injured]                                  | 0             | 3             | 1             |
| <b>Number of collective accidents</b>                    | <b>2</b>      | <b>1</b>      | <b>2</b>      |
| Women [number of injured]                                | 0             | 0             | 0             |
| Men [number of injured]                                  | 4             | 2             | 4             |
| <b>Number of serious accidents</b>                       | <b>1</b>      | <b>2</b>      | <b>2</b>      |
| Women [number of injured]                                | 0             | 0             | 0             |
| Men [number of injured]                                  | 1             | 2             | 2             |
| <b>Number of light accidents</b>                         | <b>155</b>    | <b>170</b>    | <b>166</b>    |
| Women [number of injured]                                | 13            | 12            | 15            |
| Men [number of injured]                                  | 142           | 158           | 151           |
| <b>Accident frequency index *</b>                        | <b>4.17</b>   | <b>4.35</b>   | <b>4.04</b>   |
| <b>Accident severity index **</b>                        | <b>64.63</b>  | <b>68.68</b>  | <b>74.97</b>  |
| <b>Absenteeism index ***</b>                             | <b>10 340</b> | <b>11 675</b> | <b>12 445</b> |
| Women  | 568           | 582           | 1 556         |
| Men  | 9 772         | 11 093        | 10 889        |

\* Accident frequency index calculated according to the following formula = number of accidents per year/number of employees (as at the end of the year) x1000

\*\* Accident severity index calculated according to the following formula = total number of days of work incapacity of victims of accidents at work/number of victims

\*\*\* Absenteeism index is the total number of days of absence due to work accidents (calendar days) - with respect to PGE Group companies

| PGE SA   | Data for 2021 | Data for 2020 | Data for 2019 |
|--|---------------|---------------|---------------|
| <b>Total number of all accidents at work, including:</b> | <b>1</b>      | <b>0</b>      | <b>0</b>      |
| Women [number of injured]                                | 1             | 0             | 0             |
| Men [number of injured]                                  | 0             | 0             | 0             |
| <b>Number of fatal accidents</b>                         | <b>0</b>      | <b>0</b>      | <b>0</b>      |
| Women [number of injured]                                | 0             | 0             | 0             |
| Men [number of injured]                                  | 0             | 0             | 0             |
| <b>Number of collective accidents</b>                    | <b>0</b>      | <b>0</b>      | <b>0</b>      |
| Women [number of injured]                                | 0             | 0             | 0             |
| Men [number of injured]                                  | 0             | 0             | 0             |
| <b>Number of serious accidents</b>                       | <b>0</b>      | <b>0</b>      | <b>0</b>      |
| Women [number of injured]                                | 0             | 0             | 0             |
| Men [number of injured]                                  | 0             | 0             | 0             |
| <b>Number of light accidents</b>                         | <b>1</b>      | <b>0</b>      | <b>0</b>      |
| Women [number of injured]                                | 1             | 0             | 0             |
| Men [number of injured]                                  | 0             | 0             | 0             |
| <b>Accident frequency index</b>                          | <b>1.43</b>   | <b>0</b>      | <b>0</b>      |
| <b>Accident severity index</b>                           | <b>14</b>     | <b>0</b>      | <b>0</b>      |
| <b>Absenteeism index</b>                                 | <b>14</b>     | <b>0</b>      | <b>0</b>      |
| Women  | 14            | 0             | 0             |
| Men  | 0             | 0             | 0             |

In 2021, the accident frequency rate decreased by approx. 6% compared to 2020. The vast majority of accidents were related to falls related to pedestrian movement and to minor cuts and injuries related to manual handling of objects.

## SELECTED INDICATORS IN THE AREA OF SOCIAL ISSUES AT THE PGE GROUP:

| GRI EU-28 | GRI EU-29 |

| Operational data  | Data for 2021 | Data for 2020 | Data for 2019 |
|---|---------------|---------------|---------------|
| <b>SAIDI index [minutes]<br/>(average duration of electricity<br/>supply interruptions), including:</b> | <b>367</b>    | <b>251</b>    | <b>261</b>    |
| Planned   | 33            | 40            | 58            |
| Unplanned with catastrophic   | 334           | 211           | 203           |
| <b>SAIFI index [units]<br/>(average frequency of electricity<br/>supply interruptions), including:</b>  | <b>4.28</b>   | <b>3.67</b>   | <b>3.88</b>   |
| Planned   | 0.2           | 0.24          | 0.31          |
| Unplanned with catastrophic   | 4.08          | 3.43          | 3.57          |

PGE cares about increasing the reliability of deliveries and lowering SAIDI and SAIFI ratios. The increase in SAIDI and SAIFI in 2021 is due to weather conditions. PGE Dystrybucja makes many efforts to reduce the nuisance associated with interruptions in electricity supply. For this purpose, more and more work is carried out under voltage. Mobile cable lines were also purchased, which allow for emergency power supply to recipients in the event of damage to the distribution network. The result of these activities is the reduction of the time of scheduled breaks related to service works by nearly 18% compared to 2020.

## Total number of legitimate complaints about breach of customer privacy and data loss

### | GRI 418-1|

| PGE SA  |  |
|---|--|
| Complaints received from external institutions and recognized by the organization | 0  |
| Complaints received from the regulator  | 0  |
| Total number of identified leaks, theft or loss of customer data                  | 0  |
| PGE Dystrybucja*  |  |
| Complaints received from external institutions and recognized by the organization | 0  |
| Complaints received from the regulator  | 0  |
| Total number of identified leaks, theft or loss of customer data                  | 7  |
| PGE Obrót**   |  |
| Complaints received from external institutions and recognized by the organization | 0  |
| Complaints received from the regulator  | 3  |
| Total number of identified leaks, theft or loss of customer data                  | <b>986, including:</b> <ul style="list-style-type: none"> <li>a) 41 - number of notifications classified as violations with notification to the Office for Personal Data Protection (UODO)</li> <li>b) 945 - number of reports classified as infringements without notification to UODO</li> </ul> |
| PGE Energia Ciepła  |  |
| Complaints received from external institutions and recognized by the organization | 0  |
| Complaints received from the regulator  | 0  |
| Total number of identified leaks, theft or loss of customer data                  | 0  |

\* PGE Dystrybucja provides electricity distribution services to 5 590 733 customers (as at December 31, 2021). The 7 violations of personal data protection reported to the company constitute approx. 0.0001 percent in proportion to the number of customers.

\*\* 986 personal data breaches reported to PGE Obrót account for approx. 0.017% in proportion to the number of customers.

Pursuant to Art. 33 paragraph 1 GDPR: "In the event of a breach of personal data protection, the controller shall, without undue delay - if possible, no later than 72 hours after finding the breach - notify the competent supervisory authority pursuant to Art. 55, unless it is unlikely that the violation would result in a risk of violating the rights or freedoms of natural persons. " Notification to the Personal Data Protection Office takes place when the analysis of the notification of a personal data breach indicates that the disclosed data may be used by an unauthorized third party and may cause material or non-material damage to the person whose data has been disclosed.

In 2021, 7 violations of personal data protection were reported at PGE Dystrybucja, and in the case of PGE Obrót - 41. In order to minimize the risk of data protection violations, the companies take appropriate remedial measures, adjusted to the severity and scope of the incident or violation.

At PGE Dystrybucja, such measures include:

- interviews with employees resembling the rules of personal data protection and the applicable information security procedures.
- reminders about the principles of personal data security in messages addressed to employees via corporate mail and publications on the intranet. The Data Protection Officer (DPO) provides, inter alia, recommendations on the rules and measures for the protection of personal data in the company.
- training reminding activities,
- training materials - in March 2021, managers of HR and human resources departments of PGE Dystrybucja were provided with training materials on the principles and measures of personal data protection developed by the DPO,
- updates of the applicable procedures and regulations in the field of personal data protection.
- constant contact with the Data Protection Officer for both employees, clients and contractors of the company.

At PGE Obrót, such measures include:

- encryption of documentation containing the PESEL number, which is sent electronically,
- limiting the scope of personal data sent in electronic and paper correspondence (electronic requests for payment, traditional correspondence related to the change in the method of settlement - prosumer)
- maximizing the sending of correspondence to customers by electronic means, especially with sensitive data (contracts),
- updating customer data,
- contact with the postal operator regarding the exercise of due diligence during the performance of official tasks by the operator's employees,
- periodic training for the company's employees in the field of personal data protection.

PGE GROUP'S PERSONAL INDICATORS IN THE AREA OF SOCIAL ISSUES WERE PRESENTED IN THE "SOCIAL" CHAPTER.



## SELECTED INDICES RELATING TO HUMAN RIGHTS AND ANTI-CORRUPTION ISSUES IN THE PGE GROUP AND PGE SA

As at December 31, 2021, compliance structures functioned in 22 companies belonging to the PGE Group: PGE SA, PGE GiEK, PGE Energia Ciepła, PGE Energia Odnawialna, PGE Dystrybucja, PGE Obrót, PGE Synergia, PGE Systemy, PGE Ventures, PGE Baltica, PGE Dom Maklerski, Bestgum, Betrans, Elbest Security, Elbis, Elbest, Elmen, Eltur Serwis, MegaSerwis, Megazec, Ramb and PGE Ekoserwis. Each of them conducted dedicated employee training on human rights policies and procedures taking into account human rights aspects. The companies were also assessed, among other things, with respect to the risk of corruption.

Due to the fact that the total number of people working in these companies represents 96.1% of all employees of the Group, the following indexes are presented as aggregated data (for the PGE Group).

Total number of incidents of discrimination and corrective actions taken in 2021. As of December 31.

### | GRI 406-1 | GC-2 | GC-6 |

| PGE Group                                   | Data for 2021 |
|---|---------------|
| Total number of incidents of discrimination | 0*            |

| PGE SA                                      | Data for 2021 |
|---|---------------|
| Total number of incidents of discrimination | 0*            |

\* Among the cases reported by Whistleblowers, none concerned discrimination. Counteracting unfair and biased differentiation of people is the subject of employee education in the form of internal training and the subject of internal communication.

Training of employees of PGE Group companies in the field of human rights policies and procedures taking into account human rights aspects.

### | GRI 412-2 | GC-2 |

| PGE Group   | 2021    |
|---|---------|
| Total number of hours of training   | 17 789* |
| Number of employees trained   | 33 334  |
| Percentage of employees trained   | 91%     |
| Number of employees with valid Code of Ethics training as of December 31, 2021            | 34 767  |
| Percentage of employees with valid training on the Code of Ethics as at December 31, 2021 | 95%     |

| PGE SA  | 2021 |
|---|------|
| Total number of hours of training   | 110* |
| Number of employees trained   | 212  |
| Percentage of employees trained   | 31%  |
| Number of employees with valid Code of Ethics training as of December 31, 2021            | 657  |
| Percentage of employees with valid training on the Code of Ethics as at December 31, 2021 | 95%  |

\* For the purposes of this statement, when calculating the total number of training hours, it was assumed that e-learning training is calculated as the product of the number of people who have completed the training and the duration of the training 1h, and stationary or online training is the product of the number of training sessions and time duration of the training 1.5 h. Other forms of training are the product of the number of training sessions and the duration of the training 0.5 h.

Trainings on the PGE Capital Group's Code of Ethics, containing issues related to respect for human rights, are obligatory for every employee and other persons acting on behalf and for the benefit of PGE Group companies. They are repeated cyclically every three years. Each of the training participants who successfully pass the exam receives a certificate. The given number of employees trained is the number of employees who have training valid as of December 31, 2021.

The total number and percentage of companies assessed for corruption.

**| GRI 205-1 | GC-10 |**

|  | 2021 |
|--|------|
| Number of companies assessed for corruption risk     | 22   |
| Percentage of companies assessed for corruption risk | 100% |

In the area of counteracting corruption, PGE Group companies are bound by the provisions of the Code of Ethics, the Anticorruption Policy and the General Procedure - Anti-corruption in the PGE Capital Group. They apply to the vast majority of PGE Group companies (this does not apply to financial entities that perform these tasks based on separate legal requirements). Companies are obliged to familiarize and train all employees and other persons acting on behalf of and for the benefit of the companies of the principles contained in the regulations. After the training on both the Code of Ethics and anti-corruption regulations, participants sign declarations on participation in the training and reading and undertaking to comply with the regulations discussed therein. Confirmation of training activities is reported on a quarterly basis. In addition, internal regulations include provisions aimed at mitigating the risk of corruption. This applies to areas that are particularly exposed to it, such as purchasing or sponsorship activities. All business partners confirm that they have read the Code of Conduct for Business Partners of the PGE Capital Group Companies (KPPB) in the SWPP2 system used to conduct procurement procedures. Agreements with business partners include ethical clauses referring to the principles described in the KPPB, including the principles related to counteracting corruption.

The Code of Conduct for Business Partners and the PGE Group's Anti-Corruption Policy are available in two language versions - Polish and English.

## Communication and training on the organisation's anti-corruption policies and procedures

| GRI 205-2 | GC-10 |

| PGE Group   | 2021   |
|---|--------|
| Number of Management Board and Supervisory Board members who were trained in anti-corruption measures     | 159    |
| Percentage of Management Board and Supervisory Board members who were trained in anti-corruption measures | 84%    |
| Number of employees in managerial positions who were trained in anti-corruption measures                  | 2 443  |
| Percentage of employees in managerial positions who were trained in anti-corruption measures              | 93%    |
| Number of employees who were trained in anti-corruption measures  | 32 363 |
| Percentage of employees who were trained in anti-corruption measures                                      | 95%    |

| PGE SA  | 2021 |
|---|------|
| Number of Management Board and Supervisory Board members who were trained in anti-corruption measures     | 15   |
| Percentage of Management Board and Supervisory Board members who were trained in anti-corruption measures | 100% |
| Number of employees in managerial positions who were trained in anti-corruption measures                  | 163  |
| Percentage of employees in managerial positions who were trained in anti-corruption measures              | 93%  |
| Number of employees who were trained in anti-corruption measures  | 486  |
| Percentage of employees who were trained in anti-corruption measures                                      | 94%  |

## 5.3 Research and development projects in the field of environmental protection

In 2021, the PGE Capital Group implemented 16 research and development projects in the field of environmental protection with a total value of over PLN 13.1 million. Cooperation in this area was conducted with 14 external partners.

| No.  | Name of project   | Company  | Objective of project  | Project partners   |
|--|---|--|---|--|
| <b>Development and integration of renewable energy sources</b> |   |  |   |  |
| 1  | Hybrid electricity storage at the Pumped storage Power Plant in Żarnowiec   | PGE SA/<br>PGE EO/<br>PGE<br>Invest 14<br>sp. z o.o. | The aim of the project is to build a battery electricity storage with estimated parameters of 200-205MW / 800-820MWh at the Pumped storage Power Plant in Żarnowiec supporting the work of ESP Żarnowiec and balancing production from wind farms.  | Project in progress<br>by PGE Group experts<br>within their competences                    |
| 2  | Study of the effectiveness of the use of selected types of powdery sorbents for the reduction of mercury emissions at the Bełchatów Power Plant | PGE EO   | The aim of the project is to build a photovoltaic laboratory based on various technologies of solar energy conversion in PV cells and to compare the parameters of monocrystalline, polycrystalline and thin-film cells from different manufacturers, with different declared quality parameters. Optimization analysis of several types of inverters installed, including inverters for prosumer applications, with various types of PV panels and test cooperation with several types of energy storage (prosumer batteries).   | City of Siedlce  |
| 3  | Energy storage integrated with a photovoltaic farm on Żar mountain  | PGE EO   | The aim of the project was to build an energy storage integrated with a photovoltaic farm on Góra Żar with a capacity of 500 kW / 750 kWh and to test in real conditions the cooperation of this storage with a photovoltaic farm and to investigate the impact of an integrated PV energy storage system on the network.<br>The project ended on February 28, 2022.  | CIM-mes Projekt Sp. z o.o.   |
| <b>Efficiency and flexibility of distribution systems</b>      |   |  |   |  |
| 4  | Managing the operation of a low voltage distribution network, taking into account the active role of the prosumer                               | PGE<br>Dystrybucja                                   | Developing and constructing an integrated and automated management system for LV distribution network infrastructure cooperating with dispersed energy sources and accumulators installed in prosumer installations. The result of the project will be dedicated devices for LV networks: LLE and CLE digital relays, together with a management system integrated with a SCADA class system. Thanks to optimised network operation management capabilities, the quality of energy supplied to consumers will improve and the number and power of RESs that can be connected to the network will increase without the need for its reconstruction.  | Apator Elkomtech<br>University of Technology in Łódź<br>University of Technology in Lublin |
| 5  | A system for autonomous fault reduction in the depth of a power grid  | PGE<br>Dystrybucja                                   | Introducing an autonomous system for MV networks whose task will be to quickly isolate the place where a short circuit occurred and to reconfigure the network so that power supply can be restored to consumers in an optimum manner. The implementation of the solution will reduce the number of trips made by service vehicles to locate faults in the field and, as a consequence, reduce the number of kilometres travelled and fumes emitted. The impact of the above-mentioned trips to the natural environment. The change in the network structure will also have a positive impact in the case of repair works, for example reduction in the use of power generators having a negative impact on the environment (noise, exhaust fumes). | Apator Elkomtech<br>MindMade   |

| No.                                      | Name of project   | Company                               | Objective of project   | Project partners  |
|--|---|---------------------------------------|--|---|
| 6  | An intelligent LV network reconfiguration system with a support system for assembly services  | PGE Dystrybucja                       | The project will integrate switching units with a safety control system provided with new functionalities and create an IT module for dynamic optimisation of the operation of the power grid. The aforementioned switching units will be connected to a computational module. The solution will make it possible to connect the existing infrastructure with the network layout optimisation module in order to carry out operations of dynamic LV network reconfiguration, allowing for optimisation of energy losses and automatic isolation of failed network fragments. Automatic reconfiguration of LV networks both reduces technical losses of electricity distribution to consumers and enhances the reliability and flexibility of the power system. The application developed within the scope of the project for assembly services will provide accurate information about the place of fault occurrence, which will eventually limit the number of field trips of technical vehicles (to specific faults, without the need to locate them), thus reducing the number of kilometres driven and the level of exhaust emissions, as well as environmental damage caused during trips to locate faults. | Apator Elkomtech<br>MindMade  |
| 7  | Innovative network services to improve quality and reliability of electricity supply  | PGE SA/<br>PGE Dystrybucja            | Commissioning a pilot energy storage facility with a power of 2.1 MW and capacity of 4.2 MWh, located in Rzepedź in the operational area of the Rzeszów Branch. The main objective of the project was to verify optimum procedures for energy flow management and integration of energy storage facilities with the MV distribution network. The start-up of the energy storage system in Rzepedź will improve the reliability of electricity supply in an innovative way – as an alternative to the development of the traditional network. The construction of a traditional MV line involves the need to cut down a large area of forest for the technological strip of the line. The use of energy storage facilities is a good solution to improve the reliability of electricity supply to end customers in areas where there is a lack of backup power supply units and constitutes an alternative to the expansion of the traditional network, which will have a significant impact on the environment and landscape.<br>The project ended on February 28, 2022.   | Griffin Group Energy  |
| <b>Reduction of emissions to the air</b> |   |                                       |  |   |
| 8  | Developing a low-cost method of increasing the efficiency of flue gas desulphurisation plants   | PGE GiEK Bełchatów Power Plant Branch | Developing and testing a technology to reduce SO <sub>2</sub> emissions to the levels specified in the new BREF/BAT environmental conclusions for sulphur oxide emissions below 130 mg/Nm <sup>3</sup> .   | RAFAKO S.A. Racibórz  |
| 9  | Selecting a supplementary technology for halide-based reduction of mercury emissions and determining its impact on FGD effluents in the Bełchatów Power Plant | PGE GiEK Bełchatów Power Plant Branch | Developing an optimum mercury emission reduction technology based on dosing halogen compounds to flue gases, supplemented by methods to reduce mercury re-emission from FGD plant absorbers. The conducted research will also make it possible to determine whether the construction of an FGD process water treatment plant is justified.   | Zakłady Pomiarowo -<br>Badawcze Energetyki<br>„ENERGOPOMIAR”<br>Sp. z o.o.<br>IEM FörderTechnik GmbH<br>Vosteen Consulting GmbH |

| No. | Name of project  | Company                               | Objective of project  | Project partners   |
|-----|--|---------------------------------------|---|--|
| 10  | WDT-Hg tests on unit 14 at PGE GiEK / Branch Bełchatów power plant   | PGE GiEK Bełchatów Power Plant Branch | As part of the project, tests of the effectiveness of mercury emission reduction in FGD unit No. 14 were carried out in PGE GiEK Bełchatów Power Plant Branch by dosing to the absorber of the WDT-Hg agent developed by the company „Grażyna Zaborowska GC Consulting”.  | Grażyna Zaborowska GC Consulting   |
| 11  | Treating flue gases from the thermal waste conversion process using a newly developed regenerable sorbent material | PGE EC                                | <ol style="list-style-type: none"> <li>1. Increasing the effectiveness and reducing the cost of removing mercury (Hg) generated in the process of thermal waste treatment with energy recovery from flue gases by: <ol style="list-style-type: none"> <li>a) optimising the treatment process – mainly sorbent injection</li> <li>b) developing a sorbent material being a cheaper alternative to the currently used pulverised activated carbon (PAC)</li> </ol> </li> <li>2. Decreasing the cost of the currently used sorbent (activated carbon), which cannot be regenerated, by replacing it with a cheaper sorbent material to be developed within the scope of the project and characterised by the possibility of regeneration and reuse.</li> <li>3. Reducing the cost of the heavy metal flue gas cleaning process by optimising the process aimed at reducing sorbent consumption in relation to the amount of waste processed.</li> </ol> | AGH (Academy of Mining and Metallurgy) in Cracow                                 |
| 12  | A predictive and diagnostic system to support the operation of SCR installations                                   | PGE EC                                | <p>Developing a predictive-diagnostic tool for the proper management of catalysts, which is of key importance for NOx reduction performance and the operating and maintenance costs of SCR installations.</p> <p>A predictive-diagnostic tool will be based on an Access database system that will enable efficient access to large amounts of data by multiple users, rapid organisation, control and retrieval of information and automated calculations. The diagnostic tool will be used by PGE EC to optimise the management of catalysts (packages and modules) in its SCR installations.</p>   | The project executed by PGE Group experts within the scope of their competencies |

#### Reduction of pollutant emissions to wastewater

|    |  |        |  |                     |
|----|--|--------|--|---------------------|
| 13 | A demonstration installation for the INNUPS technology – the removal and recovery of heavy metals and boron from IMOS wastewater based on the ion exchange resins method | PGE EC | <p>An analysis of sales opportunities for metal concentrates and calcium borate recovered from an INNUPS installation. This project is related to an investment project in which a demonstration installation based on the INNUPS technology is being constructed in Gdynia. The installation under construction is based on a system of ion exchange columns with the primary purpose of removing metals, metalloids and boron from wet desulphurisation wastewater. As part of the project, the installation will have to ensure the ability to meet the requirements of the BAT Conclusions. The aim of the research project will be to obtain metal and boron concentrates from the regeneration of ion exchange columns and the recovery of metals from non-regenerable resin, and then to assess the market value of the resulting products. The project is expected to close on July 31, 2022. Currently:</p> <ol style="list-style-type: none"> <li>a) continuous monitoring of the INNUPS installation of ion exchange resins is carried out,</li> <li>b) the process of saturation of ion-exchange resins with metals is continued.</li> <li>c) documentation is prepared regarding the signing of an agreement with Purolite for cooperation in the production of metal and boron concentrates.</li> <li>d) preparations for the regeneration of ion exchange resins are underway.</li> </ol> | Purolite sp. z o.o. |
|----|--|--------|--|---------------------|

| No.  | Name of project   | Company                             | Objective of project   | Project partners   |
|--|---|-------------------------------------|--|--|
| 14   | Waste heat recovery from wastewater at the IMOS plant in Cracow | PGE EC                              | Reducing the cost of producing district heat or heat for auxiliary needs of a CHP plant by recovering and utilising waste heat from the IMOS plant. The use of waste heat from the IMOS plant increases the efficiency of the CHP plant and reduces CO <sub>2</sub> emissions.   | The project executed by PGE Group experts within the scope of their competencies |
| <b>Utilisation of combustion by-products</b> |   |                                     |  |  |
| 15   | Ballast structure for photovoltaics - pilot installation        | PGE Ekoserwis/<br>PGE EO/<br>PGE SA | <p>The aim of the project is to reduce the costs of building PV farms in connection with the use of a prefabricated ballast system, in place of the previously used systems with a steel or steel-aluminum structure. The by-products of coal combustion "UPS" will be used for the production of ballast elements.</p> <p>Benefits of implementing the project:</p> <ul style="list-style-type: none"> <li>• closing the circulation of raw materials and increasing the degree of their use, which is an important process in the PGE Group,</li> <li>• optimization of UPS development costs through their economic use.</li> </ul>                                 | The project executed by PGE Group experts within the scope of their competencies |
| <b>Animal protection</b>                     |   |                                     |  |  |
| 16   | Automatic monitoring and bird protection methods at wind farms  | PGE EO                              | <p>The project aims to reduce the impact of wind farms on birds. The system will monitor and catalogue the migrations of various bird species that inhabit the area of wind farms. The mechanism analyses information recorded by devices mounted on the turbines and will aim to eliminate collisions of birds with wind turbines on wind farms.</p> <p>On September 26, 2021, an annex to the contract was signed, changing and extending the duration of the project and research until August 31, 2022. The scope of the project has changed. It has been extended to include activities involving the use of an additional strobe system to scare away birds.</p> | Bioseco  |



## 5.4 Approval of the non-financial information statement

This non-financial information statement of PGE Polska Grupa Energetyczna SA and the PGE Capital Group for the year 2021 was approved for publication by the Management Board of the parent company on March 21, 2022.

Warsaw, March 21, 2022

Signatures of the Members of the Management Board of PGE Polska Grupa Energetyczna SA:

President of the  
Management Board

**Wojciech Dąbrowski**

*Signed with qualified electronic signature*

Vice President of the  
Management Board

**Wanda Buk**

*Signed with qualified electronic signature*

Vice President of the  
Management Board

**Lechosław Rojewski**

*Signed with qualified electronic signature*

Vice President of the  
Management Board

**Paweł Cioch**

*Signed with qualified electronic signature*

Vice President of the  
Management Board

**Paweł Śliwa**

*Signed with qualified electronic signature*

Vice President of the  
Management Board

**Ryszard Wasilek**

*Signed with qualified electronic signature*

## 5.5 Glossary of industry terms

|                            |   |
|----------------------------|---|
| BAT                        | Best Available Technology   |
| Biomass                    | the biodegradable fraction of products, waste or residues of biological origin from agriculture, including vegetal and animal substances, forestry and related industrial sectors, including fisheries and aquaculture, processed biomass, notably in the form of briquettes, pellets, biochar and biocarbon, as well as the biodegradable fraction of industrial or municipal waste of plant or animal origin, including waste from waste treatment installations and waste from the treatment of water and wastewater, in particular sewage sludge, in accordance with the regulations applicable to waste with respect to eligibility of energy fraction recovered from thermal waste treatment  |
| Biodiversity               | the biological diversity of life forms on the Earth   |
| BREF                       | Best Available Techniques Reference Document  |
| CO <sub>2</sub>            | carbon dioxide  |
| CCI                        | Corporate Community Involvement   |
| CSR                        | Corporate Social Responsibility   |
| Distribution               | transportation of energy via high voltage (110 kV), medium voltage (15 kV) and low voltage (400V) distribution networks to customers  |
| Pumped storage power plant | a special type of a hydroelectric power plant that allows electricity to be stored. For this purpose, the upper water reservoir is used. Using excess electricity, water is pumped from the lower reservoir to the upper one. Pumped storage plants provide regulatory services to the national power system. During periods of increased demand for electricity, water from the upper reservoir is released onto the turbine. In this way, electricity is generated.   |
| EMAS                       | Eco Management and Audit Scheme. It is an EU environmental certification scheme which functions on the basis of Regulation (EC) No 1221/2009 of the European Parliament and of the Council of November 25, 2009 on the voluntary participation by organisations in a Community eco-management and audit scheme (EMAS)   |
| EW                         | hydro power plant   |
| EU ETS                     | European Union Emission Trading Scheme. It is a key element in the EU's climate change policy and its main tool for reducing greenhouse gas emissions in a cost-effective way. It is the world's first and so far largest emission allowance market   |
| European Green Deal        | An action plan for a sustainable economy in the European Union. It aims to achieve climate neutrality by 2050. Achieving this goal will require a socio-economic transition in Europe: one that is cost-effective, fair and socially sustainable. The new programme consists of initiatives in a number of closely related fields, such as climate, environment, energy, transport, industry, agriculture and sustainable financing. The EU will also provide financial support and technical assistance to individuals, businesses and regions most affected by the transition to a green economy. This will be done through the just transition mechanism that is expected to provide EUR 150 billion to the most affected regions in the years 2021-2027 |
| Photovoltaic farm          | Installation for the generation of electricity using solar radiation  |
| Offshore farm              | An offshore wind farm   |
| Onshore farm               | An onshore wind farm  |
| GJ                         | gigajoule, SI unit of energy, 1 GJ = 1000/3.6 kWh = approx. 278 kWh   |
| GWh                        | gigawatt hour, unit of electrical energy, 1 GWh = 1,000,000 kWh   |

|                                    |  |
|------------------------------------|--|
| Circular economy                   | a system that minimises the consumption of raw materials and waste volumes as well as emissions and energy losses by creating a closed-loop of processes where waste from one process is used as raw material for another, thus reducing generation to a maximum extent  |
| IED                                | Industrial Emissions Directive   |
| IOS                                | Flue gas desulphurisation  |
| ITPOE                              | Thermal waste processing plant with energy recovery  |
| Power generation unit              | a separate unit of equipment belonging to a power utility and used for generating electricity or heat, as well as power evacuation, described by means of technical and commercial data  |
| Cogeneration                       | simultaneous generation of heat and electrical or mechanical energy in the same technological process  |
| NPS                                | National Power System, a collection of devices and equipment for the distribution, transmission and generation of electricity, connected to form a system allowing the supply of electricity in the territory of Poland  |
| kWh                                | kilowatt hour, SI unit of electrical energy describing how much energy a 1 kW appliance consumes in one hour, 1 kWh = 3,600,000 J = 3.6 MJ   |
| FW                                 | Wind farm  |
| MFV                                | Offshore wind farm   |
| MW                                 | SI unit of power, 1 MW = 106 W   |
| MWh                                | megawatt hour, unit of electrical energy, 1 MWh=1000 kWh   |
| Nm3                                | normal cubic metre; a non-SI unit of account denoting the volume of dry gas contained in 1 m3 at a pressure of 1013 hPa and a temperature of 0°C   |
| NOx                                | nitrogen oxides  |
| Renewable energy sources (RES)     | sources using wind, solar, geothermal, wave, current, tidal and river gradient energy, as well as energy obtained from biomass, landfill biogas, and biogas produced in the process of sewage disposal or treatment, or decomposition of stored plant and animal remains   |
| Distribution system operator (DSO) | an electricity undertaking distributing gaseous fuels or electricity, responsible for network traffic within the gas distribution system or electricity distribution system, the current and long-term security of the system's operation, the operation, maintenance, repair and necessary development of the distribution network, including connections with other gas systems or other electricity systems |
| OPZ                                | A description of the subject of the contract   |
| Renewable energy prosumer          | a final customer purchasing electricity on the basis of a comprehensive agreement, producing electricity exclusively from renewable energy sources in a micro-installation to be used for their own purposes, not related to their business activity   |
| PV                                 | A photovoltaic installation  |
| Regulator                          | President of the ERO who performs the tasks assigned to them by the Energy Law. Their responsibilities include issuing licenses for electricity undertakings and approving energy tariffs, as well as appointing transmission and distribution system operators  |
| Rehabilitation                     | Restoration of the usefulness and natural character of areas transformed by human activity through the recreation of their environmental features or formation of new ones   |

|                             |  |
|-----------------------------|--|
| SAIDI                       | System Average Interruption Duration Index - an index of the average (mean) system interruption duration (long, very long and catastrophic), expressed in minutes per customer per year, being the sum of the product of its duration and the number of customers exposed to the consequences of interruptions during the year divided by the total number of customers served. SAIDI does not include interruptions shorter than 3 minutes and is determined separately for planned and unplanned interruptions. It applies to outages on low voltage (LV), medium voltage (MV) and high voltage (HV) networks, while the SAIDI index in the quality tariff does not include outages on LV networks |
| SAIFI                       | System Average Interruption Frequency Index - an index of the average (mean) system frequency (number) of interruptions (long, very long and catastrophic), representing the number of customers exposed to the consequences of all such interruptions during the year divided by the total number of customers served. SAIFI does not include interruptions shorter than 3 minutes and is determined separately for planned and unplanned interruptions. It applies to outages on low voltage (LV), medium voltage (MV) and high voltage (HV) networks, while the SAIFI index in the quality tariff does not include outages on LV networks   |
| Low voltage (LV) network    | An electricity network with rated voltage of up to 1 kV  |
| Medium voltage (MV) network | An electricity network with rated voltage of between 1 kV and 110 kV   |
| High voltage (HV) network   | An electricity network with rated voltage of 110 kV  |
| SO <sub>x</sub>             | sulphur oxides   |
| Start-up                    | an enterprise at an early stage of development, created with a view to building new products or services and operating under conditions of high uncertainty. The most frequently mentioned characteristics of start-ups include the following: short operating history (up to 10 years), innovativeness, possibility of expansion, higher risk than in "traditional" enterprises, but also potentially higher return on investment.  |
| SIWZ/ ToR                   | Terms of Reference   |
| Tariff                      | a set of prices, rates and conditions for their application, drawn up by an electricity undertaking and introduced as binding for particular customers under a statutory procedure   |
| UPS                         | combustion by-products   |
| CSI                         | customer satisfaction index  |
| CLI                         | customer loyalty index   |
| Co-combustion               | the generation of electricity or heat based on the co-firing, in a single device, of biomass or biogas with other fuels; part of energy produced in this way can be considered as energy from a renewable energy source  |

## 5.6 Contact

| GRI 102-53 |

If, after reading this report, you would like to share your thoughts or ideas, please contact us. We are waiting for your e-mails:

Investor Relations and Sustainability Team  
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