# **NON-FINANCIAL REPORT**

on the activities of PGE Polska Grupa Energetyczna S.A. and PGE Group for 2022

ended December 31, 2022



Leading in the green transition



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

#### | GRI 2-22 | GC-7 | GC-8 | GC-9 |



#### Ladies and gentlemen,

The past year confirmed the importance of building a stable, independent energy sector that guarantees an uninterrupted supply of electricity and heat to customers. To ensure this, it is necessary to adapt the organisation to the new realities. To this end, in the past year we intensified our work in the ESG area, so that the transition of the Polish energy sector takes into account the needs of all our stakeholders and is aligned with the concept of sustainability.

Providing cheap and green energy for Polish households and businesses is about putting the idea of sustainability into practice. That is why we are effectively raising capital for our key investments. We are entering 2023 with the first financing directly based on ESG rating. By ensuring the sustainability of our Group, we are at the same time able to reduce our financing costs. This shows how the non-financial domain influences the company's financing activities.

We are already successfully taking on the growing challenges. Last year, PGE Group took part in the global CDP survey for the second time, achieving one of the best results among the major Polish companies. We are leading in the green transition and will support Poles in this transition with unwavering commitment. Our objective is to build PGE Group's value based on reliable business partners, environmental responsibility and social trust. In this spirit, we will also consistently implement our business strategy and transparently report on its progress.

icin the

Wojciech Dąbrowski

President of the Management Board PGE Polska Grupa Energetyczna SA



### Approach to reporting

The report on non-financial information of PGE Polska Grupa Energetyczna S.A. and PGE Group 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, 2022 and includes consolidated data for PGE Group and its parent undertaking - PGE Polska Grupa Energetyczna S.A.

PGE Group consists of the parent, PGE Polska Grupa Energetyczna S.A., along with 74 consolidated subsidiaries. Also subject to consolidation are 3 entities constituting joint operations, 2 associates and 1 jointly controlled entity. For additional information on these entities please refer to note 1.3 to the consolidated financial statements. The non-financial report covers 31 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 of PGE Polska Grupa Energetyczna and PGE Group was prepared in alignment with the current Global Reporting Initiative (GRI) standards, including the following:

- GRI 1: Foundation (2021)
- GRI 2: General Disclosures (2021)
- GRI 3: Material Topics (2021)

In addition, the report includes our own indicators, references to the 10 Global Compact Principles, as well as to the Sustainable Development Goals (SDGs).

The numerical indicators are presented at the end of the non-financial report. They are divided into environmental, labour, social, human rights and anti-corruption areas.

The content of the Report was defined in response to the information needs and expectations raised, inter alia, during the dialogue sessions organised in mid-June 2022, which were attended by nearly 80 key PGE stakeholder representatives. The report captures information about PGE Group taking into account the principle of dual materiality.

The key new elements in the 2022 non-financial report are:

- expanded scope of reporting to include priority areas identified by stakeholders during dialogue sessions,
- reporting in accordance with the applicable standards of the Global Reporting Initiative 2021,
- inclusion of activities in line with the EU environmental taxonomy,
- PGE Group's Diversity Policy,
- · expanded reporting of health and safety indicators,
- extended description of the governance/corporate governance rules.



## 1. Review of PGE Group's business

#### | GRI 2-1 |

PGE Group ("PGE Group") is the largest energy group in Poland. It generates approx. 44% of Poland's electricity and approx. 20% of the country's district heating, and its electricity distribution area covers an area representing approx. 40% of the country's area. PGE Group's parent company is PGE Polska Grupa Energetyczna S.A. ("PGE S.A."). On July 1, 2022, the company's registered office was changed from Warsaw to Lublin. The company's new registered address is: Aleja Kraśnicka 27, 20-718 Lublin.

### 1.1 Business model

#### | GRI 2-6 |

PGE Group operates across the entire value chain: it produces electricity and heat in power plants and CHP plants (conventional and renewable), and then supplies and sells these to customers throughout Poland, both households and businesses, institutions and local governments. PGE Group also functions the area of management of combustion by-products within the segment: Circular Economy. The use of combustion by-products makes it possible to reduce the extraction of natural resources, limit environmental impact and reduce  $CO_2$ . In this way, PGE Group is implementing measures to make energy generation waste-free, in line with the idea of the Circular Economy, and focused on environmental protection.



Fig. PGE Group's key data for 2022 (in PLNm)



PGE Group's business is organised into seven segments:

#### CONVENTIONAL GENERATION

Lignite mining, conventional generation of electricity and heat.

#### DISTRICT HEATING

Generation of electricity from cogeneration sources and the transmission and distribution of heating.

#### RENEWABLES

Generation of electricity from renewable sources and in pumped storage plants.

#### SUPPLY

wholesale trade in electricity on the domestic and foreign markets, sale of electricity to end customers, trade in  $CO_2$  emission allowances, property rights and fuels, provision of Corporate Centre services to PGE Group companies.

#### DISTRIBUTION

Provision of electricity supply services to end customers over high-, medium- and low-voltage power lines and equipment, The company managing the segment - PGE Dystrybucja SA - serves as Distribution System Operator.

#### CIRCULAR ECONOMY

The object of the segment's activities is to provide a comprehensive service for the management of byproducts of combustion, to provide services in ancillary areas for power and heat generators and to supply materials based on combustion by-products.

#### OTHER ACTIVITY

Provision of services by subsidiaries to PGE Group, including fund-raising in the form of Eurobonds (PGE Sweden), IT, accounting and HR, and transport services and investments in start-ups.

In addition, the segment includes companies responsible for the construction of gas and steam units in Gryfino (PGE Gryfino 2050 sp. z o.o.), a new low-carbon unit in Rybnik (Rybnik 2050 sp. z o.o.) and other project companies of the Group.

The diagram below shows the current business model.





Fig. PGE Group's current business model

With the implementation of PGE Group's Strategy and the finalisation of the government plan to spin-off coal assets, PGE Group's business model will temporarily change - from its key role as a generator of electricity, PGE Group will become primarily an energy distributor. Only with the implementation of investments in new generation sources will PGE Group's generation potential be rebuilt - the diagram below presents PGE Group's target business model.

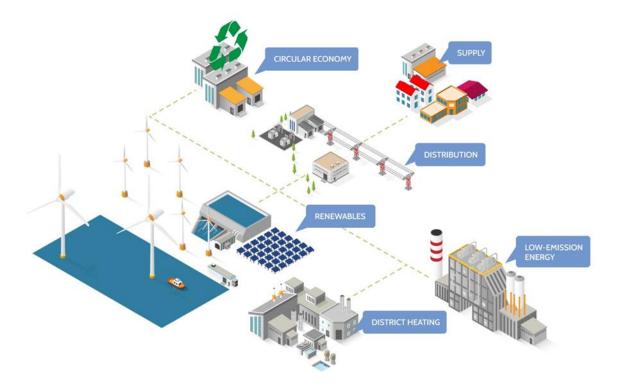


Fig. PGE Group's target business model



#### Segment assets and segment market position.





### 1.2 PGE Group's strategy to 2030 with an outlook to 2050

#### | GRI 3-3 [strategy and implementation] | GRI 3-3 [company's impact on climate] |

PGE Group's approach to managing the organisation's impact on the economy, the environment and people is an integral part of the Group's business strategy, which focuses on energy transition, decarbonisation of generation and climate neutrality. The strategy was announced on October 19, 2020 and sets out a concrete plan for PGE Group's sustainable transition towards low and zero carbon.

PGE Group's business strategy is a response to the profound changes in the energy sector that have taken place in recent years and to social expectations, which largely determine the development directions of the industry. PGE Group is the leader of the transition and modernisation of the energy sector in Poland and supports the building of a market environment conducive to energy transition. PGE Group's transition will take place in a sustainable manner, in dialogue with the social side. PGE is aware of the impact that the Group's activities have on its environment - in social, economic and environmental dimensions. PGE's activities are aimed at maximising added value for all stakeholders.

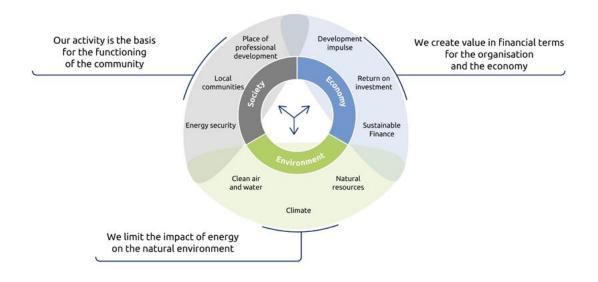


Fig. PGE Group's sustainable transition

#### Key growth directions and areas being phased out

Offshore and onshore wind power, photovoltaics, grid infrastructure, low-carbon district heating and modern energy services will be the key growth directions for PGE Group. Areas where activities will be discontinued are coal power, coal trading and support areas outside the core business.

#### **Mission and vision**

PGE's mission is to provide energy for a safe future. In accordance with its long term vision, PGE is becoming the leader of sustainable energy transition in Poland. The Group's vision translates into three strategic priorities:

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



#### PGE

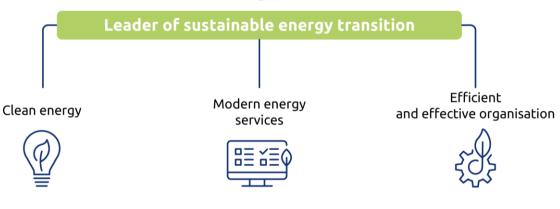
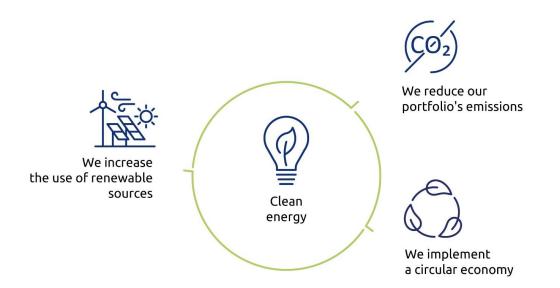


Fig. PGE Group's strategic priorities

Fig. PGE Group's activities positively contributing to the environment

As the leader of national energy transition, PGE Group declares to reduce its impact on the natural environment by achieving climate neutrality by 2050. We plan to reduce the production emissions by changing the technology, expanding the renewable energy portfolio and enabling our customers to participate in the transition thanks to attractive product offerings. By 2030 zero- and low-emission sources will constitute approx. 85% of the generation portfolio and the share of renewable energy will amount to approx. 50% of total generation.





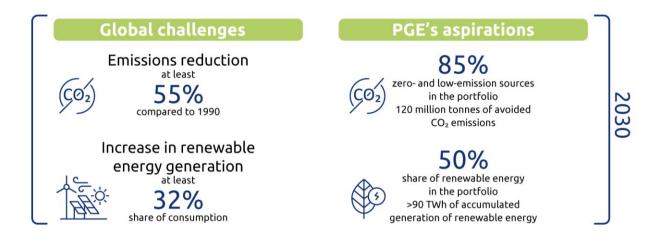


Fig. PGE Group's aspirations to 2050

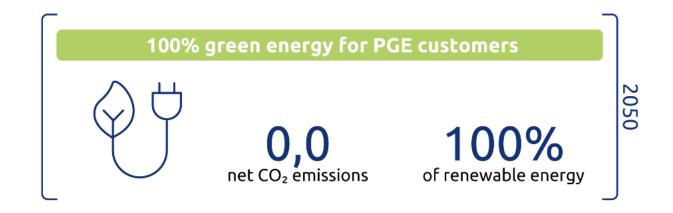


Fig. PGE Group aims to achieve climate neutrality by 2050 and provide 100% RES energy for its customers.

GHG emission reduction targets for Scope 1 have also been set, as follows:

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

In addition, the strategy sets targets for increasing the waste recycling rate (>65% by 2035) and reducing the volume of landfilled waste (10% by 2035).

#### **PGE Group's aspirations**

PGE Group is ready to carry out the sector transition processes and prepare the conventional electrical power system base for functioning in a new ownership structure. PGE Group is the leader in the development of offshore wind energy. In 2030, the capacity of PGE's wind farms in the Baltic Sea will reach 2.5 GW, while as a result of the preparation of further projects in new areas - in 2040 it should exceed 6.5 GW. At the same time the program 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 to transform system heat sources towards low- and zero-carbon (by 2030, their share should account for more than 70% of heat production), while promoting the connection of individual heat sources to the grid or their replacement with environmentally friendly sources. An important role in the energy transition will be played by the implementation of circular economy principles in all areas and the minimisation of environmental impacts.



#### Modern energy services

Grid infrastructure and partnerships with customers are the foundation of the energy transition. Within the Distribution segment, quality parameters for energy supply will be improved (disruptions in energy supply will be shortened by 8% in large cities and by 50% in other areas by 2025), as will the efficiency, transparency and cost effectiveness of grid connection processes. Grid modernisation and new energy storage units (planned at least 800 MW by 2030) are needed for the full use of distributed power sources and ensuring a secure operation of the transmission system. In order to achieve these goals, it is necessary to have financial stability and develop support in the DSO regulation model to guarantee the implementation of these challenges, which should translate into an expected increase in free cash flow of approx. PLN 0.7 billion by 2030. PGE Group wants to maintain the highest level of customer satisfaction in the market, resulting from the quality of service and the offering of energy services. The activities planned in this respect include the development of professional energy services and the integration of customer contact and sales channels for products and services. The expected increase in margin in the retail segment should amount to approx. PLN 0.4 billion on average per year.

PGE Group plans to build additional value by ensuring that customers actively participate in the energy transition by offering, inter alia, renewable energy installations for customers and access to energy markets, capacity, system services (planned 1 GW of capacity in market services). These activities are expected to contribute to an increase in EBITDA of PGE Group's retail sales companies by approx. 25% by 2030.

#### Efficient and effective organisation

To meet the challenges posed by transition and competition, PGE Group will improve operational efficiency. The Group is targeting a reduction in fixed costs of around 15% by 2025 and around 25% by 2030 compared to the 2019 base (excluding the value of effects in the Conventional Generation segment if it is spun off). The business profile will evolve to require less labour-intensive operations and a change in core competencies. The driver for improving the Group's efficiency will be the efficient ICT (information and communication technology) area, ensuring automation and digitisation of business processes. Demographic trends will affect the Group's employment levels and employee career paths. The projected decline in employment will be around 15% in 2030 and 50% in 2050 compared to the state in 2019. This will require effective implementation of projects in the area of human capital management. Human resources development will be targeted at the area of renewable energy and modern energy services.

#### Investments

PGE Group's investments will focus on renewable energy, district heating transition and grid infrastructure. The Group will no longer invest in coal assets (both generation and mining), and final investment decisions concerning gas-fired sources will be made in 2025 at the latest. The total planned capital expenditures in 2021-2030 will reach approx. PLN 75 billion, of which approx. 50% will be allocated to the development of renewable energy sources (offshore and onshore wind farms, photovoltaics). Another important area of capital expenditure will be regulated activities, including grid infrastructure and low-emission cogeneration sources.

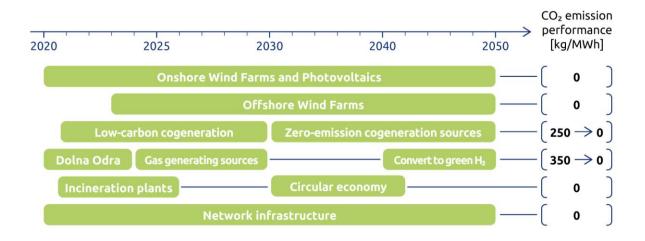


Fig. PGE Group's investments to 2050



Key indicators and actions related to the implementation of the strategy for the strategic priority "environmentally friendly energy":

#### [own indicator]

Objectives	Activities and results in 2022
Development of offshore wind farms: 2.5 GW by 2030 and more than 6.5 GW by 2040	<ul> <li>Completed work on the Baltica 2 and 3 projects:</li> <li>Contract signed for a construction design, including obtaining building permits,</li> <li>Tender launched to select General Contractor for power evacuation in the onshore section,</li> <li>Obtained an Environmental Conditions Decision for the power evacuation system (final and legally binding),</li> <li>Receipt of the European Commission's Decision to grant support for the Baltica 2 and Baltica 3 projects, together with the price and rate of return, and receipt of the decision of the President of the URE setting the Price of Support under the Contract for Difference (CfD) at the level requested by the project team,</li> <li>Selection of suppliers approved: Marine Transformer Stations (MSTs) for Baltica 3 offshore wind farm; turbines for Baltica 2 and 3; offshore export cables, foundations for turbines and for MSTs.</li> <li>Completed work on the Baltica 1 project:</li> <li>Contract signed for a Geological Works Projects for offshore geotechnical surveying,</li> <li>Contract signed for a wind, wave and current measurement campaign,</li> <li>Contract signed for environmental studies including obtaining an Environmental Conditions Decision for the implementation of the Project and for preliminary offshore geophysical surveys, Completed work on the development of the Offshore Program:</li> <li>Submitted applications for Permit to Erect Artificial Islands in water bodies: 14.E.1, 14.E.2, 43.E.1, 44.E.1, 45.E.1, 46.E.1 60.E.3 and 60.E.4</li> </ul>
Development of onshore wind farms: >1 GW in new capacities by 2030	<ul> <li>Acquisition of wind farms FW Radzyń of 37 MW (in the Kujawsko-Pomorskie Voivodeship), FW Ścieki of 22 MW (in the Łódzkie Voivodeship) and FW Jóźwin of 25 MW (in the Wielkopolskie Voivodeship). In total, 32 turbines with a total capacity of 84 MW and an average annual production of 240,000 MWh.</li> </ul>
Photovoltaics development program: > 3 GW of installed capacity by 2030	<ul> <li>Capacities built in 2022: 19 MW,</li> <li>In progress (own development) 154 MW,</li> <li>Capacity in construction permits: approx. 250 MW,</li> <li>Land secured: approx. 3500 ha</li> <li>Acquisition of a portfolio of 6 projects with a total capacity of 25 MW in the first quarter 2022 and a portfolio of 28 projects with a total capacity of 59 MW in the fourth quarter of 2022.</li> </ul>
Construction of energy storage systems - 800 MW by 2030	<ul> <li>Announcement of tender for a battery electricity storage system in Żarnowiec with a capacity of over 200 MW,</li> <li>Entry into operation of 4 large-scale battery electricity storage projects with a total capacity of 750 MW,</li> <li>Entry into operation of a distributed storage project across 50 locations with a total capacity of approx. 270 MW,</li> <li>Development of 5 energy storage projects as part of hybrid RES systems with a capacity of approx. 80 MW,</li> <li>Development of 3 energy storage projects for distribution grid purposes with a total capacity of approx. 6 MW,</li> <li>Feasibility study for the construction of ESP Młoty.</li> </ul>



District heating transition: Share of zero- and low-carbon sources in heat generation at 70% by 2030	<ul> <li>New EC Czechnica: construction of a gas-steam unit with a peak load boiler plant and heat accumulator,</li> <li>EC Gdańsk: preparation for the construction of new gas sources,</li> <li>EC Gorzów: work related to the construction of a peak load boiler facility and preparation for the final stage of gas-and-steam unit modernisation, i.e. construction of a new fan cooling tower,</li> <li>EC Zgierz: installation of a gas reduction station and new cogeneration units and gas boilers,</li> <li>EC Gdynia: commissioning of the steam boiler, commencement of the installation of the water boilers and work on the development of a replacement for the gas-and-steam units, i.e. involving the construction of a gas engine unit and a biomass boiler,</li> <li>EC Kraków: development of complete design documentation for a high-pressure gas connection for production purposes,</li> <li>EC Lublin Wrotków: construction of foundations for reserve and peak load boiler and gas boilers,</li> <li>EC Rzeszów: construction of foundations for a gas station, assembly of a reserve and peak load boiler building,</li> <li>EC Wrocław: preparing for the redevelopment of EC I,</li> <li>New heat source in Gryfino: development of a new technological concept for Gryfino (with increased RES contribution).</li> </ul>
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## 1.3 PGE Group activities in terms of the EU Environmental Taxonomy

PGE Group, as a public interest entity preparing non-financial reports in accordance with Directive 2014/95/EU of the European Parliament and of the Council, is required to disclose for 2022 the extent to which its activities can be considered environmentally sustainable. This requirement derives from Regulation (EU) 2020/852 of the European Parliament and of the Council of 18 June 2020 on the establishment of a framework to facilitate sustainable investment, amending Regulation (EU) 2019/2088 and the Delegated Regulations on the establishment of a framework to facilitate sustainable investment (hereinafter: "EU Environmental Taxonomy", "Taxonomy").

For the purpose of preparing the 2022 disclosures, an analysis of the activities carried out was carried out, which resulted in the identification of activities that qualify for the Taxonomy systematics, i.e. those that are consistent with the description of the activities shown in Annex I or Annex II of Commission Delegated Regulation (EU) 2021/2139 and its supplement, i.e. Commission Delegated Regulation (EU) 2022/1214 of 9 March 2022. The financial data presented in the disclosure for qualifying activities include both:

- revenue (turnover) from business activities that qualify for the systematics, related capital expenditure or operating expenditure,
- purchases from eligible activities,
- related additional (explanatory) information.

The eligibility of an activity was based on a comparison of the actual activity with the description of the activity detailed in the framework:

- Annex I (Mitigation of climate change)
- Annex II (Adaptation to climate change)

to Commission Delegated Regulation (EU) 2021/2139.

The basis for the calculation of the turnover, capital expenditure (CapEx) and operating expenditure (OpEx) ratios were the definitions set out in Annex I to Commission Delegated Regulation (EU) 2021/2178. For the calculation of the ratios for PGE Group, appropriate consolidation exclusions were taken into account, based on the methods used within the financial statements.

A Systematically Eligible Business Activity means a business activity as described in Commission Delegated Regulation (EU) 2021/2139. A Systematically Eligible Business Activity (hereinafter: "Taxonomy Eligible Business Activity") is one that makes a significant contribution to one or more of the environmental objectives, does not cause serious harm to any of the environmental objectives of the Taxonomy, and is carried out in accordance with the minimum safeguards set out in art. of Regulation 2020/852 and meets the technical eligibility criteria that have been established by the European Commission.

In accordance with Commission Delegated Regulation (EU) 2021/2178, the first annual reporting period covered 2021, for which eligibility indicators were reported. In the second reporting year (i.e. for 2022), indicators for both eligibility and compliance with the Taxonomy are reported.

As part of the implementation of the process described above, the following specific activities were carried out in PGE Group and the following results are hereby disclosed.

#### Step 1

or

#### **DIVISION OF PGE GROUP ACTIVITIES**

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

- Conventional Generation
- District Heating
- Renewables
- Turnover
- Distribution
- Circular Economy
- Other activity



Activities occurring in all segments were assessed against the EU Environmental Taxonomy.

#### Step 2

#### IDENTIFICATION OF ECONOMIC ACTIVITIES ELIGIBLE FOR THE EU ENVIRONMENTAL TAXONOMY

On the basis of Annexes I and II to Commission Delegated Regulation (EU) 2021/2139 of 4 June 2021 and in accordance with Commission Delegated Regulation (EU) 2022/1214 of 9 March 2022, a selection of activities eligible for the Taxonomy was made, which in 2022 occurred in PGE Group as part of business activities or purchases. These are:

- 1) Activities from which revenue was generated within the business turnover and associated CapEx and/or OpEx are shown:
- 4.1 Electricity generation using solar photovoltaic technology
- 4.3 Electricity generation from wind power
- 4.5 Electricity generation from hydropower
- 4.9 Transmission and distribution of electricity
- 4.10 Storage of electricity
- 4.15 District heating/cooling distribution
- 4.20 Cogeneration of heat/cool and power from bioenergy
- 4.24 Production of heat/cool from bioenergy
- 4.30 High-efficiency cogeneration of heat/cool and power from gaseous fossil fuels
- 4.31 Heat/cooling energy production from gaseous fossil fuels in an efficient heating and cooling system
- 5.5 Collection and transport of non-hazardous waste in source segregated fractions
- 7.6 Installation, maintenance and repair of renewable energy technologies
- 2) Other activities relating to purchasing:
- 4.9 Transmission and distribution of electricity
- 4.15 District heating/cooling distribution
- 4.29 Electricity generation from gaseous fossil fuels
- 4.30 High-efficiency cogeneration of heat/cool and power from gaseous fossil fuels
- 4.31 Heat/cooling energy production from gaseous fossil fuels in an efficient heating and cooling system
- 5.4 Modernisation of sewage collection and treatment systems
- 8.1 Data processing, hosting and related activities

#### Step 3

# DETERMINATION OF INDICATORS FOR ACTIVITIES ELIGIBLE AND IN LINE WITH THE EU ENVIRONMENTAL TAXONOMY FOR 2022

The calculation of the Taxonomy indicators required to be disclosed for 2022 has been based on financial data allowing specific values to be assigned to identified qualifying activities.

The different activities carried out have been assigned to only one qualifying activity in the Taxonomy systematics. No part of revenue, CapEx and OpEx was double counted. When a particular activity from which revenue (turnover) was generated was deemed eligible for the systematics, then the CapEx and OpEx associated with that activity was also allocated entirely to that activity and was no longer assessed for eligibility to other activities. The remaining CapEx and OpEx (not related to qualifying, turnover-generating activities) was assessed for possible classification as purchases from qualifying activities. Individual CapEx and OpEx expenses were attributed to only one activity. In situations where it was possible to attribute them to more than one activity, the one most relevant to them was selected.

For the calculation of the ratios in the denominator, the value of turnover and capital expenditure as reported in PGE Group consolidated financial statements for the period ended December 31, 2022 were used, respectively. The OpEx denominator has been calculated based on the accounts in which costs meeting the definition of OpEx from Regulation 2021/2178 are recognised.

#### Value of PGE Group turnover eligible for the EU Environmental Taxonomy

This is the value of turnover derived from the sale of products or services related to business activities that are deemed eligible for Taxonomy for Objective I (Climate Change Mitigation) or for Objective II (Climate Change Adaptation). The numerator of the indicator includes taxonomy-eligible revenue from contracts with



customers under IFRS 15. The denominator is total sales revenue as reported in the consolidated statement of comprehensive income.

#### Value of capital expenditure (CapEx) of PGE Group eligible for the EU Environmental Taxonomy

As defined in Regulation 2021/2178, the value of capital expenditure is the increase in property, plant and equipment and intangible assets during the financial year before depreciation, amortisation and any revaluations, including those arising from revaluations and impairments for the financial year, excluding changes in fair value. This figure also includes additions to property, plant and equipment and intangible assets arising from business combinations.

The numerator of the indicator includes the taxonomy-eligible CapEx, while the denominator is the sum of the CapEx reported in the consolidated financial statements - note 6.1. the sum for the entire PGE Group of the items "Total capital expenditures" and "Acquisition of property, plant and equipment, intangible assets, right-of-use assets and investment properties as part of the acquisition of new companies". Aside from the capital expenditures of individual companies, the acquisition of wind farms was an important component of PGE Group's taxonomic CapEx.

#### Value of operating expenditure (OpEx) of PGE Group eligible for the EU Environmental Taxonomy

Regulation 2021/2178 defines OpEx as the direct, non-capitalised costs associated with research and development, building refurbishment activities, short-term leases, maintenance and repairs, and any other direct expenditure associated with the day-to-day operation (maintenance) of tangible assets by a company or a third party to which activities necessary to ensure the continuous and efficient operation of those assets have been outsourced.

The accounts analysed for the OpEx Taxonomy mainly comprised the accounts in which maintenance, overhaul, repair costs and leases not included in the balance sheet are recognised, in accordance with the guidelines of the OpEx Interpretation published by the European Commission in the Official Journal of the EU in October 2022. The sum of the turnover of these accounts including consolidation exclusions is the denominator.

The numerator is the part of the denominator that corresponds to the activities that are considered eligible for the Taxonomy in terms of its Objective I (Climate Change Mitigation) or II (Climate Change Adaptation).

#### Assessment of compliance with the Taxonomy

A Taxonomy-compliant activity is one that makes a significant contribution to one or more of the environmental objectives, does not cause serious harm to any of the environmental objectives of the Taxonomy, is carried out in accordance with the minimum guarantees set out in art. 18 of Regulation 2020/852 and meets the technical qualification criteria that have been established by the European Commission.

The assessment of the compliance of the identified eligible activities listed above, as a first step, included an analysis of the technical eligibility criteria relevant to each activity, as included in Delegated Regulation 2021/2139 - in terms of material contribution criteria and the 'do no serious harm' principle.

At the same time, PGE Group commissioned an external advisor to conduct a *due diligence* study, which analysed the degree of compliance of PGE Group's business activities with the requirements, i.e. minimum guarantees, set out in art. 3 letter c in conjunction with art. 18 of Regulation 2020/852 of 18 June 2020 on the establishment of a framework to facilitate sustainable investment. As defined in art. 18 of the above regulation, minimum guarantees are procedures applied by a company conducting business to ensure compliance with the OECD Guidelines for Multinational Enterprises and the UN Guiding Principles on Business and Human Rights, including the principles and rights set out in the eight fundamental conventions identified in the International Labour Organisation Declaration on Fundamental Principles and Rights at Work, as well as the principles and rights set out in the International Bill of Human Rights.

In accordance with the guidelines of the PSF Report<sup>1</sup>, *due diligence* was conducted based on the following methodology:

<sup>&</sup>lt;sup>1</sup> Final Report on Minimum Safeguards, Platform on Sustainable Finance; *https://finance.ec.europa.eu/system/files/2022-10/221011-sustainable-finance-platform-finance-report-minimum-safeguards\_en.pdf* [access 31.12.2022]



- procedure-based test, i.e. an examination of PGE Group's internal regulations and procedures in the context of compliance with the applicable regulations and guidelines, carried out on the basis of documentation provided by PGE Group,
- performance-based test focusing on final convictions or penalties, for each of the areas examined, taking into account their materiality, carried out on the basis of PGE Group declarations,
- database analysis carried out on the basis of commonly contained information in the records of the Business and Human Rights Resource Centre (hereafter: BHRRC) and the National Contact Point, established in accordance with the OECD Guidelines for Multinational Enterprises,
- general survey of publicly available information on the activities of PGE Group.

The following areas were audited:

- disclosure of strategic and internal affairs,
- human rights,
- labour rights,
- anti-corruption and anti-bribery,
- protection of competition and competitors,
- tax policy,
- environmental policy.

In the areas mentioned above, PGE Group has adopted procedures corresponding to the standards set out in the OECD Guidelines for Multinational Enterprises and the UN Guiding Principles on Business and Human Rights. In addition, it applies extensive measures in line with both applicable national law and international regulations.

No charges have been brought against PGE Group by the BHRRC, nor is there any case pending before the National Contact Point, which is reflected in the Group's record of penalties imposed by common courts and public administration bodies.

The investigation carried out ruled out the existence of negative indications, representing a failure to provide minimum guarantees, which are identified in the PSF Report as risk factors.

#### **PGE Group's indicators**

PGE Group's indicators for 2022 are presented in the tables below, prepared on the basis of the formulas included in Regulation 2021/2178:



Table: Percentage of turnover from products or services related to systematic business activities for 2022

				Crit		for s	-	ficant n					a concerning no harm" rul							
Economic activity (1)	Code or codes (2)	Turnover (absolute value) (3)	Share of turnover (4)	Climate change mitigation (5)	Climate change adaptation (6)	Water and marine resources (7)	Circular economy (8)	Pollution (9)	Biodiversity and ecosystems (10)	Climate change mitigation (11)	Climate change adaptation (12)	Water and marine resources (13)	Circular economy (14)	Pollution (15)	Biodiversity and ecosystems (16)	Minimum guarantees (17)	Percentage of systematic turnover Year N (18)	Percentage of systematic turnover Year N-1 (19)	Category (supporting activity) (20)	Category ("action for transition") (21)
		PLN million	%	%	%	%	%	%	%	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	%	%	E	Т
A. ACTIVITIES ELIGIBLE	OR SYS	STEMATICS																		
A.1 Types of environme	ntally s	sustainable ac	tivities (o	consister	nt wi	ith th	ie sy	stem	atics)											
4.1 Electricity generation using solar photovoltaic technology	4.1	2	0.0%	0.0%							YES	Not applicable 2	YES	Not applicable	YES	YES	0.0%	No data		
4.3 Electricity generation from wind power	4.3	1 087	1.5%	1.5%							YES	Not applicable	YES	Not applicable	YES	YES	1.5%	No data		
4.9 Transmission and distribution of electricity	4.9	6 787	9.2%	9.2%							YES	Not applicable	YES	YES	YES	YES	9.2%	No data	E	
4.15 District heating/cooling distribution	4.15	3	0.0%	0.0%							YES	YES	Not applicable	YES	YES	YES	0.0%	No data		
4.20 Cogeneration of heat/cool and power from bioenergy	4.20	21	0.0%	0.0%							YES	YES	Not applicable	YES	YES	YES	0.0%	No data		

<sup>&</sup>lt;sup>2</sup> "Not applicable" – elements not subject to audit and disclosure under regulation 2021/2139



5.5 Collection and																	
5.5 Collection and transport of non- hazardous waste in source segregated fractions	5.5	9	0.0%	0.0%				YES	Not applicable	YES	Not applicable	Not applica ble	YES	0.0%	No data		
7.6 Installation, maintenance and repair of renewable energy technologies	7.6	26	0.0%	0.0%				YES	Not applicable	Not applicable	Not applicable	Not applica ble	YES	0.0%	No data	E	
Turnover from environmentally sustainable activities (in accordance with the system) (A.1)		7 935	10.8%	10.8%										10.8%	No data		
A.2 Activities eligible for	systen	natics but not	t environ	mentally	sustainal	ole (activ	ities not i	n accorda	nce with syst	tematics)							
4.3 Electricity generation from wind power	4.3	30	0.0%														
4.5 Electricity generation from hydropower	4.5	204	0.3%														
4.9 Transmission and distribution of electricity	4.9	75	0.1%														
4.10 Storage of electricity	4.10	1 958	2.7%														
4.15 District heating/cooling distribution	4.15	153	0.2%														
4.20 Cogeneration of heat/cool and power from bioenergy	4.20	214	0.3%														
4.24 Production of heat/cool from bioenergy	4.24	19	0.0%														
4.30 High-efficiency cogeneration of heat/cool and power from gaseous fossil fuels	4.30	1 602	2.2%														
4.31 Production of heat/cooling from gaseous fossil fuels in an efficient district heating and cooling	4.31	87	0.1%														



system												
Turnover from systematically eligible but environmentally unsustainable activities (non-systematically compatible activities) (A.2)	4 342	5.9%								Not applicable	Not applicable	
Total (A.1 + A.2)	12 277	16.7%								10.8%	No data	
B. NON-SYSTEMATIC ACTIVITIES												
Turnover from non- systematically eligible activities (B)	61 158	83.3%										
TOTAL (A + B)	73 435	100%										

transport of non-

hazardous waste in

source segregated fractions

5.5

1

0.0% 0.0%



Table: Percentage of capital expenditure for products or services related to systematic business activities for 2022

				Cr		for s ntribu	ignific ution	ant					ria concernin o no harm" r	•						
Economic activity (1)	Code or codes (2)	Capital expenditure in absolute terms (3)	Percentage share of capital expenditure (4)	Climate change mitigation (5)	Climate change adaptation (6)	Water and marine resources (7)	Circular economy (8)	Pollution (9)	Biodiversity and ecosystems (10)	Climate change mitigation (11)	Climate change adaptation (12)	Water and marine resources (13)	Circular economy (14)	Pollution (15)	Biodiversity and ecosystems (16)	Minimum guarantees (17)	Percentage of system- compliant capital expenditure, year N (18)	Percentage of system- compliant capital expenditure, year N-1 (19)	Category (supporting activity) (20)	Category ("action for transition") (21)
		PLN million	%	%	%	%	%	%	%	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	%	%	E	т
A. ACTIVITIES ELIGIBLE	OR SYS	STEMATI	cs																	
A.1 Types of environme	ntally s	ustainab	le activit	ies (cons	sisten	t witl	the s	syste	matic	s)										
4.1 Electricity generation using solar photovoltaic technology	4.1	140	1.7%	1.7%							YES	Not applicable	YES	Not applicable	YES	YES	1.7%	No data		
4.3 Electricity generation from wind power	4.3	1 132	13.9%	13.9%							YES	Not applicable	YES	Not applicable	YES	YES	13.9%	No data		
4.9 Transmission and distribution of electricity	4.9	2 575	31.5%	31.5%							YES	Not applicable	YES	YES	YES	YES	31.5%	No data	E	
4.15 District heating/cooling distribution	4.15	1	0.0%	0.0%							YES	YES	Not applicable	YES	YES	YES	0.0%	No data		
4.20 Cogeneration of heat/cool and power from bioenergy	4.20	3	0.0%	0.0%							YES	YES	Not applicable	YES	YES	YES	0.0%	No data		
5.5 Collection and																				

Not

applicable

YES

YES

Not

applicable

Not

applicable

YES

0.0%

No data



Investment				
expenditures for				
environmentally		3 852	47.2%	
sustainable activities		5 052	77.270	
(consistent with the system) (A.1)				
A.2 Activities eligible fo	r systor	natics hu	it not on	
4.3 Electricity	syster		a not en	
generation from wind power	4.3	200	2.4%	
4.5 Electricity generation from hydropower	4.5	58	0.7%	
4.9 Transmission and distribution of electricity	4.9	5	0.1%	
4.10 Storage of electricity	4.10	36	0.4%	
4.15 District				
heating/cooling distribution	4.15	80	1.0%	
4.20 Cogeneration of heat/cool and power	4.20	18	0.2%	
from bioenergy 4.24 Production of				
heat/cool from bioenergy	4.24	6	0.1%	
4.29 Electricity				
generation from gaseous fossil fuels	4.29	1 957	24.0%	
4.30 High-efficiency				
cogeneration of heat/cool and power	4.30	602	7.4%	
from gaseous fossil		002	,,	
fuels				
4.31 Production of heat/cooling from				
gaseous fossil fuels in				
an efficient district	4.31	28	0.3%	
heating and cooling				
system				
5.4 Modernisation of				
sewage collection and	5.4	47	0.6%	
treatment systems				



8.1 Data processing, hosting and related activities	8.1	11	0.1%											
Investment expenditures for activities that qualify for systematics but are environmentally unsustainable (non- systematic activities) (A.2)		3 048	37.3%								Not applicable	Not applicable		
Total (A.1 + A.2)		6 900	84.5%								47.2%	No data		
B. NON-SYSTEMATIC ACTIVITIES														
Capital expenditure for non-systematic activities (B)		1 268	15.5%											
TOTAL (A + B)		8 168	100%											



Table: Percentage of operating expenditure on products or services related to systematic business for 2022

				Crit		for sig tribut	-						eria concernir lo no harm" r							
Economic activity (1)	Code or codes (2)	Operating expenses in absolute terms (3)	Percentage share of operating expenses (4)	Climate change mitigation (5)	Climate change adaptation (6)	Water and marine resources (7)	Circular economy (8)	Pollution (9)	Biodiversity and ecosystems (10)	Climate change mitigation (11)	Climate change adaptation (12)	Water and marine resources (13)	Circular economy (14)	Pollution (15)	Biodiversity and ecosystems (16)	Minimum guarantees (17)	Percentage of operating expenditure in line with the systematic, year N (18)	Percentage of operating expenditure in line with the systematic, year N-1 (19)	Category (supporting activity) (20)	Category ("action for transition") (21)
		PLNm	%	%	%	%	%	%	%	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	%	%	E	Т
A. ACTIVITIES ELIGIBLE FO	R SYST	EMATICS	5																	
A.1 Types of environment	ally sus	stainable	activities	(consiste	ent w	ith th	e sy	stem	atics)	)										
4.1 Electricity generation using solar photovoltaic technology	4.1	0.4	0.0%	0.0%							YES	Not applicable	YES	Not applicable	YES	YES	0.0%	No data		
4.3 Electricity generation from wind power	4.3	31.4	3.1%	3.1%							YES	Not applicable	YES	Not applicable	YES	YES	3.1%	No data		
4.9 Transmission and distribution of electricity	4.9	284.6	28.5%	28.5%							YES	Not applicable	YES	YES	YES	YES	28.5%	No data	E	
4.15 District heating/cooling distribution	4.15	2.4	0.2%	0.2%							YES	YES	Not applicable	YES	YES	YES	0.2%	No data		
4.20 Cogeneration of heat/cool and power from bioenergy	4.20	0.3	0.0%	0.0%							YES	YES	Not applicable	YES	YES	YES	0.0%	No data		
5.5 Collection and transport of non- hazardous waste in source segregated fractions	5.5	4.9	0.5%	0.5%							YES	Not applicable	YES	Not applicable	Not applicable	YES	0.5%	No data		



7.6 Installation,																		
maintenance and repair	7.6	0.1	0.0%	0.0%				v	ES	Not	Not	Not	Not	YES	0.0%	No data	E	
of renewable energy	7.0	0.1	0.0%	0.0%				Ť	ES a	applicable	applicable	applicable	applicable	TES	0.0%	NO UALA	E	
technologies																		
Operating expenditure for environmentally																		
sustainable activities		324	32.5%	32.5%											32.5%	No data		
(consistent with the		524	52.570	52.570											52.570	No data		
system) (A.1)																		
A.2 Activities eligible for s	ystema	tics but i	not envir	onmental	y sustain	able (ac	tivities no	t in acc	cordar	nce with sy	(stematics)							
4.3 Electricity generation from wind power	4.3	1.2	0.1%															
4.5 Electricity generation																		
from hydropower	4.5	9.6	1.0%															
4.9 Transmission and																		
distribution of electricity	4.9	1.2	0.1%															
4.10 Storage of electricity	4.10	17.9	1.8%															
4.15 District																		
heating/cooling	4.15	7.9	0.8%															
distribution																		
4.20 Cogeneration of																		
heat/cool and power from bioenergy	4.20	4.1	0.4%															
4.24 Production of																		
heat/cool from bioenergy	4.24	0.4	0.0%															
4.30 High-efficiency																		
cogeneration of heat/cool	4.30	33.6	3.4%															
and power from gaseous	4.30	33.0	3.470															
fossil fuels																		
4.31 Production of																		
heat/cooling from gaseous fossil fuels in an																		
efficient district heating	4.31	0.5	0.1%															
and cooling system																		
5.4 Modernisation of																		
sewage collection and	5.4	8.4	0.8%															
treatment systems																		
Operating expenditure on activities that qualify																		
for systematics but are		85	8.5%												Not	Not		
environmentally unsustainable (non-															applicable	applicable		



systematic activities) (A.2)												
Total (A.1 + A.2)	409	41.0%							32.5%	No data		
B. NON-SYSTEMATIC ACTIVITIES												
Operating expenditure on non-systematic activities (B)	589	59.0%										
TOTAL (A + B)	998	100%										



#### Turnover

Total qualifying turnover amounted to PLN 12,277 million, consisting of revenue in the segments:

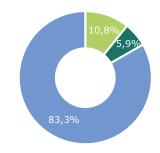
Table: Value of turnover from activities qualifying for systematics by segment of PGE Group

Segment	value (PLNm)
Distribution	6 783
Renewables	3 281
District Heating	2 110
Turnover	74
Conventional Generation	20
Circular Economy	9
Total	12 277
including:	
Turnover from environmentally sustainable activities (in line with the systematic)	7 935
Turnover from systematically eligible but environmentally unsustainable activities (non- systematically compliant activities)	4 342

Within the segments, systematically compliant activities were identified, generating a total turnover of PLN 7,935 million, the majority of which related to:

- Activity 4.9 Transmission and distribution of electricity in the Distribution segment and
- Activity 4.3 Wind power generation in the Renewable Energy segment.

#### Turnover



- Taxonomy-eligible activity environmentally sustainable
- Taxonomy-eligible activity environmentally non-sustainable
- Activity not eligible for Taxonomy

Chart: Share of turnover of environmentally sustainable and non-environmentally sustainable and non-systematic activities.

#### CapEx

The total CapEx eligible amounted to PLN 6,900 million, consisting of capital expenditure in the segments:

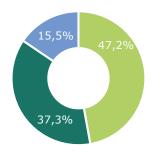
Table: Value of capital expenditures from activities qualifying for systematics by PGE Group segments

Segment	value (PLNm)
Distribution	2 575
Other activity	1 968
Renewables	1 566
District Heating	736



Conventional Generation	50
Turnover	3
Circular Economy	1
Total	6 900
including:	
Investment expenditures from environmentally sustainable activities (consistent with the systematics)	3 852
Investment expenditures from activities eligible for systematics but environmentally unsustainable (non-systematic activities)	3 048

Capex



- Taxonomy-eligible activity environmentally sustainable
- Taxonomy-eligible activity environmentally non-sustainable
- Activity not eligible for Taxonomy

Chart: Share of environmentally sustainable and non-environmentally sustainable and non-systematic activities in capital expenditure.

Within the segments, activities were identified in line with the systematic, generating total capital expenditure of PLN 3,852 million, the majority of which related to:

- Activity 4.9 Transmission and distribution of electricity in the Distribution segment and
- Activity 4.3 Wind power generation in the Renewable Energy segment (including acquisition of wind farms worth PLN 1,116 million).

#### ОрЕх

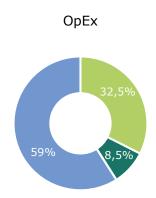
The total eligible OpEx reached PLN 409 million, consisting of operating expenses in the segments:

Table: Value of operating expenses for activities qualifying for systematisation by PGE Group segments

Segment	value (PLNm)
Distribution	284
Renewables	61
District Heating	47
Conventional Generation	12
Circular Economy	5
Turnover	1
Total	409
including:	
Operating expenditure from environmentally sustainable activities (consistent with the systematics)	324
Operating expenditure from activities that qualify for systematics but are environmentally unsustainable (non-systematic activities)	85



Within the segments, systematically compliant activities were identified, generating total operating expenses of PLN 324 million, of which significant ones related to activity *4.9 Electricity transmission and distribution* in the Distribution segment.



- Taxonomy-eligible activity environmentally sustainable
- Taxonomy-eligible activity environmentally non-sustainable
- Activity not eligible for Taxonomy

Chart: Share of environmentally sustainable and non-environmentally sustainable and non-systematic activities in operating expenditure.

Disclosure in accordance with Annex III of Commission Delegated Regulation (EU) 2022/1214, supplementing Commission Delegated Regulation (EU) 2021/2178 with Annex XII on standard templates for the disclosure of information referred to in art. 8 sec. 6 and 7. - i.e. for nuclear and natural gas activities is presented in Annex 1 to this non-financial report.

#### Linking the Taxonomy indicators to PGE Group strategy

It is the intention of PGE Group to make material investments in compliance with the EU Environmental Taxonomy as far as technologically feasible. The investments currently under way will result in an increase in the value of taxonomic indicators, not only in the first two objectives, but also in the next four, which will be implemented by the European Union in the near future.

Of key importance for the results covering 2022 is the scale of operations in the area of the Conventional Generation segment, which is scheduled for divestment in 2023. In the past year, it had a decisive impact not only on the level of turnover and operating expenditure, but also significantly influenced the level of overall capital expenditure, primarily through expenditure of a maintenance nature required to run the business.

The basis for current and future development investments, in line with PGE Group Strategy, are investments in renewable energy sources (RES), electricity distribution and zero- and low-carbon energy sources.



# 2. ENVIRONMENTAL

#### | GRI 3-3 [company's impact on climate] | GRI 3-3 [company's impact on environment] | GC-7 |GC-8 | GC-9 |

As Poland's largest energy group, PGE Group prioritises the reduction of its environmental and climate impact in its operations and in the process of planning new investments. One of the pillars of the Group's business strategy is the production and supply of environmentally friendly energy. By increasing its level of climate awareness, PGE Group is working towards reducing greenhouse gas emissions while building the organisation's resilience to change. It does this by applying resource-efficient solutions, reducing emissions to the environment and developing new investments. This is realised by modernising generation sources, increasing the share of the use of renewable energy sources, and through innovative activities implemented in the area of research and development. PGE Group aims to achieve its climate policy objectives in a sustainable and responsible manner.

### 2.1 Climate awareness

#### [own indicator]

PGE was the first company in the industry in Poland to announce a business strategy with a transition plan aiming at the Group's climate neutrality in 2050. Implementing the goals and assumptions defined in the strategy adopted by the Management Board of PGE SA and published in October 2020, the Group is rebuilding its generation portfolio towards low- and zero-emission sources. The effects related to emission reductions will become visible as more investments are put into operation.

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 the RES portfolio and enabling the Group's 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 2022 alone, PGE Group companies incurred expenditures of approx. PLN 4.87 billion, of which:

- PLN 2.69 billion represented investments in new and development gas units (in locations of gas units in operation today),
- PLN 1.34 billion investments in the development and modernisation of the distribution network together with the cabling of the overhead network,
- PLN 103 million RES installation connections,
- over PLN 245 million development tasks and strategic modernisation investments carried out by PGE Energia Odnawialna,
- 213 million offshore energy segment tasks in 2022.

The remainder of the expenditures are investments related to the adaptation of generation assets to the requirements of the BAT Conclusions and modernisation and restoration investments related to increasing the efficiency of plant operation, reducing environmental nuisance and supporting the responsible use of natural resources.

#### Renewable assets

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.



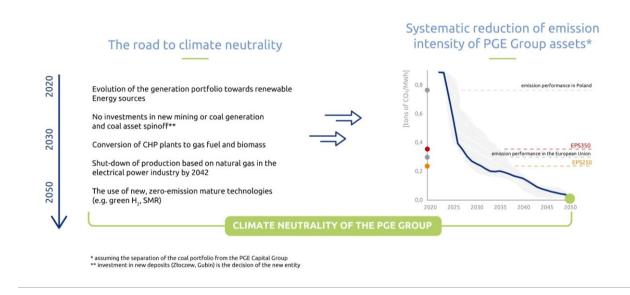


Fig. PGE Group's path to climate neutrality

PGE Group's long-term strategic aspiration is to provide all energy from renewable sources to PGE's customers by 2050, which will be possible through implementation:

- offshore program,
- PV program,
- development of 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 more than 1.3 GW of installed capacity in RES, including hydroelectric power plants, wind farms, photovoltaics and biomass, of which approx. 772 MW comes from wind farms. In addition, PGE is Poland's largest operator of pumped storage power plants (1.25 GW of capacity without natural inflow) acting as energy storage facilities.

#### **Offshore Program**

PGE Group is currently developing three offshore wind farm projects in the Baltic Sea. Two of these are the Baltica 2 and Baltica 3 offshore wind farms, which comprise the Baltica Offshore Wind Farm with a total capacity of 2.5 GW. PGE is implementing this project together with Danish partner Ørsted. Both phases of the Baltica offshore wind farm have location decisions, environmental decisions, transmission grid connection agreements with the operator, as well as the right to a contract for difference (CfD) and an approved level of individual support. Delivery of electricity to Polish households will begin later this decade. At the same time, PGE is preparing for the construction of a third project, Baltica 1. This offshore wind farm is scheduled to be commissioned after 2030 and will have a capacity of approx. 0.9 GW. PGE Baltica, the company responsible for PGE Group's Offshore Program, started wind measurement and environmental studies for this project in 2022. Baltica 1 already has a location decision and a connection agreement. By implementing further offshore wind farm projects, PGE intends to fulfil the strategic goal of achieving - at least - 6.5 GW of offshore generation capacity in the Baltic Sea by 2040. In order to apply for new location permits (PSzW - permits to erect artificial islands) for a part of the areas released in the Baltic Sea for the construction of offshore wind farms, PGE has started cooperation with other energy groups in Poland such as ENEA and TAURON.

#### **PV Program**

PGE Group is running the Group's Photovoltaic Program, whose strategic goal is to achieve 3 GW of solar power capacity by 2030 and to ensure that PGE Group is the leader in the development of photovoltaic power plants in Poland. To date, PGE has secured land of 3,500 hectares, allowing for the construction of approx. 2.4 GW of photovoltaic capacity.



In 2022, PGE Energia Odnawialna continued its intensive activities in the area of the development of its own photovoltaic farms, with the Group obtaining planning permission decisions for around 251 MW of PV capacity in the last year. Two acquisitions of PV projects at various stages of development were also finalised. In February 2022, the acquisition of six projects with a total capacity of 25 MW with planning permission was completed. On the other hand, in December 2022, PGE completed the acquisition of 28 projects with a total capacity of 59 MW with technical connection conditions.

Facility work on 19 PV projects with a total capacity of approx. 18 MW was also completed at the end of 2022. The commissioning of these installations is planned for early 2023. In addition, in 2022, PGE Energia Odnawialna entered into agreements with contractors for the construction of PV installations with a total capacity of approx. 180 MW, including large farms such as 100 MW PV Jeziórko and 25 MW PV Augustynka. These assets will be built in 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 erected in the areas of the Ashes Reservoir, Reservoir No. 5 and Szczerców Mountain, which requires, first of all, reclamation, changes to the Conditions Study and Local Development Plans, as well as obtaining a set of administrative decisions. Ultimately, by the end of 2025, PGE will have built installations with a total capacity of over 500 MW in the Bełchatów area.

PV development program in 2022 in numbers: Objective: > 3 GW of installed capacity by 2030

- 19 MW built capacities;
- 179 MW in progress (including 25 MW from an acquisition completed in the first quarter of 2022)
- approx. 250 MW capacity covered by construction permits
- approx. 3500 ha with a capacity of approx. 2.4 GW land secured:
- acquisition of a portfolio of 7 projects with a total capacity of 26 MW (including 1 project with 1 MW returned to the Vendor) in the first quarter 2022 and a portfolio of 28 projects with a total capacity of 59 MW (with valid technical connection conditions) in the fourth quarter of 2022.

#### **Development of onshore wind portfolio**

PGE Group is the largest domestic generator of electricity from onshore wind farms with approx. 10% of installed capacity in wind farms in Poland. Its current investment portfolio includes projects with a total capacity of approx. 200 MW. These include FW Lotnisko II, FW Karnice III, FW Bukowo, FW Resko III and projects under development in the Bełchatów area. These new investments will be possible with the entry into force of the law liberalising the distance law, in particular the relaxation of the so-called '10H' condition.

Onshore wind farm development in 2022 in numbers. Objective: >1 GW in new capacities by 2030:

- approx. 150 MW capacity in progress under preparations
- approx. 50 MW analysis of the possibility of developing own projects in PGE Group locations
- acquisition of 3 wind farms, or 32 turbines, with a total capacity of 84.2 MW and an average annual production of 240,000 MWh. These are: WF Radzyń with a capacity of 36.9 MW (in the Kujawsko-Pomorskie voivodeship), WF Ścieki with a capacity of 22 MW (in the Łódzkie voivodeship) and WF Jóźwin with a capacity of 25.3 MW (in the Wielkopolskie voivodeship).

#### Energy storage program

PGE Group is also carrying out analytical and preparatory work on energy storage development opportunities. The strategic aspiration is to build 800 MW of storage capacity by 2030. PGE Group currently sees potential for the development of electrochemical energy storage facilities, such as the over 200 MW energy storage facility operating at the Żarnowiec pumped storage power plant or approx. 50 smaller energy storage facilities cooperating with the main power supply points in the PGE Dystrybucja area, with a total capacity of over 250 MW. At the same time, the Group sees opportunities related to the development of new pumped storage power plants such as: ESP Młoty, which also perform an energy storage function in the National Power System. Technical and economic analyses are currently in progress to make an investment decision on the construction of the power plant in Młoty.



#### 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 taken by PGE that are conducive to the achievement of the set goals are primarily:

- investments in the area of new gas sources,
- thermal waste treatment facilities,
- use of renewable energy as a source of district heating.

PGE Energia Ciepła, being the leader of the heat market in Poland, aims to be a transition leader in the heating sector. In view of the growing expectations of customers and society and the development of the market for system heat consumers in large cities. Solutions such as the long-term contract signed in May 2021 by PGE Energia Ciepła's branch in Lublin for the supply of heat to the city's inhabitants support the implementation of national and international climate policy objectives.

At the end of 2022, PGE Energie Ciepła's investment application for the investment task: "PGE EC Decarbonisation Plan to 2050." It contains detailed actions planned to be taken until 2030 concerning the conduct of in-depth analyses of the transition to low-carbon generation in the district heating segment. The document was created as an operationalisation of the objectives set out in PGE Group's strategy in the area of generation portfolio transition towards a higher share of low-carbon units and renewable energy. One of the key initiatives of the plan is the transition of generation assets, which includes in its scope the development and implementation of investment programs for individual PGE Energia Ciepła sites.

Rebuilding of generation capacity is envisaged with a view to 2030 (ending coal-based generation) and 2050 (achieving climate neutrality).

In view of the increasing expectations of customers, society and other stakeholders, as well as active support for the implementation of national as well as international climate policy goals, PGE Energia Ciepła is gradually replacing old coal-fired sources with new low-carbon sources fired by gas and oil. With a view to further decarbonisation and relative limitations in the availability of natural gas, PGE's intention is also to maximise the potential of large-scale heat pumps, biomass, waste heat, municipal waste and electrode boilers. In the case of planned gas-fired units, the possibility of adapting to the future use of hydrogen is also being considered.

The new generating units are 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 phase out of coal is first planned in Zgierz, Kielce, Lublin, Rzeszów and Gorzów Wielkopolski, followed by CHP plants in Bydgoszcz, Siechnice near Wrocław, Gdynia and Gdańsk.

The key investment projects in this area especially include:

• construction of new gas-fired cogeneration sources

Since 2021, new units are under construction in Siechnice (CHP Czechnica), while the preparation phase for similar projects is currently underway in Bydgoszcz, Kielce, Zgierz and Gdynia;

• 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.

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. In 2022, the projects entered the decisive phase of implementation - the main components (including gas boilers) were delivered and installed, and construction and assembly works were carried out. The work is expected to be completed by the end of 2023 at the latest, so that the newly built peak load boiler plants will be commissioned by 2024 at the latest.

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. 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 analysed also consider the use of hydrogen-ready technology, enabling the co-combustion of hydrogen, which in the long term offers an opportunity to significantly reduce  $CO_2$  emissions in cogeneration systems.

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

PGE Group is systematically working towards reducing greenhouse gas emissions also in its power plants, regardless of the expected implementation of the process of separating these assets from the Group's structures. Unit carbon dioxide emissions are being systematically reduced as generating assets are modernised and development investments are carried out. Optimisation of generation efficiency, increased efficiency in the use of fuels and raw materials and a reduction in the energy intensity of generation processes and own needs are being carried out at the plants.

#### Bełchatów power plant

The Bełchatów plant is a major greenhouse gas emitter  $(CO_2)$ . 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.

It is noteworthy that Elektrownia Bełchatów in the period from 1989 to 2022 reduced the volume of  $CO_2$  emissions per unit of energy produced - from about 1.20 t  $CO_2$  /MWh to about 1.102 t  $CO_2$  /MWh. The decrease in unit  $CO_2$  /MWh emissions was as much as 8% over this period.

The scale of  $CO_2$  emissions per unit of energy produced at Elektrownia Bełchatów is comparable to or better than other European lignite-fired power plants.

#### Opole power plant

The new units 5 and 6 at the Opole Power Plant contribute to the decarbonisation of the national electricity industry due to their significantly higher efficiency. They are started-up first before older units with lower efficiency. In effect, at a given level of supply (capacity of installed units) and a stable level of demand in the country (demand for capacity), the "new" units with lower  $CO_2$  emissions displace the "old" higher emission units. These actions contribute to the reduction of emissions from the national energy industry. In 2022, the emission factor for units 1-4 at the Opole plant was 0.902 Mg/MWh and for units 5-6 this was 0.749 Mg/MWh.

#### Turów power plant

The reduction of carbon dioxide emissions at the Turów power station was achieved by increasing the electricity generation efficiency of units 1-3 and commissioning a high-efficiency unit 7 in 2021. A modern and high-efficiency power unit 7 was commissioned in May 2021.

#### Dolna Odra power plant

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. As part of the modernisation measures carried out at the units operated at the unit, efforts have been made to increase the efficiency of electricity generation and thus reduce  $CO_2$ .



# New units at Dolna Odra

At the Dolna Odra power station, a project is currently in progress to build two gas-steam units of approx. 700 MW gross capacity each. High-methane natural gas is the primary energy source for the selected generation technology. The overall progress of the project, including design work, equipment manufacture and supply, and site works, exceeded 80% at the end of December 2022. PGE Gryfino 2050 sp. z o.o. is the company executing the project. According to the project implementation schedule, the works should be completed in December 2023, so that the gas and steam units will be put into operation in 2024.

The implementation of projects using gas as a transition fuel supports the transition towards climate neutrality. The construction of two new gas/steam units in the Dolna Odra Power Plant is a project of strategic importance for the Polish economy and at the same time important from the perspective of lowering the costs of the energy transition. The average  $CO_2$  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). This means that energy generation using the new units will deliver a reduction in  $CO_2$  emissions in the NPS of approx. 2-3 million tonnes per year. The reduction in emissions is achieved not only by changing the fuel to gas, but also by using the latest generation of gas turbines. Their energy generation efficiency exceeds 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%.

#### Rybnik power plant plant

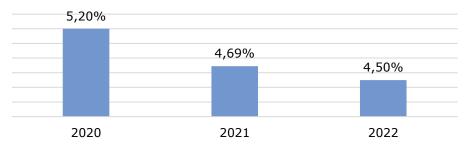
For the reduction of greenhouse gas emissions at the Rybnik power plant, the construction of the 882 MW gas-steam unit project at the site is of key importance. The new gas unit in Rybnik will replace four coal-fired units with a total capacity of 900 MW that are being decommissioned. The unit is scheduled to be commissioned in December 2026 and will significantly contribute to the reduction of emissions in the National Power System, similar to the new units at the Dolna Odra plant. The emission factor of the new unit is 320 g CO<sub>2</sub> per kWh of electricity generated, which is three times lower than for coal-fired units of the 200 MW class. The new gas/steam unit will have the option of co-firing hydrogen in gas fuel.

#### Management of energy consumption

#### | GRI 3-3 [energy consumption management] |

Considering the management of energy consumption at PGE Group, the reduction of losses resulting from generation and transmission processes is of the most significant importance due to its operations. As part of production activities, modernisation investments are being carried out in conventional generation units to improve generation efficiency by reducing own losses. The construction of gas/steam units at the current Dolna Odra and Rybnik coal-fired plants will also contribute to improving the efficiency of primary energy use.

In the case of electricity supply - a program to reduce network losses is in place, consistently reducing the amount of electricity lost.



# Grid losses at PGE Dystrybucja

<sup>(12-</sup>month moving average)



# Increase in connection capacity

The majority of investments in the area of electricity distribution in 2022 concerned the modernisation and development of the high-, 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 2022, PGE Dystrybucja connected 146,000 domestic photovoltaic installations with a total capacity of 1.18 GW to its grid.

In 2022, 323 RES sources with a unit power of more than 50 kW also appeared on the PGE Dystrybucja grid, sources that do not count as micro-installations, including:

- photovoltaic plants with a total capacity of 395.59 MW 305 units
- wind farms with a total capacity of 235.8 MW 9 units
- biogas plants with a total capacity of 3.58 MW 6 units
- biomass with a total capacity of 0.66 MW 2 units
- hydropower plants with a total capacity of 0.13 MW 1 unit

The above measures are important in view of the planned reductions in energy production from conventional sources.

# Reduction effect of management of by-products of combustion

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  $CO_2$  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  $CO_2$  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 Balancing and Emissions Management Centre, by producing binders from UPS that successfully replace cement and natural lime in selected geotechnical applications - mainly in road construction, the reduction of  $CO_2$  emissions over a 5-year period can be reduced by almost 568,000 tonnes.



# 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 ( $CO_2$ ), methane ( $CH_3$ ), carbon oxide ( $N_2$ , hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulphur hexafluoride ( $SF_6$ , caused directly or indirectly by an individual, organisation, event or product.

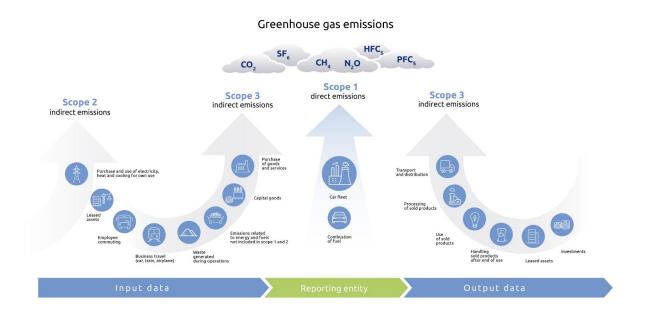


Fig. Simplified diagram of the carbon footprint scopes in an organisation

# 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. Both 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. Apart from PGE Polska Grupa Energetyczna SA, the co-authors of the manual include representatives of PGE Group companies operating in the segments of Conventional Generation and District Heating: 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 "Guide to a Uniform Carbon Footprint for Electricity and Heat Sector Entities", together with an integral IT tool, serve to uniformly capture the carbon footprint for electricity and heat sector entities, 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.



On the basis of previous work within the PTEZ and cooperation with key PGE Group companies, a general procedure for calculating the carbon footprint in PGE Group was adopted in 2022. The aim of the procedure is to support business management by introducing a standard and providing uniform rules of conduct for the calculation of the carbon footprint in PGE Group companies for the reporting of climate and sustainability issues. The procedure defines in particular:

- ways of setting organisational boundaries for counting the carbon footprint and consolidating GHG emissions data,
- identification and setting of operational boundaries for individual scopes (scope 1, scope 2, scope 3) and biogenic emissions within the carbon footprint calculation,
- defining materiality limits for the calculation of the carbon footprint.

The key in this process was the preparation of the companies and their training, in particular in the identification of emission sources, their classification and their appropriate conversion to  $CO_2$  using the available and defined  $CO_2$  emission factor appropriate for the reporting year using a dedicated IT tool. In subsequent years, it will be important to calculate the carbon footprint for a given reporting year based on updated  $CO_2$  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

PGE Group calculated its carbon footprint for the first time as part of the pilot for 2020. However, taking a responsible approach to counting the data and obtaining comparable results within the sector, it treats as a base year the data for 2021, in which the carbon footprint was counted on the basis of the manual developed in cooperation with PTEZ and PGE Group's general procedure for calculating the carbon footprint. The method adopted therein is a consistent approach to counting the footprint in the electricity sector in the country.

#### | GRI 2-2 |

The volume of greenhouse gas emissions in 2022 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 that are assessed as likely to have a significant impact on the volume of greenhouse gas emissions will be successively included in this process. Such an impact assessment is carried out annually.

Noteworthy are the actions taken by PGE Group in 2022 and 2023 to streamline and make more realistic the counting of the carbon footprint under scope 3 of category 7 "Employee commuting." During the 2022 Employee Opinion Survey (BOP) addressed to selected PGE Group companies, specific questions were introduced on issues related to employee commuting to and from work. The questions were designed to elicit responses at the level required for carbon footprint calculations using a dedicated IT tool. By capturing data for 2022, it was possible for the selected companies to use real data from employees in this area. Importantly, a significant number of employees participate in the Employee Opinion Survey. The companies can boast a



high participation rate - depending on the company, this ranges from 75% to even more than 90%. This ensures that the responses provided by the employees of a given company reflect the actual state of affairs.

PGE Group-level carbon footprint calculation data by emissions band and biogenic emissions (not included in the carbon footprint):

PGE Group's carbon footprint (t CO <sub>2</sub> e)	2022	2021
Scope 1		
Fuels, of which:	69 370 331	70 169 857
- lignite	45 581 652	42 692 766
- hard coal	22 018 088	25 083 918
- natural gas	1 331 587	1 954 130
- other fuels	439 363	439 043
Process emissions	807 646	764 718
Refrigerants and other gases	210 809	51 836
Total scope 1	70 389 145	70 986 410
of which EU-ETS emissions (%)	99.5	99.7
Scope 2 Market-based*, of which:	2 196 571	2 183 395
Electricity losses in transmission and distribution	1 322 593	1 379 892
Purchased electricity for own use	828 318	759 699
Purchased thermal energy for own use	45 660	43 804
Scope 2 Location-based**	2 196 976	2 183 836
Scope 3		
Category 3. Energy- and fuel-related emissions	23 116 540	22 191 648
Category 1. Purchased goods and services	497 790	821 824
Category 10. Processing of sold products	756 132	755 065
Category 2. Capital goods	252 844	508 996
Category 4. Upstream – transport and distribution	329 133	259 805
Category 5. Waste resulting from operations	84 809	75 014
Category 11. Use of sold products	40 640	74 949
Category 7. Commuting of workers	39 041	34 965
Category 6. Business trips	635	158
Total scope 3	25 117 565	24 722 424
Total scope 1 + scope 2 + scope 3 Market-based	97 703 281	97 892 230
Total scope 1 + scope 2 + scope 3 Location-based	97 703 685	97 892 671
Biogenic emissions	390 463	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.

In 2022, there is a reduction in the carbon footprint relative to 2021 in scope 1 of less than 1%. No reduction is observed in the other scopes. Conventional generation is responsible for 86.7% of PGE Group's calculated carbon footprint. Scope 3 accounts for approx. 36% of the total carbon footprint, understood as the sum of Scope 1, Scope 2 and Scope 3.



# GHG emissions by scope [t CO<sub>2</sub>e]

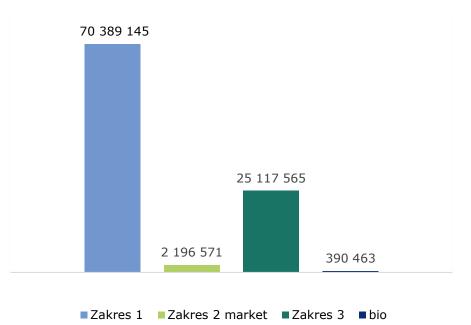


Fig. Distribution of greenhouse gas emissions in 2022 by category of greenhouse gas emissions

# 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

Responsibilities related to the supervision of the environmental area in the Group are carried out by the Environmental Protection Division within the structure of the Operational Management and Investment Department of PGE Polska Grupa Energetyczna S.A. The new unit, which has been in operation since December 2022, shapes and sets standards in the area of environmental management at key PGE Group companies.

# **Environmental protection policy**

The management of the environmental protection area is defined by PGE Group's Environmental Policy, which takes a systematic approach to preventing and mitigating environmental and climate impacts, monitors regulatory changes and meets legal requirements in this aspect. It defines the powers and responsibilities, as well as the processes and activities relevant to environmental protection. The policy defines:

- 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.

# Code of Ethics and the environment

Environmental impact management issues are included in PGE Group's Code of Ethics, which obliges all employees to use natural resources rationally, and in the PGE SA Management Board's declaration on environmental policy. In this declaration, the Management Board, committed to the continuous improvement of activities for the protection and improvement of the environment and to the prevention of pollution through the implementation of high and economically justified technological standards. The Management Board Declaration is available on PGE Group's website: <a href="https://www.gkpge.pl/grupa-pge/zrownowazony-rozwoj/srodowisko/deklaracja-srodowiskowa">https://www.gkpge.pl/grupa-pge/zrownowazony-rozwoj/srodowisko/deklaracja-srodowiskowa</a>

# Environmental Management System ISO 14001:2015

PGE SA since 2019 has had a team responsible for implementing, maintaining and improving an environmental management system based on the PN-EN ISO 14001:2015 standard.

Considering the key companies of PGE Group (PGE SA, PGE GiEK, PGE EC, PGE EO, PGE Dystrybucja, PGE Ekoserwis), the ISO 14001:2015 standard is implemented in 100% of the companies and certified in 50% of the companies (PGE GiEK, PGE EC, PGE Ekoserwis). To ensure that PGE Group's Environmental Policy is successfully implemented, environmental management system administrators and coordinators have been appointed in individual companies.

The main task of ISO 14001 is to support environmental protection and prevention of pollution in a way that takes into account social and economic considerations along the lines of the sustainability concept. The Environmental Management System in accordance with PN-EN ISO 14001:2015 identifies and monitors PGE Group's environmental impact, taking into account environmental impacts in the context of risks and opportunities for individual environmental aspects, internal and external factors and stakeholders. Compliance with, among other things, legal requirements for environmental protection and the volume of emissions into the environment is monitored on an on-going basis. 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.

In 2022, a range of activities were oriented towards managing the crisis situation resulting from the interruption of supply chains of fuels of a certain quality and production raw materials as a result of the armed conflict in Ukraine, which translated into the risk of failing to meet environmental protection standards and delays in the implementation of adaptation and modernisation investments. Securing the possibility of biomass combustion in PGE Group installations was also an important issue due to the need to carry out audits to confirm compliance with sustainability criteria.

# 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 in place at two branches of PGE Górnictwo i Energetyka Konwencjonalna - Elektrownia Opole and Zespół Elektrowni Dolna Odra - as well as at a branch of PGE Energia Ciepła - Elektrociepłownia Wybrzeże. 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 SA are among the organisations that have been registered in the national eco-management and audit scheme (EMAS) for the longest time, with the Opole Power Plant being the national leader in this respect.

# Certification of the Sustainability Criterion for Biomass Combustion

In accordance with the requirements stated in the directive on the promotion of the use of energy from renewable sources (the so-called RED II), PGE Energia Ciepła in its Branch in Szczecin and in Kielce, as well as in the subsidiary Zespół Elektrociepłowni Wrocławskich KOGENERACJA SA and Elektrociepłownia Czechnica



implemented the System for Sustainability Criterion for biomass. In confirmation of the properly implemented system, appropriate certificates have been obtained at these locations, authorising the use of biomass for the production of electricity and heat. Current certificates are available on the website of the Oil and Gas Institute (INiG). PGE Energia Ciepła carried out a recertification audit in 2022 and obtained the relevant certificates authorising the use of biomass for the production of electricity and heats.

The system for the Sustainability Criterion for biomass has also been certified at the Dolna Odra Power Plant Branch of PGE Górnictwo i Energetyka Konwencjonalna SA.

The INiG's scheme is a global voluntary scheme recognised by the European Commission. Its participants are required to verify the scope of certification of the entire life cycle of biofuels, bioliquids and biomass fuels. Registration in the system means that the organisation meets sustainability requirements in accordance with the European Commission's requirements. PGE Energia Ciepła as a producer of heat and electricity is subject to certification in the System with regard to: implementation of the mass balance, calculation of greenhouse gas emissions, calculation of efficiency based on its own operating data.

# **Green Office Certificate**

In many PGE Group locations, offices have undergone the Green Office certification process, carried out by the Foundation for Environmental Education. The certificate is a form of ecological office management. Its implementation generates savings through rational management of resources and to raising the environmental awareness of employees. Alongside the implementation of the Green Office environmental standard, PGE Group trained its employees in the principles of ecology at home and in the office. The training allows for the introduction of green management issues among employees, as well as the development of good habits that are also applied in everyday life. Good practices in the daily functioning of the company include the conscious use of water resources, electricity and heat or paper for office purposes.

Obtaining the Green Office certificate is a complementary way for PGE Group to reduce the company's impact on the environment, but it also brings notable financial benefits in the form of reduced operating costs for companies through the introduction of modern and environmentally friendly solutions. The Green Office certificate confirms that PGE Group companies undertake new, pro-ecological initiatives resulting in the reduction of the company's impact on the natural environment, also in the administrative aspect.

Green Office is a certificate confirming that PGE Group also cares about the environment in the office space. The company applies pro-environmental solutions such as the reuse of binders, the introduction of central printing points and the use of follow-on printing and the default setting of printers for double-sided and blackand-white printing, the implementation of electronic document workflow in SAP, which reduces the use of paper and toner, the use of the intranet for internal communication, the segregation of waste, the introduction of special containers for bottle caps as well as electro-waste, the hanging up of information concerning the extinguishing of lights, and following the principles of the implemented Code of Ethics.

The following companies held the Green Office certificate in 2022:

- PGE SA,
- PGE Dystrybucja: central office and branches: Białystok, Lublin, Łódź, Rzeszów, Skarżysko-Kamienna, Warszawa, Zamość,
- PGE Obrót: central office in Rzeszów and 6 locations: Białystok, Lublin, Warsaw, Łódź, Skarżysko-Kamienna and Zamość,
- 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, including the immediate surroundings, which is why PGE Group attaches great importance to improving air quality in its area of operation.

As the distribution structure of district heating in Polish cities is highly developed, PGE aims to maximise its use with a view to its positive impact on improving air quality and the environment. District heating is one of the most effective ways of reducing smog, which - especially in the autumn and winter season - is a problem



in many Polish cities. Research shows 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 - largest producer and supplier of district heat

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 a response to the need to improve air quality in cities through mass connections to district heating networks and the decommissioning of old, inefficient and environmentally polluting domestic coal-fired 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 2022, PGE Energia Ciepła connected buildings with a demand of 218 MWt to district heating networks in the local heat markets. This is as if an entire city the size of Zielona Góra had been connected to the district heating system in a single year. In markets where PGE Energia Ciepła is only a heat producer, buildings with a demand of 182 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 36 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 148 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 70 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 1989-2022, PGE Group's power plants reduced emissions as follows:  $SO_2$  by 95%,  $NO_x$  by 66%, dust by 99%.

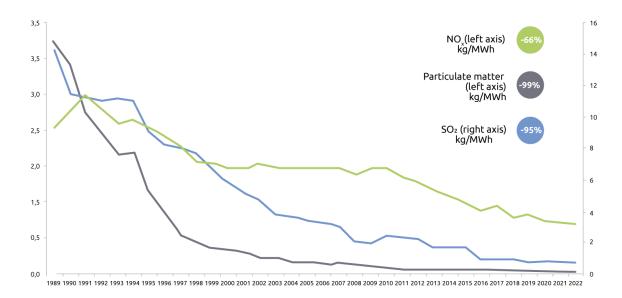


Chart of emission reductions of  $SO_2$ ,  $NO_x$  and dust from 1989 to date.



Depending on the location, modernisation programs have different scopes of adaptation works. A large group of modernisation and restoration investments in recent years have been tasks aimed at adapting generating units to the requirements of the 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. Of this scope, work was still continuing in 2022 at the Bełchatów and Turów power plants.

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 actions taken were mainly aimed at adjusting PGE's generation assets to environmental limits (e.g. improvement of effluent emission parameters, reduction of dust,  $SO_2$ ,  $NO_x$ , Hg and other emissions). In 2022, work continued at several locations to improve effluent parameter emissions. The work to comply with the BAT Conclusions, has also contributed to improvements in other parameters, including generation efficiency and increased controllability, which are also important in terms of reducing 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 the gas turbine at Zielona Góra CHP. The investment was completed in November 2022. As a result of the modernisation, the unit's emissions have been reduced (e.g.  $NO_x$ ), the efficiency of energy generation has increased and the regulatory parameters of the entire generating unit have improved, which also has an impact on the CHP's failure rate.



# 2.5 A responsible approach to water resources management

#### | GRI 3-3 [water management] | GRI 303-1 | GRI 303-2 |

PGE is aware of the necessity to respect limited water resources. In its operations, it uses water responsibly for the entire ecosystem, monitors its use and implements solutions to improve the standards of its use in its processes.

Processes related to water and wastewater management in PGE Group installations are carried out in particular on the basis of, inter alia, the Water Law and the relevant executive acts dedicated to water and wastewater management. These processes are carried out in accordance with the provisions of administrative decisions issued by competent authorities, such as: integrated permits or sector decisions (water law permits). PGE Group monitors the quantity and quality of water abstracted and sewage discharged in accordance with administrative decisions issued in this respect.

For the technological needs of installations within PGE Group, water from surface water intakes is mainly used, which is subjected to purification processes. In order to reduce the amount of raw water consumption, closed circuits are used, and the used process water and sewage are introduced to other production processes. Wastewater generated by production activities undergoes treatment, including multi-stage treatment, and is then discharged to surface waters or transferred to municipal enterprises.

# Water management in power plants

Terms for conducting water and wastewater management are specified in relevant permits, including mainly integrated permits and water-law permits. In the Branches of PGE Górnictwo i Energetyka Konwencjonalna, monitoring is carried out on an ongoing basis with regard to the quantity and quality of water abstracted and wastewater discharged.

Depending on environmental conditions, the branches have appropriate water treatment and wastewater treatment technologies. Adapting to the requirements of the BAT conclusions at PGE Górnictwo i Energetyka Konwencjonalna also means reducing emissions to water from flue gas treatment facilities generated in the process of electricity generation. The sewage 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 Izera 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 that the water in the Witka reservoir comes largely from precipitation, the technological processes in Elektrownia Turów use rainwater to a significant extent. 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 sewage from the power plant site is treated in sewage treatment plants: Industrial Sewage Treatment Plant, Sewage Treatment Plant from Wed Flue Gas Desulphurisation System at unit 7, Sewage Sub-treatment Plant from Flue Gas Desulphurisation System at units 4-6, Ash Settling Plants, Sanitary Waste Water Treatment Plant.

Closing the water cycle in production processes by diverting used water for treatment and returning it back to production processes is carried out.

The expansion of the industrial sewage treatment plant at Turów power station began in 2021. Sewage from the Turów plant is discharged into the Miedzianka River. In order to achieve the environmental objective, it must be ensured that the sewage discharged into the river does not deteriorate its condition, thus the sewage parameters must meet the water quality requirements for a mountain stream class. The implemented project will ensure that the environmental objectives are met, thus bringing Elektrownia Turów into compliance with EU and national environmental requirements.



The industrial wastewater treatment plant will be based on modern, high-efficiency 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 in Poland, and one of the few in the European Union, to use this type of technique so extensively in the area of wastewater treatment. As a result of this project, the Turów plant will be the first power station where treated sewage can be returned to technological systems. The new treatment plant will be the largest treatment plant in the Polish power industry, using membrane technologies with a total capacity of approx. 12,000 m<sup>3</sup> per day (at the inlet to the industrial wastewater treatment plant). Implementing this investment will have a positive impact on the border river - the Nysa Łużycka.

# Opole power plant

At Elektrownia Opole, all sewage from the company's premises is treated in a final treatment plant. Some types of industrial sewage are subject to multi-stage treatment. Industrial and rainwater wastewater is directed to the final mechanical-chemical treatment plant, where it undergoes a coagulation process. Sewage is treated using the activated sludge method in a biological system, also located in the final treatment plant. The treated industrial and domestic sewage is discharged through a common collector to the Odra river.

In order to improve the sedimentation of incoming suspended solids in the raw sewage and to improve and automate the discharge of sludge to the sludge plots, a radial settling tank with an integrated coagulation chamber has been in operation since 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. It operates as the primary plant of the wastewater 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.

# Branch Zespół Elektrowni Dolna Odra/ Dolna Odra power plant (from July 1, 2022)

The Dolna Odra power station has an open cooling system and is equipped with facilities for the reduction of pollutants contained in sewage. Depending on the type of wastewater, it is treated in a chemical treatment plant, a biological treatment plant, mechanical treatment plants or neutralised in neutralisers. Depending on the composition of the wastewater, it is treated in one or two facilities. Rainwater and snowmelt from the ward area is treated using settling tanks and separators. In order to improve the sedimentation of incoming suspended solids in the raw sewage and to improve and automate the discharge of sludge to the sludge plots, a radial settling tank with an integrated coagulation chamber has been in operation since 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. It operates as the primary plant of the wastewater 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 sewage discharged to water, the water used at the Bełchatów plant is reused in closed internal circuits and is not discharged to water. The power plant does not have a treatment facility. Used process water is used for slagging and making up losses in the hydro-ash cycle. Sanitary wastewater and rainwater or snowmelt are discharged to the wastewater treatment plant located at the KWB Bełchatów Branch.

# 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 plan 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.

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 of the rock mass is carried out in order to create such a depression that ensures the safe exploitation of the deposit using the open pit method.

The dewatering system of the KWB Bełchatów mine captures both groundwater and surface water in order to dewater the rock mass to a degree that enables the safe exploitation of lignite from the Szczerców Field and Bełchatów Field.

In order to counteract the environmental impact, the mine is carrying out the following projects to reduce the impact of the dewatering of the deposit on the surroundings:

- the use of a deep drainage system using large diameter deep wells, which makes it possible to lower the
  groundwater table while maintaining the safety of the mining works and limiting the amount of water
  pumped,
- the use of selective extraction and discharge of pumped water in the pit to reduce the amount of dirty water requiring treatment,
- the use of a multi-stage treatment system for water discharged from excavation dewatering,
- maintaining a proper hydrodynamic system in the area of the "Dębina" salt diapir in order to protect its structure,
- extensive monitoring of the impact of mining activities on the environment, allowing observation of early possible symptoms of deterioration in the condition of a selected environmental element and providing the opportunity 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.

In order to protect the water purity of the region's existing natural watercourses, wastewater management has been solved by the mine's construction of the following treatment plants:

- Central Sewage Treatment Plant in Rogowiec mechanical and biological type. It treats domestic/social and rain-industrial types of wastewater. The treatment 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.

As part of the surface drainage of the heap, the main part of the rainwater goes into retention and sedimentation fields at the foot of the heap. To intercept some of such water, small retention reservoirs are built on the tops of the heap. These reservoirs are part of the surface drainage of the heap. The water collected in them serves to protect the heap from water erosion (collecting water from drainage ditches). It also serves as a watering hole for animals in the emerging new forest ecosystem of the reclaimed dumps. Such reservoirs have been built on the internal dump of the Bełchatów Field and the external dump of the Szczerców Field, as well as on the external dump of the Bełchatów Field (Góra Kamieńsk), which has been recultivated and fully handed over to the Bełchatów Forest District.



# Turów lignite mine

In 2022, 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 branch are equipped with the Actiflo system – a highly effective process of suspension reduction. 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 ongoing basis.

# 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, in particular water, and to reuse, as far as possible, the substances produced that accompany 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 technological requirements, water is directed to reception points after various stages of preparation. At each stage of water preparation, particular attention is paid to its rational use. Many of the wastewater streams generated in the course of water preparation are returned to the process for re-use. Examples include the re-use of filter washings, water recovered from sub-decarbonation sludge, concentrates from reverse osmosis or electrodialysis processes, or regenerated brine from the softening process. 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 sewage treatment accompanying this treatment method. The existing flue gas desulphurisation systems are equipped with highly efficient waste water treatment plants; however, due to the requirements related to compliance with BAT conclusions, their operation will be further optimised. At CHP plants belonging to PGE Energia Ciepła (Wrocław, Gdańsk, Kraków), active work is being carried out on dosing the modern preparation Nalmet, which, together with modernisation works, will optimise the operation of 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 the BAT conclusions, a number of projects were implemented, including in the field of water and sewage 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 sewage from wet flue gas desulphurisation systems. The project was implemented as part of the GEKON program, funded by the National Centre for Research and Development and the National Fund for Environmental Protection and Water Management. The technology developed is based on a column system containing ion exchange resins designed to remove metals and metalloids.



The INNUPS treatment installation was commissioned at the Gdynia CHP plant in 2021. Thanks to the new technology, wastewater is treated to a much higher degree than required by current EU regulations. 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 PGE Group's principles of a circular economy. In 2022, the effectiveness of this method was confirmed.

# Renewables

PGE Energia Odnawialna keeps quantitative records of groundwater and surface water abstraction and carries out tests and analyses of discharged wastewater for compliance with the requirements of water rights permits. Wastewater treatment plants are in operation at individual sites, where operational inspections of separators are carried out by specialised companies and, as required, cleaning, waste collection and disposal are carried out, as well as adsorption filters are replaced. In order to avoid the risk of harmful substances entering the environment in the form of contamination of water reservoirs with grease and oil from leakage of oil from oil systems due to the failure of hydropower equipment, preventive measures are taken. These consist of continuous monitoring of equipment operation by the power plant staff, regular inspections, carrying out repair, maintenance and modernisation work.

Municipal sewage is discharged in accordance with contracts with municipal companies.

# **Distribution activities**

Activities related to water and wastewater management, including monitoring of the quantity and quality of water abstracted and wastewater discharged, are carried out in PGE Dystrybucja in accordance with the provisions of administrative decisions, in particular water rights permits issued by the relevant authorities. Sewage generated from production activities is subjected to a treatment process and then discharged to surface waters or transferred to municipal companies, in accordance with the agreements concluded.

# PGE Group participation in the CDP international study: climate and water

In July 2022, PGE Group took part in the voluntary CDP survey for the second time, improving its grade from D to C for questions related to climate change and consolidating its position at C, for water management.

CDP is an organisation that operates a global disclosure system for investors, companies, cities and regions to manage their environmental impacts. It is the primary environmental reporting standard and data set for the environmental performance of corporations and cities. The scoring methodology boils down to an eightpoint alphabetical scale, starting with an 'A' and ending with a 'D-', which shows a company's level of climate awareness and the degree to which it has implemented measures in its management processes.

Participation in the CDP study has enabled PGE Group to gain new competences that will serve to report even better on non-financial issues in the years to come. As a result, PGE will be able to more easily meet the requirements for mandatory analyses of its activities, in line with EU taxonomy and sustainable reporting standards. In addition, the parallel implementation of PGE Group's implemented carbon footprint counting process will enable increased disclosure of the organisation's climate impact. Irrespective of the information dimension, this will translate into the use of such data within the organisation when defining and implementing PGE Group's development plans, also in terms of ESG.

# 2.6 Circular Economy

| GRI 3-3 [waste management] | GRI 306-1 | GRI 306-2 |

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, the protection of natural resources and the minimisation 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.

#### National and international guidelines for circular economy

PGE Group operates in line with national and international guidelines in the circular economy area, primarily based on the legislative and non-legislative initiatives of the European Green Deal.

The European Parliament, in its resolution of January 15, 2020 on the European Green Deal, called for the necessary transformation of European society into a climate-neutral society by 2050 at the latest. The European Green Deal contains a roadmap for a more efficient use of resources through a transition to a clean, circular economy, as well as for combating the loss of biodiversity and reducing pollution levels.

The strategy also aims to protect, preserve and enhance the EU's natural capital and protect the health and well-being of citizens from environmental risks and negative impacts.

In terms of national regulations, the resolution on the adoption of the 'Roadmap for the Transition to Circular Economy' of September 10, 2019 commits to act towards rational waste management.

The Roadmap focuses, on the one hand, on general measures to create conditions for the development of the bioeconomy in Poland and, on the other hand, on promotion and development measures for the creation of local value chains, in industry and in the energy sector.

Changing the way we think about the production of goods is expected to contribute to a sustainable, lowcarbon, resource-efficient and competitive economy.

The Circular Economy encompasses all stages of a product's life cycle, from the sourcing of raw material through product design, production, consumption, waste collection and management. It is important that waste, if it is already created, is treated as secondary raw materials and used for re-production. Building a circular economy is expected to increase the innovativeness of Polish businesses and increase their competitiveness in relation to foreign entities.



# **Dedicated Circular Economy segment**

A dedicated Circular Economy segment has been separated within PGE Group. It is responsible for promoting, creating and implementing circular economy principles throughout PGE Group and increasing 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.

The leading company in this segment is PGE Ekoserwis, which has decades of experience in managing combustion by-products from the power industry in various economic directions. Annually, the company manages nearly seven million tonnes of waste and by-products from the power industry. This results in more than 200 products and varieties of products based on combustion by-products.

The segment's activities are focused on the realisation and implementation of ecological and economic solutions in the area of raw material resources and post-industrial energy waste. The main objective of the new segment is a coherent, strategic and business-oriented management of post-industrial raw material streams in line with a closed loop economy, taking into account care for the environment and sustainability.

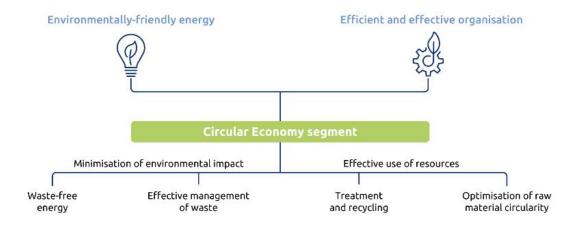


Fig. Implementation of PGE Group's strategic priorities within the Circular Economy segment

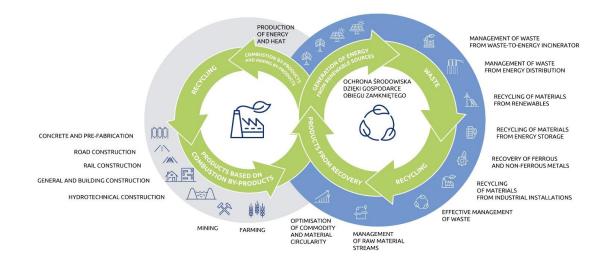


Fig. Current and future management model for Circular Economy at PGE Group



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**

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 managed 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. 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 as well as the emissions that accompany their extraction. The responsible use of secondary raw materials, such as gypsum from flue gas desulphurisation plants, is a good example of the implementation of the principle of priority for secondary raw materials in economic processes. Such measures help to protect fossil resources for future generations.

The reuse of combustion waste in various sectors of industry brings measurable 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.

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.

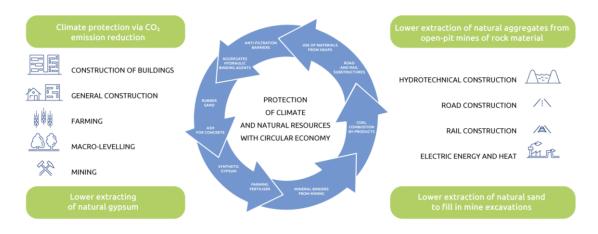


Fig. Industries to which PGE directs combustion by-products in the form of full value products or raw materials and their relation to the circular economy



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 to be met by building materials or products.

The process of using combustion by-products in the construction industry is supervised by the Building Research Institute. The products have also been registered under the international REACH system. As part of the registration, the combustion by-products were subjected to comprehensive toxicological, ecotoxicological and mutagenic testing in accordance with the requirements set out by the European Chemicals Agency (ECHA). The tests were performed in laboratories of the highest global standard and unquestionable reliability. The test results unequivocally confirmed that these substances are safe and pose no risk to humans, animals or the environment. Their use does not need to be restricted in any way due to their environmental impact.

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.

# 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 the most popular reclamation is water reclamation. 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 the Circular Economy. To be able to achieve this, specialised competence and dedicated research and development activities in this area are required. That is why the Circular Economy Research and Development Centre located in Bełchatów was opened in December 2022, which is a centre of research and development competence responsible for developing and implementing solutions to optimise the use of post-industrial waste from the energy sector and the recovery of valuable raw materials from decommissioned RES installations.

The main task of the Centre will be to develop technologies for waste processing, raw material recovery and the manufacture of full-value products from extracted resources, as well as to develop specialised solutions for renewable energy sources used in photovoltaic installations and wind farms. The centre is an important centre for the development of innovation. Through cooperation with scientific centres, it will develop environmentally friendly solutions. The Circular Economy Centre currently comprises the Research and Development Department (Recycling and Recovery Section and Production Technology Section), the Laboratory Department and the Factory Production Control Department.

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 3-3 [waste management] | | GRI 306-2 |

The activities of PGE Group companies, especially during the production of electricity and heat in power plants and combined heat and power plants, generate waste, which the companies strive to reuse and manage. With a view to protecting natural resources and minimising environmental impact, PGE Group's activities are aimed at reducing the amount of waste deposited in landfills.

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. This task in PGE Group companies is carried out in accordance with the provisions set out in the administrative decisions held (integrated permits and sectoral decisions).

The minerals accompanying lignite deposits play an important role in the sustainable supply chain of raw materials and materials. 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 companies that have the relevant permits and authorisations in this respect.

The strategy for the management of combustion by-products at PGE GiEK, in accordance with the principles of the circular economy, should lead to the use of waste as products and by-products and, consequently, to the reduction of final waste to a minimum. The economic management of as much combustion by-product as possible becomes a necessity. Waste, which should be classified as raw materials, must be fully utilised by, among others, civil engineering, road construction or macro levelling.

# Bełchatów power plant

The combustion of lignite at the Bełchatów plant produces fly ash and furnace slag, and synthetic gypsum (as a product) as a result of flue gas desulphurisation. The predominant direction of the management of substances arising from the combustion of fuels is the disposal at the combustion waste dumps "Zwałowisko" (the area of the former open pit of the Bełchatów Field) and Lubień (the above-ground dump located to the west of the Bełchatów plant).

Fly ash from ash removal processes in electric 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.

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.

Part of the fly ash is considered a by-product and can be further managed as a product in accordance with the relevant administrative decision. It is advisable to increase the volume of such management, which will lead to a reduction in the amount of waste deposited in furnace waste landfills.

Work is currently in progress to develop the use of the entire volume of ash-slag mixture produced at the Bełchatów plant. It is assumed that more and more ambitious targets will be set in this regard from year to year.

The entire volume of gypsum produced at Elektrownia Bełchatów is sold to market customers, with by far the largest volumes being taken by a major building materials manufacturer.

# Turów power plant

The methods of waste management, as well as the volumes of waste generated at the Turów plant are in accordance with the conditions set out in the current 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 need to dispose of furnace waste in a landfill, this waste is transferred to an ongoing recovery



process. The management of combustion waste in the ongoing recovery process consists of filling in areas that have been adversely transformed as a result of mine operations.

Waste generated at Elektrownia Turów is handed over for management only to entities with the relevant administrative decisions on waste management activities.

The synthetic gypsum produced at the Flue Gas Desulphurisation Facility is classified as a by-product for use in the agricultural (fertiliser) and construction industries. In 2022, approx. 150,000 Mg of gypsum was produced at the Turów plant. The sole customer for the gypsum produced at the Turów plant is PGE Ekoserwis.

Due to the commissioning of Unit 7 with the IMOS wastewater treatment plant in 2021, new types of furnace waste and sludge from the IMOS wastewater treatment plant are generated at the Turów plant.

Due to the numerous changes in legislation in the area of waste management, Turów continuously monitors changes in the law and implements the applicable adaptation measures if necessary.

# **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 units 1 - 4 and new generating units 5 - 6.

Flue gas desulphurisation systems are operated on all generating units. Synthetic gypsum (as a by-product) is fully collected by Knauf Bełchatów Sp. z o.o. and PGE Ekoserwis SA. Fly ash recognised as a by-product is managed in the construction and cement industries. Coal fly ash, which is a waste product, is used in the mining industry. It is assumed that the power plant will not carry out UPS storage - all combustion by-products will be subject to economic use. The Opole plant has a combustion waste landfill site, however, due to the economic use of all the combustion by-products generated, no more 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, is collected by PGE Ekoserwis. Gypsum is also produced as a by-product and managed 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 2022 ash and slag were produced exclusively as by-products, while gypsum was produced as a product.

In 2022, all of the gypsum produced by the plant's operations was earmarked for sale as synthetic gypsum. It is used in the construction industry for the production of plasterboard and fertiliser products (AgroSulCa, AgroSulpur, Sulfagro).

The products placed on the market are of full quality and meet all the requirements of the relevant standards, approvals and certificates.

Waste management at the Rybnik plant is carried out in accordance with the waste hierarchy. In 2022, no ash, slag and gypsum waste were generated at Rybnik and it was entirely managed as products and by-products, which contributed to the prevention of waste generation.

Any industrial waste that was generated in 2022 was selectively stored in designated areas so that internal and external factors did not affect the physical and chemical properties of the waste. The Branch only handed over the waste stored in this way to reputable companies that have the relevant decisions and authorisations in the field of waste management. Most of the industrial waste was sent for recycling or other recovery processes. In this way, valuable materials in the waste were managed, thus reducing the use of natural resources. An example is the sludge from the wet flue gas desulphurisation plant, which is used to obtain materials for the reclamation of land and degraded areas.



# Turów lignite mine

Waste management is carried out on the basis of the waste hierarchy, primarily based on waste prevention. All waste is collected in accordance with the rules of waste segregation and is initially stored in designated areas. Waste storage is equipped to minimise the volume of waste.

Secondary raw materials are collected selectively in separate bins. All waste is handed over for management to authorised collectors. Only two types of waste that are not suitable for further use are sent directly to landfill.

The mine carries out the process of recovering combustion waste from the Turów plant (the so-called R5), which consists in filling in the negatively transformed areas, i.e. the decommissioned part of the pit. Sewage sludge from domestic sewage treatment plants is a valuable fertilising and soil-improving substance and is used in the process of biological reclamation of post-mining areas. The waste recovery process consists of mixing the tailings with the mine overburden, and then filling the post-mining pit with the resulting mixture, in accordance with the terms of the mine's waste treatment decision. Ultimately, the excavation area together with the internal heap, where the recovery of combustion waste from Elektrownia Turów is carried out, will be developed into a forest.

The Turów 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

Waste management at the Bełchatów mine is carried out in accordance with the legal acts in force in the field of business activity concerning waste management. Its main objectives are to ensure the protection of the life and health of the population and the environment in accordance with the principles of sustainable development, to prevent the generation of waste and limit its quantity, to carry out waste recovery or neutralisation, and to take measures to limit its negative impact on the environment.

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 outfall is transferred to external customers, either as waste or as a byproduct. 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 are marginal in relation to the total outfall. By-products of incineration are handed over to third parties for management, which, in line with regulations recommending a circular economy model, should be considered a desirable course of action. 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. The substances produced in PGE Energia Ciepła and used as raw materials for production are continuously monitored. They are subjected to a number of production-approval tests, which provides a guarantee of their quality and safety of use.

# PGE Energia Odnawialna

The company's waste management is carried out in accordance with the Waste Act, internal regulations, e.g. the Waste Management Procedure at PGE EO, and the provisions set out in permits for the generation of hazardous and non-hazardous waste.

The municipal waste generated is properly segregated and then collected by authorised external companies with which the relevant contracts are concluded. Hazardous and non-hazardous waste is handed over to companies with permits for waste collection, transport and management. In accordance with the Waste Act, records of waste generated and transferred are kept in the computerised waste database system (BDO).



Oil management is certainly part of circular economy. The oil, which is necessary for the correct operation of the hydro-complexes, is cleaned and treated on an ongoing basis for re-operation. Systems are also used to minimise its consumption and reuse. These include oil vapour capture systems, sealed oil sumps, oil separators and oil separators. The waste generated is sent to recycling or disposal companies. Waste heat from block transformers is used efficiently in the individual divisions. Thanks to the heat recovery system, it is possible to feed the district heating network.

Malfunctioning equipment or other components are first attempted to be repaired by PGE EO employees before being classified as waste. Some parts or components from faulty equipment are used in other equipment. The same applies to materials that can be used in other applications, such as pipes, sections, rollers, raw metals. There is also the sale of waste - scrap materials, used oil for regeneration and reuse.

# PGE Dystrybucja

The company makes rational use of its resources. All waste generated that is not managed on the companies' premises is transferred to external companies that have the relevant permits and authorisations in this respect.

The volume of hazardous waste generated is decreasing every year. Particularly noteworthy is the significant reduction in non-hazardous waste generated. In the case of PGE Dystrybucja SA, 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.

The development of the Live Work technology, which is classified as a modern technology for operating the electricity network without having to shut down the lines supplying electricity, influences the maintenance of quality standards for transmission and distribution services and reduces the incurred losses in the transmission of electricity. An important advantage of Live Work is also the extension of the service life of switching devices (disconnectors, disconnectors and circuit breakers), which has an impact on reducing the amount of waste generated in this area. In the area of operation of the Zamość Branch (in Krasnobród), there is a modern training ground for training employees in carrying out live work.



# 2.8 Land rehabilitation

Land rehabilitation is one of the most important measures for restoring the use and natural values of postmining areas and for recreating or shaping new environmental features. It is also aimed at ensuring biodiversity. The activities carried out include 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.

# Unique land rehabilitation in Poland

The Bełchatów mine conducts large-scale rehabilitation activities. One of the basic directions of recultivation carried out at present is forestry, which has a positive impact on the landscape, climate, improves water retention capacity, reduces water and air erosion. So far, it has already rehabilitated more than 2,300 ha of post-mining land and handed over more than 1,700 ha of rehabilitated, forested land to the State Forests. Preliminary estimates indicate that approx. 5,500 ha of land (including protective strips next to water reservoirs) will be eventually handed over for forest management.

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.

Góra Kamieńsk is a flagship example of comprehensive reclamation efforts. It is the highest hill in central Poland at 395 m above sea level, which was formed from 1,354 billion m<sup>3</sup> of overburden removed in the process of uncovering successive layers of lignite. Reclamation here consisted of soil restoration and the planting of forests, which today are home to many plant and animal species. Through recreational and sports development, Góra Kamieńsk has become one of the biggest tourist attractions in the region and central Poland. A ski lift, hiking and cycling routes and a 620-metre-long sledge run make Góra Kamieńsk an important point on the map of summer and winter sports enthusiasts. In addition, a 30 MW wind power plant has also been built on the mountain.

PGE Górnictwo i Energetyka Konwencjonalna has also completed the formation of a second heap, this time of the Szczerców Field. This process took 17 years, and resulted in the creation of the "twin" Góra Kamieńsk. 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 reclamation of the spoil heap is being carried out in a forestry direction with a recreational function thanks to the planned construction of forests, cycle paths, a golf course, autodrome, hippodrome and ski slope. A photovoltaics farm will also be built on top of it.

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 Belchatów 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 Belchatów 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 2022, the Bełchatów mine obtained administrative decisions to declare reclamation completed in forestry direction for 143.3 ha of land in the Bełchatów Field and 25.8 ha of land in the Szczerców Field.

The main and leading direction of reclamation at the Bełchatów mine is forestry. Work is carried out on an ongoing basis along with the progress of mining operations. For the external spoil heap of the Szczerców Field, sodding, which consists of enriching the soil layer with plants (sowing the area), is carried out on the topsoil as part of biological cover.

The timetable for 2022 was implemented as planned. On the internal dump of the Bełchatów Field, afforestation was carried out on an area of 13.8 ha. On the external dump of the Szczerców Field, an area of 68.6 ha was afforested and sodded. Additionally, a stand of trees was replenished on an area of 18.8 ha.

# Oxygen generating area in the municipality of Bogatynia

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 km2 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.

Ultimately, the Turów Mine pit will be rehabilitated in the water direction and all areas above the water table will be rehabilitated in the forest direction.

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 the industrialised region. Despite the fact that the age structure of the afforestation is characteristic of young forests, it is already an important landscape and climatic factor for the municipality of Bogatynia.

The main task of the reclamation carried out at the Turów Mine is the formation of a biotope for the forest management of post-mining areas, taking into account the diversity of the micro-habitats formed, which increase the value of the ecosystem. This occurs through the interaction of anthropogenic and biological factors on the raw formations, which are the bedrock of the resulting soils.

In 2022, biological reclamation of the area leased from the State Forests (Pieńsk Forest District) was carried out in accordance with the Forest District's guidelines. The following plantings were made: bearded birch – 21,600, black alder – 13,000, Scots pine – 8,700, common hornbeam – 4,300. In addition, basic mineral fertilisation was carried out on the afforested area.

# Land rehabilitation at PGE Energia Ciepła

Once the landfill sites in an area have ceased to be used, the company restores the land's use values and its amenity and nature values. Vegetation is introduced, grass covers and tree plantings are made. The areas can then be worked on to integrate them into their surroundings. Where this is possible, measures are planned to restore economic functions to the areas by gradually extracting stored waste and putting it to economic use. The levelling works carried out are intended to make it possible to adapt the land for various economic functions of an industrial, service or municipal nature.

At present, there are 15 storage sites with different operating statuses in the PGE Energia Ciepła branches:

- operated,
- closed, being prepared for reclamation,
- rehabilitated.



An example of the restoration of land use values is the process of recultivation of the now-unused combustion waste landfill in Gorzów Wielkopolski, 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.

The company is preparing a plan for a strategic approach to the use of former landfill sites for, among other things, the development of PV and other renewable energy sources. This will restore the functionality of these sites and also contribute to increasing the area for increasing the share of RES in the energy mix.

# 2.9 Biodiversity

# | GRI 304-1 | GRI 304-2 | GRI 304-3 |

PGE Group takes a broader view of the environment in which it operates. We strive to be fully aware of the areas in which the Group's assets operate, which enables us to adapt our generation and investment processes to the environment.

The Group's companies use good practices that take into account the protection of the landscape and biodiversity, minimising the negative impact on the environment. These involve restoring habitats to conditions that allow ecosystems to function properly, supporting natural processes that have been disrupted or restoring populations.

# Conventional energy en route to biodiversity

The branches of PGE Górnictwo i Energetyka Konwencjonalna are actively working to preserve biodiversity, understood as the multiformity and variability of life on Earth in all its forms and interactions, which includes diversity within species, between species and diversity of ecosystems.

# Branches: Turów lignite mine and power plant

As part of a biodiversity study at the Turów Power Plant, tests were carried out on the mercury content of ichthyofauna (fish) - at measuring points in the waters of the Miedzianka and the Nysa Łużycka. Cyclical monitoring of water quality in the Miedzianka River is carried out at three measurement points. Physico-chemical parameters are tested by an on-site laboratory every fortnight, while water quality is tested once every two months by an accredited laboratory.

The Turów plant branch is not located in a protected area, only in the vicinity of Natura 2000 sites. Natura 2000 sites have been identified:

- populations of animal species of conservation concern: otter, scarce copper, nausitous scarlet mantis, large blue scarlet mantis, great crested newt;

- habitats in the area of the Nysa Łużycka River Valley:

- 3150 Old river beds and eutrophic water bodies,
- 3260 Lowland and submontane rivers with Trichinella communities,
- 6410 Molinia meadows,
- 6430 Mountain herbs and riparian herbs,
- 6510 Lowland and submontane fresh meadows,
- 9130 Fertile beech forests,
- 9170 Central European oak-hornbeam,
- 9180 Maple-leaf forest,
- 91E0 Willow, poplar, alder and ash forests.

Natural areas outside the Natura 2000 site in the Bogatynia Municipality:

- 6510 Lowland and submontane fresh meadows;
- 9130 Fertile beech forests;
- 9170 Central European oak-hornbeam;
- 91E0 Willow, poplar, alder and ash forests.



On the area of the reclaimed external dump of the Turów Lignite Mine Branch there are valuable landscape and nature values, environmentally diversified (habitats of very numerous representatives of both the 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.

The primary task of the reclamation carried out at the Turów mine is to shape the biotope. The successively increasing area of forested land has mainly soil-forming and soil-protective functions, which is particularly important in the case of soilless and erosion-prone areas.

Two protected areas are located in close proximity to the Turów lignite mine:

- Natura 2000 area "Przełomowa Dolina Nysy Łużyckiej" a section of the Nysa Łużycka valley from Trzciniec to Zgorzelec,
- Natura 2000 area "Neißegebiet". The area occupies the floodplain of the Lusatian Neisse and the connected, preserved fragments of forest communities. The area is complementary to the Polish side of the Natura 2000 area "Nysa Łużycka River Valley". - together they cover the entire Nysa valley with the preserved ecosystems in its immediate surroundings.

There are also three nature monuments located in the vicinity of the open pit and the former external heap of PGE GiEK SA's KWB Turów branch:

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

# Branches: Bełchatów lignite mine and power plant

Since 2013, monitoring of non-forest habitats and protected plant species and forest habitats has been carried out in the vicinity of the mine.

In 2022, the following research work was carried out as part of the monitoring referred to above:

- 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,
- Active protection of rare and protected species monitoring of the following species: common marsh, common yew, wolfsbane laurel, common hellebore, mountain ash,
- Active protection of Natura 2000 natural habitats light oak, implementation of active protection works at the Wola Wiewiecka site, Radomsko Forest District.

In terms of monitoring forest ecosystems in 2022, 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.

KWB is recultivating the external dump of the Szczerców Field and the internal dump of the Bełchatów Field. The area of the reclaimed external dump of Pole Szczerców is being sodded and afforested. The area has become a refuge for many animal species and numerous herds of roe deer as well as feeding wild boars and hares have been recorded on the heap. Foxes have also been encountered. Recently, European red deer have also been observed. Among birds, species characteristic of open field and meadow areas predominate. Lark,



field and wood pipit, partridge and pheasant, among others, can be found on the topland. Ravens, buzzards and kestrels also patrol the area. Cranes can also be seen on the escarpments.

Three protected areas are located within the KWB Belchatów mining area:

- Dolina Widawki Landscape Protection Area, which includes areas protected due to their distinctive landscape with diversified ecosystems and their function as ecological corridors. Location of the area: Łódzkie Voivodeship, the districts of Radomszczański, Piotrkowski, Łaski and Bełchatowski
- The "Łuszczanowice" reserve is a forest reserve (mixed lowland forests), in the phytocenotic type. The aim of the reserve's protection is to preserve a fir forest ecosystem, of natural origin, on the border of the fir tree's range. Location of the nature reserve: Łódzkie Voivodeship, Bełchatów Poviat, the municipality of Kleszczów
- The "Murowaniec" reserve is a forest reserve (mixed lowland forests), in the floristic type. The aim of the reserve's protection is the preservation of a fragment of a multi-layered mixed forest of natural origin, with a large share of fir on the border of the range of its occurrence with the character of a primary forest for scientific, educational and landscape reasons

The Belchatów Power Plant Branch is not located in protected areas.

# Branch Rybnik power plant

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.

Pursuant to Regulation no. 181/93 of the Katowice Voivode of 23 November 1993 (Official Journal of the Katowice Voivodeship No. 15\*, item 130), highly urbanised areas, including the Rybnik Power Plant together with the reservoir of water used for technological purposes, the so-called "Rybnik Reservoir", were excluded from the Landscape Park "Rybnik Reservoir". The area of the Rybnik Power Plant is anthropogenically transformed and constantly influenced by human activity. There is no vegetation except grass. The mammalian fauna is poor, composed of species habitually associated with this area, no protected habitats.

While Rybnik Reservoir and the surrounding area are a habitat for animals, including those under species protection, the area itself is not a protected habitat area.

South of the power plant there is an ecological utility "Dolina Okrzeszyniec". The nearest Natura 2000 sites are located from the power station:

- Special Bird Protection Area "Stawy Wielikąt i Ligota Tworkowska". (approx. 17 km),
- Special Area of Habitat Protection Stawy Łężczok (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).

#### Branch Dolna Odra power plant

In the vicinity of the Dolna Odra Power Plant Branch there are the following forms of nature protection: a landscape park, 5 Natura 2000 sites (3 Sites of Community Importance and 2 Special Protection Areas), 5 nature monuments (more than 116 trees), an ecological utility and a nature and landscape complex.

In the immediate vicinity of Elektrownia Dolna Odra 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 them. 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.

PGE Energia Ciepła Oddział, branch in Szczecin (since July 1, 2021)

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.

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.

In the case of PGE Energia Odnawialna, technological processes, the operation of equipment and investments carried out do not cause interference in the biodiversity of protected areas. The green areas owned by the company are maintained by employees and cleaning services. Natura 2000 SAC areas are located in the vicinity of the facilities. 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. 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.

# Porąbka branch

The water management carried out in the reservoirs and the operation of the power plant in particular does not pose significant threats to the ichthyofauna. Biological life develops in the reservoirs and the quantitative and qualitative composition of the fish stock changes.

Hydroelectric power plants operate in such a way as to continuously guarantee an inviolable flow in watercourses downstream of the power plant, which determines the good condition and potential of biological elements and the good condition of water-dependent habitats and species. 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.

# Solina branch

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:



- $\rightarrow$  Landscape Park of Góry Słonne,
- → Ciśniańsko-Wetliński Landscape Park,
- $\rightarrow$  Dolina Sanu Landscape Park,

The town of Solina is located outside the area of landscape parks. No nature reserves have been established in the area of Solina town.

- 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 sites Special bird protection areas

Two special bird protection areas Natura 2000 were established in the Lesko district: Bieszczady, Góry Słonne.

#### Żarnowiec branch

PGE Energia Odnawialna participates in the costs of restocking Lake Żarnowieckie and the Piaśnica River, as obliged by the Water Law Permit. Through a weir at the mouth of Żarnowieckie Lake to the Piaśnica River, it is possible to regulate the flow of water in the river, while always maintaining an inviolable flow, which translates into the preservation of biological life.

# Dychów branch

The Dychów branch ensures that habitats and ecological corridors do not disappear. It cooperates with angling association circles and plans further cooperation in the restocking of the River Bóbr. It actively participates in the development of protection task plans for Natura 2000 areas. In 2022 alone, these were developed for the Krośnieńska Dolina Odry and Dolina Dolnego Bobru areas. Another fish ladder (in Stary Raduszec) was also put into use.

#### *Hydro-power plants*

The Dębe hydro power plant has a fish ladder to allow fish migration. Smardzewice Hydroelectric Power Plant The company contributes to the cost of restocking the Pilica River. In the case of the Oder River Basin Power Plant, only five facilities (out of 21 in operation) do not have a fish ladder, i.e. EW Rakowice, EW Kliczków, EW Małomice, EW Żarki Wielkie and EW Gubin.

#### Wind farms

In 2022, 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. 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 to 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 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, power lines run through protected areas and there are various types of switchyards on them - among others within the boundaries of the Wigry, Biebrzański and Narwiański National Parks, the Piska, Białowieża, Augustowska, Knyszyńska and Kampinos Forests, the Landscape Parks: These include Międzyrzecza 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

#### | GRI 304-4 |

PGE Group is actively working to preserve and develop biodiversity. It has been taking care of birds, forests, animals and vegetation for years. It implements a number of partnerships and proprietary projects to monitor, conserve as well as develop ecosystems.

#### Forests Full of Energy

PGE's flagship environmental project is the 'Forests Full of Energy' program, which has been running for more than 23 years and aims, among other things, to improve air quality and restore tree stands in Polish forests. The program also involves cooperation with partners active in the field of nature conservation and ecology. In 2022, participants in the campaign planted a total of almost 70,000 trees in 19 locations in 11 voivodeships: the Mazovia, Pomerania, Lublin, Rzeszów, Lower and Upper Silesia, Podkarpacie, Małopolska and Wielkopolska voivodeships, as well as the Kujawsko-Pomorskie and Łódzkie voivodeships. More than 1,500 people joined the work, including PGE Group employees, their families and invited guests: children from kindergartens, primary and secondary schools and young athletes from PGE Turów Zgorzelec.

Beneficiaries of the Forests Full of Energy program:

- climate the program's tasks lead to an improvement in air quality thanks to the systematic planting of trees that has been carried out for more than 20 years (the oldest forest planted by PGE employees will be 22 years old this year);
- 2. natural resources the tasks also lead to improvements in groundwater and soil quality through systematic afforestation;
- 3. biodiversity the systematic restoration of forest stands in Polish forests leads to the restoration of forest ecosystems;
- 4. children, young people and adults raise their environmental awareness by carrying out environmental protection tasks together, become more sensitive to nature and contribute to the implementation of good habits such as waste segregation and care for biodiversity;
- 5. local communities working together on projects that benefit the whole neighbourhood helps nurture good neighbourly relations.

Action on biodiversity, climate, environmental protection and sustainable development has an effect when it is carried out systematically, consistently and in cooperation with monitoexperts, while involving as many people as possible. An extremely important component of such activities is environmental and nature education, raising awareness and drawing attention to the need to protect what is most valuable in the environment - balance and biodiversity. The effects of activities carried out under the program 'Forests full of energy' are visible and bring real benefits both to Poles and to the environment around us. These include hundreds of thousands of trees planted, real support for ecosystems and the development of biodiversity, as well as high quality education.

#### Protection of storks

Out of concern for storks, PGE employees are erecting nest platforms above the power lines on which storks build their nests. To date, more than 28,500 such platforms have already been installed, 787 of which will be installed in 2022. Every year, energy professionals help ornithologists to ring young storks. In 2022 alone, 866 juveniles in 330 nests were ringed. Overall, 10 storks have also been fitted with GPS devices to acquire their current locations and migration routes. In addition, 66 bird deterrents were installed at sensitive locations - on poles, transformer stations - to prevent birds from perching on working parts of the network and thus protect them from being electrocuted.

PGE Group also takes care of storks which overwinter in Poland due to health indisposition. Thanks to PGE's support, the "Chance for Storks" association from Lublin's Kozubszczyzna supports the recovery, rehabilitation and protection of the infrastructure in which wintering storks can safely wait for spring. In 2022, modernisation of the stork holding facilities was carried out, which directly contributed to improved sanitary conditions and the development of the stork rehabilitation centre.



# Restoration of the peregrine falcon population

The peregrine falcon is one of the rarest bird species in Poland, and 20 years ago it was almost non-existent in our country. Currently, there are about 80 pairs and they are strictly protected. PGE Group has been actively working to restore the peregrine falcon population in Poland for 20 years.

PGE also cooperates with associations and foundations whose goal is to protect birds, such as the Association for Wild Animals "Sokół", supporting activities related to the restoration of the peregrine falcon species in Poland, where they are under strict species protection. Peregrines are keen to nest on facilities owned by PGE - at the CHP plant in Gdynia, in Gdańsk, in Lublin, in Toruń or on the chimney of the power plant in Bełchatów and the Dolna Odra plant. In 2022, 14 young falcons fledged from nests present on 4 chimneys at PGE Group locations: 3 in Dolna Odra, 4 in Bełchatów, 3 in Toruń and 4 in Gdynia. Cameras were placed on the falcon nesting boxes installed at CHP plants in Gdynia, Toruń and Lublin, allowing the birds to be viewed online at the Falcon Association website: peregrinus.pl.

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.

#### Refrigerator duck protection

During the environmental studies conducted in the area of the planned construction of the Baltica Offshore Wind Farm, the population of the long-tailed duck, a marine bird of the duck family, was measured. It is a protected species within the Natura 2000 network areas adjacent to Baltica 2 and Baltica 3 comprising the Baltica wind farm.

During the year-long transect surveys, 3,547 individuals were observed in the Baltica wind farm area, while a total of 7,099 individuals were observed during visual observations and radar surveys during spring and autumn migration. Based on the surveys, solutions were developed to protect the species. The solutions included reduction of the development area by moving the investment away from Słupsk Shoal by 2-2.5 km. There was also delineated a passage (migration) corridor in line with the main bird migration direction with a minimum width of 5 km between the outer planned power plants of the Baltica 2 and Baltica 3 projects, together with the expansion of the flight zones from the north-eastern and south-western directions. The planned corridor will allow free access to the birds' wintering area and ensure the shortest possible stay in the immediate vicinity of the power plants during the flight to the wintering area. It was also planned to use a minimum clearance of 20m between the water surface and the tip of the shovel, as the surveys indicated that the majority of icicles moved up to 20m.

# Bird protection on wind farms

Damage caused to birds by wind turbines owned by PGE is rare - the farms operate on the basis of environmental decisions and, where necessary, there are periodic shutdowns of the power plants during the migration of these animals. However, the Group does take measures to minimise the effects of its operations on fauna and flora. The Group is involved in a project that aims to reduce the risk of collisions between birds and wind turbine blades. The initiative is being carried out together with the Polish company Bioseco, the supplier of the innovative system, and a team of ornithologists. The next stages of the pilot implementation of the bird protection system are being carried out at the Lotnisko Wind Farm. Thanks to special cameras and radars, it recognises animals at a critical distance from the operating wind turbines. If necessary, a warning light signal is activated, prompting the birds to change their flight path. The device can also bring the turbine operation to a halt if the light signals prove insufficient.

# Restocking of water bodies

Stocking campaigns are pro-environmental activities regularly undertaken by PGE Group, primarily by the branches that manage pumped storage power plants. The initiative is aimed at developing biodiversity and restoring endangered fish species living in reservoirs adjacent to PGE Group assets. In 2022, the first action covered Lake Raduszeckie and Lake Dychowskie, where populations of tench, carp and common carp were strengthened. More than half a tonne of two-year-old fish was put into the water. The second initiative (150 kg of brook trout) was implemented in Lake Myczkowskie.



# Flowery meadows

In 2022, PGE Group and Wody Polskie carried out a joint action to sow land near the Porąbka-Żar power plant. The initiative covered 100 acres of wasteland, on which 200 kg of seeds were sown.

PGE wants to contribute to the preservation of flora species characteristic of the Żywiec region. Particularly important in this context is to support the restoration of numerous types of melliferous plants and maintain species balance while eliminating invasive plants.

# Partnerships for biodiversity

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.

# Cooperation with national parks

In 2022, PGE cooperated with six national parks: Biebrzański, Świętokrzyski, Roztoczański, Kampinoski, Wigierski and Słowiński National Park, implementing more than 50 projects for biodiversity and environmental education.

The focus of the cooperation is primarily on monitoring the status and abundance of animals and plants in ecosystems as well as dedicated measures to preserve the richness of plants, animals and landscape diversity in individual national parks.

In addition, thanks to the cooperation, three photovoltaic installations were also commissioned, two in the Biebrza National Park and one in the Świętokrzyski National Park, realised with funds from the PGE Foundation and with the substantive support of PGE Energia Odnawialna employees.

# *League for the Protection of Nature*

In 2022, PGE, as a strategic partner of the League for Nature Protection, participated in environmental, educational and ecological projects carried out by the League. Among the most important of these was the planting of trees in the Zwoleń Forest District on the territory of the Regional Directorate of State Forests in Radom.

As part of the cooperation with the League, the publication of educational boards on birds and children's ecofables on the topic of waste management were realised in 2022. The educational boards were distributed to primary school pupils and the eco-fables to pre-school children from establishments cooperating with the regional boards of the League.

# Revitalisation of the Crooked Forest

PGE also supports protected areas and nature monuments including the Crooked Forest and the Solska Forest. It carries out activities together with partners, i.e. the Gryfino Municipality, the Gryfino Forest District and the Lublin Ornithological Society. The revitalisation of the Crooked Forest began in 2020. Amongst other things, the project included the creation of two new experimental plantations from seeds harvested from the crooked pines and a new educational trail with infrastructure, which was commissioned in autumn 2022. In July 2022, PGE released a short film showing the secrets behind the creation of this remarkable site. https://www.youtube.com/watch?v=cE\_IDoLVdvE

In the Solska Forest, on the other hand, a project by the Lublin Ornithological Society entitled 'Continuation and consolidation of conservation activities for rare zonal birds in the Solska Forest in the Lublin region' was implemented in cooperation with PGE. Currently, PGE and the Lublin Ornithological Society are cooperating on a project entitled 'Education and conservation in grazing. Promotion and development of grazing of Polish horses in the Solska Forest".



# 2.10 Research and development projects focused on environmental protection

#### [own indicator]

In 2022, PGE Group carried out 17 environmental R&D projects with a total value of almost PLN 11.9 million. Cooperation in this area was carried out with 8 external partners.

No.	Project name	Company	Project objective	Partners in project
Redu	uction of emission	of pollutants	to air	
1.	Hybrid energy storage at the Żarnowiec Pumped Storage Plant	PGE SA/ PGE EO/ PGE Invest 14 sp. z o.o.	The aim of the project is to build a battery-based electricity storage facility with estimated parameters of 200-205MW/800-820MWh at the Żarnowiec Peak Pumped Storage Power Plant to support the operation of ESP Żarnowiec and to balance production from wind farms.	
2.	Energy storage integrated into a photovoltaic farm on Góra Żar	PGE EO	The aim of the project was to build an energy storage integrated with a 500 kW / 750 kWh photovoltaic farm on Góra Żar and to investigate in real conditions the interaction of this storage with the photovoltaic farm and how the integrated PV energy storage system interacts with the grid.	CIM-mes Projekt Sp. z o.o.
3.	Management of low-voltage distribution network operation taking into account the active role of the prosumer	PGE Dystrybucja	The objective of the project is the development and construction of an integrated and automated management system for LV distribution network infrastructure, cooperating with distributed energy sources and accumulators installed in prosumer installations. The works will result in devices dedicated to the low-voltage network, such as digital relays, the so-called LLE and CLE, together with a management system integrated with a SCADA class system. Thanks to optimised network management capabilities, the quality of energy supplied to consumers will improve, and the number and capacity of RES that can be connected to the network will increase, without the need for network reconstruction.	Apator Elkomtech Łódź University of Technology Lublin University of Technology
4.	Innovative network services to improve the quality and reliability of electricity supply	PGE SA/ PGE Dystrybucja	Commissioning a pilot installation of an energy storage facility with a power of 2.1 MW and a capacity of 4.2 MWh, located in Rzepedź in the territory of the Rzeszów branch. The main aim of the project was to verify optimal procedures for energy flow management and integration of the energy storage facility with the medium-voltage distribution network. The commissioning of the energy storage system in Rzepedź will improve the reliability of electricity supply in an innovative way - as an alternative to traditional grid expansion. The construction of a traditional HV line involves clearing a significant area of forest for the line's technology belt. The use of energy storage facilities is a good solution for improving the reliability of electricity supply to end users in areas where there is a lack of back-up power supply and is an alternative to the traditional extension of the grid system, which will have a significant impact on the surrounding environment and landscape.	Griffin Group Energy
5.	Package of measures aimed at mitigating the negative impact of PV installations on the voltage parameters in the LV network	PGE Dystrybucja	The current remedy is to change the on-load tap changers on MV/LV transformers. This activity requires a trip by the Electricity Emergency Service team and a power outage for about 20 to 30 minutes. This generates unnecessary SAIDI and labour costs for 2 electricians and equipment. The aim of the project is to implement the assumptions proposed in the document "Model of operation and development of the distribution network with the use of distributed energy sources", adopted by the Management Board of PGE Dystrybucja in 2021, by introducing elements of active management of the distribution system in terms of network infrastructure and system users, at the technical level utilising the potential of distributed RES energy sources and increasing the possibility of their integration with the network, as well as improving the operation and planning of network development.	Project carried out by PGE Group experts within the scope of their competence



No.	Project name	Company	Project objective	Partners in project
			Pilot installations based on the above-mentioned devices will be carried out in three locations, i.e. Zamch Podkolonia 2, Dubiecko 2, Babice Młyn. These will include: a) Voltage stabiliser based on a 50kW/50kWh electrochemical cell energy storage device - enabling the storage of energy and then, at the desired time, processing the stored energy and its delivery (release) to the distribution network, b) Voltage regulator with a symmetrisation function: - eliminates at the point of connection the adverse effects that occur in LV networks, c) Transformer with on-load tap changer - ensures voltage stability in distribution networks that may be destabilised, for example, by energy suppliers.	
6.	Local balancing area using RES, in particular the Myczkowce power plant and energy storage facilities in Rzepedź and Cisna	PGE Dystrybucja	The aim of the project is to design, build and then launch PGE Polska Grupa Energetyczna's first Local Balancing Area in the buffer zone of the Bieszczady National Park, covering the area of: Besko - Rzepedź - Cisna - Myczkowce, which will allow practical verification of the mechanisms of operation and balancing of electricity flows and management of the structure of connections within the power grid. The Local Balancing Area will include local power sources: • Elektrownia Myczkowce 8 MW, • FW Bukowsko 18 MW, • prosumer distributed energy sources, • 2 x 2 MW electricity storage facilities (existing in Rzepedz and planned in Cisna - with a capacity of approx. 2 MW and approx. 4 MWh). The Local Balancing Area created in this way will also allow the energy security of this part of the Bieszczady to be increased by supplying a larger area over several tens of kilometres as an island for long periods of time (more than 5 hours).	Project carried out by PGE Group experts within the scope of their competence
7.	Application of artificial intelligence based on neural networks to identify and eliminate risks in distribution networks with high saturation of generation from RES sources	PGE Dystrybucja	The aim of the project is to develop an autonomous distribution network control system. The control system will be based on artificial intelligence, which, on the basis of collected data, both those received in real time and predictions of future states, will be able to make decisions resulting in the maximum use of RES potential in a given area of the network. The application of the system in question is crucial for areas with a high saturation of RES generation sources due to the exceedances of the normalized quality parameters, which are the cause of generation limitations in installations and the risk of damage to power equipment in the grid. This translates directly into increasing losses both for generators whose installations do not operate at optimum capacity, but also for the distribution system operator who, through complaints from connected contractors, has to modernise the grid to adapt it to new operating conditions. The use of artificial intelligence in the system will allow for dynamic optimisation of power flows in distribution networks, taking into account data from PMUs, the AMI system, power quality measurement devices, the SCADA system, inverters in PV installations, energy storage facilities, weather forecasts, information about network section failures/rebuilds and own predictions. Thanks to the inclusion of a large number of components, the analysis performed by the system, as well as the resulting decisions regarding the choice of network configuration, changes in the profile of operation of controllable devices in the network, or the increase/decrease of generation in given nodes, will guarantee the full use of existing transmission capacities, while maintaining normative power quality parameters. The system in question will be a superior element to the SCADA system currently in use.	Project carried out by PGE Group experts within the scope of their competence



No.	Project name	Company	Project objective	Partners in project
8.	CCS/CCU demonstration plant for CO <sub>2</sub>	PGE EC	The goal of the project is to perform a technical, economic and legal analysis of the feasibility of applying the CO <sub>2</sub> capture technology for a selected PGE EC generating unit. The set of documents developed in Stage I will allow the start of the investment process aimed at building a demonstration installation. The carbon dioxide produced as a result of the process can be sold to an external company, used in Power-to-X technology or stored in a geological deposit. The final solution will be decided during the planning phase of the project and the feasibility study will include an appropriate analysis of the area.	PGE SA
9.	Treatment of flue gases from thermal waste conversion process using developed regenerable sorption material	PGE EC	<ul> <li>The objective of the project is to increase the efficiency and reduce the cost of the flue gas treatment process for mercury (Hg) generated in the thermal waste treatment process with energy recovery through: <ul> <li>(a) optimisation of the treatment process - mainly sorbent injection,</li> <li>(b) the development of a sorption material as a lower-cost alternative to the currently used pulverised activated carbon (PAC); and</li> <li>1. Reducing the cost of using the currently used sorbent (activated carbon), which is not regenerable, by replacing it with a cheaper sorbent material developed by the project, characterised by the possibility of regeneration and reuse.</li> <li>2. Reducing the cost of the heavy metal flue gas treatment process as a result of process optimisation aimed at reducing sorbent consumption relative to the amount of waste treated.</li> </ul> </li> </ul>	AGH University of Science and Technology

# Reduction of emission of pollutants to sewage

10.	INNUPS technology demonstration - removal and recovery of heavy metals and boron from IMOS wastewater by ion exchange resin method	PGE EC	The aim of the project is to analyse the possibility of selling metal concentrates and calcium borate from the INNUPS installation. This project is linked to an investment project in which a demonstration installation based on the INNUPS technology is being built in Gdynia. The installation under construction is based on an ion exchange column system, the primary purpose of which is to treat wet desulphurisation wastewater from metals and metalloids and boron. As part of the project, the installation will need to be able 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-regenerative resin and then to assess the market value of the resulting products.	Purolite sp. z o.o.
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# **Circular Economy**

11.	Development of innovative technology for the recycling of TW blade composite materials with the production of new glass and carbon fibre products.	PGE SA/ PGE Baltica sp. z o.o.	The aim of the project is to develop a new business model and build PGE Group's competitive advantage in the area of wind turbine blade waste recycling, including the development and verification of technical and economic assumptions for waste management and recovery of valuable wind turbine blade products.	In planning
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No.	Project name	Company	Project objective	Partners in project
Prote	ection of animals			
12.	Automatic monitoring and bird protection methods at wind farms	PGE EO	The project aims to reduce the harmful effects of wind farms on birds. The system will monitor and catalogue the migrations of the various species of birds that inhabit the area of the wind farms. The mechanism will analyse information recorded by devices mounted on the turbines and aims to eliminate collisions between birds and wind turbines on wind farms.	Bioseco
Deve	lopment of energy	storage syste	ems - investment projects	
13.	Large-scale energy storage system Gryfino I	PGE INWEST 22 sp. z o.o.	The aim of the project is to build an energy storage facility with a capacity of approx. 400 MW and 1600 MWh. The implementation of this and all the following projects will strengthen PGE Group's position as a player in the electricity storage market and in the provision of system services while supporting the main business segments.	Partners within PGE Group: PGE EO, PGE GiEK
14.	Distributed Energy Storage System	PGE INWEST 21 sp. z o.o.	The project aims to build 50 energy storage systems with a total rating of 268 MW and capacity of 1072 MWh. The project will cover 50 locations in 44 municipalities.	Partners within PGE Group: PGE EO
15.	Large-scale energy storage system Rybnik	PGE INWEST 23 sp. z o.o.	The project aims to build an energy storage system with a total rating of approx. 200 MW and capacity of 800 MWh.	Partners within PGE Group: PGE EO
16.	Large-scale energy storage system Gryfino II	PGE INWEST 24 sp. z o.o.	The project aims to build an energy storage system with a total rating of approx. 100 MW and capacity of 400 MWh.	Partners within PGE Group: PGE EO, PGE GiEK
17.	Large-scale energy storage system Abramowice	PGE INWEST 25 sp. z o.o.	The project aims to build an energy storage system with a total rating of approx. 50 MW and capacity of 200 MWh.	Partners within PGE Group: PGE EO, PGE Dystrybucja



# 3. SOCIAL

As the largest energy group in Poland, PGE Group has a direct and significant impact on society. It is the guarantor of uninterrupted energy supplies and system heat and plays an important economic role, both nationwide and in individual regions. At the same time, it is a workplace for nearly 40,000 people. Therefore, PGE's impact on society is a key ESG factor guiding the Group in the conduct of its business.

## 3.1 Just transition

#### | GRI 3-3 [employee issues with a particular focus on the energy transition process] |

PGE Group's energy transition is being carried out in such a way that the changes taking place take into account and respect, in the process, the interests and needs of the local community, territorial administration, investors and business, the needs of the natural environment, as well as taking into account the creation of new jobs for the employees of today's coal sector.

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. 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 separating coal assets - PGE Group will remain active in today's coal regions, both as an experienced investor in the energy transition process and as an initiator of activities supporting the economic development of these areas.

## 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, more than 7,500 people are employed in the Bełchatów power plant and mine as well as in PGE GiEK's head office.

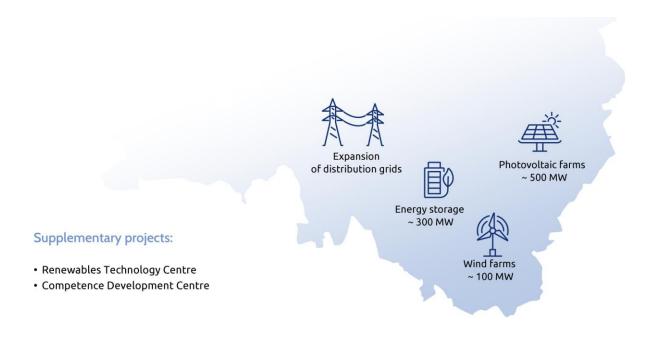
In order to narrow the employment gap in the region, which will result from the gradual reduction in the operation of mines and power plants, PGE is planning a number of projects over the next several years, including both renewable energy development and land reclamation projects, as well as pro-social projects such as the Competence Development Centre already in operation.

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 operates, it presents specific investment projects for the years 2021 - 2043 carried out both by PGE Group and complementary projects implemented outside PGE Group, which in total may create more than 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:

- wind farm projects of up to 100 MW,
- PV farms with a capacity of up to 500 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,
- "Virtual Power Plant" program harnessing IT competences.



#### Fig. Just transition - Bełchatów region 2043

In 2022, preparatory work was carried out for investment projects concerning the construction of renewable energy sources. The implementation of these investments is expected to take place between 2025 and 2027. Last year, PGE Ekoserwis also commenced the construction of a Circular Economy Research and Development Centre in Bełchatów, whose task will be to develop and implement solutions aimed at the optimal use of post-industrial waste from the power industry and the recovery of valuable raw materials from decommissioned RES installations. This year also saw the commencement of work by PGE EC to prepare a multi-variant concept for supplying Bełchatów with heat after the power plant and mine have ceased to operate, taking into account new regulations on the status of an efficient district heating system.

#### Competence Development Centre in Bełchatów - we support vocational training

An important step in preparing employees associated with the Bełchatów Complex for a fair energy transition was the establishment of the Competence Development Centre of the Łódź Province and PGE Polska Grupa Energetyczna SA in Rogowiec. In September 2022, the centre summarised its first year of activity in vocational training and support for the region's residents.

The Centre is a place that provides an opportunity for training and qualification development for employees in the energy sector, re-training of employees in the conventional energy sector and residents of the Lodz region interested in changing or gaining new qualifications.

The course covers a wide range of issues concerning renewable energy sources, their resources, acquisition, design and use in the area of solar, wind, geothermal and hydropower, as well as issues concerning renewable energy technologies, the ecological effects of energy conversion, the legal basis for environmental protection and the development of renewable energy in Poland and worldwide.



Currently, 152 students are taking part in Qualification Vocational Courses in the following subjects:

- Renewable energy equipment and systems technician,
- Automation technician,
- Welding technician,
- IT technician,
- Programming technician.

At the end of the first semester of study, in June 2022, 66 Centre graduates will have passed the examination to obtain professional qualifications in the fields of renewable energy equipment and systems technician, automation technician and programming technician.

The Centre also runs publicly funded projects. These include the project: 'Support for a New Vocational Start', implemented from European funds and the funds of the Łódzkie Voivodeship.

## **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 has been making intensive and numerous efforts for more than two years to have the Łódź region (where the Bełchatów Energy Complex operates) and the Zgorzelec sub-region (with the Turów Energy Complex) recognised by the European Commission (EC) 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. Since 2020, PGE Group maintains an intensive dialogue with representatives of public and local administration and the European Commission, supporting the Łódź region and the Zgorzelec Poviat 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.

On 5 December 2022, the European Commission approved five Just Transition Plans for Poland. This means that around EUR 3.85 billion will be available to five Polish regions for transformation under the Just Transition Fund. Funds from the Just Transition Fund will support the climate transformation of mining areas: in Silesia, Małopolska, Wielkopolska, Lower Silesia and Łódzkie.

PGE's involvement, as well as the information provided to the local and state administrations and to the European Commission, including data and forecasts related to the Belchatów Power Plant's operations - were crucial in the consultation process with the EC and determined the European Commission's positive decision on the Łódź region.

The Łódź region has been allocated EUR 369.5 million from the Just Transition Fund. The funds are intended to support, among others, workers currently employed at the Bełchatów Power Plant, as well as in the mining and related sectors. The EC stresses that, among other things, the training will provide employees with new skills and prepare them for work in new 'green sectors'.



In the case of the Lower Silesia region, the European Commission has ruled that funds from the current edition of the Just Transition Fund can only go to regions where there will be any shutdowns of basic generating units by 2030. Given the timetable planned so far for the closure of Elektrownia Turów - the Zgorzelec sub-region will be able to apply for Just Transition Fund funds in the next edition of this fund.

PGE Group intends to successfully implement further ambitious investment and system projects in the Łódź and Lower Silesian Voivodeships both with and independently of the Just Transition Fund funding. PGE also allows for the possibility of modifying the projects it has developed as part of the Just Transition Fund, depending, among other things, on the course of the competition process within the framework of applying for funds from 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.

The approval of the Territorial Just Transition Plans paves the way for dedicated funding under the other two pillars of the Just Transition Fund: the InvestEU Fair Transformation Scheme and the Public Sector Lending Facility, which combines Commission grants with European Investment Bank (EIB) loans. Therefore, the European Commission's positive decision to extend access to the Just Transition Fund to the Łódź Province (which was possible thanks to the key commitment of PGE Polska Grupa Energetyczna SA) not only means real assistance for the Łódź region and its inhabitants (especially employees of the Bełchatów Energy Complex) in the amount, but also creates new opportunities for PGE Group within the whole Just Transition Fund. PGE Group will continue to actively participate in efforts to make the most of opportunities to support investment activities from EU and national funds.

## 3.2 Dialogue with stakeholders

## | GRI 2-29 |

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 arrangements made in the dialogue process. The dialogue takes place in various forms, depending on the type and communication needs of a given stakeholder, but there are also solutions such as regular dialogue sessions that create space for representatives of all key stakeholder groups to exchange their opinions and raise their expectations of the company in a common setting.

PGE Group's key stakeholders are: central and local government, regulators and market supervision, shareholders, investors, customers, employees, banks and financing institutions, insurers, suppliers and subcontractors, industry, pro-social and environmental organisations, the media, ESG analysts, academia, local communities and competitors.



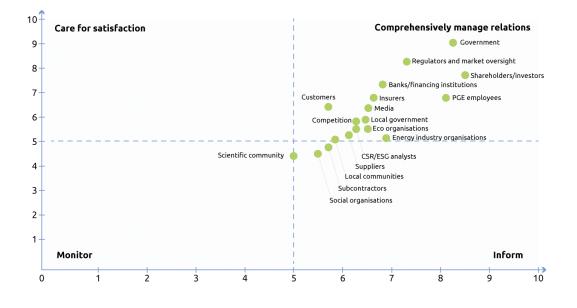


Fig. PGE Group's key stakeholders Materiality analysis by key management and members of PGE Group's working teams on the Sustainability Committee and ESG initiatives in 2022.

## Forms of dialogue with PGE Group's stakeholders

As an organisation with a large scale and impact on its surroundings, PGE Group is a natural partner for dialogue with a wide range of stakeholders. In order to develop in a sustainable manner, it is important for PGE to study and take into account their needs. It is committed to building relationships based on partnership.

No.	PGE Group's key stakeholders	Scope of cooperation
1.	Government administration	Taking into account the scale and scope of its activities, as well as its nature - PGE Group is to a large extent involved in cooperation with public authorities. The important role that PGE plays in the Polish economy makes it a natural dialogue partner for a wide range of government institutions.
2.	Shareholders and investors	The Investor Relations and ESG Department takes care to coordinate all the activities necessary to initiate and maintain good relations with existing and potential shareholders and investors. This means comprehensive and timely communication with the market and adherence to the highest reporting standards.
3.	Regulators and market oversight	The Energy Regulatory Office (URE) is the central state administrative authority in Poland under the Energy Law, which is responsible for regulating the energy sector as well as promoting competition. The President of the URE regulates the activities of energy companies striving to balance the interests of energy companies and customers. PGE Group's activities are also subject to other regulators, such as the Office of Competition and Consumer Protection, the Office of Technical Inspection and the Financial Supervision Commission.
4.	Banks / financing institutions	PGE maintains an open dialogue with financial institutions, taking care of their communication needs and providing all necessary information. As a borrower, PGE is a trusted business partner, paying its financial obligations within the set deadlines.
5.	Employees	It is crucial for PGE Group to create safe working conditions and stable employment for its employees. PGE cares for their professional development by providing them with interesting professional challenges and the chance to implement unique projects. PGE treats open and regular social dialogue as an integral part of its business activities.



No.	PGE Group's key stakeholders	Scope of cooperation
6.	Customers	PGE is committed to high standards of cooperation with its customers, meeting their needs. PGE's diverse offer is tailored to the individual needs of end users. We reach out to customers through various forms of contact. To better understand our customers' needs, we conduct regular satisfaction surveys. This helps us to continuously improve the quality of our services and build positive customer relationships.
7.	Insurance companies	The Risk and Insurance Department at PGE SA is the direct business partner for current and future insurers. Aiming to provide the best possible financial cover for potential risks, PGE seeks the most favourable solutions. The dialogue enables us to tailor insurance products precisely to PGE's needs.
8.	Media	It is one of the key channels of communication with stakeholders for PGE, through which it communicates information to the public about its plans, results and achievements. PGE attaches great importance to a careful and proactive approach to media relations, bearing in mind the importance of access to full and timely information about our company.
9.	Government administration	The scale and scope of PGE Group's activities require direct and regular dialogue with local administrations. The Group builds relationships based on mutual respect and cooperation for the development of local communities.
10.	ESG analysts	As a leader of green change, PGE is open to dialogue with analysts in the ESG area - the company's representatives communicate openly with them, respond to their needs and strive to introduce sustainable development principles into PGE Group's business operations on an ongoing basis. The ratings that PGE receives in individual ratings or ESG studies are used to further develop the organisation in a responsible manner and with future generations in mind.
11.	Energy-sector organisations	As a member of the Polish Electricity Committee (PKEE), PGE belongs to EURELECTRIC, where it represents the interests of the European energy industry. Being part of the Polish Committee of the World Energy Council, we play a role in shaping the organisation's policy and indicating the direction of its activities. Through its presence in industry organisations, PGE pursues important strategic partnerships. On the initiative of PGE, a manual for counting the carbon footprint has been created within the Polish Association of Combined Heat and Power Plants (PTEZ), which will allow for the comparison of data within the sector in Poland.
12.	Environmental organisations	PGE participates in the activities of many national as well as international organisations working for the environment, learning from them how to manage environmental protection and often supporting their activities. PGE Group companies actively cooperate with pro-environmental associations and organisations at the local level.
13.	Suppliers and subcontractors	What PGE Group buys and from whom it buys is of great importance to it. PGE Group's purchasing policy, as well as the Code of Conduct for Business Partners of PGE Group Companies, emphasise the observance of high ethical, social and environmental standards by current and potential suppliers.
14.	Local communities	PGE Group's investment processes are preceded by a dialogue with the local community in order to provide it with full information on the activities to be carried out, as well as to learn about and meet public expectations. PGE makes every effort to be a good neighbour to the communities living in the vicinity of its assets - to develop them according to their needs and take care of their welfare.
15.	Scientific community	As a transition leader, PGE is responsible for investing in new technologies and co- creating new sectors of the economy, such as offshore wind energy. Cooperation with scientific institutions, including those educating potential future employees, is crucial for PGE Group.
16.	Competition	PGE Group conducts a dialogue with its competitors within the framework of industry organisations it co-founds. The dialogue process is guided by respect for the rules of fair competition, in accordance with PGE Group's Code of Ethics.



No.	PGE Group's key stakeholders	Scope of cooperation
17.	Pro-social organisations	PGE Group is actively involved in activities that have a positive impact on communities. It is a trusted partner.

## **Dialogue sessions**

The expectations of key stakeholders towards PGE Group are communicated during cyclical meetings. The last stakeholder panel was held on June 13 and 14, 2022 in an online format. Around 80 people shared their opinions on the company's activities, including:

- 50 participants in the Polish-language session
- nearly 30 people in an English-language session attended mainly by representatives of international institutions.

Dialogue sessions are conducted according to the AA 1000 corporate social responsibility standard, with the participation of independent external moderators. The meetings are primarily aimed at gathering information on what are the expectations of key stakeholders towards PGE Group, including in the area of ESG, and gathering opinions on which of the activities undertaken by PGE Group are the most valuable and which should be additionally initiated. The outcome of the dialogue sessions is also a list of the most important topics and issues identified by stakeholders that should be described in the non-financial report for the year. More information on the results of the 2022 sessions is available in the chapter "About the report".

The benefits of participating in PGE Group stakeholder panel are for both parties. These include:

- opportunity to directly communicate expectations of PGE Group's environmental and social responsibility;
- influence on the future directions of PGE Group's strategic development in the ESG area;
- co-creation of PGE Group plans and activities responding to the needs of a wide range of stakeholders;
- opportunity to present your opinion on PGE Group's activities and to learn about PGE Group's expectations and capabilities;
- identification of ESG areas and topics relevant for presentation in PGE Group Integrated Report.

## **Public affairs**

The basis for the sustainable, balanced development of PGE Group is the maintenance of on-going partnership relations with institutions supervising the functioning of the markets in which the organisation operates. PGE cares for a constructive and transparent dialogue with independent market regulators and supervisors. PGE Group operates in an extremely complex and changing regulatory environment. On-going monitoring of legislative processes and active participation in the dialogue with circles responsible for lawmaking, both in Poland and in the European Union, is a necessary element for conducting effective business activity and meeting the expectations of PGE Group's stakeholders. This activity directly translates into building the Group's value.

PGE strives to raise public awareness of the problems and challenges of the electricity sector. It is a natural partner for discussions with legislators, central and local administrations. 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.

PGE is a member of a number of energy industry organisations and also presents its opinions through them. This ensures that positions are balanced and take into account the viewpoints of all organisation members. The issue of PGE Group companies' membership in industry organisations is regulated by the "Good practices in cooperation with national 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.

## | GRI 2-28 |



No.	Key national and international industry organisations of which PGE Group companies are members (as at December 31, 2022)	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: 4 Functions performed: President of the Governing Board of the PKEE Vice President of the Governing Board of the PKEE Member of the Governing Board of the PKEE Member and Secretary of the PKEE Governing Board
2.	Eurelectric - indirect membership via Polish Committee for Electricity (PKEE)	international	PGE SA	Lack of PGE Group representatives in the authorities of the organisation
3.	Association of Polish Electricians (SEP)	national	PGE SA, PGE GIEK, PGE Dystrybucja and PGE Energia Ciepła	Lack of PGE Group representatives in the authorities of the organisation
4.	Energy Trading Association (TOE)	national	PGE SA and PGE Obrót SA	Number of members: 2 Functions performed: Vice-President of the TOE Management Board Member of the TOE Management Board
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 SA	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 Functions performed: 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.	European Roundtable on Climate Change and Sustainable Transition (ERCST)	international	PGE SA	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: 2 Functions performed: President of the Management Board, TGPE Member of the Management Board, TGPE



No.	Key national and international industry organisations of which PGE Group companies are members (as at December 31, 2022)	Type of organisation	Membership of PGE Group company	Representation on the organisation's governing bodies
12.	Polish Society of Professional Heat and Power Plants (PTEZ)	national	PGE GIEK, PGE Energia Ciepła, ZEW KOGENERACJA SA and EC Zielona Góra SA	Number of members: 4 Functions performed: President of the Management Board, PTEZ Vice-President of the Management Board, PTEZ Member of the Management Board, PTEZ Member of the Management Board, PTEZ
13.	The Union of Employers: Association of Lignite Miners (ZP PPWB)	national	PGE GIEK	Number of members: 2 Functions performed: President of the Management Board, ZP PPWB Vice-President of the Management Board, ZP PPWB
14.	European Association of Coal and Lignite (EURACOAL) - indirect membership through the Employers' Union of the Lignite Producers' Association (ZP PPWB)	international	PGE GIEK	Lack of PGE Group representatives in the authorities of the organisation
15.	Polish District Heating Chamber of Commerce (IGCP)	national	PGE Energia Ciepła, ZEW KOGENERACJA SA, PGE Toruń and SA EC Zielona Góra SA	Number of members: 2 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 Functions performed: Vice President of the Management Board of PTPiREE Member of the Management Board of PTPiREE
17.	European Distribution System Operators (E.DSO)	international	PGE Dystrybucja	Number of members: 1 Functions performed: Member of the Board of Directors E.DSO
18.	EU DSO Entity	international	PGE Dystrybucja	Number of members: 1 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



No.	Key national and international industry organisations of which PGE Group companies are members (as at December 31, 2022)	Type of organisation	Membership of PGE Group company	Representation on the organisation's governing bodies
20.	Polish Offshore Wind Energy Society (PTMEW)	national	PGE Baltica sp. z o.o.	Lack of PGE Group representatives in the authorities of the organisation
21.	Polish Wind Energy Association (PSEW)	national	PGE Baltica sp. z o.o. and PGE Energia Odnawialna	Lack of PGE Group representatives in the authorities of the organisation
22.	WindEurope (WE)	international	PGE Baltica sp. z o.o.	Lack of PGE Group representatives in the authorities of the organisation
23.	Hydropower Plant Society (TEW)	national	PGE Energia Odnawialna	Number of members: 1 Functions performed: Member of the Management Board, TEW
24.	European Coal Combustion Products Association (ECOBA) - indirect membership by the Polish Union of By- Products of Combustion	international	PGE Ekoserwis SA	Number of members: 1 Functions performed: Member of ECOBA Board
25.	Polish Union of By-Products of Combustion (PU UPS)	national	PGE Ekoserwis SA	Number of members: 2 Functions performed: President of the Management Board, PU UPS, and Vice-President of the Management Board, PU UPS
26.	Association of Producers of Energy from Waste (SPEO)	national	PGE Energia Ciepła	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 and actively participates in institutional dialogue which supports the idea of mutual understanding. Constructive exchange of arguments and views leads to compromise. A significant amount of activity is carried out through PGE SA's Office in Brussels and through PGE's membership in the Polish Electricity Committee (PKEE), which brings together representatives of the industry in Poland. The President of the Management Board of PGE SA, Wojciech Dąbrowski, is also the President of the PKEE Management Board. 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. In February 2023, the PKEE Management Board adopted a resolution appointing Wanda Buk, Vice President of the Management Board of PGE SA for Regulatory Affairs, as the PKEE representative on the EURELECTRIC Board of Directors.

The growing need for direct dialogue with the European community led PGE SA to open its own office in Brussels in April 2019, remaining a member of the PKEE. The main role of the PGE SA Office in Brussels is to increase PGE Group's activity in matters related to implemented and planned EU energy and climate regulations. At the same time, the Office supports the implementation of the company's strategic goals and objectives, which ensure the long-term growth of PGE Group's value in the face of changing political and economic conditions in the EU electricity market.

## Dialogue with shareholders

The basic aim of PGE's information policy are transparency and cooperation based on mutual trust. Effective communication with investors and transparency are in the best interest of the company and the creation of value for its shareholders. The activities undertaken as part of investor relations go beyond the requirements



of the regulations. These oblige the company to comply with its information obligations with regard to periodic and current reporting with particular emphasis on price-sensitive information.

In 2022, PGE SA conducted multi-channel communication with capital market participants - through the website and a dedicated Investor Relations tab, email correspondence to investors following significant events in PGE Group, meetings with analysts and investors. After the pandemic, the company gradually returned to participating in stationary investor conferences both in Poland, Europe and the United States. In May 2022, PGE SA participated for the first time in the WallStreet conference organised by the Association of Individual Investors, taking part in the debate 'National champions in the face of price shocks and major economic turbulence. Will they come out stronger or weaker?" and presenting PGE Group during the "Shareholder Forum". The WallStreet conference was also an opportunity to talk to individual investors, exchange experiences in the area of investor relations and ESG with other listed companies, stock market educators, as well as financial journalists. Each time before the publication of an interim report, PGE SA published earnings estimates, together with information on one-off events. In addition, a presentation detailing the estimated results and key factors influencing the year-on-year change in results was published on the website. Following the publication of interim results, the company held four Management Board conferences for journalists and analysts to discuss the operating and financial results for the period and the company's growth prospects. The conferences were also broadcast live on the Internet, with the transcript of the broadcast subsequently posted on the corporate website. An opportunity was provided each time for participants to ask questions. In addition, the website included:

- result presentations with the analyst's package and presentation supplement in the form of an xls file,
- · periodically updated investor presentation,
- presentation on the takeover of PKP Energetyka SA by PGE SA,
- presentation from the WallStreet retail investor conference,
- 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,
- consensus of analysts' forecasts,
- calendar of events.

With a view to transparency in the implementation of the idea of sustainable development and the presentation of the company's impact on its environment, PGE Group's Integrated Report has been published online. The report for 2021 is available at https://raportzintegrowany2021.gkpge.pl/en/

## Dialogue with stakeholders by companies

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

## Dialogue with PGE Dystrybucja's business partners

In 2022, PGE Dystrybucja was carrying out many investments in the electricity network in the area of operation of all the company's branches. Therefore, despite the absence of Energy Forums, i.e. meetings with local government officials held every two years in all branches of the company (the previous one was held in 2021), dialogue with representatives of local governments as natural partners in investment processes was conducted on a large scale. More than one and a half thousand operational meetings were held in all branches of the company with these partners who are important to the company. The meetings concerned both ongoing investments and the development plans of the power grid and the plans of the municipalities, with particular emphasis on investments made with the support of EU funds. In the past year, a particularly important group of stakeholders were the company's existing and potential service contractors. Meetings with this group of stakeholders were held in each of the branches, and remote workshops were held at the company's headquarters, attended by almost 500 contractors. The participants became acquainted with the scope of investments planned for the coming years, as well as with the requirements of tender proceedings conducted in PGE Dystrybucja. Representatives of the company presented the company's technical potential and planned operational works in the form of a video transmission. They also discussed key investment programs, such as the cabling of the grid and the implementation of remote reading meters, as well as the Health, Safety and Compliance rules applicable in PGE Dystrybucja when working with contractors. With a view to expanding and consolidating good business relations, during the Energetics Energy Fair in Lublin, the PGE Dystrybucja stand was dedicated precisely to contractors who had previously received invitations to the "PGE Dystrybucja Zone for Contractors". During the three days of the fair, the zone was visited by dozens of representatives of companies cooperating or interested in starting cooperation.



In 2022, PGE Dystrybucja strengthened its cooperation with the Territorial Defence Forces (WOT). Nine agreements on cooperation with WOT brigades in the area of operation of all branches of the company were signed. As part of the cooperation, joint exercises were held by power engineers and the WOT simulating a critical situation - power supply failure in designated facilities. Power supply was restored by connecting a Container Field Power Plant. Exercises were conducted in Radzyń Podlaski, Ustrzyki Dolne, Radom and Radomsko. Further joint activities are planned. Regular cooperation is also taking place with fire brigade units.

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

District heating has a key 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 branches of the PGE Energia Ciepła company, together with local governments, engage in information and education campaigns on connecting buildings to the district heating network. Energy and heat conservation was also an important theme in 2022.

PGE Toruń has been cooperating with the city in many areas for years. The Toruń company supports the improvement of energy efficiency in municipal buildings (a contract has been signed to carry out a power analysis and assess the technical condition of nodes in municipal buildings). Under the aegis of the Regional Energy and Environmental Protection Agency, the Municipality of Toruń and PGE Toruń, a training course on heat and energy conservation was conducted in 2022 for more than 100 Toruń directors and managers of educational facilities - municipal schools, kindergartens and nurseries. On an ongoing basis, there is operational cooperation with the local government related to connecting buildings to the district heating network or upgrading heat pipelines in the city. On an ongoing basis, PGE Toruń cooperates with the local government on updating documents important and strategic for Toruń in relation to the supply of heat to the City of Toruń.

PGE Energia Ciepła's Wybrzeże branch is cooperating with the City of Gdynia on the program "Thermovision, or how to seal a household budget". Its sixth edition was launched in 2022. Owners, managers and administrators of residential buildings located in Gdynia could submit their properties for participation in the project. Thermal imaging surveys, which are completely free of charge for residents, were carried out in winter, from November 1, 2022 to the end of February 2023.

For the seventh time PGE Energia Ciepła, together with the City of Gdynia and heat distributor OPEC, organised a seminar for property managers in Gdynia. It was an excellent opportunity to discuss the advantages of connecting to the city's district heating network, as well as how to reduce energy consumption and save energy in the face of current energy challenges.

The Zielona Góra CHP supports the city in the fight against smog by implementing investments as part of the Integrated Territorial Investment Strategy - developed by the Mayor of the City for the Urban Functioning Area of Zielona Góra. The CHP supplies electricity to power the electric bus base of the Municipal Transport Company. The City of Zielona Góra signed a letter of intent with Zielona Góra Combined Heat and Power Plant and Enea Operator concerning cooperation to ensure the energy security of the region. Thanks to the initiative, the Zielona Góra agglomeration will be more energy secure during possible weather anomalies or hurricanes.

PGE Energia Ciepła's Kraków branch is working with the city in the preparation of "Assumptions for the plan for supplying the municipality of Kraków with heat, electricity and gas fuels for 2023-2038." An updated version of the document "Heat map 2022" has been developed and published - which is an essential tool for both the heat distributor (to plan necessary network investments) and the heat producers (to plan investments, renovations). In addition, the Kraków Branch organised a workshop entitled "Heat supply planning and operation of large district heating systems on the example of the city of Kraków" with the participation of representatives of the Ministry of Climate, the City Hall, PGE Energia Ciepła and MPEC.

Zespół Elektrociepłowni Wrocławskich KOGENERACJA SA has been cooperating with the local government of Siechnice for many years. After signing a letter of intent in 2019 on the revitalisation of the historic buildings of the current Czechnica CHP after it was decommissioned, a shareholders' agreement was signed, and at the end of 2022 the Siechnice City Council passed a resolution to create the company "Siechnice Nowa Energia", in which KOGENERACJA will take a 50% stake, becoming a co-owner of the entity. The aim of the company will be to prepare a plan for the revitalisation of the area of the current plant. Both parties hope that, in this way, the more than 20-year-old buildings will continue to serve the local community, although in a slightly different, broader dimension. KOGENERACJA is also in constant dialogue with the Wrocław Municipality in the context of looking for new solutions for the implementation of low- and zero-emission sources in the Wrocław area.



The Gorzów branch of PGE Energia Ciepła has been working with the local government for many years. After signing a letter of intent on the construction of the waste-to-energy incinerator with the mayor of Gorzów Wielkopolski in 2021, cyclical meetings are held between the two parties to pursue the investment. The Branch's employees also meet with the city authorities and the main customers regarding heat tariff changes. During the talks, the situation of the Gorzów district heating sector is transparently discussed. The process allows for greater understanding and for building relationships in times of crisis with key stakeholders.

## Dialogue for a just transition

PGE Górnictwo i Energetyka Konwencjonalna carried out a number of activities aimed, among other things, at reliably informing stakeholders about the energy transition at the Bełchatów and Turów Complexes.

In the case of the Turów complex, as part of the information campaign in connection with the ongoing concession process, PGE GiEK, among other things, posted current information on the Turów Mine on a dedicated website www.turow2044.pl, which was established in December 2020 as a multilingual website dedicated to the Turów Mine and Power Plant. The website contains information on the activities of the Turów power complex in the context of the current coal mining concession.

In addition to these activities, the following should be highlighted:

- supporting synergy measures between citizens and local authorities in the Border Triangle,
- organisation of the 2nd edition of the conference: "A common future for mining regions located in the PL-CZ-DE tri-border area. Economy, Society, Environment" dedicated to future cross-border cooperation in the context of agreements and mutual relations between Poland, the Czech Republic and Germany and the transformation of the lignite sector in the current European energy crisis. The conference discussed the results of an international study on Polish-Czech cross-border cooperation in the context of the Turów Mine. The debate focused on assessing the impact of the current situation on cooperation between the neighbouring three countries, particularly in the Nisa Euroregion, and on issues related to the energy transformation of the lignite sector in the context of the energy crisis caused by Russia's aggression towards Ukraine. The future of the Turów Mine and nearby lignite mines located in the Czech Republic and Germany was also discussed, as well as cross-border arrangements in the context of mutual relations. The debates were attended by local government officials and energy experts from Poland, the Czech Republic and Germany.
- meetings with specialists from the World Bank, an institution that supports Poland in its efforts to achieve a fair transformation of the coal sector, including helping the Lower Silesian Voivodship to plan the region's economic diversification,
- the ongoing publication of information material aimed at understanding the local significance of the Turošov complex, the role it plays in the national energy system and its impact on the wider security of the border area,
- transparent communication of the ongoing process of continuing lignite mining at the Turów Mine. The environmental decision became final after a decision was issued by a higher authority on September 30, 2022. The decision of the General Director of Environmental Protection dated September 30, 2022 has been made available and translated into Czech and German. The document confirms that the Turów mine engages in mining operations in accordance with the provisions of Polish and European law,
- Dialogue with EU institutions.

In the case of the Belchatów complex, additional forms of stakeholder dialogue were undertaken:

- partnership between PGE GiEK and the Bełchatowsko-Kleszczowski Industrial and Technological Park, as
  part of which the 'Transition and regional economic development' project was implemented. The project
  assumed the elaboration of development directions crucial for the energy transition of the Piotrków and
  Sieradz sub-regions and was addressed to residents, local government officials, representatives of business
  and social organisations. Three meetings were held as part of this project,
- cooperation with local authorities supporting activities within the framework of corporate social responsibility that improve the quality of life of local communities, involvement in many interesting and significant initiatives, both sporting and cultural, within which PGE GiEK's mining and manufacturing operations are carried out,

## Information workshops

In 2022, PGE Baltica organised two workshops-presentations for potential suppliers and subcontractors. In April, PGE Baltica representatives, together with Ørsted, presented the project and the most important upcoming tenders and answered any questions that arose. The virtual event was attended by nearly 800



representatives of potential suppliers, subcontractors and other entities interested in cooperation in the implementation of the Baltica Offshore Wind Farm, including more than 500 from Poland. In turn, in June 2022, during the PWEA industry conference in Serock, PGE Baltica, together with its Danish partner, held presentations and workshops on quality and safety at work, where they focused on the requirements and standards in this area that potential contractors must meet.

PGE Baltica meets on an on-going basis with the authorities of the Choczewo municipality, where the infrastructure related to the power evacuation will be built. In March 2022, a series of information meetings was organised with residents in several villages in the Choczewo municipality to provide information on the future investment. PGE Baltica, together with other investors, was also involved in the creation and implementation of the Choczewo - Wind Driven Municipality program. This initiative, based on on-going cooperation with local residents, aims to involve them in the creation and implementation of ideas for change in their immediate environment. Investors co-finance the most interesting ideas of residents in several thematic areas, while also educating them about offshore wind energy. As part of the program, several meetings were held with residents, including a workshop to present the program's objectives and prepare for the submission of applications.

PGE Baltica is also meeting with the authorities of Ustka, where an operations and service base for PGE Group's offshore wind farms will be built. In October, during a conference held in Ustka, the company presented, among other things, plans for the construction of the service base to the city authorities and representatives of regional and national authorities. In November, PGE Baltica organised an information meeting for the lessees of the land part of the port areas where the service infrastructure will be built.

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. Participants in the workshop, which was attended by more than 500 people from dozens of companies, had the opportunity to learn about PGE's internal procedures and the tools with which PGE Energia Ciepła's tender proceedings are conducted, namely procurement portals. Workshops for contractors also provided an opportunity for open discussion, exchange of good practices and discussion of the most common problems encountered when submitting tender applications.

PGE Polska Grupa Energetyczna also co-organised a health and safety workshop for potential and current contractors in the district heating segment at PGE National Stadium in 2022.

## Webinars for institutional customers

PGE Obrót organised two webinars on topics important to the company's institutional stakeholders in 2022. The first of these was attended by nearly 150 representatives of local government units, public administration entities, universities and hospitals from all over Poland who purchase energy under public procurement procedures. Planning proceedings in a dynamic market and prosumer billing issues were the main topics asked about by the local authorities. Another webinar, which was held on two dates due to high interest, concerned the provisions of the Solidarity Shield. The topic of the meeting with representatives of local authorities and institutional customers was the law on emergency measures to limit the amount of electricity prices and support for certain consumers in 2023. The webinar was attended by approx. 450 representatives of local authorities and institutions that purchase energy under the public procurement procedure. A PGE Group company is the leading energy seller in this segment.

In September 2022, PGE Obrót also co-organised an energy debate on the popularity and development of renewable energy sources.

## 3.3 Employess

#### | GRI 3-3 [employee issues with a particular focus on the energy transition process] |

At the beginning of 2022, the Human Capital Management (HCM) Business Strategy Implementation Plan for 2022 - 2025 was adopted. It identifies both the joint initiatives to be implemented by the Corporate Centre in cooperation with the companies, as well as those key to the individual segments.



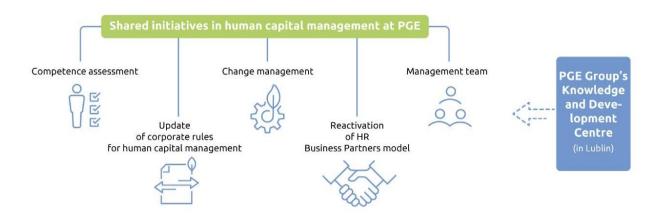


Fig. A key project that supports the implementation of the business strategy is the establishment of PGE Group Knowledge and Development Centre in Lublin.

The following programs and projects are among the initiatives common to PGE Group that are being implemented in 2022:

- implementing a Competence Assessment to be based on the Competence Model and shared rules. In 2022, preparations were underway to introduce the assessment in PGE Energia Ciepła, PGE Systemy, PGE Obrót and PGE Synergia, so that in 2023 the first edition of the competence assessment will be carried out in these companies. This solution will be implemented in the following years in further companies,
- equipping managers, project managers and all staff with the appropriate change management knowledge and 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. In 2022, the Corporate Centre updated five of the eight corporate HRM principles in PGE Group.
- Implementing the role of HR Business Partner (HRBP), in companies where this function is not yet in place. These are individuals dedicated to working with managers to support them in the management of their employees, in the process of competency assessment or salary review. The HR Business Partner develops and delivers reports, analyses, documents, HR tools, and participates in team and project meetings.

A forum has been created for HRBPs to share knowledge, good practices and experiences. Meetings are organised periodically to ensure equal access to knowledge and information exchange. In addition, work has begun on the preparation of a list of good HRBP practices, which will constitute a set of tools and solutions used in individual companies.

 consolidating selected areas of support. In 2022, the human capital management area was consolidated in the Warsaw companies of PGE Group. The corporate centre took over the handling of HR processes for the companies: PGE Baltica and PGE Systemy SA. Consolidation of the HCM areas allows for the implementation of common HR standards and tools.

## **Diversity policy**

| GC-5 | GC-6 |

PGE Group bases the building of its market advantage and being the leader of sustainable transition on an efficient and effective organisation, taking into account diversity. The implementation of activities, especially those aimed at employees and their functioning in the company, is driven by the company's values of partnership, development and responsibility. Hence the concern for the highest standards that go beyond compliance with generally applicable legal norms, such as the right to rest, minimum wages, respect for legislation on the non-employment of children and the ban on the employment of minors.



One such measure was the adoption of PGE Group Diversity Policy in 2022.

In line with PGE Group's policy, diversity can manifest itself in many areas and arise from diverse sources, both biological and social. Dimensions of diversity can be, in particular:

- race, nationality, ethnicity, gender, age, health (including disability),
- religion or spirituality, culture, political beliefs, education, place of residence, place of origin, family status, socio-economic status, abilities, views, personality, knowledge, gender identity,
- seniority, position, organisational assignment, membership of social, professional or trade union organisations, form of employment, experience.

The aim of the diversity policy is to create a working environment that is open to different points of view, multiculturalism and diversity of ways of thinking, based on cooperation, mutual support, showing respect and ensuring fair and equal treatment, particularly in areas:

- recruitment, selection and employment,
- access to professional development,
- creating a workplace free of bullying, discrimination and other inappropriate behaviour that is contrary to the Code of Ethics, but does not exhaust the elements of bullying or discrimination,
- internships and apprenticeships,
- remuneration and job evaluation,
- vertical and horizontal promotions,
- employee evaluation,
- problem and conflict resolution.

PGE Group employs a diverse range of people and works for a wide range of customers. It builds an inclusive culture that respects and maximises the contribution of all employees. Diversity enables the exchange of knowledge, views and perspectives, the development of talents and complementary development areas, leading to effective synergies, including the development of solutions that are born out of diversity.

The diversity policy also sets out ways to monitor the actions taken to implement it. One of the indicators is the ratio of men's remuneration to women's remuneration by position held. At PGE Group, this ratio is as follows:

| GRI 405-2 |

PGE Group	Data for 2022
Ratio of women's and men's basic salaries broken down by:	
Directors	4.7%
Managers	2.6%
Other employees	7.7%
Total	6.9%

In the case of PGE SA, the pay gap is lower than at Group level and women directors even earn more on average than men in the same positions:

PGE SA	Data for 2022
Ratio of women's and men's basic salaries broken down by:	
Directors	-4.9%
Managers	5.2%
Other employees	6.9%
Total	0.7%

Identifying pay gaps allows initiatives to be taken to minimise them. PGE Group does not take into account an employee's gender when making pay decisions, but only their skills and qualifications for the tasks at hand.

Detailed terms and conditions of employment and remuneration are determined in accordance with the regulations in force at individual employers of PGE Group and the generally applicable labour law and in



accordance with the legal system (including the freedom to choose an occupation and place of work provided for in the Constitution of the Republic of Poland or the regulations on the employment of young people).

These principles indicate the highest standards of human capital management across the Group. They relate, among other things, to the issue of unification of remuneration principles in relation to the business needs of individual business segments and areas, as well as monitoring the competitiveness of total remuneration in relation to the external market and internal benchmarks, with care for its link to individual, team and Group-wide performance. Remuneration tables are created assuming a reference value and a range of minimum and maximum salaries with respect for the law, including in particular the minimum wage.

## Countering harassment, discrimination and other inappropriate behaviour

## | GC-2 | GC-6 |

PGE Group seeks to ensure that the work environment is free from all forms of discrimination and harassment. To this end, a uniform standard in the approach to anti-bullying and anti-discrimination measures has been developed and adopted. Through the implementation of the anti-bullying procedure, the responsibilities of all employee groups from board members to managers, employees and representatives of the social side have been defined. The key objective of implementing the procedure is to prevent the occurrence of any form of discrimination by raising awareness of the problem and the consequences of unwanted actions by:

- · responsibility of management to counter undesirable developments,
- fostering the right principles of cooperation, mutual assistance and respect for others.

PGE Group employers periodically conduct mandatory prevention training. The anti-bullying and discrimination procedure also directs a clear message to all employees about expected attitudes and behaviour towards undesirable phenomena:

- building an organisational culture geared towards a safe working environment,
- supporting staff in situations of adverse reaction,
- building a better working atmosphere based on cooperation and commitment,
- reinforcing values in line with the Group's Code.

The procedure describes the scheme of conduct in the event of an adverse event in the form of mobbing and or discrimination in PGE Group.

Reporting and the manner of cooperation in counteracting bullying and discrimination in PGE Group are defined by the Guidelines for Cooperation of Employers in PGE Group in relation to Inappropriate Behaviour, in force since 2021. This is an internal document with organisational solutions.

## Occupational health and safety management system

#### | GRI 403-1 |

The safety and health of people working for PGE Group are a priority for the entire organisation. A formal confirmation of this is the Health and Safety Policy, which was adopted by the PGE SA Management Board in 2020. It sets out the framework for operations and setting the organisation's objectives pertaining to occupational health and safety management and considers the occupational health and safety area as a key value for the organisation's development. It also spells out long-term strategic initiatives pertaining to the occupational health and safety area and the basic rules for their implementation. The OHS Policy was developed in cooperation with representatives of all business segments and was consulted with the entire PGE Group. Notes and comments on its draft from the representatives of various subsidiaries and from trade union representatives had a positive impact on its final content.

#### | GRI 403-8 |

The occupational health and safety policy's scope includes PGE Group companies. On this basis, the declarations of the management boards are 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.



The health and safety situation in PGE Group is regularly discussed at meetings of the PGE SA Management Board. Proactive and reactive OHS objectives have been implemented for the top management of PGE Group subsidiaries. As part of the update of the mega-process map, process 3.8.8 Health and Safety Management was implemented in PGE Group in 2022. The objective of the process is to ensure and maintain a high standard of working conditions and to protect the health and life of employees, contractors and visitors.

#### | GRI 403-3 |

OHS management and detailed solutions at PGE Group are currently embedded on a local level within the activities of individual companies. Best practices are replicated. In order to ensure sharing of experience and mutual learning from incidents, an IT tool has been implemented to collect information on health and safety incidents across PGE Group, including occupational accidents and high-potential incidents. The knowledge gained in this way is capitalised in the form of additional actions in the area of occupational health and safety, which are taken throughout the Group by means of a Framework Plan for Occupational Health and Safety Improvement or in the form of alerts to the organisation in order to take pre-emptive measures in other locations.

In 2022, the Health and Safety Improvement Framework Plan for PGE Group companies included tasks in areas such as:

- Visible leadership in the field regular visits by representatives of top management to the places where work is carried out by employees assigned in the structure. The purpose of the visit is to gain eyewitness knowledge of working conditions and to reinforce positive behaviour;
- Strengthen health and safety leadership in the organisation by introducing health and safety issues as a regular item at top management meetings (e.g. at board meetings or divisional top management meetings). Topics include discussion of health and safety incidents, working conditions and other health and safety issues for employees and contractors working at the site or company;
- Carrying out inspections and audits of instructions on the work performed by employees;
- Assessing the safety of work with powered hand tools by carrying out additional inspections of work where powered hand tools (electric, internal combustion engine or pneumatically driven) are used with regard to, among other things: supervision of their efficiency (periodic inspections), availability of instructions, completeness (guards, handles, etc.), use of required personal protective equipment, etc;
- Safety of rotating components by carrying out additional inspections of equipment posing a risk of being caught by rotating components for the effectiveness of the safeguards and guards in place.

Individual employers prepare local health and safety improvement plans based on the Framework Plan. The 21 companies to which the tasks in the Health and Safety Improvement Framework Plan were assigned completed their local health and safety plans for 2022 at 95%.

PGE Group companies comply with legal requirements in the area of health and safety. Compliance with these requirements is verified by the organisational units in charge of audit, occupational health and safety services, compliance, etc.

7 PGE Group companies (PGE GiEK, PGE Energia Ciepła, PGE Toruń, ZEW Kogeneracja SA, EC Zielona Góra, Przedsiębiorstwo Wulkanizacji Taśm i Produkcji Wyrobów Gumowych BESTGUM POLSKA and RAMB) in which 18,965 employees worked as at December 31, 2022, representing approx. 50% of all employees (FTEs), have a certified OHS management system based on the PN-ISO 45001 standard.

Occupational health and safety issues are a regular item in top management meetings (e.g. management board meetings, branch management meetings). Topics include the discussion of health and safety incidents, working conditions and other health and safety issues for employees and contractors working at the site or company. Expectations for ensuring the health and safety of their employees are disclosed in the Code of Conduct for Business Partners of Group companies. Business partners are expected to provide safe workplaces, comply with all relevant standards and health and safety regulations. In particular - compliance with the law in terms of providing workplace instruction, taking into account information on health and safety conditions and requirements, providing appropriate protective measures and implementing appropriate health and safety training.

In 2022, PGE Energia Ciepła organised the fourth edition of a workshop for contractors. It was attended by more than 500 company representatives, who were introduced to PGE Group's internal procedures and the purchasing portals through which PGE Energia Ciepła's tendering procedures are conducted. As part of the meeting, the Health and Safety requirements for contractors in the companies of the District Heating segment were discussed. The most common health and safety irregularities committed by contractors' employees,



identified during inspections carried out by the company's employees, were presented, and it was indicated how the work in question should be carried out correctly.

## **Occupational risk assessment**

#### | GRI 403-2 |

Occupational risk assessment for workplaces is the foundation of health and safety management at PGE Group companies. This process is adapted to the risks and specifics of the work of individual companies. It is described in internal normative acts. 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's 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, etc.

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 thermal power plants and the Rybnik power plant, risk assessments are additionally carried out for tasks as part of the work orders and permits system; in 2022, more than 27,000 such analyses were carried out.

## Reporting of occupational health and safety issues

At PGE Group companies, employees use various channels to inform themselves about health and safety issues, including: through superiors, the health and safety service, social labour inspectors, publicly available physical boxes for paper notifications, email boxes, health and safety committees, IT application, etc. In addition, representatives of the top management of PGE Group companies are expected to make regular visits to the work sites of the employees assigned in the structure. To this end, a manual for conducting such managerial field visits has been developed.

The District Heating segment conducts an annual health and safety survey with 56 questions on health and safety culture. In addition, it operates an IT tool for reporting health and safety observations, both confirming compliance with requirements and indicating the need for corrective action. In 2022, 15,065 individual health and safety observations were reported under this system.

In addition, within PGE Group, employees can report, among other things, health and safety issues to the Compliance Department in PGE SA via a special email address. The message goes directly to the President of the Management Board of PGE SA, the Director of the Compliance Department in PGE SA, the Director of the Safety Department in PGE SA. PGE Group companies respect whistleblowers' right to anonymity. Personal and other information provided to this email address remains confidential until the whistleblower consents to the disclosure of all or part of this information. In 2022, 175 near misses were reported. These are analysed and, if necessary, preventive action is taken.

A campaign encouraging employees to report near misses was initiated and carried out at PGE GiEK in 2022. It was also actively involved in the National Labour Inspectorate's campaign: "Construction. STOP accidents".



## 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 such a hazard. At companies where there is work requiring special mental and physical fitness, lists of such work are kept. Employees performing such work have the right, after prior notification to their supervisor, to refrain from performing such work if their mental and physical condition does not ensure the safe performance of the work and poses a risk to others. In such a situation, they are directed to perform other types of work.

#### Investigation of occupational health and safety incidents

Every occupational accident is investigated by an accident investigation 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, failures are also investigated at PGE Group companies. Conclusions are drawn from these investigations to improve the OHS management system. Incident experiences are shared at PGE Group level. The causes of incidents are investigated according to various methods, including: cause tree analysis, TOL, 5 x why, etc. In addition, major incidents are analysed in detail by a team from the Corporate Centre to identify potential knowledge to be used for the whole Group.

#### 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 2022. 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 internal magazine "Under the Umbrella", which is distributed to all PGE Group employees, addresses health and safety issues. Articles published in 2022 include:

- safety rules in relation to the pandemic state,
- planning safe work on energy equipment,
- identifying hazards, assessing risks and planning and taking action to minimise occupational risks,
- health and safety observations,
- · safety of electricity networks for members of the public,
- achieving the zero accidents target,
- periodic training in occupational health and safety is it an obligation or a privilege?
- the essence of compliance with fire regulations,
- health and safety culture how does it impact on the zero accidents target?
- safe autumn on the road.

Different communication tools are used in the different PGE Group companies, e.g.: incident information brochures, health and safety reports, animated films, instructional videos, webinars, in meetings with employees where health and safety issues are discussed, etc.



## Occupational health and safety training

#### | GRI 403-5 |

Prior to starting work, all employees receive initial health and safety training consisting of general and jobspecific instruction. 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. PGE Group companies have 35 qualification commissions verifying the qualifications of persons involved in the operation of equipment, installations and networks appointed by the President of the Energy Regulatory Office.

Contractors working on the premises of PGE Group companies are provided with information on, inter alia, threats to health and life occurring in the workplace, rules of conduct in the event of accidents and other situations threatening the health and life of employees, protective and preventive measures taken to eliminate or reduce risks. Where justified, an introductory OSH training for contractors is also carried out. The 2023 Health and Safety Improvement Plan provides for quality checks on the implementation of these duties.

#### Performance of operational work

#### | GRI 403-7 |

Operational work on power equipment in the areas of operation, maintenance, overhaul, assembly and control and measurement shall be carried out in accordance with the operating instructions for power equipment or groups of power equipment, which contain, among other things, the characteristics of the equipment, a description of start-up, operation during operation and shutdown, or deadlines for 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 in detail how to organise this work, specifies the requirements for functional persons, the conditions for supervising the work or the rules for the circulation of written orders, etc. 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.

## Concern for employees' health

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

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. As part of the private medical care, they can undergo preliminary, check-ups and periodic examinations. PGE respects its employees' right to privacy; therefore information on health condition is not used when making HR and employment decisions.

A key project encompassing prevention of physical and mental health at PGE SA is the 'Action Regeneration' project, which aims to look after the wellbeing of employees. Employees can benefit from free examinations, webinars with psychologists, nutritionists or doctors.

## PGE Group's Knowledge and Development Centre

#### | GRI 404-2 |

The integrator of PGE Group's development and recruitment activities is the Lublin Knowledge and Development Centre, which has been operational since March 2022. The Centre is responsible for:

- developing business support competencies on behalf of and for PGE Group companies,
- ensuring the effective functioning of the training and recruitment area based on best practice,
- ensuring the competences necessary to implement PGE Group's strategy,
- creating an industrial process safety policy and providing ongoing advice on knowledge, development, safety culture and technical culture.



The assumption underlying the establishment of the Centre was the need to draw on knowledge from a variety of areas and best practices, both from the market and PGE Group. The Centre focuses on the internal customer and supports the creation of an efficient and effective organisation. It is based on the synergy of skills, knowledge and resources of the areas of recruitment, development, HR projects, as well as internal trainers who, through their knowledge of the organisation and in-depth research of needs, are able to ensure the effectiveness of development activities.

In 2022, PGE Group Knowledge and Development Centre prepared, among other things, a series of training courses for employees as part of the 'Development Network' program, dedicated to all employees who want to improve their soft skills. The Centre also organised a series of Lunch&Learn educational and training meetings dedicated to various topics related to the company and its environment. In 2022, nine sessions were held, including one dedicated to sustainability and ESG issues. The Centre's staff also organised language classes, training on the energy market or first aid premedicine.

The centre is also the primary provider of training in PGE Group, and additional health and safety training is provided based on the competencies built in the Group.

## Employee development

2022 was the year to emerge from the pandemic period and return to normal functioning in the area of development activities. The individual employers within PGE Group have largely returned to organising face-to-face training and meetings.

A key element of the development activities conducted at PGE Obrót in 2022 was workshops to develop sales and service skills. Workshops aimed at customer service employees were designed to:

- building a team aware of the importance of its own customer-oriented attitude applying a pro-customer philosophy to everyday work,
- acquire the basic skills to communicate effectively and professionally with customers, including in difficult and demanding situations.

In addition, Customer Service Offices employees were able to benefit from additional support in the form of one-to-one coaching. In July 2022, the 'Academy of Expert Trainers' project was launched. Its main objective was to identify and train a group of people with the expertise and aptitude to act as coaches, experts within the organisation. For employees, this is an opportunity to take advantage of an additional development path within the organisation and broaden their professional competences.

PGE Obrót employees also benefited from internal workshops: "Communication and teamwork", the aim of which was to integrate participants and develop principles for effective communication and cooperation in the teams they form. The trainings were based on specially prepared, original programs, team games and interactive exercises.

At PGE Dystrybucja, mandatory training to improve employees' qualifications and entitlements is an important part of development activities. The company's employees have received key empowerment training:

- UDT (Technical Supervisory Authority operation of cranes, platforms, trolleys, etc.),
- IBiGS (operation of excavator, backhoe loader, power saw, pavement cutter and soil stabilisation and welding equipment),
- WORD (category C and CE driving licence, traffic management),
- Live Work (Live work on LV and MV lines. Particularly noteworthy is the new technology for working from an insulated jack and from a distance),
- training on EAZ protection automation,
- training in the field of LV and MV cables (installation of cable line accessories, cable location and diagnostics operation of location vehicles.

At PGE Baltica, an important element of employee development is the implementation of good knowledgesharing practices. The implementation of tasks takes place in a system: "learn, perform, teach others". Employees familiarise their teams with the topics after participating in external training. Meetings include elements of discussion. ToolBox Talks is another initiative consisting of weekly meetings between board members and employees. Important topics on building trust within the team, dealing with stress at work, as well as business psychology are discussed at these meetings.



The process of acquiring and sharing knowledge also takes place through cooperation on specific projects. On the construction of offshore wind farms, PGE Baltica is cooperating with a foreign partner - Ørsted. The knowledge acquired in this project will be used in subsequent offshore wind farm construction projects.

Employees in the District Heating segment develop their potential by participating in internal and external training. They also do this by participating in the various projects they carry out as part of the segment's broad activities. Solving current problems during long-term projects is seen by employees as the fastest form of professional development. This type of involvement stimulates creativity, opens up new opportunities to use acquired skills and create new areas of knowledge within the organisation.

Employees of PGE Group can benefit from various forms of competence development made available electronically, e.g. on a dedicated LMS (Learning Management System) platform, e-Learning training courses (comprehensive topics), language learning courses, webinars, online workshops, training recordings in the form of audio files that can be listened to at any time.

Employees also make use of industry newsletters made available electronically, such as a review of the national press, foreign press from the energy market and related markets.

## Development of managers

A manager's influence on the effectiveness of his or her team at work, but also on the development, commitment and maintenance of motivation levels, is very high. Therefore, at PGE Group, a great deal of effort is put into their development of the necessary skills and the shaping of attitudes. This is crucial given the dynamically changing labour market, volatile environment and needs. Flagship initiatives include two programs:

"LEAD with energy", which is a program for new managers and employees who are about to take on a managerial role, as well as managers in whom it is desirable to strengthen and develop managerial competences and attitudes based on building partnership, responsible relationships.

The main objective of the program is to strengthen and develop managerial competences, such as building awareness of the manager's role in shaping employee commitment; fostering respectful relationships and strengthening cooperation (partnership); building attitudes of responsibility for the subordinate team and for its results (accountability); strengthening motivation, courage to make changes and continuous improvement (development) In 2022, the first two editions took place, with more than 114 participants. The next edition is currently underway and will conclude in April 2023.

The 'Power of Leading' program - or webinar series - dedicated to all managers who want to improve their skills in managing teams and building relationships with employees.

At PGE Obrót, new managers are developing their competences as part of the 'Young Manager' package. These are workshops aimed at all employees starting out in managerial positions. Participants in the series build their competencies in planning and goal-setting, authority-building and leadership, as well as communication with the team.

"Manager's Academy" is a development program addressed to managers in the company PGE Synergia. The aim of the program is to develop managerial competencies and to build a management culture that meets the current and future challenges of the market. The program consists of six modules, which are arranged in such a way as to provide each participant with a compendium of knowledge, skills and tools for working with teams.

A pilot training program for middle and senior managers has been launched at PGE Dystrybucja: "Effective management in distributed structures effectiveness - authority - cooperation".

## Non-escalating conflicts

Conflicts in an organisation are a common phenomenon, but if unresolved they are a serious problem and affect the functioning and image of the whole organisation. In the case of disputes, a quick response is crucial. Increasing conflict translates into stress and disrupts effective interpersonal communication, thereby reducing the quality of work.



PGE Group wants to strengthen the idea of social dialogue and resolve difficult situations that have occurred or will occur. Thanks to expertly trained internal mediators, a system of mediation within the organisation has been created.

Mediation proceedings within an organisation are intended for anyone who wishes to resolve a difficult situation amicably, ending the conflict in order to work in an atmosphere of respect and with respect for the other person. Mediation should be undertaken in any case in which both parties agree to participate - with the exception of cases that are dealt with in accordance with procedures for dealing with bullying, discrimination and inappropriate behaviour, and cases with criminal offences that should be reported to law enforcement.

At PGE Group, mediation is sought to be the primary formal means of resolving conflicts in employee-director, employee-employee and employee-employer relationships.

## Dialogue with employees - employee survey and leadership profile

At PGE Group, dialogue with employees is an important element of building employee engagement. Solutions that build the company's organisational culture and improve the well-being of employees are introduced 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." Through its cyclical activities, PGE obtains opinions from a large number of employees.

Due to the very positive reception of the Employee Opinion Survey organised in the companies PGE SA, PGE Systemy, PGE Energia Ciepła, PGE Baltica and the perceived benefits, more companies have declared their intention to join this initiative in 2023.

2022 was a year of improvement for the organisation based on the results of the Employee Opinion Survey 2021. This was also used as an opportunity to better understand the results of the previous survey and an indepth - qualitative - study was conducted. Through the statements of a random sample of employees, the broader context behind the results was identified and areas for improvement were more precisely pinpointed.

In PGE SA, for example, communication tools were developed and communication rules were defined to meet the needs of employees in individual units, changes were made to office equipment or renovations were carried out in designated areas. Numerous training courses and workshops were held, including those aimed at clarifying or improving individual organisational processes. The development offering was also extended.

Three main areas for improvement were diagnosed in PGE Systems: leadership and business, internal communication, loyalty and motivation. On this basis, improvement measures were introduced:

- in terms of salaries:
  - $\rightarrow$   $\,$  changes to the bonus system
  - $\rightarrow$  salary changes
- in terms of communication:
  - $\rightarrow$  organisation of regular meetings with the Management Board
- in terms of training:
  - $\rightarrow$  allocation of a training budget for departments
  - $\rightarrow~$  launch of a development program for managers "Manage with Energy"
  - $\rightarrow$  launching dedicated training programs
- in terms of wellbeing at work:
  - $\rightarrow$  improving relationships and communication by organising team-building trips.

In 2022, the survey of leadership competences of managers: "Leadership Profile" was conducted for the second time in selected companies. Areas assessed by subordinate managers include: communication, building relationships, motivating and building engagement, developing employees and achieving results. The information obtained was used to further develop team management skills among the company's management staff. Managers received individual feedback reports on their level of managerial competence.

As part of the openness and discussion with employees, there are also regular meetings between the employer and representatives of trade unions and the works council to exchange information on current activities and provide a space to discuss the employer's situation and employees' needs.



## Internal communication

2022 in internal communication in PGE Group will see the development of tools to facilitate efficient and effective information to employees in different positions.



Fig. Internal communication in figures. As at December 31, 2022.

Last year, a total of more than 920 materials were published on PGE Group's Intranet. 49 editions of the newsletter were delivered to employee inboxes. 10 online editions of the employee magazine "Under the Umbrella" were also published. An important development in 2022 was the introduction of a mobile app, which makes it possible to read articles from 'Pod Parasol' on any phone with internet access. This allows PGE Group's corporate magazine to effectively reach an even wider range of employees, especially those who do not work in office positions. The year 2022 will also see the return, after the hiatus caused by the COVID-19 pandemic, to face-to-face meetings between management and employees on the occasion of, among other things, Energy Day.

In PGE Group, it is important to conduct an open and transparent dialogue with employees, which will translate into the strengthening of their identity and identification with the organisation and the promotion of the Company's values in line with the PGE Group's Code of Ethics. This objective is pursued through online surveys and special e-mail boxes to which employees can send questions related to HR matters or the company's strategy and ongoing projects. Obtaining feedback from employees is an important element of internal communication throughout the organisation. The area of internal communication is also included in the annual Employee Opinion Survey, which is conducted by an independent research company under the supervision of the Human Capital Management Unit at PGE SA. They can also share ideas and exchange observations on internal blogs focused on ecology, green energy and conscious consumer choices.

A meeting of the communication and marketing area is held at least once a year, attended by internal communication representatives from all PGE Group companies, in order to agree on the main lines of action and the most important objectives to be pursued, as well as to summarise the initiatives to date and their effectiveness.

## Cooperation with trade unions

| GC-3 |

At PGE Group Employers - as at December 31, 2022 - there are a total of 127 different trade union organisations. There are two trade unions operating in the Corporate Centre - Inter-Union Organisation No. 2987 of the NSZZ "Solidarność" and the Inter-Union Organisation of the Trade Union of Employees of Polska Grupa Energetyczna.

As at December 31, 2022, more than 25,000 employees were affiliated with trade union organisations operating at PGE Group employers. Trade unionisation at PGE Group is 65.8%.

Cooperation with trade unions since 1 January 2016 is regulated by the procedure: "Corporate Rules of Social Relations at PGE Group." The Corporate Centre, companies and employers are obliged to build social relations, not only in accordance with generally applicable laws and applicable acts of internal collective labour law, but



also in accordance with this procedure. The document defines the principles and model for conducting social dialogue between the Corporate Centre, companies, employers and social partners. Its main objective is to ensure social peace and implement the Group's strategy by defining, coordinating and supervising the area of social dialogue at all levels of the organisational structure.

Thanks to the introduction of uniform rules in the area of social dialogue, the reporting process has been systematised, among other things, so that the Corporate Centre has up-to-date data to enable an ongoing diagnosis of the social situation and the mitigation of potential risks.

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



There are 13 trade union platforms in PGE Group, across five key companies. Their reach covers employers in a given operating area (including social councils at PGE Górnictwo i Energetyka Konwencjonalna).

Certain platforms feature trade unions that belong to only one nationwide trade union central organisation (e.g. Intercompany Coordination Committee at PGE Energia Ciepła includes organisations from NSSZ "Solidarność" only). Social dialogue is also conducted at the level of the energy industry as part of Tri-partite Teams: for the Energy Industry and for the Lignite Industry.

Fig. Diagram of cooperation with trade unions

The basic level of cooperation between the social partners, according to the Trade Union Act, is the branch or company-employer. This is where the processes that are closest to the employees, such as health and safety at work, social issues, shaping their working conditions and wages, are implemented.

Another level of interaction is the supra-company forum of individual segments (PGE Group companies), where topics common to all employers are discussed. Social dialogue at this level takes place between the management boards of the companies and the trade union platforms, which bring together trade unions operating in individual workplaces in the segment that have converging industry interests. The rules of cooperation in this case are usually regulated in a dedicated agreement or cooperation agreement between the social side, company managements and employers.

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.

Relations with the trade unions are dominated by the principle of company dialogue, with talks moving to a higher level when attempts to reach an agreement at employer or company level do not work.

PGE SA and some employers in PGE Group are also participants in the sectoral social dialogue, which is conducted, among others, on the forum of tripartite teams (the Tripartite Team for the Lignite Industry and the Tripartite Team for the Energy Industry).

## Key aspects of social dialogue at PGE Group in 2022

In 2022, the main topics shaping the cooperation of the parties to the social dialogue at each level were issues of particular social sensitivity: the difficult economic situation and its impact on the lives of workers and the ongoing transformation of the electricity sector, among others.



## Energy transition - green change

Changes in PGE Group's business sector, dictated, among other things, by the European Union's and the Polish government's climate and energy policy, which also influenced PGE Group's strategy, were widely discussed with trade unions in 2022.

In July 2021, the Ministry of State Assets initiated talks with the social side (represented in the Tripartite Team for the Lignite Industry and the Tripartite Team for the Energy Industry) on the transition of the energy sector, including the spin-off of coal assets into the National Energy Security Agency (hereinafter: 'NABE'). The negotiations, which lasted 1.5 years, resulted in an agreement. On December 22, 2022, the so-called pre-NABE agreement and the social agreement for the transition of conventional power sector workplaces to NABE were signed. The fundamental objective guiding the signatories of these documents was to safeguard the interests of employees during the restructuring period and to guarantee stable and secure working and pay conditions.

#### Conclusion of wage agreements at PGE Group employers

In 2022, trade unions made demands for salary increases to employers in all segments of PGE Group on an on-going basis. They were motivated by the economic situation in the country, in particular the high inflation rate. At some employers, the social side initiated collective disputes against this background.

Notwithstanding the above, in the second quarter of Q3 and Q4 2022, the trade unions requested the payment of one-off benefits, so-called inflationary compensation.

As a result of intensive negotiations, taking into account the financial situation of individual employers, agreements have been reached with trade unions at almost all PGE Group workplaces on salary increases and the payment of additional cash benefits.

#### Social dialogue during an epidemic emergency

In 2022, PGE SA continued the series of meetings initiated in 2020 with trade unions and the Workers' Council on the outbreak and measures to prevent the spread of coronavirus. Over time, the topics of the meetings have evolved and now issues related to the day-to-day operation of the workplace are discussed. In the past year, more than 20 meetings were held in this format. In the current cooperation with the social side, the organisation of stationary meetings has been resumed, but the use of online communication tools has not been abandoned. This allows for flexibility and adaptation of the discussion formula to the current needs of the parties (meetings are often attended by people from outside Warsaw or those working remotely).

The situation is similar for PGE Group employers. Despite the stabilisation of the pandemic situation, COVID-19 issues remained a topic raised during discussions with the social side. The social partners use a variety of direct communication channels: face-to-face meetings and online communicators that suit the nature of the issue and the preferences of the meeting participants.

## Recruitment and adaptation in the RES area

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. The offshore wind energy sector in Poland is a completely new energy sector, the development of which requires a huge commitment, a specific strategic perspective and, most importantly, new knowledge and skills. PGE Baltica is the company in PGE Group responsible for the development of offshore wind investments. It performs the function of a competence centre and faces a big challenge connected with the implementation of offshore investments, which are the basis for the energy transformation in Poland, therefore the company pays special attention to the process of recruitment, adaptation and development of employees. The recruitment process is carried out in a transparent manner with the highest recruitment standards.

PGE Energia Odnawialna also carried out dozens of recruitment processes, both replacement and recruitment for new positions in connection with:

• building and developing competences in the RES Investment 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.



• extending the in-house service to further wind farms and PV. Having its own service has made the company independent of the services of external companies. In addition, the service model adopted is cheaper than using external companies.

When it comes to recruiting staff for the company's own wind farm and PV maintenance, the company focuses primarily on candidates from outside the industry who have a technical background and/or maintenance experience and live in the vicinity of the facilities. Any new hire from outside the wind industry is first directed to accredited GWO Basic Safety Training onshore as soon as they are hired. The new employee is then directed to training courses that provide them with the necessary qualifications and licences - SEP (Association of Polish Power Engineers) and UDT (Office of Technical Inspection) - required to work safely on the job.

## Energy sector transition process - Project NABE

PGE GiEK SA, implementing the project to establish the National Energy Security Agency, which is an important element of the transformation of the energy sector, in 2022 carried out intensive activities aimed at building a new model of human capital management both in the planned future headquarters of the new entity, as well as future branches. To this end, HR processes were identified, standardised and made more specific as part of the development of a new process architecture, followed by the drafting of the most relevant procedures and instructions for the HR area. An initial optimal level of human resources was identified by defining the necessary level of staffing and planned personnel costs, and a model for comprehensive reporting in the area of human resources and HR analytics was designed.

## Energy sector transition process - District Heating segment

The human capital management policy of the Heat segment focuses on driving the company's transformation towards low-carbon heat production through the acquisition, development, retraining and retention of employee competences.

The aim of the measures taken is to broadly support employees and managers in shaping an internal environment that is conducive to dialogue, working in partnership, implementing change and ensuring the long-term development of the organisation.

In 2022, as part of the implementation of key HR initiatives, the company has undertaken activities centred around four priorities:

- provide a motivating working environment conducive to achieving professional and personal goals,
- strategic management of staff qualifications and competences,
- optimise staffing, preparing programs to prepare the organisation to handle new technologies,
- productivity growth, preparing from the HR side the automation and digitalisation process.

## Directions of vocational education

## Offshore wind farms - staff education

One of the flywheels of the Polish energy transition is offshore wind energy. Preparations are underway for more than a dozen megaprojects - the construction of offshore wind farms in the Polish part of the Baltic Sea. These are projects that are expected to operate for several decades and, at the same time, are a completely new experience for Polish energy companies, which have experience in onshore wind power or electricity distribution, and competence in offshore wind power still needs to be developed. The postgraduate course 'Offshore wind energy: management, preparation and implementation of investments' is the answer to the need for personnel specialised in this area. This is a new course developed jointly by PGE Polska Grupa Energetyczna and Warsaw's Lazarski University, which was launched in October 2022. This is the first course in Poland that prepares experts to manage investment processes in offshore wind energy.

## Cooperation with the Multidisciplinary Research Centre, Cardinal Stefan Wyszynski University in Warsaw

On October 26, 2022, the Multidisciplinary Research Centre of Cardinal Stefan Wyszynski University, with which PGE Group actively cooperates, among other things, in the field of cyber security and digital data analysis, started its operations. Cooperation with Cardinal Stefan Wyszyński University in Warsaw includes, inter alia, testing of key corporate systems used in PGE Group, including the procurement system, conducting workshops and exercises in the field of cyber security, in particular developing competencies in threat protection, incident detection and response and cyber security management, as well as renting specialised



infrastructure for performance testing of industry systems for the needs of the distribution segment. In addition to the IT area, ventures in the field of renewable energy and the circular economy are also being implemented, including the recycling of wind turbine blades. These activities are in line with PGE's business strategy and are one example of the innovative projects implemented by PGE Group.

## Networking for scientific cooperation in offshore wind energy

The planned development of energy infrastructure on the Baltic Sea and in coastal municipalities may make Pomerania a new energy region for Poland. The construction and development of the offshore wind energy sector on the Polish coast will have a positive impact on the development of the Polish economy, particularly in the regional dimension - the whole of Polish Pomerania. It will also be an opportunity to strengthen Polish scientific thought. That is why PGE Baltica has started to establish a scientific cooperation network. In this way, it wants to involve Polish universities and scientific institutions in the development of the Polish offshore wind energy sector, while at the same time building the Polish potential for local content.

On the one hand, such cooperation brings with it opportunities to improve new technologies for offshore wind energy on the basis of joint scientific and research projects, and on the other hand, it is an excellent opportunity to lay the foundations for the training of future personnel so necessary for the sector that is being created in Poland. PGE Baltica implements postgraduate studies related to offshore together with Gdynia Maritime University and Gdansk University of Technology. In addition, at the Gdansk University of Technology it has joined a specialisation in master's studies on the design and construction of offshore energy systems. In turn, the first course in investment process management in offshore wind energy in Poland was created at Warsaw's Lazarski University, developed jointly with PGE Polska Grupa Energetyczna.

Planning to create a comprehensive education program for young people interested in a career in offshore wind energy, it has also invited Pomeranian secondary schools - the General and Technical School Complex in Ustka and the Technical School Complex in Malbork - Technical School No. 2 - to cooperate, in order to show students already at this stage the opportunities that working on offshore wind farms brings. In these schools, PGE Baltica's support will include, among other things, the purchase of textbooks for three outstanding students, financing the purchase of equipment for a mechanical and measurement laboratory, conducting theoretical and practical specialist classes, and participating in the preparation of technical staff for PGEB's investment projects.

An important common point on the map of this cooperation will be the planned Centre of Competence for Offshore Wind Energy (CKMEW) in Ustka, which is to be the heart of the ecosystem created by PGE Baltica linking science and the offshore wind industry. It is there that employee training and certification of their qualifications are to take place. New technologies to improve the efficiency of offshore wind farms will be worked on there by project teams. In the design and research sphere, in addition to universities, PGE Baltica is already cooperating with, among others, institutes of the Polish Academy of Sciences in Gdansk. The CKMEW, in close cooperation with scientific institutions, plans to implement the latest technologies, e.g. an innovative concept for the construction of a so-called digital twin in Hi Tech technology for training and preventive diagnostics; it will create a unique set of simulators in the VR (virtual reality) model for training purposes; it will develop a methodology for testing innovative technology in an operational environment; and it will create conditions for conducting implementation problem dissertations and storing knowledge. Commercialisation of the projects undertaken, taking care to preserve intellectual property rights and new technologies, will create sources of real revenue and significantly optimise O&M costs.

## Cooperation with secondary schools

PGE Energia Ciepła, in cooperation with secondary schools with a technical profile in the cities where the company's assets are located, is running the 'Energy Career' project. Vocational education is the area of education that, alongside higher education, has the greatest impact on the preparation of modern human resources for the energy industry. Therefore, the aim of the 'Energy Career' project is to work directly with schools and young people. It is the result of an analysis of the changes taking place in the Polish economy, the labour market and the employment structure at the company's production facilities. A key factor in these changes is the retirement of highly qualified staff at the same time as increasing demand for industry professionals.

The project will firstly provide students with the opportunity to learn a trade under real working conditions, to get to know the CHP plant and to familiarise themselves with specific positions through apprenticeships and traineeships. Close cooperation with schools will make it possible to tailor training programs to the market needs of the district heating industry.



PGE Energia Ciepła is cooperating with 17 schools as part of the 'Energy Career' project.

PGE Dystrybucja has been cooperating with 20 vocational schools in the company's area of operation for several years. Within the framework of signed cooperation agreements, meetings with young people in the field, study meetings and professional excursions were conducted.

For years, PGE Górnictwo i Energetyka Konwencjonalna has been involved in the 'PGE Patronage Classes Program', which is a project to rebuild vocational education in Poland and aims to educate high-quality human resources that meet the needs of the Polish economy, including the energy sector. PGE GiEK's patronage classes were established in 2018/2019 and train, among others, future electricians, automation technicians, mechanics and mechatronics technicians. The program covered establishments providing education in professions in line with PGE GiEK's business profile. Currently, approx. 540 students are being educated in cooperation with PGE GiEK.

PGE GiEK also cooperates with 17 universities. The scientific and technical cooperation allows for the implementation of scientific projects that are important for the company, the exchange of experience, the solution of problems of a theoretical nature and the practical use of the scientific potential of the universities.

## Programs for interns

PGE Group is proactive in giving opportunities and places of employment to young talents and in developing potential in a group of students. This is confirmed by PGE Group's participation in the one-year internship program "Energy for the Future", carried out under the auspices of the Ministry of Climate and Environment in cooperation with energy companies.

The 'Energy for the Future' internship program allows students of energy-related subjects at Poland's top universities to learn about the practical side of the energy industry, gain knowledge from experienced employees and prepare for a career in the industry.



## 3.4 Cooperation with business partners

PGE's approach to building business partnerships is defined by PGE Group's Code of Ethics. On its basis, the Code of Conduct for Business Partners of PGE Group companies has been developed, which everyone cooperating with PGE Group is obliged to be familiar with and, above all, adhere to.

## Code of Conduct for PGE Group Companies' Business Partners

#### | GRI 2-23 | GRI 2-24 |

The Code of Conduct for Business Partners of PGE Group companies sets out expectations for business partners with regard to respect for human rights, working conditions, protection of the environment and integrity in their business activities, including, in particular, prevention of corruption and other abuses, prevention of money laundering and financing of terrorism, compliance with tax regulations.

PGE Group identifies itself with initiatives aimed at effectively countering discrimination in employment, eliminating all human rights violations, taking a preventive approach to environmental protection and countering corruption.

The Code refers to the requirements of generally applicable laws, in particular laws on anti-corruption, money laundering and terrorist financing, employee rights, health and safety rules, competition law and environmental protection. In addition, the requirements arising from the guidelines of the "Recommended Standards for the Compliance Management System for Prevention of Corruption and Protection of Whistleblowers in Companies Listed on the Markets Organised by the Warsaw Stock Exchange" and the internal rules in force in PGE Group, inter alia, with regard to the gift policy and the possibility to report possible violations, have been taken into account.

The Code of Conduct for Business Partners of PGE Group companies was adopted at the level of top management by resolutions of the Management Boards of individual Group companies.

## Rules for cooperating with PGE Group's business partners

#### | GRI 408-1 | GRI 409-1 | GC-5 | GC-6 |

The principles of the Code are the basis for everyday cooperation with PGE Group's business partners. With a view to meeting and promoting the highest ethical standards of business conduct, PGE Group companies cooperate with business partners who comply with the law and conduct business activities in an honest manner. The companies expect that their business partners comply with ethical standards at least to the extent set out in the KPPB and that they have an appropriate system in place to monitor their compliance and to resolve situations of possible non-compliance with these standards. PGE Group companies also expect their business partners to exercise due diligence to ensure that such standards are adhered to by their contractors, subcontractors and suppliers with which contracts provided to PGE Group companies are executed.

In the event of doubts regarding compliance with these principles, the contractual clauses stipulate that the business partner will take corrective action to comply with them. In the event of material breaches of the KPPB, appropriate to the type and level of breach and the resulting risks, PGE Group companies reserve the right to take appropriate action against the business partner, with termination of cooperation with the business partner also possible.

The Code contains a dedicated chapter on human rights and labour standards. It includes, inter alia, the prohibition of the use of child labour in any form and the prohibition of forced labour in any form, both in Poland and abroad. In the case of the employment of minors, the KPPB requires that they only perform light work that does not endanger health and psycho-physical development and does not impede learning. Business Partners are also bound by the provisions of the Code not to tolerate any form of work being performed on their behalf or that of their subcontractors if the work would take advantage of a difficult economic or political situation, forcing people to work in conditions that endanger their health or violate their dignity. PGE Group also expects its business partners not to use or tolerate any form of bullying or discrimination.

Communication to the business partners of PGE Group companies of the requirements contained in the CPC is carried out through websites, purchase documentation, applied contractual clauses, dedicated thematic panels held during conferences addressed to current/potential business partners of PGE Group companies. In 2022,



three such workshops dedicated to future and current business partners of PGE Group companies were held, at which information on the Code of Conduct for Business Partners of PGE Group companies was presented.

In this way, PGE Group promotes the standard of compliance with the law and ethical norms in the broadly understood conduct of business, thereby increasing the comfort of social life. In its cooperation with business partners, PGE Group looks for a common denominator - similar values and practices of acting in accordance with the law. It cares about the honesty and transparency of these relationships and maintaining their formal character. PGE Group is committed to contributing to the development of Polish society and business. PGE cares for its own development, but also for the development of the companies that are its business partners.

## Results of applying the Code of Conduct for Business Partners of PGE Group Companies

Each potential contractor of PGE Group companies using the dedicated procurement tool, by registering, acknowledges and accepts that the contract, if any, concluded with a PGE Group company will contain an obligation to comply with the provisions of the Code. Contractual clauses referring to the Code (the so-called "Compliance Clauses") are, as a rule, applied in all agreements of PGE Group companies with their business partners. This obligation does not apply to NDA-type agreements (non-disclosure agreements) and agreements between PGE Group companies. Apart from these exceptions, potential modifications to all and/or part of the contractual clauses are subject to consultation with the unit responsible for Compliance in the individual PGE Group companies.

## Maintaining corporate governance in the purchasing process

By continuously supporting and educating PGE Group employees and improving the procurement process, PGE is developing its value chain in a sustainable way.

Procurement procedures are prepared and conducted with observance of the principles of proportionality, transparency, expediency, fair competition and equal treatment of contractors while maintaining the interest of PGE Group. Activities connected with the preparation and conduct of a procurement procedure are performed by persons who ensure impartiality and objectivity. Each of these persons is obliged to declare that he/she is not in a conflict of interest and has no relations with partners that could influence the decision on the selection of the final offer.

An important part of the system approach to the procurement process is, inter alia, the requirement to apply clauses concerning e.g. employment on the basis of an employment contract in contracts with contractors taking into account the specific nature of certain contracts such as: security services, cleaning services or repair and construction services. The requirement to employ staff on the basis of an employment contract is an expression of guaranteeing key employee rights to employees executing contracts for PGE Group, and in particular the protection stemming from generally applicable laws.

The precondition for starting cooperation between a partner and PGE Group is the partner's verification, which takes into account aspects of the contractor's lack of arrears in payments under the law (social security, taxes), possession of appropriate insurance, permits, certificates, as well as, inter alia, identification of the actual beneficiary or verification of the contractor on national and European lists of persons and entities subject to sanctions, against which measures are applied, as referred to in the Act on Special Solutions to Counteract Supporting Aggression in Ukraine and to Protect National Security.

PGE Group minimises risks in relation to entity and object sanctions imposed on Russia as a result of the armed conflict in Ukraine by verifying counterparties and the subject matter of the contract in order to exercise due diligence, through a developed verification mechanism. The guidelines created for this purpose cover purchasing processes and processes for establishing business relationships, including contracting. They are applicable in all PGE Group companies. They form the basis for fair, reliable and safe cooperation with counterparties. Cyclical activities in the form of employee training, monitoring of legal conditions, introduction of uniform standards and patterns of conduct in PGE Group constitute the basis for the observance of due diligence.

At PGE SA, training was conducted in 2022 for selected groups of employees regarding the verification of contractors on sanction lists. The trainings took place in an online format.



## Unified purchasing process at PGE Group

Standards in the process of planning and conducting purchases and selection of counterparties are defined in PGE Group's General Procurement Procedure, thanks to which the procurement process in the Group has been unified. Certain companies are also required to apply the public procurement regulations.

A set of recommended attitudes and principles to be followed by employees and potential business partners during tenders is set out in the Good Procurement Practices, developed in two language versions (Polish and English) and recalling, among other things, the anti-corruption principles binding in PGE Group. One of the rules is "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.

In the course of the purchasing process, contractors are also informed of the need to familiarise themselves with PGE Group's Purchasing System Regulations. The document defines the rules and procedures for using the purchasing system, rules for submitting offers and other documents in purchase procedures. 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,

Before a final decision is made on the selection of a counterparty, documents are appropriately analysed and assessed to ensure that the supplier meets the requirements specified in a given tender procedure.

#### Shared purchasing system for PGE Group companies

PGE Group's Purchasing System (SWPP) is the second largest IT system in PGE Group (after SAP) and is used by more than 8000 PGE Group employees. In 2022, the employees of PGE Ekoserwis sp. z o.o. became users of the purchasing system. As a result, another PGE Group company conducts procurement procedures using modern IT tools.

The system is a response to market challenges and changing legislation - particularly regarding the electronicisation of public procurement. The use of a platform for electronic procurement processes ensures transparency, security and, at the same time, competitiveness.

A Help Desk for business partners has been launched in 2022 as part of PGE Group Purchasing System. Help Desk consultants provide technical support, among other things: when registering and logging into the purchasing system, navigating the system, as well as the OnePlace Platform, where potential contractors who want to participate in proceedings register.

Consultants also provide technical assistance for participating in electronic auctions.

The implementation of the purchasing system has influenced cost optimisation, as well as increased automation of purchasing processes.











In the purchase proceedings conducted by PGE Group in 2022, 6,676 contractors submitted bids in PGE Group Purchasing System.

## 3.5 Customers

Given the fundamental importance of electricity and heat to society, ensuring their stable and uninterrupted supply is a priority dimension of PGE Group's operations.

The year 2022 was a challenging year for the Polish energy sector. PGE Group undertook numerous initiatives to ensure that the geopolitical situation and the ensuing crisis in the energy market were felt as little as possible by the company's customers and did not affect the quality of service.

The companies involved in customer service are primarily: PGE Obrót, PGE Dystrybucja and PGE Energia Ciepła. PGE Obrót, which sells electricity within PGE Group, in 2021 provided services to nearly 5.5 million customers, who purchased over 34 TWh of electricity from the company. PGE Dystrybucja, a company licensed to distribute electricity and providing electricity supply services within PGE Group, supplied nearly 37.1 TWh of electricity in 2022 over an area of 129 800 km2 (nearly 40% of Poland's area), connecting to the grid nearly 94 000 customers and over 128 000 prosumer installations.

PGE Energia Ciepła, Poland's largest producer of electricity and heat generated through high-efficiency cogeneration, has 16 combined heat and power plants (with a thermal capacity of 6.9 GWt and an electrical capacity of 2.6 GWe) and district heating networks with a length of 700 km. 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.

In addition, PGE Group became involved in securing coal supplies for the winter season in the situation of disrupted supplies as a result of the war in Ukraine. Through the company PGE Paliwa, sales of imported hard coal (as the basic heating fuel in Poland) were launched for institutional customers (e.g. hospitals, schools, health centres, social welfare homes or others), entrepreneurs who use hard coal in their professional activity and intermediary coal entities. Local government units and municipalities were invited to cooperate by the company. The quality of coal sold by PGE Paliwa was guaranteed by appropriate certificates and was verified both in the country of origin and on receipt. PGE Paliwa imported coal from verified contractors. Testing was performed by independent, accredited laboratories.

Due to the emergency situation, the energy crisis, in 2022 PGE Group supplied approx. 278,000 tonnes of hard coal to over 700 municipalities and approx. 21,000 tonnes of lignite to individual customers. For the processes, dedicated phone lines were set up in the Group to support customers in providing them with the necessary fuel.

## Policies and standards

PGE Group carries out all its activities in the spirit of Partnership, Development and Responsibility - the values on which the PGE Code of Ethics is based. The Group builds trust by providing reliable information on its activities. It focuses on the development of its employees' competencies and the exploitation of business opportunities, while partner relations with its contractors come first. The employees of all PGE Group entities, including the management and all persons working for the company, are obliged to observe the Code.

PGE Group's priority is the transparency of business relations, building cooperation based on partnership, respect and trust. The Code of Conduct for Business Partners of PGE Group Companies sets out the principles and minimum requirements for companies cooperating with PGE Group.

In terms of retail sales, the most important directions are:

- The highest level of customer satisfaction in the market resulting from the quality of energy services,
- Integrating contact and service channels in PGE Group,
- Development of professional energy services based on strong competences,
- Increased profitability of energy services,
- Margin growth in the retail segment (annual average).

High quality standards of customer service and the services provided are one of PGE Group's priority objectives and are reflected in the adopted, consistently implemented and updated policies and other management



documents such as the Code of Good Practices for Distribution System Operators, the Code of Ethics, the Quality Books - Customer Service Standards and the Customer Service Principles and Standards. These documents are in force in the individual PGE Group companies providing customer service and are designed to precisely describe processes related to service and business relations with customers. They concern processes related to grid connection, sales, after-sales service and distribution services. Their main objective is to build partner relations with customers while ensuring the highest quality of service and services.

PGE Group's customers expect fast, competent and comprehensive service. The above elements are reflected in the adopted customer service standards. Customer queries are dealt with within 14 days (up to 30 days if additional analyses and investigations are carried out). Among the issues reported by customers, complaints and grievances reported by customers are analysed in particular. The companies provide various channels for submitting them from in-person through remote channels increasingly used for communication.

| GRI 2-25|

PGE Obrót customers can report complaints and grievances via:

- Helpline (telephone number +48 422 222 222),
- online form (https://www.gkpge.pl/dla-domu/strefa-klienta/dokumenty-i-formularze),
- eBOK/mBOK service,
- by e-mail: serwis@gkpge.pl,
- in person at any customer service point,
- by traditional post to the company's registered address.

Each customer case is registered in a dedicated service system. An individual case number is assigned for each customer request, which, by referring to it, the customer can obtain information on the status of the case or how it has been handled.

Remote contact channels are in place for PGE Dystrybucja customers, such as:

- e-mail addresses (https://pgedystrybucja.pl/strefa-klienta/informacje-dla-konsumenta),
- online contact form (https://pgedystrybucja.pl/strefa-klienta/formularz-kontaktu),
- in-person channel at any Company branch,
- post channel via traditional mail.

Any irregularities reported by customers are recorded in dedicated registers.

PGE Energia Ciepła customers can submit complaints and grievances electronically to dedicated e-mail addresses (bok@kogeneracja.com.pl, bok.pgetorun@gkpge.pl, bok@ec.zgora.pl) or in person at any branch office.

Each customer case is registered in a dedicated service system. An individual case number is assigned for each customer request, which, by referring to it, the customer can obtain information on the status of the case or how it has been handled.

Customer requests are analysed and used to improve service processes. The service standards adopted are reflected in the internal management system documentation of the individual companies dealing with customer service, i.e. policies, procedures or instructions. The application of adopted standards is systematically monitored and reported. Customer notifications, including complaints and claims, are a valuable source of information about their expectations, and conclusions from their analyses often provide grounds for introducing changes to internal processes. Thanks to this, the standards of services offered by PGE Group are continuously improved. Complaints are subject to special analysis, thanks to which it is possible to detect possible irregularities or abuses. These are recorded and subject to monitoring. Based on the results of the analyses, corrective programs are implemented as part of the ongoing operational activities of PGE Group companies to eliminate the occurrence of similar situations in the future.

In PGE Obrót in 2022, complaints amounted to 0.02% of all customer submissions. The share of complaints forwarded by customers to the Energy Regulatory Office in relation to all customer submissions registered with the company was 0.005%. The main channel for the receipt of complaints (approx. 70%) was remote channels: email, telephone. Despite the many challenges for the energy industry in 2022, the overall number of complaints in PGE Obrót remained at the level of complaints registered last year. In PGE Dystrybucja, as a result of the company's corrective actions, the number of customer complaints decreased by approx. 10%. In

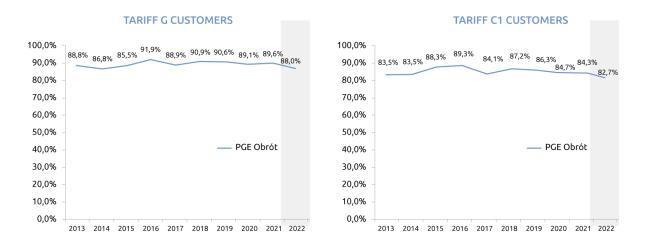


the case of PGE Energia Ciepła customers, the number of complaints has remained at a low level for years - up to 10 complaints per year.

### **Customer satisfaction indicators**

In PGE Group, marketing surveys are carried out periodically, allowing for multidimensional monitoring of customer satisfaction. The marketing research system implemented since 2015 serves this purpose, covering key areas and points of contact 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.

Electricity pricing issues are having a major impact on how customers are served and are creating increasing challenges for consultants and managers. The handling of the government's Anti-Inflation Shield, the Solidarity Shield, required adaptation of billing processes and systems, procedures and employee involvement. Thanks to their collective effort, competence and commitment, the CSI (Customer Satisfaction Index) in the case of the work evaluation for PGE Obrót Customer Service Offices, despite the difficult situation in 2022, recorded a slight decrease, but remained at a high level, both among G tariff and C1 tariff customers.



#### Fig. Customer Satisfaction Index

Thanks to its high service standards, PGE Obrót was awarded the Customer Friendly Company certificate for the tenth time. Its award is preceded by a quality inspection conducted by independent auditors. The certificate is awarded directly on the basis of an independent opinion poll conducted electronically, by telephone and on paper. In research conducted by the Experience Institute, respondents indicated that in their contact with PGE Obrót they valued the high level and merit of service. They also appreciated the stability and energy security guaranteed by Poland's largest electricity company. The highest-rated aspect of the company's approach to customers is its keeping of promises. At least eight out of ten customers believe that PGE treats them fairly, communicates clearly and meets customer needs well. In the 2022 survey, PGE Obrót achieved a score of 88%.



## Survey results for certification: Customer Friendly Company

FPK index	
Willingness to recommend	90%
Approach to customers	86%
Overall satisfaction	89%
Customer Effort Score	84%
Quality of service	92%
Purchasing process	90%

PGE Group also carried out an evaluation of the service provided at the customer service office of PGE Obrót. The company was evaluated at a very high level. The percentage of positive evaluations of individual aspects of the area in question ranged from 86 to 97%. The highest ratings were given for the advisors' willingness to help and their competence (97% of positive responses each). The ratings are comparable to those of the previous waves of the survey, and in some aspects (willingness to help of advisors and competence) are higher than in 2021.

Contact with the PGE Obrót helpline was also rated at a high level. Positive ratings ranged from 84 to 95%. Respondents rated the willingness to help of helpline consultants highest. Compared to the last wave of the survey, the percentage of positive ratings for the aspect of willingness to be helped by telephone consultants has also increased.

Business customers with a dedicated tutor also rated their work highly (85 - 95% positive). In this case, the willingness to help also received the highest marks. On the other hand, the ease of contact with the dedicated carer was rated lower.

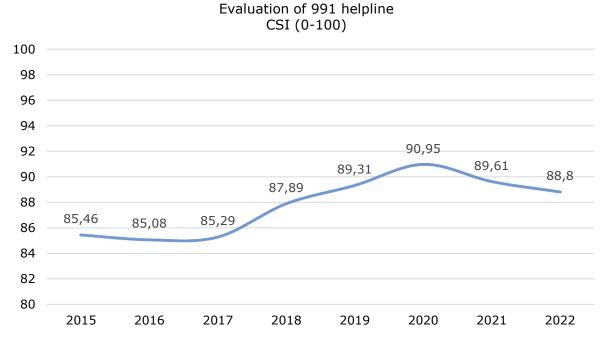
As a reliable and trustworthy partner in the market, PGE Obrót SA has also been certified as a company operating in accordance with the Good Practices of Electricity Sellers developed by the Association of Energy Trading (TOE) for the next year, based on an audit conducted in December 2022. The company is initiating a number of information activities to warn against dishonest energy sellers.

In 2022, work began on the development of a Customer Service Facilities Design Manual in line with the new Customer Service Conceptual Design.

#### 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 Dystrybucja's customers rate the work of the key failure reporting area highly. The CSI (Consumer Satisfaction Index) has been consistently close to 90% for years.





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

#### **Communication with customers**

The changing environment and customers' needs point to the need to use multiple channels of communication with customers. Developing them is a key element of PGE Group's strategy. Raising and standardising service standards will be the foundation for the further development of the retail area, focusing on providing energy and thermal comfort to customers. This is supported by further initiatives being launched, in particular regarding remote service.

In 2022, PGE Obrót introduced a number of customer service improvements, including:

- Virtual Agent
- online forms
- Service for prosumers via remote channels

#### Solidarity Shield

In connection with the obligation of local governments, SMEs and public utilities to submit a statement on the maximum price of electricity (*statement submitted by eligible customers referred to in Article 2(2)(b-f) of the Act of 27 October 2022 on emergency measures to limit the level of electricity prices and support certain customers in 2023*) by November 30, 2022, in order to meet the needs of customers, the company has introduced the possibility of submitting the statement electronically. To this end, an automated form was launched on the corporate website. This allowed customers to complete the paperwork more quickly and easily.

At the same time, the Customer Service Offices have been extended from November 23 to 30, 2022, until 7 pm.

The company organised webinars about the Solidarity Shield in an online format for local governments and institutions that purchase energy under the public procurement procedure. Around 500 representatives of local governments and institutions attended. The topic was the law on emergency measures to limit the amount of electricity prices and support for certain consumers in 2023.

#### **Pro-customer initiatives at PGE Dystrybucja**

In 2022, PGE Dystrybucja continued its customer advocacy efforts. One of these was the further development of the 991 Assistant application, which allows users to remotely report an outage and track the status of their



request. To make it easier to use the app, the company made available an instructional video at www.pgedystrybucja.pl, making it easier to install and use the tool. Already in January and February, the 991 Assistant app proved its worth in practice during mass emergencies caused by strong storms.

With the comfort of customers in mind, from the beginning of 2022 the company reactivated two Energy Regions: in Radzyn Podlaski in the area served by the Lublin Branch and in Janów Lubelski in the area served by the Rzeszów Branch. The reactivation of the Energy Regions in these locations is a guarantee of energy security and increased investment attractiveness of the regions. These measures also made it easier for more than 100,000 customers from the districts of Janów, Kraśnik, Nisko, Stalowa Wola and Radzynski to contact the company. In July 2022 - responding to the needs of local communities in the Warsaw agglomeration - it also opened a Distribution Customer Service Point in Wolomin (Warsaw Branch), which allowed it to resume direct service in the Wolomin district with a population of nearly 250,000.

## Ensuring continuity of electricity supply

Operating data	Data for 2022	Data for 2021	Data for 2020
SAIDI [minutes] (System Average Interruption Duration Index), including:	495.06	367	251
Planned	35.56	33	40
Unplanned, with catastrophic	459.50	334	211
SAIFI [pcs] (System Average Interruption Frequency Index ), including:	5.20	4.28	3.67
Planned	0.2	0.2	0.24
Unplanned, with catastrophic	5.00	4.08	3.43

PGE is committed to increasing supply reliability and lowering SAIDI and SAIFI indices and is taking a number of measures resulting in faster and more effective outages. The increase in SAIDI and SAIFI in 2022 is due to the deterioration of weather conditions in Poland compared to previous years. Weather anomalies such as strong winds, snow, icing and storms (Orkan Dudley and Orkan Eunice) at the beginning of the year and storms in the middle of the year caused a lot of damage, including damage to electricity grids. The increase in the number and scope of investment works increased the average duration of scheduled outages for energy supply by approx. 3 minutes.

In 2022, PGE Dystrybucja carried out a number of investments aimed at minimising the impact of weather conditions on the power grid, with the main objective of improving the energy security of residents and increasing power supply reliability for both households and businesses. The company patented two solutions to reduce power grid failures:

- Mobile system for uninterruptible power supply to the medium-voltage (MV) distribution network this is
  an innovative technology, developed by PGE Dystrybucja employees, which allows power to be supplied to
  the MV network during maintenance, investment or repair works. The innovation lies in the fact that the
  connection of the mobile substation for the duration of the works and the disconnection after their
  completion is carried out without interruptions in the supply of electricity to consumers. The return to the
  power supply of the distribution network is virtually unnoticeable. In addition, the system has the additional
  security of an uninterruptible energy supply. Also noteworthy is the fact that the mobile system can be
  used in all terrain and weather conditions.
- System for Autonomous Reduction of the Effects of Failures (SARSA) which was developed to reduce the
  effects of failures on the medium-voltage overhead distribution network through faster, more precise
  localisation of outages. The system measures MV network parameters in real time. When an anomaly
  occurs, it autonomously cuts off the faulty section, leaving power to consumers located on the section of
  the power line not affected by the fault. At the same time, it automatically sends information about the
  incident and its location to the dispatcher managing the grid. The information transmitted at the time of
  the fault results in a rapid response and the dispatch of a repair team to the indicated location. The system
  does not remove the causes of the failure, but nevertheless reduces its effects, speeding up the repair



process and limiting the number of customers deprived of electricity. The solution is the result of cooperation between PGE Dystrybucja as Project Leader and companies: Apator Elkomtech SA and MindMade sp. z o.o.).

In 2022, PGE Dystrybucja also carried out modernisation work on the power infrastructure aimed at increasing the reliability of supply, e.g. modernisation of substations (110/15 kV Rzeszów-Baranówka, 110/15 kV Sosnowiec, 110/15 kV Łomża 1), conversion of lines from overhead to cable (Rzepedź-Smolnik, Kozienice municipality), construction of main supply points (Grójec 2, Huszlew), construction of a substation (110/15 kV Małopole with 110kV line).

## **Customer service in district heating**

The district heating companies and branches, which belong to PGE Energia Ciepła, are able to remotely manage the operation of district heating networks, receive and register customer requests and provide comprehensive customer service remotely, thanks to IT systems that have been developed over the years.

A system that additionally supports maintenance processes in PGE Toruń, Zielona Góra CHP and Gorzów Wielkopolski CHP is telemetry. It enables remote monitoring of the operation of nodes and consumer 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.

A remote monitoring system for alarm installations of pre-insulated networks has been in operation and development at Zielona Góra CHP for five years now. 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. The RATMON system serves 129 devices located in the chambers and rooms of the heat substations. For the past two years, a similar system has also been gradually developed at PGE Toruń.

Thanks to the fact that the systems are remote, CHP employees can access them from any location, from a device (e.g. phone, tablet) that is connected to the Internet. Such technological solutions have ensured and continue to ensure, on the one hand, consistent and optimal operation of the district heating networks, maintained high quality of customer service and, on the other hand, preserved employee safety.

#### **Responsibility to customers**

Guided by the 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. More than 75% of PGE Obrót's outlets are equipped with wheelchair ramps or are located on the ground floor, which facilitates accessibility for customers. The company has developed an appropriate way of serving customers with disabilities depending on their type of disability. Appropriate standards of conduct, including service priority, serve this purpose.

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

In its operations, PGE Obrót is guided by concern for the environment. By implementing PGE Group's October 2020 retail strategy, it provides customers with increasing access to green energy. It also promotes proenvironmental attitudes among customers, such as reducing paper documentation by using PGE eInvoice.

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 2022, the company undertook various activities to encourage the use of PGE eInvoice, e.g. it offered a one-off bonus of PLN 15 towards the next bill for customers who opt for eInvoice. It also launched a charity campaign linked to eInvoice. The campaign ran from December 28, 2022 to February 6, 2023. For each customer's consent to switch to PGE eInvoice, PLN 10 was donated to support a children's hospice chosen by the customer. Support was given to hospices in Rzeszów and Lublin.



In addition, for customers who have decided to use PGE eFaktura, the company has provided a tool through which they can make an online transfer by selecting the fast "pay online" option. A customer can also pay their PGE eInvoice through the electronic Customer Service Office (PGE eBOK), where they can additionally check their payment and account history on an ongoing basis. Security is another important aspect. Electronic invoices in online systems are protected with a password set by the customer.



1 427 738 customers using PGE's electronic invoices (as of December 31, 2022)



nearly 4 800 000 electronic bills sent to customers in 2022



more than 430 000 PGE's customers who selected electronic invoicing in 2022 instead of paper invoices

Fig. Electronic invoices in figures

PGE Energia Ciepła supports the process of connecting customers to the municipal heating network and develops services to increase energy efficiency. In 2022, the company invited managers of cooperatives and housing communities to a meeting on energy efficiency. The main topic of the event, which took place on 2 December in Gdańsk, was 'Funding opportunities for energy-efficient projects'. A seminar for administrators and managers of Gdynia properties was also held for the seventh time in 2022. What are the advantages of connecting to a district heating network? How can energy consumption be reduced in the face of current energy challenges, and how can it be saved? This was discussed at the meeting by experts from PGE Energia Ciepła, the City Hall of Gdynia, OPEC and WFOŚiGW in Gdańsk. After a break caused by the pandemic, PGE Toruń organised the 'Heat Market in Toruń' Seminar for key customers of district heating - representatives of the Municipality of Toruń, Toruń's housing cooperatives, communities, administrators, managers and developers. The seminar discussed energy security in Toruń, the fuel market and its impact on heat prices, as well as effective heat and energy management in multi-family buildings. Similar meetings with property administrators and housing associations were also held in Toruń, Kraków, Zielona Góra, Gorzów Wielkopolski and other branches of PGE Energia Ciepła.

In Gorzów Wielkopolski, the hot water connection support program continued in 2022. As part of the program, 185 flats were connected to hot water. The aim of the program is:

- support measures to eliminate gas-fired water heaters (or other appliances),
- improving the safety of home users,
- reducing CO<sub>2</sub> emissions into the atmosphere.

The program is aimed at owners of buildings connected to the district heating network of PGE Energia Ciepła in Gorzów Wielkopolski, in which usable hot water was previously obtained from other heating sources.

## **Photovoltaics with PGE**

Photovoltaics with PGE is an offer thanks to which customers generate energy for their household or business needs. PGE Obrót handles the sales process in a comprehensive manner - from free-of-charge valuation and technical audit, submission of an offer prepared by PGE Obrót experts and optimally matched to the customers' needs, to professional installation of a prosumer photovoltaic installation (up to 50 kWp). PGE Obrót also notifies the OSD of the photovoltaic installation in order to connect it to the power grid and submits an application for funding to the National Fund for Environmental Protection and Water Management (NFOŚiGW) under the My Current program on behalf of the customer. Using the 'Photovoltaics with PGE' offer, customers receive expert advice and service 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.

To take advantage of the 'Photovoltaics with PGE' offer, all the customer has to do is fill in an eForm, available on the corporate website, in which the customer specifies their energy needs and installation options. Sales advisors then contact customers, completing further formalities. PGE Obrót uses first-class components and



experienced and proven external partners to carry out such investments. Photovoltaic installations operate independently and maintenance-free.

Customers selecting the 'Photovoltaics with PGE' offering in 2022:

	Number of PV units covered by the offering	Number of MWp
Retail customers	465	3.1
Businesses	125	3.5

#### Photovoltaics with energy storage

PGE Obrót offers a comprehensive service in the field of commissioning a photovoltaic installation together with energy storage - from detailed and professional advice, selection of an appropriate photovoltaic installation and energy storage, technical audit, through provision of high-quality devices with guarantee and service, installation of a photovoltaic installation and energy storage by a qualified team of fitters. In addition, an additional solution in the form of an Energy Management System or Hybrid Inverters is available as part of the offer.

By combining photovoltaics with energy storage, surplus energy from the photovoltaic installation can be saved and used at any time in the household or business. In this way, the energy produced can be used efficiently, with only the bare minimum being returned to the grid. PGE's offer is prepared for the prosumer net-billing system, which makes it possible to optimally manage energy and its costs for households and businesses.

## Heat pumps with PGE

The "Heat Pumps with PGE" offering is addressed to individual customers who are interested in installing them in their homes and are planning such an investment. As part of the offer, customers receive a comprehensive package of services, i.e. advice on selecting the right device, sales and professional installation. A heat pump combined with photovoltaics is a particularly advantageous solution, both in terms of savings and environmental protection.

The installation process is carried out in cooperation with external partners, which are proven and experienced companies involved in the overall handling of such investments. In the first instance, the most important thing is to optimally match the appliance to the needs of the individual customer and the technical conditions of the building. Consultants carry out an analysis and then select the appropriate power and type of appliance that will work most efficiently with the customer's existing heating system. The subsequent installation is carried out by qualified fitters. PGE Obrót is continuously improving its offer concerning heat pumps, in particular it is introducing a new model of cooperation with partners carrying out the installation on behalf and for the company, as well as successively building a sales network which will be responsible for the sales process of heat pumps.

The heat pumps offered by PGE are efficient and environmentally friendly units. Thanks to an appropriate adjustment, the unit is completely maintenance-free.

#### 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 2022, PGE Dystrybucja registered more than 122,000 applications for the connection of micro-installations to the electricity grid, including more than 99% of photovoltaic installations that were processed "on the basis of an application" and did not require the acquisition of connection conditions. PGE Dystrybucja employees were committed to serving the increased number of customers interested in prosumer installations, particularly in the first quarter of the year. They provided expert advice on the capacity of the equipment to be installed, verifying the needs of customers in line with 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. The project includes the development of a control system for photovoltaic installations installed at prosumers' premises, which, using an algorithm



developed by the Technical University of Lodz, optimises the operation of PV sources so that - while maintaining the required voltage parameters in the grid - the highest possible volume of energy produced by prosumer installations is ensured. The solution is currently in the testing phase. The experience gathered and the analyses carried out will form the basis for initiating the legislative process for the prosumer market in Poland.

## 3.6 Community involvement

As the largest producer and supplier of energy and district heat, PGE Group also performs an extremely important economic function as the guarantor of the country's and individual regions' energy security. It is also one of the largest and most stable employers, employing over 38,000 people. The size and nature of PGE Group indicate that its activities have a major impact on the environment, including society, and thus determine the most important directions for socially responsible activities.

PGE Group has been actively involved in the implementation of all 17 UN Sustainable Development Goals (SDGs) for years, and in its strategy it has identified four of them that it supports in particular. 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.

| GRI 415-1 |

PGE Group	
Total financial and in-kind donations to political parties, politicians and institutions of a similar nature	0

PGE Group in 2022, as a leader in sustainable development and ESG, was awarded the Golden CSR Leaf of Polityka in the 11th edition of the list. The organisers recognised PGE's preparation and adaptation to regulatory requirements related to ESG management.

#### Action to help victims of Russia's aggression against Ukraine

Since the first day of Russia's aggression against Ukraine, PGE Group has carried out activities to help refugees, supported organisations and institutions giving them shelter and is helping to complete humanitarian transports sent to Ukrainian cities. PGE has also supported the Ukrainian energy sector and sent aid to Ukrainian soldiers in areas of major hostilities.

PGE, through the PGE Foundation, donated over PLN 1.5 million in financial donations. The donations were made to Caritas branches across Poland. The funds were earmarked for, among other things, emergency aid, securing accommodation needs, medical assistance and psychological support for children. Support was also given to associations and organisations that organise and send humanitarian transports deep into fighting Ukraine. Thanks to this aid, more than 50 tonnes of bandages, medicines, food and other essential items have been sent to the cities affected by the hostilities.

The PGE Foundation also donated more than 1,500 therapeutic teddy bears to children from Ukrainian families crossing the border into Poland and to children from Ukrainian orphanages staying in centres on Polish territory. The toys were sent to refugee centres run by Caritas, municipalities and city councils, as well as to municipal family assistance centres to help refugees find a peaceful home in Poland.

At the special request of the municipality of Ustrzyki Dolne, PGE built a temporary low-voltage line to supply electricity to the tents at the Krościenko border crossing, which house medical assistance, meals and rest rooms for refugees.



PGE also channelled support to the Ukrainian energy sector, which still faces the problem of maintaining continuity of energy production and supply in the areas most affected by the hostilities. PGE donated to its eastern neighbour, the materials necessary to restore damaged infrastructure and maintain continuity of energy supply. The equipment was donated to Ukrainian power engineers through the Government Strategic Reserve Agency.

PGE supported the purchase of three fully-equipped inflatable tents to expand the accommodation for refugees from eastern Ukraine arriving in Lviv and Truskavets, close to the Polish border. The tents are fully equipped with high quality equipment, including generators, lighting, air conditioning and heaters. The purchase and transport of the tents to Lviv and Truskavets was organised by the Przemyśl branch of the Polish Association Against Disability, which has been carrying out humanitarian transports across our eastern border since the beginning of the Russian aggression. The equipment was ordered and purchased in cooperation with the State Fire Service in Przemyśl to best meet the needs of the refugees.

PGE provided accommodation at its "Energetyk" Training and Recreation Centre in Nałęczów, where 120 family members of Ukrainian energy workers fleeing Russian aggression in Ukraine found shelter. They were provided with food, care as well as hygiene products and all necessary supplies. A dozen or so, after receiving assistance, set off to continue their journey to their loved ones. PGE employees were also involved in the ongoing assistance to the families living in the centre by donating the most necessary items, including clothing, hygiene products, nappies and baby food.

PGE employees have been involved in the campaign to help refugees since the first day of Russia's aggression against Ukraine. They collected and donated over 6 tonnes of the most necessary items, including food, hygiene products, medicines and blankets, to nearly 100 refugee centres and several hundred Ukrainian families living in private accommodation. The parcels handed over to centres housing children from orphanages also included clothing, toys and educational games, as well as several hundred complete school kits for children starting school in Polish schools.

More than 500 PGE volunteers were involved in helping refugees. From the first day of Russia's attack on Ukraine, up to 50 PGE volunteers a day worked in the border areas to help receive refugees in Poland and deploy them in homes and centres.

PGE also encouraged Group employees to visit Regional Blood Donation and Haemotherapy Centres and Blood Collection Points to donate blood for those in need in Ukraine.

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

In 2022, PGE continued to carry out activities promoting consumer patriotism, responsible consumer attitudes and encouraging people to buy Polish products in the social campaign "Polish – I'm buying it!". As part of the campaign, a dedicated website polskiekupujeto.pl is being run with a guide section, educational spots and articles describing Polish products. The project was initiated by PGE Group employees in 2020 and is under the patronage of the Ministry of State Assets.

PGE also continued its cooperation with the Jagiellonian Club, publisher of the Pola application, which supports consumers in identifying Polish products in both stationary and online shops. PGE's support allowed for the release of an update to the Pola 2.0 version of the application and the addition of new functionalities. In the new version of the Pola 2.0 application, users will find, among other things, a text search engine. In addition, the Pola app's website has a news section, where events relating to the Pola app and economic patriotism are presented on an ongoing basis. News in the new Pola 2.0 will also be visible from within the app. Also new is the ability to add or update information about a selected company, as well as a newsletter sign-up form that will be sent out once a month. Pola 2.0 also includes an offer for entrepreneurs wishing to join the project, including educational activities for young people, an audit of the polish of the products ordered by the company or monitoring of the company's product scanning statistics. The most important initiative for companies, however, is the Club of Friends of the Pola application, which brings together small and medium-sized companies from various industries for whom the idea of economic patriotism is important.

An online debate organised by the Jagiellonian Club in partnership with PGE took place on August 25, 2022, where the results of a report entitled 'Polish non-food products' containing a ranking of the most scanned products in the app were discussed.



#### Public awareness campaign "Heat counts"

PGE Energia Ciepła encourages residents to save heat during the autumn and winter period. In 2022, such activities have taken on particular importance. PGE Energia Ciepła and KOGENERACJA Wrocław Group of Combined Heat and Power Plants, which belongs to PGE Energia Ciepła, took over the patronage of the nationwide social campaign "Heat counts", encouraging rational heat consumption in households. The campaign started in December 2022 and promotes pro-saving attitudes among Poles, and is organised by the Polish Association of Combined Heat and Power Plants.

The "Heat Counts" public awareness campaign is aimed at consumers of district heating throughout Poland, as well as people who use individual heat sources in single-family homes on a daily basis. It aims to raise public awareness of the benefits of saving heat. It is also in response to a consumer survey carried out in autumn 2022 by ARC Rynek i Opinia Sp. z o.o. on behalf of the Polish Association of Professional Heating Plants (PTEZ). Respondents were asked about their daily habits regarding heating their place of residence. The survey provided insight into the level of awareness of heat consumers and their ways of saving heat. Today, it is known that Poles feel uninformed and are looking for advice on how to save heat. The project's website, http://liczysiecieplo.pl/, allows users to find out how to use district heat effectively and make savings by applying simple solutions in their everyday lives.

The company has also prepared and implemented the information campaign "Save heat and care for the environment". The campaign, in the form of 7 short, animated films, is available at www.pgeenergiaciepla.pl.

#### Let's share the heat

PGE Energia Ciepła has been implementing the "We share heat" program for years. It is addressed to the most needy consumers, supporting them in the payment of their heating and hot water bills, including public benefit organisations using district heating in cities where PGE Energia Ciepła has its CHPs. Thanks to the "Share the heat" program in all locations, PGE Energia Ciepła has donated a total of PLN 2 million over the five years of the company's existence to pay for heating bills, and almost half a million zloty in 2022 alone. Among others, hospices, hospitals and nursing homes have benefited from these subsidies, all so that they can fulfil their missions even better.

#### **Energetic Backpack**

First graders from regions where PGE GiEK operates received 265 school bags with school equipment. Within the framework of the "Energetic Backpack" initiative, school starter kits were distributed to the most in need first graders in the Opolskie, Dolnośląskie, Łódzkie, Zachodniopomorskie and Śląskie Voivodships, where PGE GiEK branches operate - Elektrownia Opole, Turów, Bełchatów, Dolna Odra and Rybnik, as well as Bełchatów and Turów mines.

For many years, PGE GiEK has been involved in activities for the benefit of the local communities in the vicinity of which it operates. This year, our company has funded as many as 265 "energy schoolbags" at all locations of our mines and power plants. Since 2016, the company has donated almost 2,000 schoolbags to first graders.

#### Nurturing the national identity

For years, PGE Group has been involved in initiatives to perpetuate and cultivate historical awareness among future generations. One of the key patriotic and historical projects is to activate children, young people, adults and seniors to jointly celebrate Independence Day and Flag Day. On this occasion, PGE also draws attention to economic and energy independence, so important in our times. A video prepared on the occasion of November 11, 2022 entitled "Independence is also energy" shows how important it is to remember the past and care for a secure future. https://youtu.be/QUfVB69vr00

Patriotic and historical projects are also carried out by PGE through, inter alia, competitions, sports projects and information campaigns, as well as by supporting cultural institutions in the implementation of their core tasks. PGE also participates in the celebration of the most important holidays and commemorations of historical events and encourages local communities, school children and youth and its employees to do the same.

On the anniversary of the outbreak of the Warsaw Uprising, PGE once again organised celebrations under the slogan "Energy Professionals in the Warsaw Uprising - we remember the heroes" in tribute to the heroes from the Powiśle Power Plant. Runners from the PGE Energetic Running team also paid tribute to the heroes of the



Warsaw Uprising by taking part in the 31st edition of the Warsaw Uprising Run. They had two routes of 5 km or 10 km to run.

PGE, together with the PGE Foundation, has become a partner of the album 'Defenders of the Capital. Energy Professionals in the Warsaw Uprising", which has hit the bookstores. The album will contribute to a greater knowledge of the history of the Energy Professionals fighting in insurgent Warsaw. The recollections of the employees of the Warsaw power plant who faced down the Nazi occupiers in 1944 were also recounted in a reportage published on TVP 2.

With the support of PGE, the exhibition 'An unusual Polish family. The fate of Gertruda Nowak - a child from the camp on Przemyslowa Street", which commemorated the 80th anniversary of the establishment of the German Nazi camp for Polish children in Łódź. The exhibition refers to the publication published by the Museum of Polish Children - Victims of Totalitarianism entitled "An Unusual Polish Family" and presents the only such well-preserved collection of photographs telling the story of Gertruda Nowak, as well as the other children imprisoned in the German camp on Przemyslowa Street. The photographs depicted here show the fate of many other Polish families for whom the Second World War was a period of suffering, separation and death. https://youtu.be/YIBcSjSPnQs https://youtu.be/jD2K0\_IbdMQ

## Employee volunteering

PGE's volunteer projects in 2022, however, focused primarily on environmental themes. In the Kampinos National Park, volunteers carried out cleaning and renovation work, planted trees, cleaned up the area of the Didactic and Museum Centre in Granica and renovated the tourist infrastructure in the Third Millennium Avenue in the Kampinos National Park. More than 20 volunteers worked in the Roztocze National Park. Their task included clearing hard-to-reach areas of the reserve of invasive plants. PGE volunteers also took part in field work as part of a scientific research project to check the numbers and species of owls living in Roztocze. In autumn, PGE Volunteers carried out the annual clean-up of the Bieszczady Sea, i.e. the shores of Lake Solina. Nearly 100 people took part in the project.

Employees of PGE Group companies are also involved in volunteering competencies by sharing their knowledge and skills with school children, helping them with their homework and activating them to participate in sports. They also organise pre-Christmas campaigns, making dreams come true for children from orphanages, children in foster care and children from day care centres. On an ongoing basis, they support care and hospital facilities in their areas of operation and take part in the Noble Box campaign in large numbers. PGE volunteers organise collections of material gifts and prepare parcels for families in need.

In the summer of 2022, a group of PGE Volunteers supported the organisers of the "Wawel is Yours" festival in Krakow for 4 days with their work.

Employees of PGE Group companies are also involved in pre-Christmas campaigns, fulfilling the dreams of children from orphanages, children in foster care and community day centres, including:

- PGE Baltica employees for the benefit of the orphanage in Ustka,
- Employees of PGE Mining and Conventional Energy are working at all their locations as part of the "Santa Clauses for Dreamers" campaign.
- Throughout the year, the employees of PGE Dystrybucja carried out the "For a Child's Smile" project, in which both the company and its employees provided financial and material support to children from orphanages, hospices and other care institutions. On the occasion of Christmas and Easter as well as Children's Day, collections of sweets, toys, cosmetics and other items needed by the wards were carried out. In addition, on the occasion of Children's Day, animation picnics were organised in each of the company's branches, thus providing additional attractions for children. Employees of the Łódź branch of PGE Dystrybucja and the charges of the Occupational Therapy Workshop in the company's Skarżysko branch handmade Easter and Christmas decorations, and the funds raised from their sale were donated to the needs of the wards of local institutions (including those making the decorations). On the other hand, a charity auction was held before Christmas, during which employees bid on Christmas ornaments, also made by employees. A total of 52 items were auctioned for PLN 3,080. The money obtained from the auction was donated according to the purchaser's choice to one of the seven childcare facilities.
- Employees of PGE Energia Ciepła Branch No. 1 in Kraków took part in the "Noble Box"), while PGE volunteers from the PGE Energia Ciepła Wybrzeże Branch were involved in the preparation of parcels for children from families in Gdańsk under the care of the City Centre for Family Support. In Wrocław, Christmas support was provided to charges of the Youth Sociotherapy Centre No. 2, which KOGENERACJA has been supporting for years. Employees of the Combined Heat and Power Plant in Lublin Wrotków joined in the preparation of the Christmas campaign for the pupils of the orphanage in Krasnystaw and a Ukrainian



family with great commitment. Thanks to their involvement, the Centre received household appliances. The children received board games and the family in difficulty received groceries, among other things.

- PGE Energia Odnawialna has been cooperating with the Care and Education Centre in Sochaczew for many years. On the Company's initiative, in 2022 its pupils had the opportunity to support the PGE Skra Bełchatów volleyball team during a volleyball match and go to a performance in one of Warsaw's theatres. Traditionally, PGE Energia Odnawialna employees also organised a Santa Claus event for the children. Christmas presents were also given to disabled children under the care of the Bieszczady Flame of Hope Association from Ustrzyki Dolne. Last year, this association was the beneficiary of the 6th PGE Energia Odnawialna Charity Cross, a cyclical holiday event organised by the Company on Energetyk Island in the Bieszczady Mountains. Amateurs of sporting thrills have the opportunity to take part in a cross-country race, during which emotions are released not only by the competition itself, but also by the magnificent views of the Bieszczady Mountains. Each year, proceeds from the event are donated to a good cause mainly to help the disabled. The medals for the 6th PGE Energia Odnawialna Charity Cross were produced by the PGE Ekoserwis Company using by-products of combustion. The runners emphasised their originality. The organiser of the run managed to collect more than PLN 30,000 to help disabled children from the Bieszczady "Flame of Hope" Association in Ustrzyki Dolne.
- A Christmas campaign entitled 'Become Santa' was carried out at PGE Systems. To this end, letters to Father Christmas were collected from the wards of two orphanages and, after publishing them on the intranet, employees selected the letters, bought and wrapped presents. The presents were handed over to the facilities in Starachowice.

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.

## **Blood donation**

"Blood not water - don't be indifferent!" is the slogan uniting all blood donation campaigns in PGE Group. Throughout the year, PGE Group's power engineers donate blood both during cyclical campaigns, on festive occasions and in response to requests for help for specific individuals. More than 400 employees of PGE Group are affiliated with seven clubs of voluntary blood donors that operate at PGE Group companies and their branches: two clubs in Bełchatów at the KWBB and ELB branches and one club each in Opole, Gryfino, Bogatynia, Kraków and Wrocław. Blood donors have been supporting the idea of blood donation for years and regularly organise collections to which they invite local communities. In 2022, 889 PGE Group employees donated a total of over 435 litres of blood. One unit of blood (450 ml) can save the lives of up to three people.

#### Even children know how to save heat - with Cat Ciepłosław

PGE Energia Ciepła is also carrying out an educational program called "Adventures of Cat Ciepłosław", aimed at the youngest recipients. It aims to build environmental awareness among the youngest. The friendly Ciepłosław Cat explains to children how heat is generated in the process of high-efficiency cogeneration and how it reaches the household radiator. He gives advice on what to do to save heat and thus keep the air clean. Specially prepared lessons, games and activities can be implemented in primary schools as part of the core curriculum for grades I - III.

Through the adventures of Ciepłosław Cat, KOGENERACJA familiarised children with energy saving. Pupils from Primary School No. 9 visited the Wrocław CHP in April. They owed this educational visit to their winning a competition under the patronage of Ciepłosław. His adventures also served as inspiration for competitions and games for children during the Family Picnic organised by the estate council on Kępa Mieszczańska in Wrocław.

Kindergarten pupils in Gdansk also had the opportunity to learn about the adventures of the friendly Ciepłosław Cat. In short films, the guide and expert on heat - Ciepłosław Cat - and his assistants Pstryczek Elektryczek and Felek Kaloryferek presented the most difficult issues concerning heat in a simple and practical manner. Cat Ciepłosław also talked about saving heat to children from Bydgoszcz, Kosakowo near Gdynia and Toruń. All of Cat Ciepłosław's lessons are available at https://kotcieploslaw.pl/

## On safety among the youngest

For years, PGE Dystrybucja has been carrying out educational activities among children and young people on the safe use of electrical appliances and - particularly important today - energy efficiency. After a 2-year hiatus due to the pandemic, from April 2022 PGE employees resumed meetings with children on the topic of safety when using electrical appliances and correct behaviour in the vicinity of electrical facilities. The classes were held in two formulas: in one, the power engineers visited children in the facilities; in the other, the youngest



children came to the headquarters of the branches or power districts and there learnt about the behind-thescenes work of power engineers and safety rules. "Energy lessons" were divided into 3 thematic blocks, answering the questions: where does electricity come from, how to behave safely near electrical/energy equipment and how to save electricity. For all age groups - older pre-school groups, grades 1-3 and grades 4-8 of primary schools - the thematic scope of the meetings was the same, but the ways of imparting knowledge were adapted to the perceptive capabilities of the listeners. Particularly attractive for the younger groups was trying on parts of an electrician's uniform and learning about the nooks and crannies of Electricity Rescue Service vehicles. Last year, during 27 lessons, the power engineers met 1,250 pupils in younger primary school classes and nursery school children. For the 2022/2023 school year, the schedule of educational meetings in each division is completely full.

### Educational activities at the Subcarpathian Energy Museum

"Electromagnetic Stories", a series of classes not only for the youngest, is learning through play, as well as a chance to get to know unique memorabilia showing the history of the regional power industry. In 2022, PGE Obrót organised 14 free educational classes at the Podkarpackie Power Engineering Museum in Rzeszów. The meetings were attended by groups of pre-schoolers, primary and secondary school students, among others.

## Energy olympics

The Third Energy Olympics for the Cup of the President of Gdynia was held in Gdynia in 2022, co-organised by PGE Energia Ciepła. The exciting competition, in which 36 teams took part, took place on November 28, 2022 at the Pomeranian Science and Technology Park. This year's edition of the Olympics drew attention to the important issue of energy conservation today. During the meeting, there was an interesting demonstration of the operation of a thermal imaging camera, which can play a key role in reducing the heating costs of a building. At the end, all participants received a commemorative photo taken with the thermal imaging camera.

## Knowledge Picnic to mark the 200th anniversary of Ignacy Łukasiewicz's birth

PGE Obrót took part in the Knowledge Picnic organised by the Rzeszów Voivodship Office in 2022. The Picnic, on the occasion of the 200th anniversary of Ignacy Łukasiewicz's birth, was aimed at disseminating knowledge about Łukasiewicz's achievements as a patriot, scientist, outstanding pharmacist, innovator - the founder of the world's first oil mine, inventor of the paraffin lamp, pioneer of the oil industry in Europe, social activist involved in the reconstruction of an independent, modern Republic, its economy and science.

The PGE educational stand presented rotational motion in nature as one of the most important phenomena, without which the Universe could not function. Several experiments related to classical mechanics, optics and electromagnetism, among others, were also presented. Participants were able to see, among other things, how rotating solids are created and how the apparent inertial force known as centrifugal force works. In total, the Picnic was attended by several hundred people, most of them families with children. The event was realised as part of the Podkarpackie Governor's project entitled "In the Service of the Independent", subsidised by the Multiannual Government Program "Sovereign" for 2017-2022.

## Night of the Museums

PGE Obrót has joined the European Night of Museums for the seventh time in 2022. This is an educational and cultural event that involves making museums, galleries and cultural institutions accessible at night. In addition to traditional sightseeing, there were special attractions such as concerts, workshops, artistic activities, screenings or games. The company supported the scientific and cultural adventure in 7 museums operating in its area of operation: Museum of Podkarpackie Energy, Museum in Przeworsk Palace and Park Complex, Museum of Glass Heritage in Krosno, Museum of Sibir Memorial in Białystok, Museum of Kurpie Culture in Ostrołęka, Jan Pazdura Museum of Nature and Technology "Ekomuzeum" in Starachowice and Central Museum of Textiles in Łódź.

#### Safe holidays with PGE Energia Odnawialna

PGE Energia Odnawialna carried out an educational project in response to alarming statistics on the significant number of drownings among minors. The Bieszczady Water Rescue Service was a content partner of the action. During the 2022 summer holidays, in a dedicated area by the lake in Polańczyk, lifeguards trained children and young people in safe and responsible behaviour by the water. Instruction included the most important principles of first aid, the use of basic rescue equipment and the safe use of swimming equipment. There was also no shortage of additional attractions. A volleyball court, comfortable deckchairs and games



equipment were prepared in a special area. People resting on Lake Solina could also take part in canoeing competitions, while every Friday they could go to a film screening as part of an open-air cinema. The "Safe Holidays with PGE Energia Odnawialna" campaign, which lasted from the beginning of July to the end of August, was attended by 1,000 people.

### **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 2022, the PGE Foundation, received more than 1,200 requests for donations. The Foundation made more than 600 donations totalling more than PLN 15 million.

The Foundation carried out more than 20 projects of a patriotic and historical, educational and social nature in 2022. More than 250,000 participants took part in the projects carried out by the PGE Foundation (competitions, events, exhibitions, lessons, etc.).

In 2022, the PGE Foundation continued its cooperation with the Virtual Museum of the Polish Underground State, which is an original project of the Foundation for Great Histories. The Foundation supports the construction of a unique museum commemorating the Polish Underground State, which is being created in virtual space. As part of the cooperation, the construction of the website and the process of digitalisation of materials continued in 2022. A vernissage of the works of the winners of the 'Baczyński without a Filter' competition was also held and an album of their works was prepared for publication. In addition, a project entitled 'Voices of the Home Army' was realised, involving the development of animations for the voices of Home Army leaders: general general Tadeusz Bor-Komorowski general Michał Tokarzewski-Karazewicz general Stefan "Grot" Rowecki general Leopold Okulicki.

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 the memory 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, 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 2022, 126 information plaques were installed at the Tchorka Tables, 104 Tchorka Tables were cleaned and conserved, and a total of 77 applications were submitted to the Mazovian Provincial Conservator of Monuments requesting permission to install information plaques (43 applications) and clean Tchorka Tables (34 applications).

In 2022, the PGE Foundation organised and carried out an art competition entitled "Encounters with Art", the aim of which was to promote knowledge of Polish painting and the development and shaping of artistic imagination, supporting creative activities and opportunities among children and young people. The competition was aimed at pupils in the first to eighth grades of primary schools located in Polish towns with a population of less than 50,000. It enabled children and young people to present their artistic skills, express their artistic sensitivity and demonstrate their creative activity. The task was to present their own interpretation of a selected painting by a Polish painter whose work can be seen in one of the following museums: the National Museum in Warsaw, the National Museum in Lublin or the National Museum in Krakow. The competition attracted 500 works, and the jury selected 90 winners. The winners received prizes in kind and, in addition, won trips for their entire class to one of the designated museums. Nearly 40 excursions have been completed by the end of 2022. The remaining 50 will take place in the first quarter of 2023.



In cooperation with Milania, the producer of the film 'Underage Engineers', an educational project was prepared based on the physics core curriculum for primary and secondary schools. The project was widely consulted with physics teachers, educators and scientists. In the videos, two teachers, Ignacy Rejmak and Przemysław Rojewski, explain physical issues in a simple and accessible way. The materials are freely accessible and can be successfully used both for self-study of the subject by pupils in grades 7 and 8 in primary schools, secondary schools, technical schools and vocational schools, as well as by teachers during lessons in order to illustratively explain difficult issues. In addition, a series of 100 filmed experiments has been prepared, which physics teachers use to visualise time-consuming experiments for students even if they do not have access to professional equipment. All experiments and films for pupils were conducted and recorded in the physics laboratory of the Wejherowo technical school, which is equipped with the best equipment in Europe funded by PGE. The project helps to develop their interest in science and encourages them to choose engineering education courses, the graduates of which will in future be able to find employment in, among other things, the ever-growing energy industry.

The second edition of the project 'PGE BEACH - LEARN THE POWER OF THE BALTIC WIND', organised by the PGE Foundation, took place in 2022. As part of the project, from 8 July to 16 August, special zones were located on the beaches in Ustka, Łeba and Sasin, where both residents and tourists staying at the Baltic Sea could broaden their knowledge of renewable energy sources and offshore wind farms. Several thematic zones awaited visitors to the PGE Beaches, including an interactive education zone, a knowledge zone, an educational and workshop zone or a sports zone. Visitors could take part in workshops with the Forest Districts of Szczecin, Lębork and Choczew, during which they could burn in wood, identify animal tracks in the sand or build insect houses. During water rescue demonstrations by WOPR from Słupsk and Gniewino, visitors could learn about first aid. Every weekend there were also meetings with athletes supported by PGE, including representatives of the National Team in windsurfing such as Zofia Klepacka, Maciej Rutkowski and Maja Dziarnowska. In addition, every Sunday there were outdoor cinema screenings and acoustic concerts at sunset with musicians such as harpist Alicja Garczarek, saxophonist Aleksander Kamiński and violinist Natan Kosętka. The PGE Beach Zone was visited this year by more than 18.5 thousand residents and tourists spending their holidays at the Polish seaside. The project was carried out as part of educational activities related to PGE Group's construction of wind farms in the Baltic Sea.

## Sponsorship activities

Sponsorship activities in the area of culture, sport and industry events implemented in 2022 resulted from the sponsorship strategy adopted in 2021. The structured sponsorship policy separates the sponsorship programs under which individual projects were and will be implemented in 2022.

Sponsorship programs	Projects/actions implemented under the programs
PGE - a cultural energy group	<ul> <li>Philharmonics,</li> <li>National Museums</li> <li>Local and regional cultural events</li> </ul>
PGE Proud of History	<ul> <li>Warsaw Uprising Museum</li> <li>Museum of Polish Children - victims of totalitarianism</li> <li>Local historical events</li> </ul>
MOCna Liga PGE	<ul> <li>PGE Narodowy</li> <li>Sports clubs: PGE Skra Bełchatów, PGE Spójnia Stargard, PGE FKS Stal Mielec, Developres Rzeszów, PGE Turów Zgorzelec, Hutnik Kraków, Stal Stalowa Wola, Arka Chełm, Chełmianka Chełm</li> <li>PGE Ekstraliga</li> </ul>
MOC e-mocji	<ul> <li>PGE Polish Esport League</li> <li>PGE Turów Zgorzelec (e-sport section)</li> </ul>
Sport winter with PGE	<ul> <li>PGE Narodowy in winter</li> <li>Polish Figure Skating Federation</li> <li>Polish Speed Skating Federation</li> </ul>
The power of wind and water	<ul> <li>Polish Sailing Association</li> <li>Polish Kayak Association</li> <li>Polish Swimming Federation</li> <li>Zofia Klepacka</li> </ul>



PGE Junior	<ul> <li>Sports academies (e.g. Widzew Academy Łódź, Judo Academy Poznań, Wilfredo Leon Academy), local sports event</li> </ul>
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## Cultural sponsorship

PGE is a patron of Polish culture and this is an important element not only of its marketing activity but of the value system promoted in PGE Group. In 2022, PGE Group supported 16 philharmonics across Poland and is one of the most recognisable patrons of culture in the country.

In 2022, PGE began cooperation with the Lower Silesian Philharmonic as its Main Patron. It also continued its cooperation with all philharmonics sponsored to date.

PGE supports and has supported the National Philharmonic in Warsaw, carrying the honorary title of Patron of the Year since 2012 and, since 2016, has collaborated with the National Philharmonic on its original educational concert series Mornings and Afternoons for Little Music Lovers.

PGE continues its cooperation with the Polish Baltic Philharmonic in Gdańsk, the 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 Kielce, and the Henryk Wieniawski Philharmonic in Lublin, Henryk Mikołaj Górecki Silesian Philharmonic in Katowice and the Podlasie Opera and Philharmonic - European Centre for the Arts in Białystok named after Stanisław Moniuszko, Mieczysław Karłowicz Philharmonic in Szczecin and the Opole Philharmonic.

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

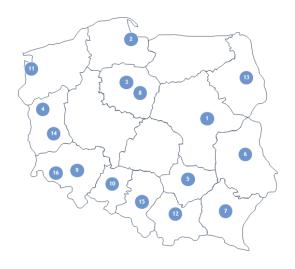


Fig. PGE Group's patronage of philharmonics across the country

In 2022, PGE implemented the campaign 'We invite everyone to be', which encourages and inspires people to participate in and enjoy culture. The campaign is also an expression of PGE's approach to cultural patronage - the Group wants to participate in an active and engaging way.

PGE supported new cultural institutions, such as the National Museum in Lublin, where patronage was extended to the entire museum, and the National Museum in Kraków. In Kraków, PGE became a patron of the Gallery of the 20th and 21st centuries. Thanks to PGE's support, an exhibition of works by Tamara Łempicka was also organised.

In 2022, PGE continued its cooperation with the National Museum in Warsaw as Patron of the 19th Century Art Gallery. In addition, it supported the Museum's 160th anniversary celebrations as a Jubilee Partner.

The support of the jubilee resulted in a number of outstanding exhibitions of works by Chagall or Witkacy and the organisation of the exhibition: "Solstice. Painting of the North 1880-1910".



As a patron of the New Crown Treasury at Wawel Castle, PGE supported one of the most important permanent exhibitions of 2022 presenting the most valuable Polish historical memorabilia. PGE is also a patron of the Wawel Royal Castle's education and social projects.

## **Proud of History**

PGE Polska Grupa Energetyczna supports initiatives related to the cultivation of historical memory. For many years, PGE has cooperated with the Warsaw Rising Museum, developing the cooperation with new elements every year, such as educational activities and supporting the project to expand the audio guides with new language versions. In 2022, thanks to PGE's support, valuable archival materials were purchased to enrich the collection of the MPW.

As it does every year, PGE joined in the commemoration of the anniversary of the Warsaw Uprising by organising a ceremony entitled "Power Sector in the Uprising" in tribute to the power engineers of the Warsaw Power Station in Powiśle.

In 2022, PGE established cooperation with the Museum of Polish Children - victims of totalitarianism, becoming its patron. The museum aims to commemorate the youngest victims of 20th century totalitarian regimes: children murdered, imprisoned or displaced as a result of the criminal policies of the German Third Reich and the Soviet Union. As part of the collaboration, a historical debate was held at the museum entitled "The German concentration camp for Polish children at Przemysłowa Street in Łódź". The aim of the debate was to disseminate knowledge about the tragic fate of the children imprisoned in the camp at Przemysłowa Street and its branch in Dzierżązna near Zgierz. With the help of PGE, the museum organised an exhibition entitled "An unusual Polish family. The fate of Gertruda Nowak - a child from the camp at Przemysłowa". The exhibition, based on unique archival material, was presented at the Polish Parliament.

## Sports sponsorship

Since 2015, PGE Polska Grupa Energetyczna has been the title partner of the Kazimierz Górski PGE Narodowy stadium, which hosts the biggest sporting, cultural and business events. In 2022, the sponsorship venue celebrated its 10th anniversary.

In 2022, the cooperation with clubs playing in the top competition classes of the most popular sports was extended:

- Stal Mielec (PKO BP Ekstraklasa, men's soccer),
- Spójnia Stargard (Energa Basket Liga, basketball) and
- Skra Bełchatów (Plus Liga, men's volleyball).

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. Within the framework of the MOCna Liga PGE sponsorship program, cooperation has also been established with the Developres Rzeszów volleyball club, the current Polish Vice-Champion team in women's volleyball, in 2022.

The PGE brand was also promoted in 2022 on the basketball courts of the Suzuki 1 Men's League.

The PGE Turów Zgorzelec team, supported by PGE since the 2021/2022 season, plays in this class of competition. PGE also established cooperation with Stalowa Wola, becoming the strategic sponsor of the club participating in the third division football competition, and the Main Sponsor of the club Hutnik Kraków participating in the second division men's volleyball competition. In 2022, PGE supported the Chełm Sports Club, whose competing teams include Chełmianka Chełm (football division III) and Arka Chełm (volleyball division II).

The brand of the largest energy company in Poland for the seventh time accompanied speedway riders competing in the best speedway league in the world - PGE Ekstralia. In the 2022 season, pro-environmental CSR actions (EKO PGE Ekstraliga) were continued as part of the cooperation with the organiser of these competitions, as well as image actions in social media or a video showing the ecological aspects of the sport. All these activities were collected on a special subdomain: eko.speedwayekstraliga.pl. All clubs participating in the competition have joined the program. The EKO PGE Ekstraliga logo can be found in match programs and on the buses of every PGE Ekstraliga rider. The EKO PGE Ekstraliga activities also include the PZM program implemented by individual clubs: "I care about the environment", one of the pillars of which is the



environmental education of children and young people, including members of speedway and mini speedway schools.

### Esports

In 2022, PGE continued its cooperation with the Polish Esport League (PLE) as title sponsor of the competition under the name: "PGE Master Division of the Polish Esport League". A new 3-year contract was concluded, which sets new standards in the area of sponsoring professional e-sports competitions.

In July 2022, the Polish Esport League, with the support of PGE, organised the second edition of a special esports event - the PGE Super Cup of the Polish Esport League on the city beach in Gdynia. During the event, a virtual regatta was also organised together with the Polish Sailing Association. The event exemplified the synergy between the worlds of sport and e-sport. The e-sports tournament attracted hundreds of people both on site and in front of screens - broadcasts were conducted on the Internet.

PGE and PLE have jointly worked out the principles of the Centralisation of Sponsorship Rights (CPS). The CPS is an agreement that introduced innovative solutions in Polish e-sports and allowed for the regulation of the relationship between the Polish Esports League and the organisations playing in it. It represents a further step on the road to professionalising the players' competition and gaining stable sources of income for them.

Support for the e-sports section of PGE Turow Zgorzelec also continued in 2022.

#### Individual sponsorship

PGE has continued its partnership with Zofia Klepacka, Poland's top windsurfer, in 2022. The athlete has switched to iQFoil and hopes to win another Olympic medal in 2024.

PGE also supports Piotr Kosewicz, a disabled athlete specialising in discus throw. Piotr Kosewicz is a world vice-champion, two-time European champion and gold medallist at the Paralympic Games. With the support of PGE, he is preparing for the 2024 Paralympic Games in Paris.

In 2022, PGE signed a sponsorship agreement for Xavier Masiuk, who was a bronze medallist at the World Championships in Budapest in the 50m backstroke. The swimmer records outstanding achievements at major international events among juniors. Ksawery Masiuk was awarded the Eugeniusz Pietrasik Olympic Hope Award in January 2023.

#### Power of wind and water

In 2022, PGE developed sponsorship projects with the Polish Sailing Association, the Polish Canoe Association and the Polish Swimming Association that support initiatives related to renewable energy (wind and water) and pro-environmental attitudes.

PGE Polska Grupa Energetyczna supported several important areas of the Polish Sailing Association's activities in 2022. The first area was the support of the Polish Sailing Association's national team, from among whom a group of PGE Sailing Team Poland Ambassadors was selected. The Ambassadors represented Poland at regattas all over the world, winning medals in world and European championships and in World Cup regattas, but also got involved in the promotion of offshore wind energy and PGE Group's investments in this sector. The second area of cooperation between PGE and the Polish Sailing Association was the support of the PolSailing National Sailing Education Program. This is Poland's largest comprehensive program to support and popularise sailing, carried out by the Polish Sailing Association in cooperation with district sailing associations and sports clubs, and with funding from the Ministry of Sport and Tourism. The core of the sailing education program is not only teaching the basics of sailing, but also imparting knowledge and skills on the principles of water safety, healthy lifestyles and responsible attitudes towards the environment. The third area of cooperation was the development of eSailing. As part of PGE's cooperation with the Polish Esport League and the Polish Sailing Association, the Association organised a series of virtual PGE eSailing 2022 regattas. The fourth area of cooperation in 2022 was support for Gdynia Sailing Days. This is an annual sailing festival, one of the largest and most important regatta events in the Baltic Sea. The event has a 23-year tradition and each year between 600 and 1,000 sailors and sailors from all over the world participate. The GSD is the full spectrum of regatta sailing, a festival open to the public and fans, which perfectly popularises sailing in Poland.

In November 2022, PGE established cooperation with the Polish Swimming Federation. The cooperation includes, among others, the sponsorship of the national team competing in the world championships, European



championships and other international events, as well as support for the most important events in Poland organised by the Polish Swimming Federation.

PGE Polska Grupa Energetyczna has also become the main sponsor of the Polish Kayak Federation. In particular, the cooperation covers events of such rank as the World Championships, European Championships and World Cups with the participation of the National Team - the Polish National Team. The agreement also provides for support of all canoeing sports and activities affiliated with the Polish Kayak Association. A very important area of cooperation between PGE and Polish Kayak Association is the popularisation of tourist and amateur kayaking in Poland. In 2022, the white and red kayakers won 136 medals on the international stage, with as many as 56 of them won at championship-level events.

#### 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 2022, PGE supported 22 amateur clubs in various disciplines as part of the PGE Junior project.

- 1. PGE Młode Perły Lublin (girls' football)
- 2. Akademia Avii Świdnik (football)
- 3. Akademia GKS Bełchatów (football)
- 4. Akademia Widzewa Łódź (football)
- 5. Akademia Piłkarska Stal Stalowa Wola (football)
- 6. GKS Glinik Gorlice (football)
- 7. Akademia Piłki Nożnej Łomża (football)
- 8. FC Lesznowola (football)
- 9. Miejski Klub Sportowy Granica Bogatynia (football)
- 10. Akademia Piłkarska Broni Radom (football)
- 11. Miejski Klub Sportowy Mazur Ełk (football)
- 12. Miejski Klub Sportowy Polonia Przemyśl (football)
- 13. Akademia Wilfredo Leona (volleyball)
- 14. Hugonacademy Szczecin (squash)
- 15. Miejski Klub Sportowy Lublin (girls' handball)
- 16. PGE Klub Piłki Ręcznej Gryfino (handball)
- 17. ABRM Warszawa (badminton)
- 18. Akademia Judo Poznań (judo)
- 19. Trójmiejski Klub Łyżwiarski Ice Paradise (ice skating)
- 20. Stowarzyszenie Kultury Fizycznej Iceskater Gdańsk (ice skating)
- 21. AK Młode Żubry Białystok (basketball)
- 22. AK Turów Zgorzelec (basketball)
- 23. PGE Spójnia Stargard youth teams
- 24. PGE Skra Bełchatów youth teams
- 25. PGE FKS Stal Mielec youth teams

Fig. Children's and youth teams supported by PGE in 2022.

The support of young athletes continues to be an important element of the sponsorship agreements concluded with PGE Spójnia Stargard (basketball), PGE Stal Mielec (football) and PGE Skra Bełchatów (volleyball).

In 2022, PGE started cooperation with the Poznań Judo Academy Sports Club, which trains around 1,000 athletes from the age of 3 and is a participant in national and international competitions of the European Cup and Grand Prix ranks. In winter 2022, PGE supported the activities of two academies training children and young people in synchronised skating: The Iceskater Physical Culture Association and the Tri-City Ice Paradise Skating Club. The main aim of the support is to develop and promote this discipline at both amateur and competitive levels. Another academy that PGE has supported is the PGE Hugonacademy - a young squash academy that aspires to be one of the largest centres for this discipline in the country. In just two years since the academy was founded, the young students have won 6 medals in the Polish Championships, 5 medals in international competitions, including a bronze medal in the European Championships. In 2022 PGE also became a sponsor of youth football teams of the following clubs: MKS Mazur Ełk, MKS Granica Bogatynia, Akademia Piłkarska Broni Radom and MKS Polonia Przemyśl.

In total, more than 4,000 adepts trained in PGE-supported children's and youth groups in 2022.





## PGE Junior tournament at PGE Narodowy

For the second time, twelve junior football teams sponsored by PGE competed at the PGE Junior Tournament on September 24, 2022. The event took place during the Festival of Football at PGE National Stadium, called the home of the Polish national football team. Players from the following clubs met on the pitch: GKS Bełchatów, APN Łomża, PGE FKS Stal Mielec, FC Lesznowola, AP Stal Stalowa Wola, Widzew Łódź, Avia Świdnik, GKS Glinik Gorlice, PGE Młode Perły Lublin, Broń Radom, Granica Bogatynia, Mazur Ełk. After the struggles on the pitch, the decoration took place. Commemorative medals and gifts were presented to the young players by former Polish football representatives Adam Matysek and Radosław Gilewicz.

#### PGE The Greatest PhysEd Lesson

An exceptional event which has been supported by PGE for several years now is the "PGE The Greatest 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 2022, a total of more than 1,000 participants took part in the "PGE The Greatest PhysEd Lesson". 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. A novelty in 2022 was PGE's involvement in a series of events called 'School PE Lessons', which preceded the 'PGE The Greatest PhysEd Lesson'. A total of six lessons were held in October and November, and Artur Siódmiak and a group of coaches visited Olsztyn, Ełk, Lublin, Ustka, Zgierz and Bełchatów.

#### Support for the development of skating

PGE Polska Grupa Energetyczna has been supporting skating, both professional and amateur, for many years, being the largest partner of the sport in Poland.

In 2022, 14 sporting events were held as part of PGE's cooperation with the Polish Figure Skating Federation, and the PGE logo accompanied the national skating team at 10 national and 29 international competitions coorganised by the PZŁF.

As part of the popularisation of skating, continuously since 2018, together with the Polish Figure Skating Association, PGE has been implementing the "Come on Skates" project. In 2022 alone, the project organised 9 open days in, among others: Gdańsk, Kraków, Katowice, Dębica, Łódź and Lublin. During each of these events, participants, under the guidance of professional coaches from local clubs, had the opportunity to take their first steps on skates. In addition to the open days, weekly classes were and are held in as many as 16 cities in Poland.

Since 2022, as part of the PGE Junior program, PGE has been developing cooperation with synchronised skating clubs such as Ice Skater, Ice Paradise and MKS Le Soleil. It is an extremely spectacular skating discipline and our aim is to popularise it among winter activity lovers. In December 2022, the clubs will perform at the Polish Synchronised Skating Championships in Toruń.

In 2022, PGE continued its cooperation with the Polish Speed Skating Association as the association's main partner and partner of the National Team. In addition, thanks to PGE's support, in 2022 the Polish Speed Skating Association organised more than a dozen national as well as international events, including the highly popular World Junior Short Track Championships and the World Cup competition and the World Cup Speed Skating Final organised in Tomaszów Lubelski.

In the 2021/2022 season, the PGE National Winter Tour project was implemented. This most recognisable winter tour of Polish ice rinks hosted 400,000 people in 10 cities. The project is an opportunity to get to know ice skating not only for the youngest, but also for adults who have had no contact with the sport so far. Winter attractions include "Mornings for Children with PGE", during which skating classes for the youngest are held. All classes are conducted under the guidance of professional trainers.



## 4. GOVERNANCE

#### | GRI 3-3 [transparency of operations in accordance with corporate governance principles of PGE Group] |

PGE Group is a leader of change in the sector, and the guideposts for setting standards in the energy industry are principles of conduct based on ethics and shared values. PGE Group identifies itself with initiatives aimed at effectively countering discrimination in employment, eliminating all human rights violations, taking a preventive approach to environmental protection and countering corruption.

The basis for the smooth functioning of the organisation and the achievement of its financial and non-financial objectives is transparent management principles that are known to employees and business partners.

## 4.1 Corporate governance

#### | GRI 2-9 |

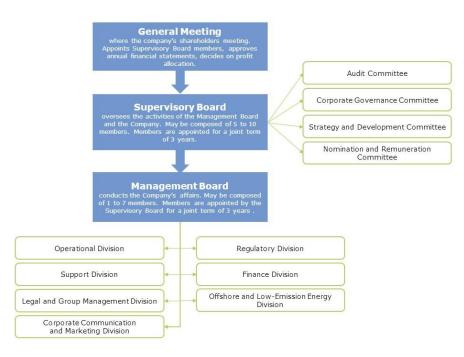
The basis for the smooth functioning of PGE Group and the achievement of its financial and non-financial objectives are transparent management principles. They support the implementation of the company's strategic objectives, in particular with regard to building an efficient and effective organisation and carrying out a sustainable energy transition.

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 articles of association, the content of which is established by the company's general meeting.

The following diagram presents a simplified management structure:



#### Fig. Management structure

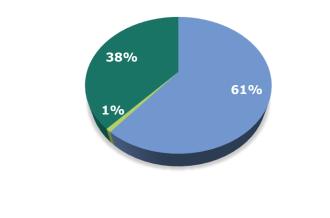


## **General Meeting**

Rules for the General Meeting are specified in the Polish Commercial Companies Code and the Company's articles of association. Additional issues related to General Meetings are regulated by the General Meeting Rules.

As at the date of publication of this report, Shareholders holding directly or indirectly through subsidiaries at least 5% of the total number of votes at the General Meeting of PGE SA:

Shareholder	Number of shares (pcs)	Number of votes (pcs)	Share in total number of votes at General Meeting (%)
State Treasury	1 365 601 493	1 365 601 493	60.86%
State Treasury subsidiary - TF Silesia	18 697 608	18 697 608	0.84%
Total State Treasury and subsidiary	1 384 299 101	1 384 299 101	61.70%
Other	859 413 893	859 413 893	38.30%
Total	2 243 712 994	2 243 712 994	100.00%



State Treasury Subsidiary of the State Treasury – TF Silesia Others

Fig. Shareholding structure of PGE Polska Grupa Energetyczna SA as at the date of the report

In accordance with the provisions of the Polish Commercial Companies Code and the Company's Articles of Association, the basic powers of the General Meeting include the adoption of resolutions on the following matters:

- reviews and approves the report of the Management Board on the activities of the Company, financial statements and the consolidated financial statements for the past financial year,
- grants approval of fulfilment of duties by the Members of the Supervisory Board and Members of the Management Board,
- decisions on allocation of profit or coverage of loss;
- appoints and recalls Members of the Supervisory Board and determines rules of remuneration for the Members of the Supervisory Board,
- agrees on the acquisition and lease of the undertaking or its organised part and placing a limited material right thereon,
- enters into credit, loan, sureties or similar agreements with a member of the Management Board, Supervisory Board, proxy, liquidator or in the name of any of such persons,
- increases and reduces the share capital of the Company,
- the issue of convertible or priority bonds and the issue of subscription warrants,
- provisions concerning claims for compensation for damage caused in the formation of the company or in the exercise of management or supervision,
- mergers, transformations and de-mergers,
- share cancellations,
- · amendments of the articles of association and changes in economic activities,



- dissolution and liquidation of the Company.
- disposal by the Company of shares in the company for which a frequency reservation has been made in the bands 452.5-457.5 MHz and 462.5-467.5 MHz in accordance with the frequency reservation decision issued, after agreement with the minister responsible for energy matters, by the President of the Office of Electronic Communications,
- specifying the manner of voting at the General Meeting/General Shareholders' Meeting of the company for which a frequency reservation has been made in the bands 452.5-457.5 MHz and 462.5-467.5 MHz in accordance with the frequency reservation decision issued, after agreement with the minister responsible for energy matters, by the President of the Office of Electronic Communications in matters concerning amendments to the articles of association/agreement.

The acquisition and disposal of real estate, perpetual usufruct or an interest in real estate will not require a Resolution of the General Meeting.

The General Meeting may adopt resolutions only on matters included in the detailed agenda, subject to art. 404 of the Polish Commercial Companies Code.

- § 1. No resolution may be adopted on items not on the agenda unless the entire share capital is represented at the general meeting and no one present objects to the adoption of the resolution.
- § 2. A motion to convene an extraordinary general meeting and motions of an orderly nature may be passed even though they were not placed on the agenda.

In 2022, four General Meetings were held. Extraordinary General Meetings were held on: March 7, 2022, April 6, 2022 and December 14, 2022, and the Annual General Meeting was held on June 22, 2022.

On July 1, 2022, the District Court for the capital city of Warsaw in Warsaw, 12th Commercial Division of the National Court Register registered the amendments to the Company's Articles of Association made pursuant to Resolution No. 4 of the Company's Extraordinary General Meeting of April 6, 2022.

As a result of the registration of the changes, the registered office of the Company was changed from Warsaw to Lublin and the new address of the registered office is as follows: Aleja Kraśnicka 27, 20-718 Lublin.

#### Supervisory Board

The Supervisory Board of PGE Polska Grupa Energetyczna S.A. operates on the basis of the Act of September 15, 2000 - Polish Commercial Companies Code and the Articles of Association and Regulations of the Supervisory Board of the Company. The supervisory board of a public limited company is a control body in relation to the company's management board and exercises continuous supervision over the company's activities in all of its operating areas.

In 2022, the composition of the Supervisory Board of PGE Polska Grupa Energetyczna SA was as follows:

From January 1 to June 22, the Supervisory Board of the 11th term functioned as follows:

First and last name	Function
Anna Kowalik	Chairperson of the Supervisory Board
Artur Składanek	Deputy Chairperson of the Supervisory Board - independent member
Grzegorz Kuczyński	Secretary of the Supervisory Board - independent member
Janina Goss	Member of the Supervisory Board - independent member
Zbigniew Gryglas <sup>1</sup>	Member of the Supervisory Board - independent member
Tomasz Hapunowicz	Member of the Supervisory Board - independent member
Marcin Kowalczyk	Member of the Supervisory Board
Mieczysław Sawaryn	Member of the Supervisory Board - independent member
Radosław Winiarski	Member of the Supervisory Board

<sup>1</sup> due to the termination of the legal relationship linking Mr Zbigniew Gryglas to the Ministry of State Assets, on 18 January 2022 he made a declaration in respect of the independence criteria.



On June 22, 2022, the Annual General Meeting of PGE Polska Grupa Energetyczna SA appointed the Supervisory Board for the 12th term of office.

The Supervisory Board of the 12th term as at the date of publication of this report was composed of:

First and last name	Function
Anna Kowalik	Chairperson of the Supervisory Board
Artur Składanek	Deputy Chairperson of the Supervisory Board - independent member
Radosław Winiarski	Secretary of the Supervisory Board
Janina Goss	Member of the Supervisory Board - independent member
Zbigniew Gryglas <sup>1</sup>	Member of the Supervisory Board - independent member
Tomasz Hapunowicz	Member of the Supervisory Board - independent member
Marcin Kowalczyk	Member of the Supervisory Board
Mieczysław Sawaryn	Member of the Supervisory Board - independent member

<sup>1</sup> On July 12, 2022, the company received a statement from the Minister of State Assets (representing the State Treasury) on the appointment of Zbigniew Gryglas to the company's Supervisory Board from July 12, 2022.

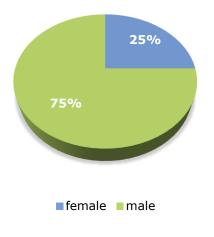


Fig. Supervisory Board diversity

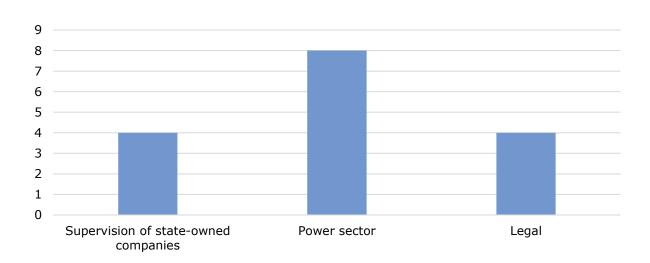


Fig. Supervisory Board experience



## In 2022, there were four Supervisory Board Committees:



#### Fig. Supervisory Board committees

For the period from January 1 to June 22, 2022, the standing committees of the Supervisory Board were composed of:

First and last name of Supervisory Board member	Audit Committee	Corporate Governance Committee	Strategy and Development Committee	Nomination and Remuneration Committee
Janina Goss	Member			Member
Zbigniew Gryglas		Member	Member	
Tomasz Hapunowicz		Chairperson	Member	
Marcin Kowalczyk			Member	
Anna Kowalik	Member		Member	Member
Grzegorz Kuczyński	Chairperson	Member		
Mieczysław Sawaryn			Member	Chairperson
Artur Składanek	Member		Chairperson	
Radosław Winiarski	Member		Member	

On June 22, 2022, the Annual General Meeting of PGE Polska Grupa Energetyczna SA appointed the Supervisory Board for the 12th term of office. The first meeting of the Supervisory Board of the new term was held on July 12, 2022. On that day, the Committees of the new Supervisory Board were appointed.

In the period from July 12 to the date of publication of this report, the Supervisory Board Committees were composed as follows:

First and last name of Supervisory Board member	Audit Committee	Corporate Governance Committee	Strategy and Development Committee	Nomination and Remuneration Committee
Janina Goss	Member			Member
Zbigniew Gryglas <sup>1</sup>		Member	Member	
Tomasz Hapunowicz		Chairperson	Member	
Marcin Kowalczyk			Member	Member
Anna Kowalik	Member	Member	Member	Member
Mieczysław Sawaryn	Member	Member	Member	Chairperson
Artur Składanek	Chairperson		Member	
Radosław Winiarski	Member		Chairperson	

<sup>1</sup> On July 26, 2022, Zbigniew Gryglas was appointed to the Committees: Strategy and Development and Corporate Governance



## **Composition of the Management Board**

The Company's Management Board was composed as follows on January 1, 2022:

First and last name of Management Board member	Function		
Wojciech Dąbrowski	President of the Management Board	from February 20, 2020	
Wanda Buk	Vice-President of the Management Board for Regulations	from September 1, 2020	
Ryszard Wasiłek	Vice-President of the Management Board for Operations	from February 20, 2020	
Paweł Śliwa	Vice-President of the Management Board for Innovations	from February 20, 2020	
Paweł Cioch	Vice-President of the Management Board for Corporate Affairs	from February 24, 2020, to November 17, 2022	
Lechosław Rojewski	Vice-President of the Management Board Finance	from June 2, 2021	

On November 17, 2022, the Supervisory Board of PGE SA adopted a resolution to dismiss Mr. Paweł Cioch, Vice-President of the Management Board for Corporate Affairs, as communicated by the Company's Management Board via current report 52/2022, in art. 56 sec. 1 of the Act on Offering - current and periodic information.

The Company's Management was composed as follows on December 31, 2022:

First and last name of Management Board member		Function
Wojciech Dąbrowski	President of the Management Board	from February 20, 2020
Wanda Buk	Vice-President of the Management Board for Regulations	from September 1, 2020
Ryszard Wasiłek	Vice-President of the Management Board for Operations	from February 20, 2020
Paweł Śliwa	Vice-President of the Management Board for Innovations	from February 20, 2020
Lechosław Rojewski	Vice-President of the Management Board Finance	from June 2, 2021

On January 4, 2023, as a result of the qualification procedure, the Supervisory Board adopted Resolution No. 107/XII/2023 on the appointment of Mr Rafał Włodarski to the Management Board of PGE SA, entrusting him with the position of Vice President of the Management Board for Support and Development as of January 9, 2023.

At the date of publication of this report, the Company's Management Board is composed as follows:

First and last name of Management Board member	Function
Wojciech Dąbrowski	President of the Management Board
Wanda Buk	Vice-President of the Management Board for Regulations
Lechosław Rojewski	Vice-President of the Management Board Finance
Ryszard Wasiłek	Vice-President of the Management Board for Operations
Paweł Śliwa	Vice-President of the Management Board for Innovations
Lechosław Rojewski	Vice-President of the Management Board Finance
Rafał Włodarski	Vice-President of the Management Board for Support and Development

The competences of the individual Management Board Members with regard to ordinary management matters have been divided into areas of activity in which the individual Board Members have a leading role. Within the



framework of their functions, each Member of the Management Board has been assigned appropriate responsibilities.

## Wojciech Dąbrowski – President of the Management Board

is authorised and responsible for managing the activities of PGE Polska Grupa Energetyczna SA in the area comprising:

- Security Department,
- Mergers and Acquisitions Department,
- Corporate Communications Department,
- Marketing and Advertising Department,
- Investor Relations and ESG Department,
- Compliance Department,
- Audit Department,
- Internal Oversight Department,
- Legal and Corporate Management Department,
- Company Authorities Service Office,

With regard to the supervision of the subsidiaries of PGE Polska Grupa Energetyczna SA, the President of the Management Board was entrusted with the substantive supervision of the following companies and their subsidiaries:

- PGE Energia Ciepła SA,
- PGE Baltica sp. z o.o. together with other companies involved in the Offshore Wind Farm Development Program,
- supervision of the PGE Foundation.

## Wanda Buk – Vice-President of the Management Board for Regulations

is authorised and responsible for managing the activities of PGE Polska Grupa Energetyczna SA in the area comprising the following organisational units:

- Sales and Customer Relations Department,
- Regulations Department,
- Office for Aid Instruments,
- International Relations Department.

With regard to the supervision of subsidiaries, PGE Polska Grupa Energetyczna SA has been entrusted with the substantive supervision of PGE Obrót SA and its subsidiaries.

#### Lechosław Rojewski – Vice-President of the Management Board for Finance

is authorised and responsible for managing the activities of PGE Polska Grupa Energetyczna SA in the area comprising:

- Controlling Department,
- Reporting and Tax Department,
- Risk and Insurance Department,
- Treasury Department,
- IT Strategy Department,
- Market Analysis Department.

With regard to the supervision of the subsidiaries of PGE Polska Grupa Energetyczna SA, he was entrusted with the substantive supervision of the following companies and their subsidiaries: PGE Dom Maklerski SA, PGE Systemy SA, PGE Synergia sp. z o.o., PGE Sweden AB and PGE Asekuracja SA.

#### Paweł Śliwa – Vice-President of the Management Board for Innovations

is authorised and responsible for managing the activities of PGE Polska Grupa Energetyczna SA in the area comprising:



- Integration and Internal Advisory Department,
- Development and Innovations Department,
- Offshore Energy Department,
- Circular Economy Department.

With regard to the supervision of PGE Polska Grupa Energetyczna SA's subsidiaries, he was entrusted with the substantive supervision of the following companies and their subsidiaries:

- PGE Nowa Energia sp. z o.o. w likwidacji,
- PGE Ekoserwis SA,
- PGE Energia Odnawialna SA,
- PGE Ventures sp. z o.o.,
- PGE Inwest 12 sp. z o.o., PGE Inwest 14 sp. z o.o., PGE Inwest 21 sp. z o.o., PGE Inwest 22 sp. z o.o., PGE Inwest 23 sp. z o.o., PGE Inwest 24 sp. z o.o., PGE Inwest 25 sp. z o.o.,
- ElectroMobility Poland SA.

## Ryszard Wasiłek - Vice-President of the Management Board for Operations

is authorised and responsible for managing the activities of PGE Polska Grupa Energetyczna SA in the area comprising:

- Operational Management and Investment Department,
- Production Raw Materials Supply Department,
- Trade Department,
- Conventional Energy Trade Department,
- Conventional Energy Raw Materials Department,
- Social Dialogue and Relations Department.

With regard to the supervision of PGE Polska Grupa Energetyczna SA's subsidiaries, he was entrusted with the substantive supervision of the following companies and their subsidiaries:

- PGE Górnictwo i Energetyka Konwencjonalna SA,
- PGE Dystrybucja SA,
- PGE Trading GmbH w likwidacji,
- ELBIS sp. z o.o.,
- ELBEST Security sp. z o.o.,
- Megazec sp. z o.o.,
- PGE Gryfino 2050 sp. z o.o.,
- Rybnik 2050 sp. z o.o.,
- Energoserwis Kleszczów sp. z o.o.,

# **Rafał Włodarski – Vice-President of the Management Board for Support and Development** from January 4, 2023

is authorised and responsible for managing the activities of PGE SA in the area comprising: Administration Department,

- Human Capital Management and Organisational Culture Department,
- Purchasing Department,
- Office for Occupational Health and Safety
- Nuclear Energy Department,

With regard to the supervision of PGE SA's subsidiaries, he was entrusted with the substantive supervision of the following companies:

- PGE Inwest 2 sp. z o.o.,
- PGE Inwest 9 sp. z o.o.,
- PGE Inwest 10 sp. z o.o.,
- PGE Inwest 11 sp. z o.o.,
- PGE Inwest 20 sp. z o.o.



## Paweł Cioch – Vice-President of the Management Board for Corporate Affairs

was authorised and responsible for the management of PGE SA's activities in the area comprising:

- Administration Department,
- Human Capital Management and Organisational Culture Department,
- Purchasing Department,
- Office for Occupational Health and Safety.

With regard to the supervision of PGE Polska Grupa Energetyczna SA's subsidiaries, he was entrusted with the substantive supervision of the following companies and their subsidiaries:

• PGE Inwest 2 sp. z o.o., PGE Inwest 9 sp. z o.o., PGE Inwest 10 sp. z o.o., PGE Inwest 11 sp. z o.o., PGE Inwest 20 sp. z o.o.

Each Board Member, within their respective areas of oversight, is part of committees. The most relevant of these include:

- Investment Committee,
- Risk Committee,
- ICT Committee,
- Sales and Customer Relations Committee,
- Capacity Market Committee,
- Business Development and Innovations Committee,
- Sustainability Committee
- Trade Committee.

#### Nomination and election of members of the highest management bodies

#### | GRI 2-10 |

In the nomination and selection of the members of the highest management body, competence relevant to the impact of the organisation is taken into account. The criterion of independence is also taken into account.

#### **Supervisory Board**

Pursuant to the current Articles of Association of PGE, Members of the Supervisory Board are appointed for a joint term of office of three years. The Supervisory Board is composed of between five and nine members appointed and dismissed by the General Meeting. The Supervisory Board is elected by voting. A member of the Supervisory Board may be appointed and dismissed by the General Meeting at any time, with the exception of a Supervisory Board member appointed by the State Treasury by means of a written declaration submitted to the company's Management Board (the State Treasury is entitled to this power as long as it remains a shareholder). In addition, half of the members of the Supervisory Board (with the exception of the Supervisory Board member appointed by the State Treasury) will be elected from among persons indicated by the State Treasury until the State Treasury's share in the company's share capital falls below 20%. At the moment when the right vested in the State Treasury expires, another shareholder representing the highest share in the company's share capital acquires that right, provided that it holds at least 20% of the share capital.

According to the Articles of Association, the Supervisory Board should be composed of at least one person appointed by the General Meeting from among persons meeting the independence criteria set out in the corporate governance rules adopted by the Warsaw Stock Exchange Board. A shareholder nominating a candidate for this position is required to submit to the minutes of the General Meeting a written declaration by the candidate confirming his or her independence.

The failure of the General Meeting to appoint or elect the Supervisory Board members referred to above, as well as the absence of such persons from the composition of the Supervisory Board, will not prevent the Supervisory Board from adopting valid resolutions.

#### Management Board

The Management Board of PGE Polska Grupa Energetyczna SA may comprise from one to seven members. The Management Board will be composed of the President, the remaining Members of the Management Board



will act as Vice Presidents. The Management Board or individual Members of the Management Board will be appointed and dismissed by the Supervisory Board following a competition procedure. Its purpose is to check and evaluate the qualifications of candidates and to select the best candidate for the Management Board Member, while candidates for the Management Board Member must meet the requirements set out in PGE's Articles of Association: Management Board members are appointed for a joint term, which lasts three years. A Member of the Management Board should meet the requirements set out in art. 22 of the Act on the Principles of State Property Management.

A candidate for a member of the Company's Management Board may be a person who fulfils all of the following conditions:

- 1) has a higher education degree or a higher education degree obtained abroad recognised in the Republic of Poland on the basis of separate provisions,
- has at least five years of employment under a contract of employment, appointment, election, appointment, cooperative employment contract, or provision of services under another contract or selfemployment,
- 3) has at least three years' experience in managerial or independent positions or from self-employment,
- 4) meets requirements other than those listed in the above points, set out in separate regulations, and in particular does not violate restrictions or prohibitions on holding the position of a member of a management body in commercial companies.

A candidate for a member of the Company's Management Board may not be a person who meets at least one of the following conditions:

- serves as a social collaborator or is employed in the office of a Member of Parliament, Senator, MP or Member of the European Parliament under an employment contract or provides work on the basis of a contract of mandate or another contract of a similar nature,
- 2) is a member of a body of a political party which represents the political party externally and has the authority to incur liabilities,
- 3) is employed by a political party on the basis of an employment contract or provides work on the basis of a contract of mandate or another contract of a similar nature,
- 4) holds an elected position in a company trade union organisation or a company trade union organisation of a group company,
- 5) his/her social or for-profit activities give rise to a conflict of interest with the company's activities.

Any member of the Management Board may be dismissed or suspended by the General Meeting or, for important reasons, suspended by the Supervisory Board. A resolution of the Supervisory Board to suspend a member of the Management Board must be justified. A Member of the Management Board submits his or her resignation to another Member of the Management Board or a proxy and submits the resignation to the Chairperson of the Supervisory Board for information. If, as a result of a Management Board Member's resignation, no seat on the Management Board would be filled, the Management Board Member submits the resignation to the Supervisory Board. The Supervisory Board may delegate its members to temporarily perform the duties of the Management Board Members.

The Supervisory Board conducts a qualification procedure in the event of circumstances justifying the appointment of a Management Board Member. When initiating the recruitment proceedings for the position of a member of the Management Board, it shall determine, by way of a resolution, the detailed principles and procedure of such proceedings, including in particular: the position which is the subject of the proceedings, the date and place for accepting applications, the date and place for the interview, the scope of issues which are the subject of the interview, the requirements and the manner of evaluating the candidate.

The announcement of the qualification procedure shall be published on the company's website and in the Public Information Bulletin of the entity entitled to exercise rights from shares owned by the State Treasury. The Supervisory Board notifies the shareholders of the results of the qualification procedure and makes the minutes of the qualification procedure available.



## Chairperson of the highest governance body

#### | GRI 2-11 |

The chairperson of the highest governance body is not at the same time a representative of the top management. The chairperson of the Supervisory Board will be elected from among the supervisory board of persons designated by the shareholder.

The chairperson will convene and conduct the meetings of the supervisory board, and the vice-chairperson in his/her stead. The chairperson or deputy chairperson of the board may, for important reasons, shorten the time limit for convening a supervisory board meeting to two days. He or she will also determine the appropriate method of transmitting the invitation. When ordering a vote by written procedure or by means of direct communication at a distance, the Chairperson of the Council indicates in which of these procedures the resolution is to be adopted. The chairperson's vote is decisive in the event of a tie. In the event of a proposal to amend a draft resolution voted on by means of direct remote communication, the chairperson makes the final edit of the draft and orders a vote in the manner indicated by him or her. He will also set a closing date for voting by the members of the Supervisory Board.

The Supervisory Board meeting may be attended by members of the Management Board, Company employees and other persons invited by the Chairperson or Deputy Chairperson of the Board, whose participation in the meeting is justified. The Chairperson of the Supervisory Board may order the depositing of audio and video recording devices belonging to Board members or other persons participating in a Board meeting, including especially a telephone, a voice recorder, an MP player, a camera or other recording equipment.

The chairperson of the board will decide on access to materials and attendance during the discussion of a matter when a conflict of interest is identified. When the conflict concerns the chairperson of the board, the deputy chairperson decides. Statements addressed to the board between meetings will be made to the chairperson of the board or, when this is not possible, to the deputy chairperson or its secretary.

The work of the Management Board is directed by the Chairman of the Management Board, who coordinates the activities of its individual Members. At his request, the Members of the Management Board present information on the status of ongoing matters. On his own initiative or at the request of other Members of the Management Board, he resolves doubts about the scope of matters falling within the division of the areas of organisational supervision and the responsibilities of individual Members of the Management Board.

The President of the Management Board establishes and coordinates the policy and practice of contacts with public administration bodies, as well as with the management of other companies. To carry out his duties, he may issue orders.

When the President of the Management Board is absent for a continuous period of at least five working days, the work of the Management Board will be managed by a Board Member appointed by him. In the event that the President of the Management Board does not designate a Board Member to replace him, the other Board Members, at the proposal of the director of the unit responsible for servicing the company's bodies, will elect from among themselves a person to direct the work of the Management Board in place of the President.

In the event of a planned absence of a Board Member of the Management Board of more than five working days, the President of the Management Board may appoint another Board Member to supervise the area assigned to the absent member.

Meetings of the Management Board will be convened by the President on his own initiative or at the request of a Board Member. The President will determine the agenda of the meeting on the basis of requests made by individual Board Members.

Meetings of the Management Board will be chaired by the President or a Member of the Management Board appointed by him/her. In their absence, meetings will be chaired by a Member of the Management Board authorised to replace the President.

The President of the Management Board decides on the attendance of persons who are not members of the Management Board at a meeting of the Management Board.

When passing resolutions, in the event of an equality of votes, the President of the Management Board has the casting vote.



The President of the Management Board or a person designated by him and duly authorised will perform labour law activities for the company.

## **Communication of critical problems**

#### | GRI 2-16 |

The company's Management Board is informed of the occurrence of risks that may give rise to critical issues during meetings of the body. Members of the Management Board are informed about them on an ongoing basis as part of their work in Committees, with the Risk Committee playing a key role. In the event that it is appropriate to inform the Supervisory Board, this information is communicated to the supervisory authority by the Management Board of PGE SA. In 2022, one critical risk related to the war in Ukraine was identified.

In connection with the situation in Ukraine, a Crisis Team has been established at the central level of PGE Group to continuously monitor threats and identify potential risks. The Crisis Team's work includes monitoring the security of electricity and heat generation and supply and the protection of critical and IT infrastructure. Its tasks also include undertaking actions minimising the risk of a crisis situation, preparing the Company in the event of a crisis situation and planning, organising and coordinating works ensuring continuity of the Company's and PGE Group's operations.

Crisis teams have also been formed at the Group's key companies, operating 24 hours a day, carrying out continuous monitoring and identifying potential risks in order to minimise risk to electricity and heat supplies.

#### Evaluation of the performance of the highest governance body

#### | GRI 2-18 | GRI 2-19 |

The performance assessment of the highest management body in overseeing the management of the organisation's impact on the economy, society and people is independent. The current principles for shaping the remuneration of the Members of the Management Board were established by the Extraordinary General Meeting of PGE Polska Grupa Energetyczna SA in its resolution of March 7, 2022. The general catalogue of management objectives includes:

- a) achievement of the EBITDA ratio for PGE Group at the level specified in the in the approved material and financial plan for a given financial year,
- b) meeting covenants under loan agreements (Net debt/EBITDA) ratio (Net debt/EBITDA),
- c) time availability factor of selected generation units of PGE Group,
- d) implementation of specific strategic investment projects and programs,
- e) a) adapting to the essence of the structural changes in the sector by implementing programs and strategic projects other than the above,
- f) effective use of innovation potential,
- g) building a systemic approach to communication in PGE Group by design.

The additional management objectives conditioning the possibility of receiving the variable part of the remuneration relate to the shaping and application of the principles of remuneration for members of management and supervisory bodies and in accordance with the Act on the Principles of State Property Management and the fulfilment of the specific obligations under this Act.

The Supervisory Board, on the basis of the company's articles of association, sets management objectives for the Management Board and determines the remuneration and other contractual terms and conditions and concludes agreements with the members of the Management Board (including the President of the Management Board), subject to the powers of the General Meeting of the company under mandatory regulations.

In addition, the Nominations and Remuneration Committee of the Supervisory Board is tasked with periodically reviewing the remuneration system for the members of the Management Board and executives reporting directly to the members of the Management Board, including management contracts and incentive systems, and with submitting proposals to the Supervisory Board on how to shape them in order to achieve the company's strategic objectives.



The Nomination and Remuneration Committee also provides the Supervisory Board with an opinion on the justification for the award of performance-based remuneration in terms of assessing the extent to which the company's specific tasks and objectives have been achieved.

PGE Polska Grupa Energetyczna S.A. also has a Remuneration Policy for the Members of the Management Board and the Supervisory Board, which sets out the bases and rules for determining, calculating and paying the remuneration of the Members of the Management Board and the Supervisory Board. It was adopted by the resolution of the Ordinary General Meeting of the Company on June 26, 2020 and amended by the resolution of the Ordinary General Meeting on June 22, 2022.

The solutions adopted in the policy contribute to the business strategy, long-term interests and stability of the company.

## Process to determine remuneration for members of PGE SA's Management Board

#### | GRI 2-20 |

The remuneration of the members of the Management Board and Supervisory Board and key managers is sufficient to attract, retain and motivate people with the competences necessary for the proper management and supervision of the company.

On September 9, 2016, the Act of June 9, 2016 on the principles for shaping the remuneration of persons managing certain companies - the so-called new chimney stack law - entered into force. The New Chimney Law regulates, among other things, the manner in which the principles for shaping the remuneration of the members of the Management Board and Supervisory Board in companies with State Treasury shareholding (i.e., e.g., PGE SA) are determined, including, in particular, how the remuneration of the members of the Management Board and Supervisory Board is determined and awarded (the principles for shaping the remuneration of the Management Board and Supervisory Board are adopted by the General Meeting, and the Supervisory Board adopts resolutions on the terms of remuneration of individual members of the Management Board on this basis). The Act also specifies selected provisions of management service contracts concluded with the Members of the Management Board.

On December 14, 2016, the Extraordinary General Meeting of the Company adopted resolution no. 4 on shaping the principles of remuneration of the Members of the Management Board of PGE SA, amended by resolution no. 37 of the Ordinary General Meeting of the Company of June 27, 2017. Subsequently, on March 7, 2022, the Company's Extraordinary General Meeting adopted Resolution 5 revoking the previously adopted principles for shaping the remuneration of the Members of the Management Board of the Company and introduced new principles for shaping the remuneration of March 7, 2022 were subsequently incorporated into the Remuneration Policy for the Members of the Management Board of PGE S.A. by Resolution 11 of the Ordinary General Meeting of the Company of June 22, 2022. In accordance with the Company's internal acts in force, the remuneration of the Members of the Management Board consists of a fixed part, representing basic monthly remuneration, and a variable part, representing supplementary remuneration for the Company's financial year, dependent on the achievement of management objectives.

Table: Amounts of remuneration and benefits received in 2022 by the Members of the Management Board of PGE SA (in PLN)

First and last name of Management Board member	Fixed remuneration - management contract	Variable remuneration for 2021	Other components Severance pay/non-compete compensation	Refund of social	Sum total
Wojciech Dąbrowski	792 680.40	407 319.60	0.00	3 236.89	1 203 236.89
Wanda Buk	739 835.04	384 714.20	0.00	0.00	1 124 549.24
Paweł Cioch	651 465.85	384 714.20	246 611.68	0.00	1 282 791.73
Lechosław Rojewski	739 835.04	217 126.40	0.00	0.00	956 961.44
Paweł Śliwa	739 835.04	384 714.20	0.00	0.00	1 124 549.24
Ryszard Wasiłek	739 835.04	384 714.20	0.00	0.00	1 124 549.24



The total value of remuneration received in 2022 by the Members of the Management Board of PGE SA amounted to PLN 6.8 million (according to PIT11). In 2022, on a cost basis (including surcharges and provisions), the cost of remuneration of all persons who served as Members of the Management Board of PGE SA totalled PLN 9.2 million.

#### Process to determine remuneration for members of PGE SA's Supervisory Board

The amount of remuneration of the Members of the Supervisory Board of PGE SA was determined by Resolution No. 5 of the Extraordinary General Meeting of December 14, 2016 on the principles of shaping the remuneration of the Members of the Supervisory Board. These rules have are taken into account in the Remuneration Policy for the Members of the Management Board and Supervisory Board of PGE S.A. adopted by Resolution 9 of the General Meeting of the Company of June 26, 2020, amended by Resolution of the General Meeting of the Company of June 22, 2022. In accordance with the Company's internal acts in force, the monthly remuneration of the Members of the Supervisory Board was determined as the product of the average monthly remuneration in the enterprise sector without payments of rewards from profit in the fourth quarter of the previous year, announced by the President of the Central Statistical Office, and the multiplier: 1.7 (for the Chairperson of the Supervisory Board), 1.5 (for other Members of the Supervisory Board).

Table: Amount of remuneration paid to members of the Supervisory Board of PGE S.A. in 2022 (in PLN).

First and last name of Supervisory Board member	Wages received
Anna Kowalik	89 837.16
Janina Goss	81 001.741
Zbigniew Gryglas	75 690.741
Tomasz Hapunowicz	79 268.04
Marcin Kowalczyk	80 571.62 <sup>1</sup>
Grzegorz Kuczyński	37 872.51
Mieczysław Sawaryn	79 268.04
Artur Składanek	79 268.04
Radosław Winiarski	80 107.80 <sup>1</sup>

<sup>1</sup>The item includes remuneration for the period of service as a Supervisory Board Member, i.e. basic remuneration and reimbursement of overpaid social security contributions.

The total value of remuneration received in 2022 by the Members of the Supervisory Board of PGE SA amounted to PLN 682.9 thousand. In 2022, in cost terms (including surcharges), the remuneration cost of all persons who served as Members of the Supervisory Board of PGE SA totalled PLN 767.3 thousand. The full content of the Remuneration Policy adopted in 2022 is available on the Company's website at: https://www.gkpge.pl/en/for-investors/corporate-governance/remuneration-policy. Details of remuneration of the management bodies are presented in the Report on Remuneration of the Members of the Management Board and the Supervisory Board of PGE Polska Grupa Energetyczna S.A. published by the company and posted on the website together with the Auditor's Report on its evaluation, in time for shareholders to become acquainted with its contents before the General Meeting. The Remuneration Report is prepared, inter alia, in accordance with the Global Reporting Initiative standards currently in force.

#### **Nomination and Remuneration Committee**

The role of the Nomination and Remuneration Committee is to assist in achieving the Company's strategic objectives by providing the Supervisory Board with opinions and proposals on the shaping of the management structure, including on organisational arrangements, the remuneration system and the selection of staff with appropriate qualifications. In particular, the tasks of the Nomination and Remuneration Committee include:

- initiating and giving an opinion on the arrangements for the appointment of Management Board members,
- giving its opinion on the solutions proposed by the Management Board regarding the Company's management system in order to ensure that the Company's management is efficient, consistent and secure and compliance with the law and internal regulations,



- periodically reviewing and recommending principles for determining the incentive remuneration of members of the Management Board and senior executives, in accordance with the interests of the Company,
- periodically reviewing the remuneration system for members of the Management Board and executives reporting directly to the members of the Management Board, including management contracts and incentive schemes and submitting to the Supervisory Board proposals for their design in the context of achieving the Company's strategic objectives,
- providing opinions to the Supervisory Board on the justification for the award of performance-related remuneration in the context of assessing the extent to which the Company's specific tasks and objectives have been achieved,
- evaluating the Company's human resources management system.

At the date of publication of the report, the composition of the Nomination and Remuneration Committee was as follows:

- Mieczysław Sawaryn Chairperson
- Janina Goss Member
- Anna Kowalik Member

There were 3 meetings of the Nomination and Remuneration Committee in 2022, with one absence of a Committee member. The subject matter of the meetings of the Nomination and Remuneration Committee in 2022 included:

- Discussion of the proposal of Management Objectives for the PGE S.A. Management Board for 2022.
- Discussion of the Report on the implementation of the Management Objectives by the PGE S.A. Management Board for 2021.



## Simplified organisational chart of PGE Group. At December 31, 2022.

## | GRI 2-6 |

PGE Polska Grupa	Energetyczna -	- Parent Company	, PGE Group Corp	orate Centre		
PGE Górnictwo i Energetyka Konwencjonalna SA	Elektrownia Rybnik	Elektrownia Bełchatów	Turów plant		Elektrownia Opole	
	Turów lignite mine	Bełchatów lignite mine	Zespół Elektrowni Dolna Odra			
	BETRANS sp. z o.o.	ELMEN sp. z o.o.	BESTGUM POLSKA sp. z o.o.		EPORE sp. z o.o.	
	Elkom sp. z o.o. (58.95%)	RAMB sp. z o.o.	MegaSerwis sp. z o.o.		ELTUR-SERWIS sp. z o.o.	
PGE Energia Ciepła SA	CHP Bydgoszcz	CHP Gorzów Wielkopolski	CHP Lublin Wrotków		Branch 1 in Kraków	CHP Rzeszów
	CHP Kielce	CHP Zgierz	Branch Wybrzeże in Gdańsk		Branch in Szczecin	
	PGE Paliwa sp. z o.o.	PGE Toruń SA (95.22%)	Zespół Elektrociepłowni Wrocławsk KOGENERACJA SA (58.07%)		kich	
PGE Energia Odnawialna SA	Elektrownia Wodna Żarnowiec	Zespół Elektrowni Wodnych Porąbka - Żar	Zespół Elektrowni Wodnych Solina - Myczkowce		Zespół Elektrowni Wodnych Dychów	Branch Zawidów Bogatyni
PGE Dystrybucja SA	Warsaw branch	Białystok branch	Łódź branch		Lublin branch	
	Zamość branch	Branch Skarżysko- -Kamienna	Rzeszów branch		Energetyczne Systemy Pomiarowe sp. z o.o.	
PGE Obrót SA	Branch Zamość	Branch Łódź	Branch in Lublin		ENESTA sp. z o.o.(87.33%)	
	Branch Skarżysko Kamienna	Branch Białystok	Key branch 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 1 sp. z o.o. Elektrownia Wiatrowa Baltica 8 sp. z o.o. Elektrownia Wiatrowa Baltica 9 sp. z o.o. Elektrownia Wiatrowa Baltica 10 sp. z o.o.		PGE Baltica 4 sp. z o.o. (55.04%)	Elektrownia Wiatrowa Baltica 4 sp. z o.o.(66,19%)
	PGE Baltica 6 sp. z o.o.	PGE Baltica 5 sp. z o.o.			Elektrownia Wiatrowa Baltica 5 sp. z o.o. (66.19%)	Elektrownia Wiatrowa Baltica 6 sp. z o.o. (66.24%)
	Elektrownia Wiatrowa Baltica 2 sp. z o.o.	Elektrownia Wiatrowa Baltica 3 sp. z o.o.	Elektrownia Wiatrowa Baltica 11 sp. z o.o. Elektrownia Wiatrowa Baltica 12 sp. z o.o.			
PGE Dom Maklerski SA	PGE Gryfino 2050 sp. z o.o.	PGE Nowa Energia sp. z o.o. w likwidacji	PGE Sweden AB	PGE Synergia sp. z o.o.	PGE Trading GmbH w likwidacji	
PGE Systemy SA	Rybnik 2050 sp. z o.o.	PGE Ventures sp. z o.o.	PGE Ekoserwis SA	Energoserwis Kleszczów sp. z o.o. (51%)		
PGE Asekuracja SA	ELBIS sp. z o.o.	ELBEST Security sp. z o.o.	MEGAZEC sp. z o.o.			
Explanation:	(Companies with	n a 100% stake, unle	ess stated otherwise	).		

Companies' branches

PGE's direct subsidiaries

PGE's indired



# 4.2 Approach to managing ESG issues

# | GRI 2-12 | GRI 2-13| GRI 2-22|

The adoption of PGE Group's strategy to 2030 with an outlook to 2050, which sets out the directions for the energy transition, the decarbonisation of generation and the path to climate neutrality, started the process of implementing structured management of the ESG area in the Group.

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. For this reason, on December 21, 2021, the Management Board of PGE Polska Grupa Energetyczna SA, by means of a resolution, appointed a Management Board Plenipotentiary for ESG issues, as well as the Sustainable Development Committee - headed by Wojciech Dąbrowski, President, and Lechosław Rojewski, Vice-President for Finance.

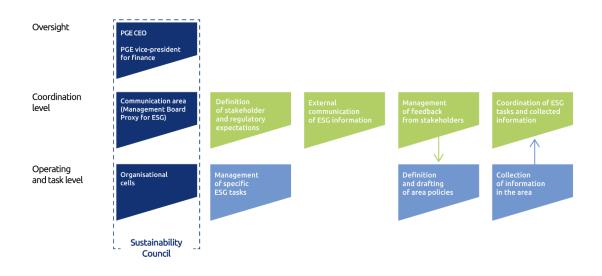


Fig. Distribution of roles and responsibilities in the ESG area

# **Sustainability Committee**

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. During the meetings, the challenges facing the Group, stakeholder expectations, good market practices as well as ongoing and planned ESG initiatives are discussed.

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 2022, the key issues discussed at the Sustainability Committee meetings were: key sustainability challenges in the coming years, challenges to PGE from financial institutions, ESG risks, conclusions from the Group stakeholder panel, carbon footprint management issues, environmental taxonomy, diversity policy, CDP reporting, ESG ratings, 2021 integrated report. The Committee meets at least quarterly. Five meetings were held in 2022.



The Committee was directly informed of the work of the dedicated working teams. In the course of this work, workshops were organised in specific ESG areas, with the support of an external advisor, to assist in outlining strategic plans. Among other things, they made it possible to identify priority actions for the coming years in the area of sustainable development of PGE Group. Information from the scope of the Committee's work was also presented at meetings of the PGE SA Management Board.

In order to increase the effectiveness of the organisation's environmental impact management, a dedicated Environmental Department has been created in 2022, which is also responsible for PGE Group's carbon footprint issues. As part of social impact management and dialogue with the social side, there is a Dialogue and Social Relations Department in the company. Both of these structures function within the Operations Division, reporting to the Vice-President of the Management Board for Operations.

The operational coordination of the ESG process is carried out by the Investor Relations and ESG Department, which is also responsible for the implementation of ESG communications, stakeholder dialogue and non-financial reporting. The Department functions within the Corporate Communications and Marketing Division, which reports directly to the President of the Management Board.

# Non-financial reporting

# |GRI 2-14|

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.

The Non-Financial Report is approved by the Management Board of PGE SA and its contents are also reviewed by the Supervisory Board of the company.

# Education in the field of sustainability

# |GRI 2-17|

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. In 2022, a process of educating the Group's employees in the ESG area has also been initiated, with management as the main subject. In 2022, key ESG challenges and issues were also presented at a meeting of PGE Group Holding Council, which comprises the Management Board of PGE SA, the Presidents of the Management Boards of key Group companies and the Directors of the PGE SA Divisions.



# 4.3 Compliance management system

# | GRI 3-3 [compliance and regulations] | GRI 2-23| GRI 2-24| GC-1 | GC-10 |

PGE Group is building employees' awareness of applicable laws, regulations and internal standards. Everyone is obliged to be familiar with the current laws and agreements that regulate the day-to-day duties at their workplace. To ensure compliance with the law, internal regulations applicable to both PGE SA and the Group as a whole are monitored on an ongoing basis. When the law changes and affects the content of an internal regulation - the owner is obliged to amend it. In order to build awareness of the applicable law, communication activities are carried out, as well as training.

PGE Group communicates on an ongoing basis on issues related to compliance with the law and ethical standards. The contents of PGE Group's Code of Ethics, as well as other policies of the Compliance area, are available to employees, business partners and other interested stakeholders - in Polish and English - on the corporate website www.gkpge.pl and the websites of individual PGE Group companies. Posters informing about the values and principles are available in each of the companies, together with information on channels for reporting non-compliance.

Full content of the policies:

- PGE Group's Code of Ethics
- PGE Group's Anti-Corruption Policy
- Code of Conduct for PGE Group Companies' Business Partners
- PGE Group's Diversity Policy

is available at the following websites:

https://www.gkpge.pl/grupa-pge/o-grupie/compliance (in Polish)
https://www.gkpge.pl/en/pge-group/about-group/compliance (in English)

In addition to the codes and policies, regulations have been adopted that define how the compliance management system is organised in PGE Group. These are:

- PGE Group's Compliance Management Regulation, which sets out PGE Group's compliance management rules and responsibilities.
- General Procedure Compliance Management in PGE Group (effective from 07.01.2023)
- General Procedure Reporting and handling reports of non-compliance incidents in PGE Group and protection of Whistleblowers. The procedure sets out in detail the principles for dealing with reports of information on suspected or occurring Non-Compliance Incidents that take place in PGE Group companies.

# Communication of issues relating to compliance with the law and ethical standards

Communication activities are one tool for educating employees. Developing an awareness of the importance of acting with integrity in building the organisation's value and in achieving its business goals fosters the subsequent choices of employees. Thanks to their knowledge, they take into account in their daily actions and decisions, elements related not only to compliance with the law, but also with ethical standards. The role of managers is extremely important here, as the knot that binds together the values and principles set out in the Code of Ethics and in other documents derived from it, including the PGE Group's Anti-Corruption Policy, with promoting them among their employees - by making model decisions and, above all, by the example of their own behaviour.

In 2022, the communication activities carried out in PGE Group focused on the topics of anti-corruption and avoiding conflicts of interest, and it was these topics that were the focus of most activities, such as two Lunch & Learn sessions, an online training course aimed at all PGE Group employees, articles in the magazine 'Under the Umbrella' and publications on the intranet.

Considerable attention has also been given to building an organisational culture conducive to compliance as a basis for compliance - a culture based on honesty (integrity) and geared towards open communication and responsiveness (speak-up culture).



With the outbreak of war in Ukraine, communication activities were naturally supplemented by those also touching on sanctions on Russia, compliance with which by PGE Group companies was an important area of compliance.

The obligation to comply with laws and internal acts is imposed on every employee, but in order to build awareness and mitigate the risk of potential non-compliance, PGE Group has several tools in place to help employees exercise due diligence and comply with the law in their daily work.

One of them is the Legal Guide, prepared on a monthly basis in PGE SA, which is devoted to changing acts of common law relevant to the operations of Group companies. The Legal Guide is distributed to selected PGE Group companies to ensure access to information on changes in the law and to ensure compliance. On an ongoing basis, a series of meetings is held on the most important changes in the area of domestic and international regulations, at which information on the various stages of the ongoing legislative process is also provided.

# On-going activities in the area of compliance at PGE Group

The objective of the compliance area is to support the management boards of PGE Group companies in the implementation of uniform operating principles in PGE Group, as a result of which the organisational culture supports compliance with the law and ethical principles as well as activities in line with sustainable business principles.

This objective is pursued by:

- supporting the implementation of PGE Group's strategy taking into account applicable laws and internal regulations,
- conducting education and communication of issues related to compliance with laws and internal regulations on corporate governance and attitudes of integrity,
- supporting the implementation of transparent processes that ensure non-compliance and rule violations can be identified, explained and promptly addressed,
- minimising the risks of non-compliance that may result in penalties, sanctions or loss of reputation and credibility as a result of non-compliance with regulations and standards, whether sanctioned by law or being best practice in the area.

In 2022, the Compliance Department of PGE SA continued its existing practice of conducting cyclical training on the PGE Group Code of Ethics and anti-corruption regulations and compliance communication, as well as carrying out the core tasks of the process, i.e. identification of laws and regulations, identification and assessment of compliance risks, compliance assessment and cyclical reporting.

Training provided by the Compliance area is a permanent and essential 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 focuses on fostering an ethical culture within the organisation by identifying and promoting appropriate attitudes and behaviours in relation to the environment in which the company operates and the specifics of the organisation. Training sessions are conducted by designated employees on the basis of materials consistent for PGE Group, including hands-on examples.

The effectiveness of these activities is evaluated on an ongoing basis and, where necessary and possible, improved. The implementation of the compliance management process includes the repetition of activities, the development of forms and ways of flowing, collecting and analysing data, as well as operating practices adapted to the needs of the organisation. From 2022 onwards, ongoing monitoring of the implementation of follow-up actions following investigations and compliance monitors was initiated.

In order to assess the effectiveness of the Compliance area, Compliance Assessments were carried out in individual PGE Group companies. Eight areas of compliance were examined as part of the Compliance Assessment in the basic part: implementation of the compliance management process (Compliance), principles of fair business and ethics, respectful activities, protection of personal data, counteracting corruption, counteracting conflict of interest, employer-employee relations, relations with Business Partners, counteracting money laundering and terrorist financing (AML/CFT).

In the part dedicated to energy trading, the issues of the application of the principles of fair competition and protection of consumer interests, compliance with REMIT (Regulation No 1227/2011 of the European



Parliament and of the Council of 25 October 2011 on wholesale energy market integrity and transparency) were again examined.

In response to the Group's needs, new tasks were also undertaken in the compliance area in 2022 in the form of: the implementation of training on internal regulations adopted in PGE Group in the area of anti-money laundering and counter-terrorist financing (AML/CFT); and the development of conduct practices to meet the obligations of PGE Group companies resulting from the imposition of national and European Union sanctions in connection with Russia's aggression against Ukraine.

The system for reporting non-compliance incidents was also improved - a reporting form was launched on the external website www.gkpge.pl and on a tab on PGE Group intranet.

An important event in 2022 was the participation of the Director of PGE SA's Compliance Department in a panel discussion during an evaluation visit by experts of the OECD Working Group on Bribery in International Business Transactions, the treaty body of the Convention on Combating Bribery of Public Officials in International Business Transactions, which is a key component of the cyclical review of the Convention's State Parties.

# 4.3.1 PGE Group's Code of Ethics

PGE Group's Code of Ethics sets out the most important principles of employee conduct in everyday work. 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.

PGE Group's Code of Ethics promotes honesty, commitment to duty, attention to quality, innovation and professionalism, open communication, respect and cooperation regardless of position or diversity.

It is a fundamental document in terms of ethics and legal compliance. It constitutes an overarching statement and a basis for other internal regulations. The Code of Ethics introduces a standard for relations within the company and between PGE and its stakeholders regarding transparent, honest and ethical operations. All employees and other persons, at every level, in every situation in which they act on behalf of the company, are obliged to act according to the values and principles described in the Code of Ethics. The Code provides a benchmark for decision-making and a set of standards and behaviours. It draws attention to human rights obligations by, among other things, emphasising the acceptance of all diversity, understood in terms of origin, gender, sexual orientation, culture, age and marital status, as well as religious and political beliefs, or membership or non-membership of social and professional organisations. The Code of Ethics emphasises that no form of discrimination is tolerated.

The role of the Code of Ethics is to support the achievement of the company's strategic objectives in accordance with its values. The purpose of applying the principles contained in the code is:

- meeting the expectations of the organisation's stakeholders to operate in accordance with the law and to the highest ethical standards, building and nurturing their trust in the organisation, and creating a working environment based on ethical behaviour and integrity,
- providing information on values and practical action tips to facilitate choices and decision-making,
- promoting integrity and impact through a stated expectation of suppliers, subcontractors and business
  partners to adhere to the same standards of rule of law and fair dealing, thereby supporting respect for
  human rights throughout the supply chain.

Ensuring that employees and others working for and on behalf of PGE Group companies have access to information about PGE Group's Code of Ethics - including the values and common principles contained therein - is an important element of the compliance system.



# PGE Group's values and principles

The values of PGE Group are Partnership, Development, Responsibility. The common key ethical values presented and described in the Code of Ethics were selected by management representatives in 2016 and subsequently adopted at the top management level together with the entire Code of Ethics by resolutions of the boards of directors of individual companies.



Fig. PGE Group's values

In addition to the values, the Code of Ethics describes - in the form of practical principles - PGE Group's standards of conduct that the organisation declares to implement and that the organisation expects all employees and other persons providing work for PGE Group to apply.

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



Fig. 12 Code of Ethics rules

In 2022, the values and principles of PGE Group Code of Ethics were reminded to employees through available internal channels: on PGE Group Intranet, in the "Under the Umbrella" magazine, in PGE Group Newsletter, in the HR Newsletter and the Health and Safety Newsletter, as well as on monitors in the PGE SA headquarters.

On the occasion of the sixth anniversary of the adoption of the Code of Ethics, a number of activities were carried out to draw attention to the benefits of acting with integrity. The campaign included: the presentation of a new graphic design of the Code of Ethics and other Compliance policies in line with the slogan "We lead in green change", a competition for employees of PGE Group companies, articles on the intranet and in the



internal magazine "Under the Umbrella" involving executives and managers, and a film summarising the sixth anniversary of the Code of Ethics in PGE Group.

Translating the values and principles of the Code into the practical language of attitudes and behaviour in specific situations is one of the due diligence tools for the actual application of the Code of Ethics and other compliance policies in the organisation. Examples of appropriate behaviour and attitudes are systematically and consistently introduced into internal regulation records, training in operational areas, management and managerial communication with employees or internal communications.

Among the qualitative results of the introduction and application of the Code of Ethics is increasing employee and stakeholder awareness of the benefits of acting with integrity and drawing attention to the relevance of ethical issues. The "Knowledge of PGE Group's Values and Principles of the Code of Ethics" survey conducted in December 2022 shows that 93% of the Group's employees believe that the current values meet the needs of the organisation, and as many as 96% of employees feel that the values and principles are in line with their personal code of ethical integrity. More than 85% of employees feel that the principles of employee safety and health are a priority for PGE Group and that corruption and dishonest behaviour are not tolerated in PGE and that it is most important for the organisation to take care of the sustainable and safe development of PGE Group.

# Human rights

# | GC-1 | GC-2 |

The Code of Ethics also addresses the issue of the requirement to respect human rights in PGE Group. In this regard, it refers to the Universal Declaration of Human Rights and the standards of the International Labour Organisation and the 10 principles of the United Nations Global Compact.

PGE Group communicates its approach to human rights issues to suppliers and other business partners already before the relationship is established through the provisions of the Code of Conduct for Business Partners of Group companies. In addition, in accordance with PGE Group's Anti-Corruption Policy, contractual clauses are used to oblige Business Partners to observe the same compliance standards as PGE, explicitly citing, among others, the observance of human rights.

PGE Group's top management is responsible for human rights compliance issues, while the Compliance area is responsible for organisational coordination.

Employee training on the Code of Ethics and on policies and procedures for respecting human rights is compulsory and repeated periodically for all persons in companies where a compliance management system - Compliance - is implemented. The first training for new persons in companies, mainly in an on-line format, takes place within 3 months of starting work or cooperation with a PGE Group company. It discusses in detail PGE Group's values and principles, human rights, the whistleblowing system, as well as the full range of protection, rights and reporting rules for Whistleblowers. After its completion, participants submit declarations confirming that they have familiarised themselves with the content provided and that they undertake to comply with it. The training is valid for three years. After this period, it is repeated as refresher training.

# ADVICE SEEKING AND CONCERN REPORTING MECHANISMS

# | GRI 2-25 | GRI 2-26 | GC-2 |

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.

The Code of Ethics imposes an obligation on any person acting for and on behalf of PGE Group who is in possession of information on irregularities resulting in a breach of the law, internal regulations or the Code of Ethics of PGE Group to report this fact. Reporting of irregularities may be done anonymously.

Individuals who make a report of non-compliance acquire the status of a Whistleblower and are protected. A whistleblower, because of having made a report, cannot face retaliation from employees, others or the employer. A whistleblower can be anyone, especially an employee, consultant, contractor, subcontractor, 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. The reports may concern, in particular, actions of a criminal or corrupt nature, violations of human rights or conflicts of interest.

The system provides for several ways of reporting, including notification:

- to the immediate supervisor,
- to the unit responsible for Compliance,
- via e-mail: uczciwybiznespge@gkpge.pl,
- helpline + (48) 22 340 12 02,
- by post to the Director of the Compliance Department at: ul. Mysia 2, 00-496 Warszawa, marked on the envelope "for personal use", including anonymously,
- via the notification form for employees, located on the internal intranet site under the "Compliance" tab, and the form on www.gkpge.pl,
- in exceptional cases to PGE SA's Supervisory Board by e-mail: rada\_nadzorcza.PGESA@gkpge.pl

The wide range of possible forms of whistleblowing and the possibility to report, including anonymously, also facilitates communication for people in vulnerable groups (e.g. people with disabilities) who may find it more difficult to take advantage of the opportunity to report in person. People in vulnerable groups can report without fear of being stigmatised due to publicity. The Director of the Compliance Department has been appointed to handle reports. The system allows for the reporting of both the risk of a breach (alert system) and real, completed breaches. The designated channels for reporting problems or violations of the law or of values and principles are also dedicated to questions in the area of compliance.

In addition, a separate email address for questions or concerns is indicated on the external 2022 website: OpiniaCompliance.pgesa@gkpge.pl

# 4.3.2 PGE Group's Anti-Corruption Regulations

# | GC-10 |

PGE Group has had anti-corruption regulations in place since 2017, updated in 2021. These regulations are the operationalisation of PGE Group's Code of Ethics, which is the overarching document.

# PGE GROUP'S ANTI-CORRUPTION POLICY

PGE Group's Anti-Corruption Policy is a declaration addressed to all internal and external stakeholders. It represents a strong and unequivocal commitment to zero tolerance of corruption in PGE Group. It defines the key principles and responsibilities for countering corruption, including:

- responsibility for anti-corruption prevention in PGE Group,
- anti-corruption rules, including in particular zero tolerance of corruption and any dishonest behaviour, avoidance of conflicts of interest, relations with external partners, business gifts,
- reporting of irregularities and/or suspected irregularities,
- consequences of non-compliance with the policy.

The anti-corruption policy references the "Recommended Standards for an anti-corruption compliance management system and a whistleblower protection system for companies listed on the markets organised by the Warsaw Stock Exchange". It is available on external websites, implementing one of the guidelines of the Stock Exchange.

The purpose of the anti-corruption policy is to meet these standards, as well as to clearly declare and communicate within and outside the organisation PGE Group's approach to corruption.

PGE Group is committed to:

- compliance with anti-corruption legislation,
- guided by the Warsaw Stock Exchange's anti-corruption standards,
- meeting and promoting the highest ethical standards and transparency in the conduct of business,
- continuous improvement of anti-corruption activities.



# Results of the application of the anti-corruption policy

The Policy details the provisions of PGE Group's Code of Ethics, in particular the principle: "We do not tolerate corruption and dishonest behaviour". Detailed activities, responsibilities and solutions implemented in the area of counteracting corruption are included in the General Procedure - Counteracting Corruption in PGE Group, which is an internal document implemented in PGE Group companies.

As part of a survey conducted in 2022 in Group companies on awareness of the values and principles from the PGE Group Code of Ethics, PGE employees indicated that the principle "We do not tolerate corruption and dishonest behaviour" is the second most important principle of the PGE Group Code of Ethics for both employees and the organisation.

Qualitative results of the anti-corruption policy include building an authentic internal and external image of PGE Group companies as honest business entities, as well as raising awareness of corruption risks and anti-corruption prevention.

# GENERAL PROCEDURE - ANTI-CORRUPTION AT PGE GROUP

The counteraction procedure defines the responsibilities and activities performed in the framework of counteracting corruption in PGE Group, including in particular the principles of 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.

The procedure refers to:

- guidelines of the "Recommended standards for a compliance management system concerning anticorruption and protection of whistleblowers in companies listed on the markets organised by the Warsaw Stock Exchange" of 2018
- 'Good Practices for Companies Listed on the WSE' of 2021, according to which the company and its group should have transparent procedures for managing conflicts of interest and for entering into transactions with related parties under conditions where conflicts of interest may arise,
- Polish Commercial Companies Code in accordance with its provisions, the content of the declaration of interest concerning the members of the board of directors of public limited companies is implemented,
- Tenth Principle of the Global Compact.

All persons employed in PGE Group companies, regardless of their employment basis and position, acting for and on behalf of the Group, are obliged to comply with the anti-corruption rules listed in the Anti-Corruption Policy and Procedure.

Implementation of the procedure includes:

- implementation of a process for avoiding conflicts of interest:
  - $\rightarrow$  in relation to employees, as well as in relation to other persons who act for and on behalf of PGE Group companies on a basis other than the employment contract,
  - → additionally, in relation to business partners, for certain types of services assessed as particularly at risk of conflict of interest (i.e. consultancy and legal services contracts),
- implementing the principles of transparent cooperation with business partners, particularly with regard to contractual clauses and good practice in relations with business partners,
- -implementation of a business gift exchange and record-keeping policy,
- applying additional measures to areas at high risk of corruption, e.g. dedicated advanced training,
- implementing a process for reporting concerns and suspected cases of corruption and conflict of interest,
- implementation of mandatory cyclical anti-corruption training basic level.

The qualitative results of the procedure are an increased awareness of corruption risks and the formation and promotion of the maintenance of the highest anti-corruption standards in the course of business.



# Identifying possibilities for corruption

# | GRI 205-1 |

The monitoring of business activities to identify and explain events that are unusual for the business, as well as the analysis of the presence of fraud drivers and the introduction of formal system solutions (bylaws, procedures, policies) lead to an increasingly better corporate governance performance of the organisation.

The number of operations (events) to be analysed in a given year results from the permanent monitoring plan, which is approved by the President of the Management Board of PGE SA, and from the implementation of the provisions of the internal supervision regulations, according to which all operations monitored by the internal supervision area are analysed for the occurrence of possible corruption events.

In 2022, all operations scheduled for the year were reviewed. No cases of corruption were identified as a result of the review.

Based on the analysis of the internal environment (processes, regulations, events) and the external environment, the following risks were defined:

- unfamiliarity or non-compliance by employees with the regulations in order to commit fraud, in particular the anti-corruption policy and related documents,
- conflict of interest,
- · insufficient knowledge of regulations to prevent abuse by employees,
- inadequate response to suspected abuse, or to identified instances of abuse by employees or the employer,
- excessive or inadequate authority, staff overstepping the scope of their authority under the power of attorney,
- using a false power of attorney and other identification documents,
- unclear responsibilities of employees for the performance of assigned tasks,
- nepotism and cronyism,
- no intervention in the event of a suspicion or occurrence of corruption on the part of an immediate superior or a person with such knowledge,
- leaving out a piece of the process or part of a task from supervision in sensitive business areas such as communications, purchasing, wholesale, retail, administration, investor relations, mergers and acquisitions.

# Training on anti-corruption regulations

Employees' awareness of corruption, as a complex phenomenon in the context of the tasks they perform and their competences, is constantly being raised. This is mainly done through training, both general and dedicated to specific job groups, competences or areas of authority. Training disseminates ethical patterns of behaviour and gives a clear message about the lack of social acceptance of fraud in PGE Group environment. Trainings on PGE Group's anti-corruption regulations, just like trainings on the issues of PGE Group's Code of Ethics, are obligatory and repeated periodically for all persons in companies where the compliance management system - Compliance - is implemented.

Training for all new people in companies takes place within 3 months of starting work or cooperation with a PGE Group company. It discusses in detail anti-corruption principles, standards set by the Stock Exchange, types of corruption, definitions, anti-corruption regulations in PGE Group. The validity of this training, as in the case of the training on the Code of Ethics, lasts for 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 understood the content provided and that they undertake to observe it. In addition, depending on the needs, anti-corruption knowledge can be supplemented by dedicated, in-depth anti-corruption training, taking into account the specifics of the area and specific positions. Such trainings may be addressed in particular to managers, executives and other persons working in areas particularly at risk of corruption.

In 2022, PGE Group companies continued to implement regular, mandatory anti-corruption training, covering employees and other persons acting for and on behalf of PGE Group companies on the basis other than an employment contract. Taking into account areas particularly exposed to the risk of corruption, dedicated additional training courses were also held in the field of anti-corruption prevention. Such an approach will be continued to an even greater extent in 2023. The trainings were additionally supplemented by communication activities, related in particular to reminding employees of the rules regarding the exchange of business gifts, appropriate relations with business partners or the International Anti-Corruption Day. As part of the measures



to improve the anti-corruption system, the internal regulation concerning the recording of business gifts was revised in 2022, making the process more consistent so that it is easier to understand and, therefore, easier to comply with. With regard to activities concerning the avoidance of conflicts of interest, persons carrying out internships and student placements were covered by the process in place in PGE Group companies. The compliance cells provide ongoing support and recommendations in the event of any questions or concerns regarding business gifts or conflicts of interest.

# 4.3.3 Improving the process of avoiding conflicts of interest

# | GRI 2-15 |

An important factor that raises the risk of undesirable developments is conflict of interest. The company's internal regulations define what it is and who may have this type of conflict. In addition, each employee confirms his or her knowledge of the rules by making a declaration that he or she has no conflict and that he or she is obliged to provide information should such a conflict arise in the course of his or her professional tasks.

The prevention of a conflict 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. The principle of avoiding conflicts of interest is comprehensively implemented in Group companies. It covers employees and other persons who act for and on behalf of PGE Group companies on a basis other than the employment contract up to the level of top management. Employees submit declarations of interest immediately upon starting work in PGE. With regard to other persons, an appropriately dedicated part of the declaration is applied or, alternatively, appropriate contractual provisions are applied, incorporated into templates of e.g. contracts of mandate or contract for specific work. All signatories signing their respective declarations simultaneously undertake not to undertake actions leading to a conflict of interest, as well as to inform their supervisor and the Compliance unit in writing of any concerns in this respect or of the occurrence of such a situation. They also acknowledge that they have been advised of their responsibilities in the event of any failure to comply with their declaration. Enquiries regarding conflicts of interest, including, for example, doubts about the existence of a conflict of interest, are recorded by the Compliance area in order to ensure transparency in the analyses, recommendations and monitoring of the final action taken in the individual cases reported. In the case of service contracts that PGE SA has assessed as being most at risk of conflict of interest, additional dedicated contractual clauses are applied.

# 4.4 Information security management

Information is an important resource in PGE Group's key business areas. It is an asset that, like other important business assets, is fundamental to the organisation. Information changes the state of knowledge in relation to a given phenomenon or issue. On its basis, conclusions can be drawn and decisions can be made.

In the case of PGE SA, the Management Board has established an Information Security Management System (ISMS), an action strategy for ensuring adequate information protection. The objective of the system is to ensure a defined and supervised level of information security in PGE SA. This objective is pursued by:

- organisation of information security,
- risk and asset management,
- ensuring the security of human resources,
- ensuring physical and environmental safety,
- access control,
- · exchange of information and cooperation with external parties,
- management of information security incidents,
- · business continuity management,
- · personal data protection management,
- ensuring that operations comply with applicable information security laws.

The implementation of an Information Security Management System (ISMS) preserves the confidentiality, integrity and availability of information that represents measurable value to the organisation. The ISMS consists of:

• The Information Security Management Procedure in PGE SA, which defines information security management mechanisms and rules of conduct to ensure the confidentiality, availability and integrity of



information processed in PGE SA. It is an essential document of the ISMS developed taking into account the requirements set out in the Polish Standard PN-ISO/IEC 27001,

• PGE SA operational documentation related to the implementation of the procedure, including: risk analysis reports, risk management plans, audit reports, register of information security incidents and events.

PGE SA has measures in place to ensure information security, such as:

- educational activities for employees to improve their information security knowledge (consultation, individual and group training),
- information security' tab maintained on the corporate intranet,
- internal messages on secure information processing,
- tools to support the process of identifying and classifying information,
- legal safeguards (non-disclosure agreements 'NDA', confidentiality statements) and technical safeguards (e.g. computer encryption with BitLocker, IT system with automatic user log-off when idle, central printing system with proximity card, etc.),
- rules related to information security in terms of unauthorised access, loss, theft or damage to Information are followed, such as: "clean desk and screen rules",
- compliance with the established rules is verified (security clearance of protected information).

Ensuring information security is one of the most important areas of PGE Group's operations. The proper functioning of the information security policy in PGE SA and PGE Group has been achieved through the application of defined procedures:

- The Information Security and Classification Procedure in PGE SA, the purpose of which is to ensure an adequate level of protection for information processed in PGE SA,
- The General Procedure Guidelines for Security and Classification of Information in PGE Group, the purpose
  of which is to define and apply uniform rules and principles according to which information will be processed
  in PGE Group. It forms the basis for the development and implementation of internal information security
  regulations in each of the companies, which ensure the security of processed information and the continuity
  of services provided.

PGE Group takes a responsible and comprehensive approach to information security management. The basic objectives in information security management in PGE Group are:

- ensuring that the information processed is fully protected and that the processing is continuous,
- maintaining the confidentiality, availability and integrity of information,
- ensuring an adequate level of security for information processed in electronic and paper form,
- reducing the incidence of information security risks,
- the introduction of uniform standards for the identification and classification of information,
- determining how to deal with an information security event or incident, as well as with an unwanted vulnerability of a resource (a weakness or vulnerability affecting the occurrence of a threat and its possible consequences) or of a security feature used.

# 4.4.1 Management of personal data protection

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,
- building a personal data protection standard in PGE Group,
- 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.
- accountability of the processing of personal data by carrying out permanent compliance checks in the area
  of personal data protection.

The processing and protection of personal data is carried out in accordance with Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of individuals' data in relation to the processing of personal data and on the free movement of such data and repealing Directive 95/46/EC ("GDPR") and other provisions of generally applicable law. Safeguards and procedures are in place in PGE



Group to protect processed personal data. The risk of data processing is analysed on an ongoing basis and employees undergo regular training.

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,
- standardising internal regulations of the personal data protection area in PGE Group, taking into account the specificity of the functioning of individual companies and guaranteeing transparency of the personal data protection process,
- building awareness in the area of personal data at PGE Group level using internal communication tools,
- cooperation between the Data Protection Officers (DPOs) in individual companies in the form of PGE Group DPO Forum,
- division of roles and responsibilities in the area of data protection management, including the division of duties between the DPO and the personal data controller in order to comply with the requirements under the GDPR,
- development and implementation in PGE Group of ICT tools enabling the fulfilment of obligations resulting from the regulations on personal data protection in order to ensure continuity and consistency of activities in the area of personal data protection in a uniform manner, at a specified level and according to a specified methodology.

# | GRI 418-1|

Total number of substantiated complaints regarding breaches of customer privacy and losses of customer data in 2022

PGE SA*	
Complaints received from external bodies and acknowledged by the organisation	0
Complaints received from the regulator	0
Total number of identified leaks, theft or loss of customer data	0

\*referring to the processing in the role of controller of the personal data category "Customer"

PGE Dystrybucja**	
Complaints received from external bodies and acknowledged by the organisation	0
Complaints received from the regulator	0
Total number of identified leaks, theft or loss of customer data	6

\*\* PGE Dystrybucja provides electricity distribution services to 5,657,603 customers (data as at December 31, 2022). The 6 data protection breaches reported to the company represent less than 0.0001% of the number of customers. Vs the number of customers.

PGE Obrót**	
Complaints received from external bodies and acknowledged by the organisation	0
Complaints received from the regulator	2
Total number of identified leaks, theft or loss of customer data	<ul> <li>1078, including:</li> <li>a) 55 - number of notifications classified as violations with notification to the Office for Personal Data Protection (UODO)</li> <li>b) 1023 - number of notifications classified as violations without notification to the DPA</li> </ul>



The 1,078 data protection breaches reported to PGE Obrót represent approx. 0.019% of the approximate number of customers.

PGE Energia Ciepła	
Complaints received from external bodies and acknowledged by the organisation	0
Complaints received from the regulator	0
Total number of identified leaks, theft or loss of customer data	0

Pursuant to art. 33 sec. 1 GDPR: "In the case of a personal data breach, the controller shall without undue delay and, where feasible, not later than 72 hours after having become aware of it, notify the personal data breach to the supervisory authority competent in accordance with Article 55, unless the personal data breach is unlikely to result in a risk to the rights and freedoms of natural persons." Notification to the DPA occurs when the analysis of the data breach notification indicates that the data that has been disclosed may be used by an unauthorised third party and may cause material or immaterial damage to the person whose data has been disclosed.

In 2022, 6 data protection breaches were reported in PGE Dystrybucja and 55 in PGE Obrót. To minimise the risk of a data protection breach, companies take appropriate countermeasures, adapted to the severity and scope of the incident or breach.

In PGE Dystrybucja, countermeasures include:

- conversations with staff, reminding them of the data protection rules and the information security procedures in place,
- reminders of personal data security principles in communications to employees via corporate mail and publications on the intranet. In these, the Data Protection Officer (DPO) communicates, among other things, recommendations on the company's data protection principles and measures,
- refresher training,
- updates to existing data protection procedures and regulations,
- continuous contact with the Data Protection Officer, both for employees and for the company's clients and customers.

At PGE Obrót, countermeasures include:

- encryption of documentation containing the PESEL number that is sent electronically,
- restriction of the scope of personal data sent in electronic and paper correspondence (electronic calls for payment, traditional correspondence related to the change of billing method - prosumer),
- maximising the sending of correspondence to customers electronically especially with sensitive data (contracts),
- updating customer data,
- contacting the postal operator on the exercise of due diligence in the performance of the operator's staff,
- cyclical data protection training for company employees,
- take action to regulate email monitoring in the Labour Regulations, in accordance with the Labour Code Act,
- drafting a document: "Principles for the secure delivery of employment contracts and other personnel documentation" for the HR department,
- recommend that company employees exercise all due diligence in the performance of their official duties, particularly in verifying the correctness of address details and attachments before sending email/traditional correspondence.

# 4.5 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 subject are regularly published in internal company media.

Access to corporate resources from the Internet is provided via an encrypted VPN connection. 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. Instructions and advice on IT security rules for remote working have also been created and are available on PGE Group intranet.



# 4.6 Risk management

PGE SA, as a Corporate Centre, creates and implements solutions for an integrated risk management architecture. Risk management policies, standards and practices are shaped in PGE SA. From the central level, internal IT tools are designed and developed to support the process, the level of risk that PGE Group is willing to accept in the pursuit of its business objectives is determined, adequate risk limits are set and their utilisation levels are monitored.

At PGE Group, risk management is carried out on the basis of the GRC (Governance - Risk - Compliance) model, i.e. the concept of three lines of defence (Business - Risk - Audit). It makes it possible to adapt and integrate the process at all management levels in each area of the Group's activities.

At the highest management level, there is a Risk Committee, whose objective is to control risk exposures and limit the extent of risks incurred to an acceptable level in relation to the implementation of PGE Group's strategy and business objectives. The Risk and Insurance Department at PGE SA integrates the Group's risk management processes, measures and reports on market and corporate risk, manages credit risk and insurance. The recipients of information and reports on risk are primarily the Management Board of PGE SA and the Management Boards of PGE Group companies. The rules of managing these issues in PGE Group are described in the following procedures: insurance management, market risk management in trading activities, corporate risk management, determination of internal rating, credit risk management and in the rules of the risk committee and in the policy of corporate risk management in PGE Group.

PGE does not focus only on the negative aspects of the risks analysed. It treats them as challenges and takes advantage of the opportunities presented by the dynamically changing conditions in which PGE Group operates. Such an approach allows the company to build its position on the market and develop it. Effective implementation of solutions developed in the Group translates into more efficient management of the Group's resources across 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 on the scale of both a given company and the entire PGE Group. The higher a given risk is ranked, the more thoroughly it is analysed and subject to more complex reporting rigour. Such an approach guarantees, on the one hand, that full knowledge of the most significant risks and mitigating tools applied is obtained, and on the other hand, it ensures that no stakeholder is overlooked in the reporting process.

The division that determines the type of risk assessment determines the time horizon over which risks are invested:

- current perspective is the valuation of risks for the next year,
- medium-term perspective 2 to 5 years, concerns investment initiatives,
- long-term perspective (more than 5 years) addresses the impact of technological, economic and social trends on PGE Group's operations.

As a separate category, climate risk, defined as the impact of awareness of the irreversible consequences of climate change and associated regulatory policies, on business operations is assessed over similar time horizons.

# Current outlook

The most important objective of the risk assessment is to support decision-making processes carried out both at the level of the Corporate Centre and at the level of PGE Group subsidiaries. The assessment is carried out in the perspective of the following year. Due to the wide range of issues that are the subject of the assessment, it takes place in three stages:



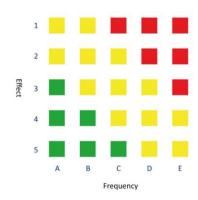


Fig. Risk map prepared for each identified risk in current operations: from A1 to E5 - low/medium/high risk

**Stage 1:** Initial assessment and analysis of all identified risks, where each risk is assessed in two aspects: frequency (probability) of materialisation and impact of potential materialisation. The highest rated risks go to the next stage of assessment.

**Stage 2:** Quantitative assessment and additional risk analysis, which estimates the impact of each risk on financial performance and assesses the materiality of the impact of the various factors that could cause risks to materialise. Mitigating tools and their effectiveness are then identified and a method for dealing with the risks is defined.

**Stage 3:** From the risks qualified for stage 2, the most significant risks for PGE Group are selected, for which a separate report containing an in-depth risk analysis is prepared.

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 constraints in the medium term relates to the most significant investment initiatives under way in PGE Group, which have a major impact on the direction of the Group's development. The most important obstacles to their implementation and potential consequences of delays are indicated. The time horizon of the projects varies, depending on the specific task. It ranges from about 2 years for PV projects to about 5 years for offshore wind farms.

# Long-term outlook

The subject of the assessment are the challenges and risks facing PGE Group over the next decade. Each longterm risk is assessed in terms of its impact on the achievement of business objectives, the company's image and business continuity. The score presented is the dominant one (the value most frequently occurring in the results) from these three aspects.

DEVELOPMENT DIRECTIONS - risk of not being able to maintain the leading position of PGE Group. Exploration after the spin-off of NABE of new alternative directions leading to renewed growth in Group value.

ACCESS TO FINANCING – the risk of PGE Group not obtaining the financing necessary to realise planned investments.



COMPETITION – risks arising from structural changes in the energy industry (including the creation of NABE) affecting PGE Group's competitive environment.

GEOPOLITICS - risk resulting from changes in geopolitical factors and phenomena (e.g. European Union policy, diverging interests of individual states, war in Ukraine), causing limited access to and supply of raw materials for PGE Group.

CLIMATE CHANGES (METEOROLOGY)<sup>3</sup> – risk arising from physical hazards associated with the occurrence of extreme weather events and an increase in their frequency, as a result of which PGE Group's assets may be damaged, and climate change affecting the demand for electricity and heat.

GENERATING SOURCES – the risk arising from the non-replacement of generation resources from new energy sources (following the separation of NABE) at the expected volume (electricity and heat).

LAWS AND REGULATIONS – risk related to changes in the legal system and uncertainty of the regulatory environment, including, for example: limitation of maximum margins, change of support schemes, regulatory burdens resulting from environmental requirements, affecting PGE Group.

TECH REVOLUTION - a risk arising from technological developments that have a significant impact on the direction of change concerning the energy market.

SOCIAL PREFERENCES – risks arising from the expected further evolution of social preferences towards caring for the environment, running a sustainable business and social responsibility, risks described from the perspective of mass customer expectations, employer attractiveness ratings and public opinion.

SECURITY – the risk resulting from a negative impact of, inter alia, the geopolitical situation on both physical security and cyber security of PGE Group's operations, including the risk of intentional disruptions to the correct functioning of the information processing and exchange space created by IT systems operating in PGE Group (interference with any element of PGE Group's infrastructure resulting in disruptions to the operation of ICT (Information and Communication Technologies) and OT (Operational Technology) infrastructure.

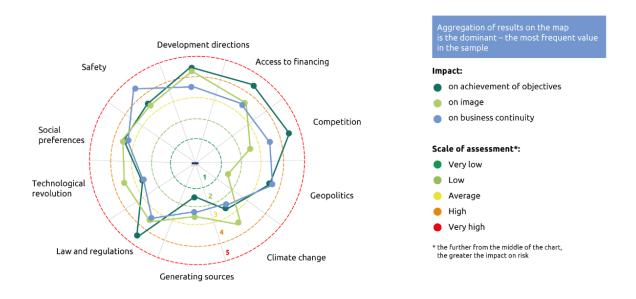


Chart: Map of long-term risks. Own analysis.

<sup>&</sup>lt;sup>3</sup>It deals only with physical phenomena and does not take into account EU climate policy. The context of climate risks is described in the next section.



The positioning on the map based on the assessment (materiality level) shows the impact of a given risk for PGE Group in three different aspects of impact, in turn, on the achievement of business objectives, the corporate image and business continuity.

The map of long-term risks was created on the basis of the elements dominating the responses, according to the subjective perception of the development of these risks as assessed by PGE Group's top management (Board Members and Division Directors) during the strategic workshop of March 2, 2023.

# 4.6.1 Risks and opportunities related to climate change and water and wastewater management

| GRI 201-2 |

# Climate risks

PGE Group is aware of the impact of its activities on the climate, as well as the threats posed by climate change to the Group's operations. It is well known that our business activities both influence and depend on the climate, this interdependence generates both risks and opportunities for growth. We therefore understand the expectations of stakeholders in terms of reporting on the environmental impact of the business, recognising climate risk management as a key element of strategic management, with a direct impact on financial aspects.

PGE Group focuses not only on risks but also on opportunities to ensure its resilience to risks and to increase sustainable revenues of the Group. PGE Group has taken a number of actions in 2022 aimed at achieving climate neutrality in 2050, already indicated in PGE Group's Strategy to 2030, and continues to work on the implementation of PGE Group's ESG Strategy, focusing on 4 areas: competitiveness in the financial market, a leader in green transformation, a corporate culture that supports sustainable development and active communication on sustainable development with all stakeholders. The Group is also implementing measures to meet regulatory requirements, both national and European. This includes, among other things, the EU Taxonomy, preparation for the Corporate Sustainability Reporting Directive (CSRD), as well as the expectations of financial institutions, investors and customers.

Climate risks are subject to the rigours and guidelines arising from the enterprise risk management process. The body responsible for overseeing PGE Group's enterprise risk management process, including climate risk, is the Risk Committee, as in the case of financial risks. Having a Risk Committee at the top executive level that reports directly to the Management Board ensures supervision over the effectiveness of risk management processes across the entire Group. This positioning of the risk function allows for an independent assessment of individual risks, their impact on PGE Group and the mitigation and control of significant risks through dedicated instruments.

The assessment of climate and environmental risks is carried out on the basis of the General Procedure for Enterprise Risk Management. 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. Identification and analysis of climate risk as well as continuous improvement of pro-environmental solutions and control tools allow effective management and minimisation of the impact on climate, while ensuring financial results for PGE Group. The solutions developed by PGE Group are aimed at its development and sustainable transition in line with climate-related requirements and with care for all stakeholders.

Climate issues are assessed centrally in PGE SA, taking into account all activities of the Group and its constituent entities. This means that the result of the assessment is reported jointly, at the level of PGE Group.

The approach to the issue of climate risks is inspired by the recommendations of the Task Force on Climaterelated Financial Disclosures (TCFD), however, the method adopted regarding the inventory and assessment of risks, is an internal PGE concept.

In 2022, PGE Group once again took part in an international study on the company's environmental impact, i.e. Carbon Disclosure Project - CDP (https://www.cdp.net/en). The Group responded to global investor queries on the climate and water resource impacts of its operations and identified both the risks and opportunities involved.



There is an interdependence between the risks and opportunities for businesses related to the climate. Any business is affected by two types of climate risk:

- physical risks, related to the physical effects of climate change, i.e. real threats in the form of extreme weather events, drought, flooding, access to raw materials;
- transition risks (also known as transformation risks) towards a low-carbon and climate-resilient economy; these relate to meeting regulatory requirements, implementing new technologies or the impact on a company's reputation.

The changing climate and climate change mitigation and adaptation efforts simultaneously provide new opportunities and chances for business development. This is why PGE Group focuses not only on risks but also on opportunities so as to ensure resilience to risks and to increase sustainable earnings. Climate-related opportunities at PGE Group primarily concern:

- resource efficiency, e.g. by working on waste management solutions and recovering valuable products from wind turbine blades,
- new energy sources, e.g. through investment in offshore and onshore wind farms, as well as PV farms, the construction of emission-free hybrid electricity storage,
- new products, e.g. expanding the product portfolio with PRO EKO initiatives products that align with lowcarbon heating systems, developing products/offerings that promote low-carbon activities, following changes in consumer preferences or developing insurance solutions for Offshore Wind Farms,
- increased resilience to climate change in the form of, among other things, competence building in the offshore wind power industry as part of PGE S.A.'s cooperation with secondary schools and universities in Poland, the establishment of scientific and research cooperation between PGE S.A. and institutions from the offshore wind power industry in Poland, or underground cabling.

PGE Group defines climate risk in five areas:

- securing aid funds and investment incentives in national regulations related to increasing the impact of climate requirements relevant to the allocation of aid funds and investment incentives in national regulations,
- international regulations related to EU legislation on energy and climate policy, in particular as part of the current Fit for 55 package,
- CO<sub>2</sub> emissions related to the rising costs of emission allowances, which may adversely affect the profitability of generating units or lead to discontinuation of production in these units,
- operations related to extreme weather events or changes in climate conditions that may adversely affect the assets and operating activities of PGE Group,
- investments concerning PGE Group's failure to meet its investment commitments, aimed at green transition, at EU, national and own strategic objectives.

Each climate risk area is assessed in the short term, medium term and long term. The adopted time horizons are due to analogies with ongoing external research.

# Assessing the impact of physical climate risks on operations

Global warming, changing precipitation patterns, rising sea levels and extreme weather events are increasingly posing serious challenges to the resilience of electricity systems, increasing the likelihood of disruption. Climate change directly affects every segment of the electricity system: both generation potential and capacity, heating and cooling demand, the resilience of transmission and distribution networks and demand patterns.

PGE Group, being aware of the risks posed by climate change, as part of the first phase of the climate risk management process, conducted an assessment in 2022 of the relevant climatic physical (material) risks - which could have a negative impact on its operations, supporting adaptation to climate change and enhancing resilience to climate risks. Climatic factors in the form of mainly temperature, precipitation and wind and their negative impact on key activities in the Group were assessed.

An assessment of the risks associated with climatic physical hazards in the PGE Group in 2022 was carried out in the current and long-term perspective using scientific models describing possible climate scenarios, i.e:

• RCP 4.5- the optimistic scenario, which assumes the introduction of new technologies to achieve a higher reduction in greenhouse gas emissions than is currently the case, assuming an increase in global average temperature of approx. 2.5° at the end of the 21st century relative to the pre-industrial era and



• RCP 8.5- a pessimistic scenario that assumes a continuation of the current rate of increase in greenhouse gas emissions, on a business-as-usual basis, assuming that, by the end of the 21st century, the Earth's average temperature will have risen by 4.5° relative to the pre-industrial era.

The assessment carried out showed a low to medium impact of risks related to climatic physical hazards on key activities in the Group in 2022. According to the criterion adopted, risks whose assessment showed a high impact were tested. An important role in the impact assessment process is played by, among others, the implementation of adaptation measures developed in PGE Group to increase the resilience of the power systems to climate change in the form of the use of more weather-proof solutions in the form of a cabling program (replacement of overhead transmission networks with cables placed in the ground), preventive management of key infrastructure elements affecting the continuity of operations, insurance against events related to weather phenomena or precise analyses of land for new investments.

# Impact of transition climate risks on operations

The PGE Group's transitional climate risks mainly relate to areas affecting the transformation towards achieving the planned climate neutrality by 2050, i.e., among others: requirements and regulation of existing products and services (area: policy and law), replacement of existing products and services with their low-carbon counterparts (area: technology) and stakeholder concerns/negative feedback (area: reputation). Examples of risks from the above areas are listed below, by category:

# POLITICS AND LAW

Climate regulations have a direct impact on energy companies. PGE Group companies, like other entities in the energy sector, are exposed to risks and threats resulting from the nature of their operations and functioning in a specific market and regulatory and legal environment. PGE Group operates in an environment characterised by a significant impact of domestic and foreign regulations. The risk of current regulations is particularly relevant in the context of raising capital, grants and support from aid funds.

PGE Group undertakes a number of activities related to monitoring available sources of support, the reliable preparation of application documentation and the use of expert know-how. PGE Group has extensive experience in obtaining preferential support and has the knowledge and staff to successfully implement this process.

# EMERGING REGULATIONS

The emerging regulations are important to implement the strategy and to support an effective transition to low-carbon technologies. PGE Group aims to make full use of available financing options for green investments. Emerging regulatory changes, such as support for EU infrastructure to stimulate sustainable investment, addressing the lack of financing, penalties for climate-negative transactions, may give rise to significant risks. These changes will have an impact on credit risk and may affect the cash flows generated by PGE Group assets and thus affect their income value.

The risk of rising costs of greenhouse gas emission allowances, including a reduction in the cap on free emission allowances for district heating, has the effect of reducing the ability to finance low- and zero-carbon investments.

PGE Group is systematically taking measures to reduce greenhouse gas emissions. Decarbonisation of generation assets will intensify with the implementation of the new PGE Group strategy. As a result, PGE's contribution to avoiding  $CO_2$  emissions by 2030 is expected to be 120 million tonnes. At the same time, proenvironmental investments form the core of PGE Group's investment activities. In addition, the Group invests in asset modernisation and development investments, including optimising combustion processes and introducing solutions to improve generation efficiency, higher fuel and raw material consumption efficiency and reducing the energy intensity of generation processes and internal needs.

# TECHNOLOGY

A permanent reduction in emissions intensity is to be achieved in the PGE Group by changing generation technologies, investing in new technologies, expanding the renewable portfolio, developing the circular economy and enabling customers to participate in the energy transition. Technology risk also includes the selection of optimal and efficient new technologies, the exploitation of potential by PGE Group. By 2030, the share of low- and zero-carbon sources in the Group's generation portfolio is expected to reach 85% and



renewables will account for 50% of the energy generated. PGE Group aims to achieve climate neutrality by 2050.

# REPUTATION

Reputation risk for PGE Group is very significant as the energy sector plays an important role in supporting an effective transition to a low-carbon and ultimately zero-carbon economy. As a transition leader, PGE Group is focused on reducing its environmental impact. A sustainable reduction in emissions intensity is to be achieved by changing generation technologies, expanding the renewable portfolio and enabling customers to participate in the energy transition by offering them attractive products. Failure to pay due attention to the low-carbon economy and ESG issues can cause problems with access to capital.

In order to mitigate risk at PGE Group, a team for the calculation of the carbon footprint of the PGE Group was established, a joint initiative was created within the Polish Association of Combined Heat and Power Plants to develop a sectoral guide for the uniform recognition of the carbon footprint of power plants, combined heat and power plants, including heat transmission and distribution, and electricity distribution activities, and the staffing of organisational units involved in processes related to reporting, decarbonisation and risk assessment was increased.

# Risks associated with water and wastewater management

PGE Group, on the basis of its direct activities, identifies issues related to water and wastewater risks as part of the environmental risks assessed in the Group. Factors related to the aforementioned risks are identified and subjected to risk assessment, together with the identification of mitigating actions. The organisation determines their impact based on multiannual experience, expertise and current market conditions.

Key risk factors include:

- risks associated with the occurrence of drought and flooding,
- water stress in the form of water deficit,
- incidents involving pollution or the discharge of dammed water,
- regulatory risks related to water quality and discharge volumes, higher water prices, deteriorating water quality, regulatory uncertainty and tighter regulatory standards.

The most significant mitigating actions and tools implemented in PGE Group to manage these risks are:

- development of flood plans,
- changes in business continuity plans,
- monitoring of laws and regulations and active participation in fulfilling the relevant obligations,
- preventive measures and deterrence of breakdowns by continuous monitoring of equipment operation by power plant maintenance staff, compliance with provisions contained in equipment operating instructions.



# 4.6.2 Identification of ESG risks

Identified risks and management measures in the environmental area at PGE Group and PGE SA

# CLIMATE AND ENVIRONMENTAL MATTERS AT PGE GROUP

Global warming, changing precipitation patterns, rising sea levels and extreme weather events are increasingly posing serious challenges to the resilience of electricity systems, increasing the likelihood of disruption. Climate change directly affects every segment of the electricity system: both generation potential and capacity, heating and cooling demand, the resilience of transmission and distribution networks and demand patterns. PGE Group is aware of the risks posed by climate change mainly in the form of climate hazards related to temperature,

precipitation and wind. PGE Group's key business activities undergo an assessment of significant climatic physical risks and their negative impact on operations, supporting climate change adaptation and enhancing resilience to climate risks.

Climate risks - physical risks related to climate changes

Significant climate risks, relating to physical climate hazards (mainly related to temperature, precipitation and wind) that negatively impact key activities in PGE Group, were assessed.

The assessment of the risks associated with climatic physical hazards in PGE Group was carried out in the current and long-term perspective using scientific models in the form of climate scenarios, i.e:

RCP 4.5- the optimistic scenario, which assumes the introduction of new technologies to achieve a higher reduction in greenhouse gas emissions than is currently the case, assuming an increase in global average temperature of approx. 2.5° at the end of the 21st century relative to the pre-industrial era and

• RCP 8.5 - a pessimistic scenario that assumes a continuation of the current rate of increase in greenhouse gas emissions, on a business-as-usual basis, assuming that, by the end of the 21st century, the Earth's average temperature will have risen by 4.5° relative to the pre-industrial era.

Outlo	ook
Current outlook	Long-term outlook
Assessment of the impact of the climatic physical risks was carried out in the current perspective	Assessment of the impact of climatic physical risks was also carried out based on climate models, using climate scenarios (RCP 4.5-optimistic scenario and RCP 8.5- pessimistic scenario).

# Mitigation measures

Implementation of measures to increase the resilience of electricity systems to climate change, among others: Use of more weatherproof solutions, e.g. in the form of underground cabling Regular monitoring of the climate situation, including water levels in the area at risk Preventive management of key infrastructure elements affecting business continuity Regular maintenance of the technical infrastructure Insurance against events related to weather phenomena Use of protective mechanisms, e.g. electric shock protection Application of emergency response procedures Analysis of land for new investments

Risk of lack of legal basis for activities in the context of climate protection



resulting from 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 outlook	Long-term outlook
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
and services offered by them (List of Environmental Aspe Reducing interference with the natural environment: adaptation of units to BAT conclusions use of the most efficient solutions for waste water tr work on a new concept for the use of combustion wa ensuring supply of coal with appropriate parameters	tivities of particular companies of PGE Group and products cts together with analysis of Risks and Opportunities) reatment, exhaust gas treatment, water abstraction aste and by-products (lower ash and sulphur content) alia, monitoring and supervision of the quantities of the
Risks associated with water	and wastewater management
resulting from the consequences of inadequate water and wastewater management activities or the possibility of extraordinary events	
Mitigation measures	
development of flood plans, amendments to the business continuity plan (if necess monitoring of laws and regulations and timely implem improvement in pollution control to comply with the co improving infrastructure maintenance and, where nece preventive measures and failure prevention, complian instructions	entation of legal requirements onditions set out in the relevant administrative decisions essary, carrying out required upgrades
Risk of impact of volatility in the	prices of CO <sub>2</sub> emission allowances
resulting from the modification of the $CO_2$ emission trading scheme (ETS), their price volatility and exchange rate fluctuations	
Current outlook	Long-term outlook
	ociated with fluctuations in macroeconomic indicators and es of raw materials affecting PGE Group's operations
Mitigation measures	



Optimisation of generation assets with the definition of generation scenarios for updated market parameters for electricity and CO<sub>2</sub> Monitoring of energy markets, CO<sub>2</sub>, gas, coal, certificates and trends in the sector Monitoring of risk exposure, determination of risk limits and hedging strategies for trading activities Risk of fluctuating electricity output resulting from a reduction in generation capacity or from interruptions in electricity generation **Current outlook** Long-term outlook Electricity production volume risk Risks associated with technological change **Mitigation measures** Production planning taking into account equipment failure rates and greenhouse gas emission limits System for real-time monitoring of the status and operating parameters of generating units Service agreements for efficient and rapid remediation Business continuity plans 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 outlook Long-term outlook Risks associated with the direction and process of investment Risks associated with technological change **Mitigation measures** Risks related to technological change Investment-specific risk analysis Public consultations Cooperation with state and local government authorities Monitoring of expected available connection capacities for generating sources Safeguards in contracts with contractors 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 outlook	Long-term outlook	
Risks related to customer retention and acquisition	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 addition Counterparty credit risk management system	onal ideas for implementing new product solutions	
Reputa	tion 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 outlook	Long-term outlook	
Risks related to reputation and management of the PGE brand	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 Crisis communication procedure Assessing the effectiveness of communication channels Brand strategy and its monitoring Systematic internal communication Meetings of management with employees	environment, including social media	

Meetings of management with employees Dialogue with the social side



# ENVIRONMENTAL MATTERS AT PGE SA

# 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
Tra em Em Ini Pei	ntrol of work environment aining of employees in occupational health and safety and carrying out job-specific instruction before an aployee is allowed to work in a particular position aploying staff with qualifications and health conditions appropriate to the needs of the company tial and periodic medical examinations riodic assessment of the technical condition of buildings, equipment and installations les regarding use of protective equipment and work tools
	Risk of social dialogue
со	nnected with a failure in achieving agreement between the companies' management and employees, what could lead to strikes/collective labour disputes
	Mitigation measures
Inf Co Co	ganisation of meetings concerning the market situation of PGE Group formation meetings on how and to what extent changes are being made nducting employee surveys ntinuous analysis of trade union activities alogue with the social side
	HR risk
	resulting in an undesirable turnover of staff
	Mitigation measures
Ru Ma Wc Me	mpetitive remuneration system, comparing to other employers les regarding recruitment naging employee development ork with high schools and colleges offering energy-related studies entoring aining on 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

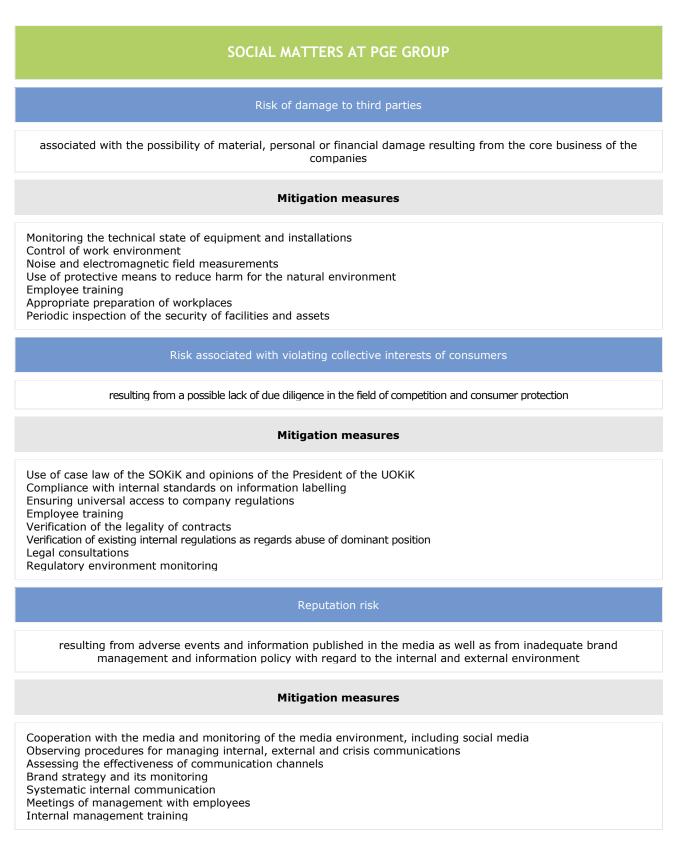
resulting in an undesirable turnover of staff

# **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 SA

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 provision of 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. About the report

The report on non-financial information of PGE Polska Grupa Energetyczna SA (hereinafter: PGE SA) and PGE Group (hereinafter: PGE Group), as a public interest entity, is prepared in accordance with the requirements of the amended Accounting Act, implementing Directive 2014/95/EU into Polish law.

PGE Group is also required to disclose the extent to which its business activities can be considered environmentally sustainable. This requirement stems from Regulation (EU) 2020/852 of the European Parliament and of the Council of 18 June 2020 on the establishment of a framework to facilitate sustainable investment, amending Regulation (EU) 2019/2088 and the Delegated Regulations on the establishment of a framework to facilitate sustainable investment (hereinafter: EU Environmental Taxonomy, Taxonomy). In accordance with Commission Delegated Regulation (EU) 2021/2178, the first annual reporting period covered 2021, for which eligibility indicators were reported. In the second reporting year, 2022, indicators for both eligibility and compliance with the Taxonomy are reported.

# | GRI 2-2 | GRI 2-3 |

The report is prepared on an annual basis and covers non-financial information for the period from January 1 to December 31, 2022 and includes consolidated data for PGE Group and the parent company, PGE Polska Grupa Energetyczna SA. As at December 31, 2022, PGE Group comprised 79 companies in which PGE Polska Grupa Energetyczna SA directly or indirectly held more than 50% of the share capital. In addition, in three companies, PGE Polska Grupa Energetyczna SA's (indirect) shareholding is 50%. They are under joint control with the other shareholder (PGE Polska Grupa Energetyczna SA and the other shareholder each hold 50% shares), which are in the case of:

- 1) Elektrownia Wiatrowa Baltica 2 sp. z o.o. ORSTED Baltica 2 Holding sp. z o.o.,
- 2) Elektrownia Wiatrowa Baltica 3 sp. z o.o. ORSTED Baltica 3 Holding sp. z o.o.,
- 3) PGE Soleo Kleszczów sp. z o.o. Kleszczów Municipality

Entities included in the reporting of sustainability issues:

In the case of employee issues, 31 companies were included in the non-financial report, which showed employment in 2022.

These are:

- 1. PGE SA
- 2. PGE GiEK
- 3. PGE Energia Odnawialna
- 4. PGE Dystrybucja
- 5. PGE Obrót
- 6. Circular economy
- 7. PGE EC
- 8. PGE Paliwa sp. z o.o.
- 9. PGE Toruń SA
- 10. EC Zielona Góra
- 11. COGENERATION
- 12. PGE Synergia
- 13. PGE Systemy
- 14. PGE Dom Maklerski
- 15. PGE Nowa Energia sp. z o.o.
- 16. PGE Baltica sp. z o.o.
- 17. PGE Ventures sp. z o.o.
- 18. PTS "Betrans" Sp. z o.o.
- 19. BESTGUM sp. z o.o.
- 20. Elbis sp. z o.o.
- 21. ELTUR-SERWIS sp. z o.o.
- 22. MegaSerwis sp. z o.o.
- 23. RAMB sp. z o.o.
- 24. ENESTA sp. z o.o.
- 25. ELMEN sp. z o.o.
- 26. Energoserwis Kleszczów sp. z o.o.



- 27. MEGAZEC sp. z o.o.28. ELBEST Security sp. z o.o.29. Energetyczne Systemy Pomiarowe sp. z o.o.30. PGE Gryfino 2050 sp. z o.o.
- 31. PGE Asekuracja

In the case of environmental issues, an annotation indicating the scope of data is included next to each GRI indicator from this area. The list of companies included in the calculation of the carbon footprint for PGE Group is given in the chapter "Carbon footprint of PGE Group".

The financial data presented in PGE Group's 2022 report on non-financial information is consistent with the information contained in PGE Group's consolidated financial statements for the year ended December 31, 2022, which have been prepared in accordance with the requirements of International Financial Reporting Standards ("IFRS") as adopted by the European Union.

The information on the application of corporate governance principles is based on the recommendations and principles contained in the "Best Practices for WSE Listed Companies 2021".

The 2022 Non-Financial Information Report has been prepared in accordance with current Global Reporting Initiative standards, including:

- GRI 1: Foundation (2021)
- GRI 2: General Disclosures (2021)
- GRI 3: Material Topics (2021)

In addition, the report includes our own indicators, references to the 10 Global Compact Principles, as well as to the Sustainable Development Goals (SDGs).

#### Identification of key impact areas

#### | GRI 3-1 |

The identification of key impact areas was the basis for determining the material topics to be presented in PGE Group's non-financial information report. This was done through internal and external consultations conducted in the form of workshops and panel discussions.

The information needs and expectations, resulting from the identification of actual and potential, negative and positive economic, environmental and human impacts necessary to be included in the non-financial report, were gathered from almost 80 key PGE stakeholder representatives during Polish- and English-language dialogue sessions held in mid-June 2022. They were conducted in accordance with the AA1000 SES standard, with the support of an independent external facilitator. The meetings were workshop-based.

Representatives of all PGE Group's key stakeholders were invited to the dialogue sessions, i.e.: central and local government administration, regulators and market supervision, shareholders, investors, customers, employees, banks and financing institutions, insurers, suppliers and subcontractors, industry, pro-social and environmental organisations, the media, CSR/ESG analysts, academia, local communities and the competition. Of the invited key stakeholders, only representatives of competitors did not attend the session.

The dialogue sessions were conducted using general forum discussions, subgroup discussions and individual work using an online questionnaire, which fostered the involvement of the participants and provided an opportunity to propose issues and exchange ideas. The PGE stakeholders present at the meetings were asked to review 39 aspects of the company's economic, environmental and human impact, allocated to 4 areas: business, environmental, employee and social. In addition to the aspects suggested as a result of the earlier analysis, stakeholders were also asked to indicate those areas of the company's impact that they consider to be key and were not included in the list.

As a result of the dialogue, PGE Group's key stakeholders identified among the most relevant topics for them to be discussed in the company's non-financial reporting:



- 1. Strategy and implementation
- 2. Preventing the emergence of non-compliance with laws and regulations (including those relating to the supply and use of products and services), as well as ensuring compliance with environmental regulations, preventing abuses, violations of environmental laws and regulations
- 3. Company's impact on the climate, including greenhouse gas emissions and ways to reduce them
- 4. Company's impact on the environment and preventive measures
- 5. Management of energy consumption at the organisation
- 6. Water management at the organisation
- 7. Management of waste

The results of the external sessions were presented to the Board of Directors of PGE SA and the members of management who are part of the Sustainability Committee, as well as those who work directly with them, more than 30 people in total. Discussions at the Board meeting and the Sustainability Committee meetings discussed the key themes of the company's economic, environmental and human impacts and agreed to prioritise these themes as issues of importance to be included in the report. The key themes were defined in relation to two dimensions:

- impact what influence PGE Group's activities have on the issue in question
- materiality the extent to which the topic is relevant to PGE Group's activities

As key external stakeholders identified environmental impact as the most significant influence of PGE Group on the environment, the members of PGE Group Sustainability Committee also raised the need to describe in the report on non-financial information the social impact, particularly related to the fair transformation process, as well as to present full transparency of business activities undertaken, in line with the principles of corporate governance applicable in PGE Group.

The key topics have been included in the report on non-financial information, in accordance with the principles of the GRI standards. With regard to the management of material topics, in accordance with GRI 3-3, PGE Group addresses the following aspects to which the indicated GRI indicators are assigned.

Material topics	GRI aspects	Indicator
1. Strategy and implementation	Economic results	<ul> <li>Own indicator - strategy implementation</li> <li>GRI 201-1</li> <li>GRI 201-2</li> </ul>
2. Compliance and regulations, including environmental regulations,	Not applicable	<ul> <li>GRI 2-47</li> <li>Own indicator - environmental penalties</li> </ul>
3. Company impact on climate - emission of greenhouse gases and ways of reducing them	Emissions	<ul> <li>GRI 305-1</li> <li>GRI 305-2</li> <li>GRI 305-3</li> <li>GRI 305-4</li> <li>GRI 305-5</li> <li>GRI 305-6</li> <li>GRI 305-7</li> <li>GRI 201-2</li> </ul>
4. Company's impact on the environment and preventive measures	Resources Biodiversity	<ul> <li>GRI 301-1</li> <li>GRI 301-2</li> <li>GRI 301-3</li> <li>GRI 304-1</li> <li>GRI 304-2</li> <li>GRI 304-3</li> <li>GRI 304-4</li> </ul>
5. Management of energy consumption at the organisation	Energy	<ul> <li>GRI 302-1</li> <li>GRI 302-2</li> <li>GRI 302-3</li> <li>GRI 302-4</li> </ul>

#### | GRI 3-2 |



		• GRI 302-5
6. Water management at the organisation	Water and wastewater	<ul> <li>GRI 303-1</li> <li>GRI 303-2</li> <li>GRI 303-3</li> <li>GRI 303-4</li> <li>GRI 303-5</li> </ul>
7. Management of waste	Waste	<ul> <li>GRI 306-1</li> <li>GRI 306-2</li> <li>GRI 306-3</li> <li>GRI 306-4</li> <li>GRI 306-5</li> </ul>
8. Labour issues with particular reference to the energy transition process	Employment Health and safety Education and training Diversity and equal treatment Total number of cases of discrimination	<ul> <li>GRI 401-1</li> <li>GRI 401-2</li> <li>GRI 401-3</li> <li>GRI 403-1</li> <li>GRI 403-2</li> <li>GRI 403-3</li> <li>GRI 403-4</li> <li>GRI 403-5</li> <li>GRI 403-6</li> <li>GRI 403-7</li> <li>GRI 403-8</li> <li>GRI 403-9</li> <li>GRI 404-1</li> <li>GRI 404-1</li> <li>GRI 404-2</li> <li>GRI 405-1</li> <li>GRI 405-2</li> <li>GRI 406-1</li> </ul>
9. Transparency of operations in accordance with PGE Group's corporate governance principles	Anti-corruption Child labour Forced labour Public policy Customer privacy	<ul> <li>GRI 205-1</li> <li>GRI 205-2</li> <li>GRI 205-3</li> <li>GRI 408-1</li> <li>GRI 409-1</li> <li>GRI 415-1</li> <li>GRI 418-1</li> </ul>

#### Reference to oil and gas sector indicators

In 2022, PGE Group produced electricity from gas at 2.79 TWh (4.2 per cent) and heat at 7.26 PJ (13.8 per cent) of its total production. Due to the GRI recommendations indicating that an entity is obliged to report sector indicators when a particular activity included in the sector standard is key for the company - after analysing the data, the authors of the report decided that due to the small percentage of gas-fired power generation activities in PGE Polska Grupa Energetyczna's total activities - indicators for the 'Oil and Gas' sector would not be included. However, we would like to point out that despite the absence of a sectoral reporting obligation, most of the data included in the indicators for the Oil and Gas sector are presented in this report.

#### Correction of information

#### | GRI 2-4 |

No adjustments have been made to the PGE SA and PGE Group's 2022 Non-Financial Report with respect to the 2021 report, in particular regarding the scope, coverage or measurement methods used in the report.



# **Report verification**

#### | GRI 2-5 |

The PGE SA and PGE Group 2022 Non-Financial Report has not been externally verified in its entirety. The following data were externally verified:

- financial data given behind the financial report and/or consistent with the 2022 Management Report. financial data given behind the financial report and/or consistent with the 2022 Management Report. The audit was conducted by PKF Consult spółka z ograniczoną odpowiedzialnością sp.k, in accordance with the National Standards on Auditing in the wording of the International Standards on Auditing adopted by the National Council of Statutory Auditors and in accordance with the Act of 11 May 2017 on Statutory Auditors, Audit Firms and Public Supervision ("Act on Statutory Auditors" - Dz. U. of 2020, item 1415, as amended) and EU Regulation No. 537/2014 of 16 April 2014 on detailed requirements for statutory audits of publicinterest entities ("EU Regulation" - OJ EU L158, as amended).
- data concerning CO<sub>2</sub> emissions from installations of PGE Group participating in the EU ETS system the volume of CO<sub>2</sub> emissions was verified by an authorised and independent accredited verifier, from the list of accredited verifiers published on the KOBiZE website. The volume of CO<sub>2</sub> emissions was calculated on the basis of and in accordance with the legal regulations of the ETS, in particular with the decisions granted by the competent authorities, authorising the emission of greenhouse gases from the installation. Operators are responsible for preparing and submitting reports on their annual GHG emissions in accordance with the rules and the approved monitoring plan.
- Certification of the Sustainability Criterion for biomass combustion applies to PGE Energia Ciepła SA for the locations: Szczecin Branch and Kielce Branch, the subsidiary Zespół Elektrociepłowni Wrocławskich KOGENERACJA SA Elektrociepłownia Czechnica and the Dolna Odra Branch of PGE Górnictwo i Energetyka Konwencjonalna SA. where the System for the Sustainability Criterion has been implemented and certified. Current certificates are available on the website of the Oil and Gas Institute (INiG). Participants in INiG's sustainability criterion are required to certify the entire life cycle of biofuels, bioliquids and biomass fuels. Registration in the sustainability criterion system means that the organisation meets the requirements of the Sustainability Criteria (SCC), as required by the European Commission (RED II Directive).
- EMAS verification applies to the full range of environmental data in the case of two branches of PGE Górnictwo i Energetyka Konwencjonalna companies Elektrownia Opole and Zespół Elektrowni Dolna Odra, and a branch of PGE Energia Ciepła company Elektrociepłownia Wybrzeże. The Eco-Management and Audit Scheme (EMAS PI:2999), together with the prepared environmental declaration, is subject to annual verification by an independent accredited verifier. EMAS registration means compliance with the highest standards in environmental management and audit.



# 5.1 GRI Content Compliance Index and Global Compact Principles

Statement of application	PGE Polska Grupa Energetyczna SA and PGE Group submitted a report in accordance with the GRI Standards for the period January 1 - December 31, 2022.
GRI 1 applied	GRI 1: Basics 2021
Sectoral GRI standards in place	Not applicable

In the non-financial report on the activities of PGE Polska Grupa Energetyczna SA and PGE Group for 2022, the materiality analysis GRIs have been reported. As bypasses have not been applied - the part of the GRI table that relates to them has been removed.

GRI standard / other source	Disclosure	Site
	2-1 Organisational data	6
	2-2 Entities included in the reporting of sustainability issues	40, 180
	2-3 Reporting period, frequency and contact details	180, 251
	2-4 Correction of information	183
	2-5 External verification	184
	2-6 Business activities, chain of values and other relations	6, 144
	2-7 Employees	231
	2-8 Employees who are not employed	231
	2-9 Management structure and composition of management bodies	129
	2-10 Nomination and election of members of the highest management bodies	137
	2-11 Chairman of the highest management body	139
	2-12 The role of the top management body in overseeing impact management	145
	2-13 Delegation of responsibility for impact management	145
GRI 2: General	2-14 The role of top management in reporting on sustainability issues	146
Disclosure	2-15 Conflict of interests	155
2021	2-16 Communication of critical problems	140
	2-17 Collective knowledge of the highest governance body	146
	2-18 Evaluation of the performance of the highest governance body	140
	2-19 Remuneration policy	140
	2-20 Process to determine remuneration	141
	2-21 Total annual remuneration ratio	232
	2-22 Sustainability strategy statement	4, 145
	2-23 Commitments included in policies	104, 147
	2-24 Implementation of commitments included in policies	104, 147
	2-25 Remediation processes for negative impacts	108, 151
	2-26 Mechanisms for seeking advice and raising concerns	151
	2-27 Compliance with laws and regulations	243
	2-28 Membership of associations and organisations	81
	2-29 Approach to stakeholder engagement	77
	2-30 Collective bargaining	232
GRI 3: Material	3-1 Process to determine material topics	181
Topics 2021	3-2 List of material topics	182
	Strategy and implementation	
GRI 3: Material Topics 2021	3-3 Management of material topics	10
Own indicator	Strategy implementation	14
GRI 201: Economic Performance	GRI 201-1	244
	GRI 201-2	163



Legal a	nd regulatory compliance, including compliance with environmental reg	ulations
<b>GRI 3:</b> Material Topics 2021	3-3 Management of material topics	147
Own indicator	Monetary value of fines for non-compliance with environmental laws and regulations at companies that have the biggest impact on the surroundings	228
General disclosures	GRI 2-27	243
	ין impact on climate - emission of greenhouse gases and ways of reduci	ng them
GRI 3: Material	3-3 Management of material topics	10, 32
Topics 2021 Own indicator	Climate awareness	32
GRI 305:	GRI 305-1	
Emissions		202
	GRI 305-2	205
	GRI 305-3	207
	GRI 305-4	211
	GRI 305-5	213
	GRI 305-6	215
	GRI 305-7	215
	Company's impact on the environment and preventive measures	
GRI 3: Material Topics 2021	3-3 Management of material topics	32
GRI 301: Resources	GRI 301-1	188
	GRI 301-2	189
	GRI 301-3	189
GRI 304: Biodiversity	GRI 304-1	62
-	GRI 304-2	62, 216
	GRI 304-3	62, 220
	GRI 304-4	67, 221
Own indicator	Research and development projects focused on environmental protection	70
	Management of energy consumption at the organisation	
GRI 3: Material Topics 2021	3-3 Management of material topics	37
Energy	GRI 302-1	190
	GRI 302-2	191
	GRI 302-3	191
	GRI 302-4	193
	GRI 302-5	193
	Water management at the organisation	
<b>GRI 3:</b> Material Topics 2021	3-3 Management of material topics	47
Water and	GRI 303-1	47
wastewater	GRI 303-2	47
	GRI 303-3	
	GRI 303-3 GRI 303-4	194
		197
	GRI 303-5	200
CDT 2: Material	Management of waste	
GRI 3: Material Topics 2021	3-3 Management of material topics	51, 56
Waste	GRI 306-1	51, 222
	GRI 306-2	51, 56
	GRI 306-3	223
	GRI 306-4	224
	GRI 306-5	226



	Labour issues with a particular focus on the energy transition process	5
<b>GRI 3:</b> Material Topics 2021	3-3 Management of material topics	74,87
Employment	GRI 401-1	232
	GRI 401-2	94
	GRI 401-3	233
Health and safety	GRI 403-1	90
	GRI 403-2	92
	GRI 403-3	91, 94
	GRI 403-4	93
	GRI 403-5	94
	GRI 403-6	94
	GRI 403-7	94
	GRI 403-8	90
	GRI 403-9	240
Training and education	GRI 404-1	235
	GRI 404-2	94
	GRI 404-3	235
Diversity and equal treatment	GRI 405-1	236
	GRI 405-2	89
Total number of cases of discrimination	GRI 406-1	245

Transparency of operations in accordance with PGE Group's corporate governance principles

GRI 3: Material Topics 2021	3-3 Management of material topics	129
Anti-corruption	GRI 205-1	154
	GRI 205-2	246
	GRI 205-3	245
Child labour	GRI 408-1	104
Forced labour	GRI 409-1	104
Public policy	GRI 415-1	116
Customer privacy	GRI 418-1	157
Own indicator	Hours of training on human rights policies	245

Global Compact principles	Page
GC-1 Support and respect the protection of internationally proclaimed human rights	147, 151
GC-2 Ensure that business practices are not complicit in human rights abuses	90, 151, 245
GC-3 Uphold the freedom of association	98, 232
GC-4 Eliminate all forms of forced and compulsory labor	104
GC-5 Abolish child labor	88, 104
GC-6 Eliminate discrimination in employment and occupation	88, 90, 104, 231,232, 234, 236
GC-7 Adopt a precautionary approach to environmental challenges	4,32
GC-8 Conduct environmentally responsible activities	4, 32
GC-9 Encourage the development and diffusion of environmentally friendly	4, 32
GC-10 Fight corruption in all its forms including extortion and bribery	147, 152, 246



# 5.2 Relevant indicators for PGE Group and PGE SA

SELECTED INDICATORS IN THE ENVIRONMENTAL AREA AT PGE GROUP:

#### Resources

Materials by weight and volume

| GRI 301-1 |

# PGE Górnictwo i Energetyka Konwencjonalna

1	Total weight used to produce key products and services in the reporting period by:	
1a	Non-renewable materials, including:	
	raw materials:	58 194 628
	hard coal [Mg]	7 355 732
	lignite [Mg]	50 784 793
	light oil [Mg]	7 004
	heavy oil [Mg]	47 099
	materials used in the production process but which are not part of the final product (e.g. lubricants for production machinery) [kg].	2 668 623
	semi-finished products	not applicable
	packaging materials	not applicable
1b	Renewable materials, including:	
	raw materials (biomass) [Mg]	1 517
	materials that are used in the production process but are not part of the final product (e.g. lubricants for production machinery)	not applicable
	semi-finished products	not applicable
	packaging materials	not applicable

#### | GRI 301-1 |

1	Total weight used to produce key products and services in the reporting period by:	
1a	Non-renewable materials, including:	
	raw materials:	
	hard coal [Mg]	3 380 144
	lignite [Mg]	172 673
	gas [m <sup>3</sup> ]	832 945 291
	light oil [Mg]	14 246
	heavy oil (mazut) [Mg]	4 412
	municipal waste [Mg]	86 747
	materials used in the production process but which are not part of the	
	final product (e.g. lubricants for production machinery) [kg].	137 143
	semi-finished products	not applicable
	packaging materials	not applicable
1b	Renewable materials, including:	
	raw materials (biomass) [Mg]	479 607
	materials that are used in the production process but are not part of the	
	final product (e.g. lubricants for production machinery)	not applicable
	semi-finished products	not applicable
	packaging materials	not applicable



#### | GRI 301-1 |

#### PGE Energia Odnawialna

1	Total weight used to produce key products and services in the reporting period by:	
1a	Non-renewable materials, including:	
	raw materials:	not applicable
	materials that are used in the production process but are not part of the final product (e.g. lubricants for production machinery)	
	production oils [litres]	13 489
	production lubricants [kg]	15 412
	semi-finished products	not applicable
	packaging materials	not applicable
1b	Renewable materials	not applicable

#### Use of materials from recycling

| GRI 301-2 |

# PGE Górnictwo i Energetyka Konwencjonalna, PGE Energia Ciepła and subsidiaries, PGE Energia Odnawialna, PGE Dystrybucja

1	Percentage of recycled materials used to produce the organisation's core products and services	not applicable
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recycled material - material that replaces virgin materials that is purchased or sourced internally or externally and that is not a by-product and non-product output (NPO) produced by the organisation

Recovered products and packaging

#### | GRI 301-3 |

# PGE Górnictwo i Energetyka Konwencjonalna, PGE Energia Ciepła and subsidiaries, PGE Energia Odnawialna, PGE Dystrybucja

1 Percentage of recovered products per product category not applicable

Energy

Energy consumption at the organisation

| GRI 302-1 |

Total energy consumption at the organisation	2022	2021
Electricity (kWh)	11 673 169 465	11 152 880 829
Thermal energy (GJ)	2 244 110.31	2 501 120.11

Volume of total sold:	2022	2021
Electricity (kWh)	100 186 719 990	107 633 043 564
Thermal energy (GJ)	51 282 802.25	53 675 235.06
Cooling (GJ)	0	0
Steam (GJ)	1 389 903	1 398 948.94



#### | GRI 302-1 |

# PGE Górnictwo i Energetyka Konwencjonalna

1	Total consumption of energy from non-renewable sources, in joules or multiples thereof, broken dow by the raw material from which it was produced	
	lignite [Mg]	409 644 339
	hard coal [Mg]	160 305 001
	heavy oil (mazut) [Mg]	1 918 943,5
	light oil [Mg]	301 345
2	Total consumption of energy from renewable sources, in joules or mu the raw material from which it was generated	ltiples thereof, broken down by
	biomass [GJ]	23 709
3	Total consumption	
	Electricity [MWh]	7 126 720,5
	Thermal energy [GJ]	1 465 382
	Cooling	not applicable
	Steam	not applicable
4	Volume of total sold:	
	Electricity [MWh]	54 725 758
	Thermal energy [GJ]	2 518 553
	Cooling	not applicable
	steam [GJ]	702 326
5	Total energy consumption in the organisation in joules or multiples [GJ]	372 140 346
7	Source of conversion factors used	1 MWh = 3.6 GJ

## | GRI 302-1 |

# PGE Energia Ciepła and subsidiaries

1	Total consumption of energy from non-renewable sources, in joules or by the raw material from which it was produced	r multiples thereof, broken down
	hard coal [Mg]	74 484 245
	lignite [Mg]	1 425 960
	gas [GJ]	23 811 843
	municipal waste [GJ]	743 808
	heavy oil (mazut) [Mg]	184 734
	light oil [Mg]	610 902
2	Total consumption of energy from renewable sources, in joules or mul raw material from which it was generated	
	biomass [GJ]	4 250 885
3	Total consumption	
	Electricity [MWh]	1 017 713
	Thermal energy [GJ]	1 101 563
	Cooling	not applicable
	Steam	not applicable
4	Volume of total sold:	
	Electricity [MWh]	7 398 207
	Thermal energy [GJ]	49 509 094
	Cooling	not applicable
	steam [GJ]	not applicable
5	Total energy consumption in the organisation in joules or multiples [GJ]	57 081 877
6	Standards, methodologies, assumptions or tools used	scales, fuel analysis, electricity and heat units of measure
7	Source of conversion factors used	1 MWh = 3.6 GJ

## | GRI 302-1 |

1	1 Total consumption of energy from non-renewable sources, in joules or multiples thereof, broken down by the raw material from which it was produced	
	water [MWh]	4 157



2	Total consumption of energy from renewable sources, in joules or mu raw material from which it was generated	ltiples thereof, broken down by the
	wind [MWh]	95 750
	water [MWh]	6 498
	sunlight [MWh]	23.6
3	Total consumption:	
	Electricity [MWh]	9 070
	Thermal energy [GJ]	2 577
	Cooling	not applicable
	Steam	not applicable
4	Volume of total sold:	
	Electricity [MWh]	3 006 565
	thermal energy	not applicable
	Cooling	not applicable
	steam [MWh]	not applicable
5	Total energy consumption in the organisation in joules or multiples	115 500
6	Standards, methodologies, assumptions or tools used	Quantities in GJ based on the difference (gross-net)*3.6 GJ between the amount of electricity produced by the generating units (gross) as measured at the terminals of the generators and the amounts of electricity injected into the DSO/OSP grid
7	Source of conversion factors used	not applicable

	Consumed non-renewable raw materials + Consumed renewable raw materials +
Total energy consumption at the organisation	Electricity, heat, cooling and steam purchased for the organisation = + Self-generated electricity, heat, cooling and
	Steam that has not been consumed Electricity, heat, cooling and steam sold

Energy consumption outside the organisation

| GRI 302-2 |

# PGE Górnictwo i Energetyka Konwencjonalna, PGE Energia Ciepła and subsidiaries, PGE Energia Odnawialna, PGE Dystrybucja

No data from external counterparties

Energy intensity

| GRI 302-3 |

## PGE Górnictwo i Energetyka Konwencjonalna

1a	Energy intensity index for organisations	10,3
	Selected denominator for the calculation of the indicator	
1b	(organisation-specific)	Sales of electricity and heat expressed in MWh
1c	Energy types included in the energy efficiency index	
	Fuels	YES
	electricity	YES
	thermal energy	YES



	cooling	NO
	steam	YES
	all	NO
2	Indicator by branch:	
	Elektrownia Bełchatów (ELB) [GJ/MWh]	10.7
	Elektrownia Turów (ELT) [GJ/MWh]	10
	Elektrownia Opole (ELO) [GJ/MWh]	9.2
	Elektrownia Rybnik (ELR) [GJ/MWh]	10.8
	Elektrownia Dolna Odra (ELDO) [GJ/MWh]	10.6
3	The indicator covers energy consumption:	within the organisation

# | GRI 302-3 |

# PGE Energia Ciepła and subsidiaries

1a	Energy intensity index for organisations [GJ/MWh]	4.7
1b	Selected denominator for the calculation of the indicator (organisation-specific)	production volume
1c	Types of energy included in the energy efficiency indicator:	· · ·
	fuels	YES
	electricity	YES
	thermal energy	YES
	cooling	NO
	steam	YES
	all	NO
2	Indicator by branch:	
	Zespół Elektrociepłowni Wrocławskich KOGENERACJA SA [GJ/MWh]	4.4
	Branch 1 in Kraków [GJ/MWh]	4.8
	PGE Toruń SA [GJ/MWh]	3.9
	Branch Wybrzeże in Gdańsk [GJ/MWh]	4.2
	Elektrociepłownia "Zielona Góra" SA [GJ/MWh]	5.5
	Branch Elektrociepłownia w Bydgoszczy [GJ/MWh]	4.7
	Branch Elektrociepłownia w Gorzowie Wielkopolskim [GJ/MWh]	5.1
	Branch Elektrociepłownia w Kielcach [GJ/MWh]	4.9
	Branch Elektrociepłownia w Lublinie Wrotków [GJ/MWh]	4.7
	Branch Elektrociepłownia w Rzeszowie [GJ/MWh]	4.5
	Branch Elektrociepłownia w Zgierzu [GJ/MWh]	6.5
	Branch in Szczecin - Elektrociepłownia Pomorzany [GJ/MWh]	6.3
	Branch in Szczecin -Elektrociepłownia Szczecin [GJ/MWh]	5.6
3	The indicator covers energy consumption:	within the organisation

# | GRI 302-3 |

1a	Energy intensity index for organisations [GJ/MWh]	0.65
1b	Selected denominator for the calculation of the indicator (organisation-specific)	2 829 068
1c	The intensity ratio was calculated as electricity consumption (total energy purchases from sellers and purchases from other energy markets for the pumped storage plant - SAP data source) to net energy produced.	
2	Types of energy included in the energy efficiency indicator:	
	Fuels	NO
	electricity	YES
	thermal energy	NO
	cooling	NO
	steam	NO
	all	NO
3	The indicator covers energy consumption:	within the organisation



#### Reducing energy consumption

### | GRI 302-4 |

# PGE Górnictwo i Energetyka Konwencjonalna

1	The magnitude of the achieved reduction in energy consumption as a direct result of maintenance (modernisation) measures or an efficiency initiative, in joules or multiples	1 857.5 GJ
2	Types of energy included in the indicated energy reduction:	
	fuels	NO
	electricity	YES
	thermal energy	NO
	cooling	NO
	steam	NO
	all	NO
3	Basis for calculating reductions in energy consumption, including	
3a	Base year or base level	2022
3b	Justification for the choice of the year or baseline	Start of reporting in 2022
4	Standards, methodologies, assumptions or tools used	REGULATION OF THE MINISTER OF ENERGY of 5 October 2017 on the detailed scope and manner of drawing up an energy efficiency audit and methods for calculating energy savings.

## | GRI 302-4 |

# PGE Energia Ciepła and subsidiaries

1	The magnitude of the achieved reduction in energy consumption as a direct result of maintenance (retrofitting) measures or an efficiency initiative, in joules or multiples	23 148 GJ
2	Types of energy included in the indicated energy reduction:	
	fuels	NO
	electricity	YES
	thermal energy	YES
	cooling	NO
	steam	NO
	all	NO
3	Basis for calculating reductions in energy consumption, including	
3a	Base year or base level	2022
3b	Justification for the choice of the year or baseline	Start of reporting in 2022
4	Standards, methodologies, assumptions or tools used	REGULATION OF THE MINISTER OF ENERGY of 5 October 2017 on the detailed scope and manner of drawing up an energy efficiency audit and methods for calculating energy savings.

Reducing energy consumption within products and services

| GRI 302-5 |

1a	Achieved reduction in energy demand of products sold during the reporting period, in joules or multiples [GJ].	23 148
1b	Achieved reduction in energy demand of sold services during the reporting period, in joules or multiples	not applicable
2	Basis for calculating energy demand reduction, including	
2a	Base year or base level	2021
2b	Justification for the choice of the year or baseline	Methodology as for white certificates
3	Please indicate the standards, methodologies, assumptions or tools used	Methodology as for white certificates



#### | GRI 302-5 |

### PGE Górnictwo i Energetyka Konwencjonalna, PGE Energia Odnawialna, PGE Dystrybucja

1 Achieved reduction in energy demand of products sold during the reporting period not applicable

#### Water management

1	Total water abstraction in megalitres*:	23 343 193
2	Total water discharged (sum of waste water, used water and unused water) in megalitres	23 200 358
3	Total water consumption from all areas in megalitres**	155 735
*Tho	data concerns the following companies: PGE Górnictwo i Energetyka Konwencionalna	PGE Energia Cienta with

\*The data concerns the following companies: PGE Górnictwo i Energetyka Konwencjonalna, PGE Energia Ciepła with subsidiaries and PGE Energia Odnawialna.

\*\* The volume of 12,901 megalitres does not balance. The difference relates to PGE Górnictwo i Energetyka Konwencjonalna and is due to the fact that the company discharges more water than it takes in. The additional discharge volume is accounted for by the amount of water from outside the organisation treated at PGE GiEK's treatment plants and rainwater and snowmelt, which also needs to be accounted for in terms of discharge.

Water intake

| GRI 303-3 |

## PGE Górnictwo i Energetyka Konwencjonalna

1	Total water abstraction by organisation at all sites, in megalitres,	by source:		
	surface water	804 740		
	groundwater	2 187		
	sea water	not applicable		
	production water (obtained as a result of extraction, processing or use of any other raw material)	194 062		
	water obtained from an indirect source (e.g. local water supply)	501.5		
2	Total water abstraction by organisation at water-scarce locations,	, in megalitres, by source:		
	surface water	not applicable		
	groundwater	not applicable		
	sea water	not applicable		
	production water (obtained as a result of extraction, processing or use of any other raw material)	not applicable		
	water obtained from an indirect source (e.g. local water supply)	not applicable		
3	Breakdown of the total water abstraction from each source in me categories:	galitres, according to the following		
3a	All locations			
	Fresh water (<1000mg/L of total dissolved substances (TDS))	966 779		
	surface water	782 871		
	groundwater	2 187		
	sea water	not applicable		
	production water (obtained as a result of extraction, processing or use of any other raw material)	181 266		
	water obtained from an indirect source (e.g. local water supply)	455		
	residual (>1000mg/L of total dissolved substances (TDS) 34 711			
	surface water	21 869		
	groundwater	not applicable		
	sea water	not applicable		
	production water (obtained as a result of extraction, processing or use of any other raw material)	12 796		
	water obtained from an indirect source (e.g. local water supply)	46		
3b	Locations with a water deficit			
	Fresh water (<1000mg/L of total dissolved substances (TDS))			
	surface water	not applicable		
	groundwater	not applicable		
	sea water	not applicable		
	production water (obtained as a result of extraction, processing or use of any other raw material)	not applicable		
	water obtained from an indirect source (e.g. local water supply)	not applicable		



	residual (>1000mg/L of total dissolved substances (TDS)	
	surface water	not applicable
	groundwater	not applicable
	sea water	not applicable
	production water (obtained as a result of extraction, processing or use of any other raw material)	not applicable
	water obtained from an indirect source (e.g. local water supply)	not applicable
4	Contextual information to understand how the data were collected and calculated, such as standards, methodologies, assumptions made	Regulation of the Minister of Infrastructure of July 13, 2021 on the form and manner of monitoring of surface water bodies and groundwater bodies (Polish Journal of Laws of 2021 item 1576)

## | GRI 303-3 |

1	Total water abstraction by organisation at all sites, in megalitres,	by source:	
	surface water	119 564	
	groundwater	1 979	
	sea water	44 287	
	production water (obtained as a result of extraction, processing or use of		
	any other raw material)	0	
	water obtained from an indirect source (e.g. local water supply)	1 233	
2	Total water abstraction by organisation at water scarcity locations	, in megalitres, by source:	
	surface water	not applicable	
	groundwater	not applicable	
	sea water	not applicable	
	production water (obtained as a result of extraction, processing or use of any other raw material)	not applicable	
	water obtained from an indirect source (e.g. local water supply)	not applicable	
2	Breakdown of total water withdrawals from each source listed in S		
3	megalitres, by the following categories:	· · · · · · · · · · · · · · · · · · ·	
3a	All locations		
	Fresh water (<1000mg/L of total dissolved substances (TDS))		
	surface water	119 564	
	groundwater	1 979	
	sea water	30 210	
	production water (obtained as a result of extraction, processing or use of		
	any other raw material)	0	
	water obtained from an indirect source (e.g. local water supply)	1 233	
	residual (>1000mg/L of total dissolved substances (TDS)		
	surface water	not applicable	
	groundwater	not applicable	
	sea water	14 078	
	production water (obtained as a result of extraction, processing or use of any other raw material)	not applicable	
	water obtained from an indirect source (e.g. local water supply)	not applicable	
3b	Locations with a water deficit		
	Fresh water (<1000mg/L of total dissolved substances (TDS))		
	surface water	not applicable	
	groundwater	not applicable	
	sea water	not applicable	
	production water (obtained as a result of extraction, processing or use of		
	any other raw material)	not applicable	
	water obtained from an indirect source (e.g. local water supply)	not applicable	
	residual (>1000mg/L of total dissolved substances (TDS)		
	surface water	not applicable	
	groundwater	not applicable	
	sea water	not applicable	
	production water (obtained as a result of extraction, processing or use of any other raw material)	not applicable	
	water obtained from an indirect source (e.g. local water supply)	not applicable	
4	Contextual information to understand how the data were collected and calculated, such as standards, methodologies, assumptions made	The data were collected according to the specific operation of the selected installation. In the case of abstracted	



water from waterworks, the quantities abstracted have been converted on the basis of meter readings including contracts. In the case of surface water, the quantities abstracted were presented on the basis of current reporting and water abstraction records, and other regulatory reporting.

#### | GRI 303-3 |

1	Total water abstraction by organisation at all sites, in megalitres	, by source:
	surface water	22 174 638
	groundwater	5
	sea water	not applicable
	production water (obtained as a result of extraction, processing or use of any other raw material)	not applicable
	water obtained from an indirect source (e.g. local water supply)	7
2	Total water abstraction by organisation at water-scarce locations	
_	surface water	not applicable
	groundwater	not applicable
	sea water	not applicable
	production water (obtained as a result of extraction, processing or use of any other raw material)	not applicable
	water obtained from an indirect source (e.g. local water supply)	not applicable
	Breakdown of total water withdrawals from each source listed in	
3	megalitres, by the following categories:	
3a	All locations	
54	Fresh water (<1000mg/L of total dissolved substances (TDS))	
	surface water	22 174 637
	groundwater	5
	sea water	not applicable
	production water (obtained as a result of extraction, processing or use	not applicable
	of any other raw material)	
	water obtained from an indirect source (e.g. local water supply)	7
	residual (>1000mg/L of total dissolved substances (TDS)	
	surface water	not applicable
	groundwater	not applicable
	sea water	not applicable
	production water (obtained as a result of extraction, processing or use of any other raw material)	not applicable
	water obtained from an indirect source (e.g. local water supply)	not applicable
3b	Locations with a water deficit	
	Fresh water (<1000mg/L of total dissolved substances (TDS))	
	surface water	not applicable
	groundwater	not applicable
	sea water	not applicable
	production water (obtained as a result of extraction, processing or use of any other raw material)	not applicable
	water obtained from an indirect source (e.g. local water supply)	not applicable
	residual (>1000mg/L of total dissolved substances (TDS)	
	surface water	not applicable
	groundwater	not applicable
	sea water	not applicable
	production water (obtained as a result of extraction, processing or use of any other raw material)	not applicable
	water obtained from an indirect source (e.g. local water supply)	not applicable
4	Contextual information to understand how the data were collected and calculated, such as standards, methodologies, assumptions made	Surface water consumed for electricity production calculated from average daily flows resulting from daily production + proxies from water flow reports manually run from flow tables. The amount of water for turbine bearing cooling is determined by measuring the water flow through the coolers times the hydrogenerator hours



worked. Water taken for welfare purposes according to the installed water meter.

#### | GRI 303-3 |

# PGE Dystrybucja

1	Total water abstraction by organisation at all sites, in megalitres,	by source:
	surface water	not applicable
	groundwater	not applicable
	sea water	not applicable
	production water (obtained as a result of extraction, processing or use of	
	any other raw material)	not applicable
	water obtained from an indirect source (e.g. local water supply)	not applicable
2	Total water abstraction by organisation at water scarcity locations	, in megalitres, by source:
	surface water	0
	groundwater	0.3
	sea water	0
	production water (obtained as a result of extraction, processing or use of	
	any other raw material)	not applicable
	water obtained from an indirect source (e.g. local water supply)	not applicable
	Contextual information to understand how the data were	
3.	collected and calculated, such as standards, methodologies,	PGE Dystrybucja SA uses the water
	assumptions made	supply network to a significant extent

## Water discharge

## | GRI 303-4 |

# PGE Górnictwo i Energetyka Konwencjonalna

1	Total water discharged (sum of effluent, consumed water and unu locations, due to discharge destination missions, if applicable:	used water) in megalitres, at all
	surface water	879 467
	groundwater	0
	sea water	0
	water obtained from an indirect source (e.g. local water supply) and an indication of what proportion of this value has been transferred to other organisations (if applicable)	31
2	Total water discharged (sum of waste water, used water and unu down into:	sed water) in megalitres, broken
	Fresh water (<1000mg/L of total dissolved substances (TDS))	
	surface water	867 439.5
	groundwater	0
	sea water	0
	water obtained from an indirect source (e.g. local water supply)	31
	residual (>1000mg/L of total dissolved substances (TDS)	
	surface water	12 026.5
	groundwater	0
	sea water	0
	water obtained from an indirect source (e.g. local water supply)	0
3	Total water discharged (sum of wastewater, used water and unus with water shortages, due to discharge targets, if applicable:	sed water) in megalitres, at locations
	Fresh water (<1000mg/L of total dissolved substances (TDS))	575 212
	residual (>1000mg/L of total dissolved substances (TDS)	0
4	Substances that may present a hazard	
	How substances of concern are defined	Hazardous substances have been defined on the basis of Annex 1 to the Regulation of the Minister of Maritime Affairs and Inland Navigation of 12 July 2019 on substances particularly harmful to the aquatic environment and conditions to be met when discharging waste water into waters or into the ground, and when discharging rainwater or snowmelt into waters or into aquatic facilities, as well as balances taking into account the quality of intake water.



		Characteristic substances with a higher value at discharge than at abstraction were identified and discharge limits were set for them. When setting the limits, the environmental objectives set out in the current aPGW were taken into account. The characteristic substances are different and location-dependent and are included in the permits. These are mainly sulphate, chlorides, suspended solids, petroleum hydrocarbons and heavy metals.
	Approach adopted regarding the limit on the discharge/discharge of substances of potential concern	Assessment of discharges is carried out in accordance with the Waste Water Discharge Regulation and current permits.
	Number of cases of non-compliance with discharge limits/discharges of substances of concern	0
5	Contextual information to understand how the data were collected and calculated, such as standards, methodologies, assumptions made	Data is collected and reported in accordance with applicable regulations. Testing methodology in accordance with water law permit and wastewater discharge ordinance.

# | GRI 303-4 |

1	Total water discharged (sum of effluent, consumed water and un locations, due to discharge destination missions, if applicable:	used water) in megalitres, at all
	surface water	114 057
	groundwater	0
	sea water	44 776
	water obtained from an indirect source (e.g. local water supply) and an indication of what proportion of this value has been transferred to other organisations (if applicable)	961
2	Total water discharged (sum of waste water, used water and unu down into:	ised water) in megalitres, broken
	Fresh water (<1000mg/L of total dissolved substances (TDS))	
	surface water	114 057
	groundwater	0
	sea water	30 409
	water obtained from an indirect source (e.g. local water supply)	715
	residual (>1000mg/L of total dissolved substances (TDS)	
	surface water	0
	groundwater	0
	sea water	14 367
	water obtained from an indirect source (e.g. local water supply)	245
3	Total water discharged (sum of wastewater, used water and unu with water shortages, due to discharge targets, if applicable:	sed water) in megalitres, at locations
	Fresh water (<1000mg/L of total dissolved substances (TDS))	not applicable
	residual (>1000mg/L of total dissolved substances (TDS)	not applicable
4	Substances that may present a hazard	
	How substances of concern are defined	Substances of concern are defined in the required administrative decisions (water permits, integrated permit), which agree on the concentration limits and the scope of substances to be tested on the basis of current legislation. In some cases, in addition, Substances of Concern were defined in contracts with (water and sewer) suppliers.
	Approach adopted regarding the limit on the discharge/discharge of substances of potential concern	Rational management, reduction of consumption, quantitative and qualitative limits in accordance with administrative decisions, values resulting from legislation and applicable standards.



	Number of cases of non-compliance with discharge limits/discharges of substances of concern	There were incidental events related to the increase of selected parameters of the discharged wastewater, in particular there were breakdowns of the wastewater treatment plant in the commissioning process after a maintenance shutdown. The violations that occurred were so insignificant that they did not lead to administrative proceedings and the imposition of criminal sanctions.
5	Contextual information to understand how the data were collected and calculated, such as standards, methodologies, assumptions made	The aggregated data was compiled on the basis of reports and statements required by law. Total water discharged including the discharge of wastewater into third-party sewers was provided on the basis of the records kept. The state and composition of wastewater - based on results of analyses by accredited entities.

# | GRI 303-4 |

1	Total water discharged (sum of effluent, consumed water and un locations, due to discharge destination missions, if applicable:	used water) in megalitres, at all
	surface water	22 161 067
	groundwater	not applicable
	sea water	not applicable
	water obtained from an indirect source (e.g. local water supply) and an indication of what proportion of this value has been transferred to other organisations (if applicable)	9.5
2	Total water discharged (sum of waste water, used water and und down into:	used water) in megalitres, broken
	Fresh water (<1000mg/L of total dissolved substances (TDS))	
	surface water	not applicable
	groundwater	not applicable
	sea water	not applicable
	water obtained from an indirect source (e.g. local water supply)	not applicable
	residual (>1000mg/L of total dissolved substances (TDS)	
	surface water	not applicable
	groundwater	not applicable
	sea water	not applicable
	water obtained from an indirect source (e.g. local water supply)	not applicable
3	Total water discharged (sum of wastewater, used water and unu with water shortages , due to discharge targets, if applicable:	
	Fresh water (<1000mg/L of total dissolved substances (TDS))	not applicable
	residual (>1000mg/L of total dissolved substances (TDS)	not applicable
4	Substances that may present a hazard	not applicable
	How substances of concern are defined	Substances that may constitute a hazard are defined in water permits in accordance with the provisions of the Act of 20 July 2017 - Water Law (i.e. Journal of Laws of 2021, item 2233, as amended) and the Ordinance of 12 July 2019 on substances particularly harmful to the aquatic environment and conditions to be met when discharging waste water into waters or into the ground, and when discharging rainwater or snowmelt into waters or into water facilities.
	Approach adopted regarding the limit on the discharge/discharge of substances of potential concern	The company takes into account the risk of harmful substances entering the environment in its operations. Mainly preventive measures are taken, which consist in: 1. installation of oil separators in places where there may be at least a risk of oil



		<ul> <li>substances entering the water,</li> <li>2. prevention of failures by continuous monitoring of equipment operation by the power plant staff, regular inspections, carrying out repair, operation and modernisation works,</li> <li>3. observance of the provisions contained in the equipment operation instructions,</li> <li>4. securing the facilities with ecological first-aid kits for elimination of the effects of possible oil spills and installation of oil separators.</li> </ul>
	Number of cases of non-compliance with discharge limits/discharges of substances of concern	not applicable
5	Contextual information to understand how the data were collected and calculated, such as standards, methodologies, assumptions made	The calculations take into account water returned in the electricity production process, leakage water and industrial wastewater. The calculations show the annual quanta from existing water rights decisions and, in the case of water used for energy production, the amount of water was calculated on the basis of the operation time of the hydro-complexes (data from the measurement system) and their throughput.

## Use of water

#### | GRI 303-5 |

# PGE Górnictwo i Energetyka Konwencjonalna

1	Total water consumption from all areas in megalitres (ML)	134 894
2	Total water consumption from water scarcity areas in megalitres (ML)	0
3	Change in the level of water storage in megalitres (ML) if water storage has been identified as having a significant impact on water issues	0
4	Any contextual information necessary to understand how the data were collected and calculated, such as: the standards, methodologies and assumptions used, including: whether the data were calculated, estimated, modelled, derived from other sources and the approach taken to do so, for example the use of sector-specific factors	Data is collected and reported in accordance with applicable regulations. Testing methodology in accordance with water law permit and wastewater discharge regulation.

		Water intake
Use of water	=	-
		Water discharge

Water scarcity - a situation where the demand for water exceeds the amount of water available at any given time, or poor water quality limits the use of water.

		Water stored at the end of the reporting period
Change in water storage levels	=	-
		Water stored at the beginning of the reporting period



#### | GRI 303-5 |

#### PGE Energia Ciepła and subsidiaries

1	Total water consumption from all areas in megalitres (ML)	7 270
2	Total water consumption from water scarcity areas in megalitres (ML)	not applicable
3	Change in the level of water storage in megalitres (ML) if water storage has been identified as having a significant impact on water issues	not applicable
4	Any contextual information necessary to understand how the data were collected and calculated, such as: the standards, methodologies and assumptions used, including: whether the data were calculated, estimated, modelled, derived from other sources and the approach taken to do so, for example the use of sector-specific factors	Consumption calculated on the basis of the formula presented, including water withdrawn and water discharged. The aggregated data were compiled on the basis of reports and statements required by law. Water abstraction and total water discharged, including the discharge of wastewater into third-party sewers, were provided on the basis of the records kept.

#### | GRI 303-5 |

## PGE Energia Odnawialna

1	Total water consumption from all areas in megalitres (ML)	13 571
2	Total water consumption from water scarcity areas in megalitres (ML)	not applicable
3	Change in the level of water storage in megalitres (ML) if water storage has been identified as having a significant impact on water issues	not applicable
4	Any contextual information necessary to understand how the data were collected and calculated, such as: the standards, methodologies and assumptions used, including: whether the data were calculated, estimated, modelled, derived from other sources and the approach taken to do so, for example the use of sector-specific factors	Consumption calculated on the basis of the formula presented, including water withdrawn and water discharged. The aggregated data were compiled on the basis of reports and statements required by law. Water abstraction and total water discharged, including the discharge of wastewater into third-party sewers, were provided on the basis of the records kept.

#### $CO_2$ emissions

CO<sub>2</sub> emissions from the Group's main installations and the allocation of free CO<sub>2</sub> allowances for 2022.

#### [own indicator]

	CO2 emissions in 2022*	Allocation of CO <sub>2</sub> emission allowances for 2022	CO2 emissions in 2021	CO2 emissions in 2020	CO <sub>2</sub> emissions in 2019
PGE Group power plants and combined heat and power plants, total	70 010 418	638 546	70 746 383	59 518 765	60 663 255

\*The CO<sub>2</sub> emission volumes indicated above refer to all PGE Group installations operating under the EU ETS. CO<sub>2</sub> emission volume is calculated on the basis of and in accordance with the legal provisions governing the ETS, in particular the competent authority's decisions authorising the installation's greenhouse gas emissions.



Direct greenhouse gas emissions (scope 1)

#### | GRI 305-1 |

## PGE Górnictwo i Energetyka Konwencjonalna

1	Gross greenhouse gas emissions in tonnes (t) of $CO_2$ equivalent	
	Scope 1 emissions come from the following sources owned or controlled by the organisation: generation of electricity, heat, cooling, steam; chemical or physical processing; transportation of materials, products, waste, employees,	61 700 646
2	passengers; fugitive emissions (from escaping refrigerants)	Poland
2	Country	
3	Branches: Elektrownia Bełchatów, Elektrownia Opole, Elektrownia Turów Elektrownia Rybnik, Kopalnia Węgla Brunatnego Bełchatów, Kopalnia Węg	
4	Type of source of emission	
	combustion in stationary sources (a)	60 690 662
	combustion in mobile sources (c)	38 506
	process (b)	822 460
	volatile (d)	148 971
5	Type of activity	
	type of activity	production of electricity and heat
	type of activity	lignite mining
6	Results for individual gases included in the calculations	
	CO <sub>2</sub>	61 551 627
	CH4	175
	N2O	147 444
	HFC	1 400
	PFC	not applicable
	SF6	not applicable
	NF3	not applicable
	all	
7	Biogenic CO <sub>2</sub> in tonnes (t) of CO <sub>2</sub> equivalent	69
8	Base year for calculations	2021
	justification for the choice of a given year as the base year	2021 is the first year in which PGE Group's carbon footprint was calculated and made public
	level of emission in base year	61 502 916
	context of significant changes in emissions that resulted in a recalculation of the mission base for the base year	not applicable
9	Source of emission factors and Global Warming Potential (GWP) used, or reference to the source of the GWP	GHG Protocol, KOBIZE, DERFA, IPCC, verified CO <sub>2</sub> emissions from installations under the EU ETS.
10	Approach to issue consolidation: equity participation, financial control or operational control.	
	Criterion used to consolidate the level of emissions within the organisation	operational control
11	Standards, methodologies, assumptions and/or calculation tools used	GHG Protocol, standard ISO 14064- 1:2018, system tools for calculating carbon footprint

## | GRI 305-1 |

1	Gross greenhouse gas emissions in tonnes (t) of CO <sub>2</sub> equivalent		
	Scope 1 emissions come from the following sources owned or controlled by the organisation: generation of electricity, heat, cooling, steam; chemical or physical processing; transportation of materials, products, waste, employees, passengers; fugitive emissions (from escaping refrigerants)	8 602 879	
2	Country	Poland	
3	<b>Branch/Company:</b> Branch Elektrociepłownia w Bydgoszczy, Branch Elektrociepłownia w Gorzowie Wielkopolskim, Branch Wybrzeże w Gdańsku, Branch Elektrociepłownia w Kielcach, Branch 1 in Kraków, Branch Elektrociepłownia		



4	Type of source of emission	
	combustion in stationary sources (a)	8 553 063
	combustion in mobile sources (c)	26 654
	process (b)	22 464
	volatile (d)	698
5	Type of activity	
	Production of electricity and heat	
6	Results for individual gases included in the calculations	
	CO <sub>2</sub>	8 602 181
	CH4	272
	N2O	112
	HFC	314
	PFC	not applicable
	SF6	not applicable
	NF3	not applicable
7	Biogenic CO <sub>2</sub> in tonnes (t) of CO <sub>2</sub> equivalent	20 916
8	Base year for calculations	2021
	justification for the choice of a given year as the base year	2021 is the first year in which PGE Group's carbon footprint was calculated and made public
	level of emission in base year	9 434 875
	context of significant changes in emissions that resulted in a recalculation of the mission base for the base year	Reduction in direct emissions from fuel combustion, which resulted from reduced production.
9	Source of emission factors and Global Warming Potential (GWP) used, or reference to the source of the GWP	GHG Protocol, KOBIZE, DERFA, IPCC, verified $CO_2$ emissions from installations under the EU ETS.
10	Approach to issue consolidation: equity participation, financial control or operational control.	
	Criterion used to consolidate the level of emissions within the organisation	operational control
11	Standards, methodologies, assumptions and/or calculation tools used	GHG Protocol, standard ISO 14064- 1:2018, system tools for calculating carbon footprint

# | GRI 305-1 |

1	Gross greenhouse gas emissions in tonnes (t) of $\text{CO}_2$ equivalent or similar unit	61 175
	Scope 1 emissions come from the following sources owned or controlled by the organisation:	
	generation of electricity, heat, cooling, steam; chemical or physical processing; transportation of materials, products, waste, employees, passengers; fugitive emissions (from escaping refrigerants)	
2	Country	Poland
3	Branches: ZEW Porąbka- Żar, ZEW Dychów, ZEW Solina – Myczkowce, E	W Żarnowiec, Central Office
4	Type of source of emission	
	combustion in stationary sources (a)	85
	combustion in mobile sources (c)	838
	process (b)	not applicable
	volatile (d)	60 252
5	Type of activity	
	production of electricity	
6	Results for individual gases included in the calculations	
	CO <sub>2</sub>	924
	CH4	60 175
	N2O	not applicable
	HFC	77
	PFC	not applicable
	SF6	not applicable
	NF3	not applicable
7	Biogenic $CO_2$ in tonnes (t) of $CO_2$ equivalent	not applicable
8	Base year for calculations	2021



	justification for the choice of a given year as the base year	2021 is the first year in which PGE Group's carbon footprint was calculated and made public
	level of emission in base year	23 631.3
	context of significant changes in emissions that resulted in a recalculation of the mission base for the base year	
9	Source of emission factors and Global Warming Potential (GWP) used, or reference to the source of the GWP	GHG Protocol, KOBIZE, DERFA, IPCC
10	Approach to issue consolidation: equity participation, financial control or operational control.	
	Criterion used to consolidate the level of emissions within the organisation	operational control
11	Standards, methodologies, assumptions and/or calculation tools used	GHG Protocol, standard ISO 14064- 1:2018, system tools for calculating carbon footprint

# | GRI 305-1 |

## PGE Dystrybucja

1	Gross greenhouse gas emissions in tonnes (t) of CO <sub>2</sub> equivalent	16 983
	Scope 1 emissions come from the following sources owned or controlled	
	by the organisation:	
	generation of electricity, heat, cooling, steam; chemical or physical	
	processing; transportation of materials, products, waste, employees,	
	passengers; fugitive emissions (from escaping refrigerants)	
2	Country	Poland
3	<b>Branches:</b> Skarżysko-Kamienna Branch, Warsaw Branch, Rzeszów Branc Białystok Branch, Łódź Branch, Head Office	n, Zamość Branch, Lublin Branch,
4	Type of source of emission	
	combustion in stationary sources (a)	1 482
	combustion in mobile sources (c)	14 721
	process (b)	not applicable
	volatile (d)	780
5	Type of activity	
	Transmission of electricity	
6	Results for individual gases included in the calculations	
	CO <sub>2</sub>	16 203
	CH4	not applicable
	N2O	not applicable
	HFC	334
	PFC	not applicable
	SF6	447
	NF3	not applicable
7	Biogenic CO <sub>2</sub> in tonnes (t) of CO <sub>2</sub> equivalent or similar unit	not applicable
8	Base year for calculations	2021
		2021 is the first year in which PGE
	justification for the choice of a given year as the base year	Group's carbon footprint was calculated
		and made public
	level of emission in base year	18 769
	context of significant changes in emissions that resulted in a	not applicable
	recalculation of the mission base for the base year	
9	Source of emission factors and Global Warming Potential (GWP) used, or reference to the source of the GWP	GHG Protocol, KOBIZE, DERFA, IPCC
10	Approach to issue consolidation: equity participation, financial control or operational control.	
	Criterion used to consolidate the level of emissions within the organisation	operational control
11	Standards, methodologies, assumptions and/or calculation tools used	GHG Protocol, standard ISO 14064- 1:2018, system tools for calculating carbon footprint



Indirect greenhouse gas emissions (scope 1)

## | GRI 305-2 |

# PGE Górnictwo i Energetyka Konwencjonalna

1	Gross indirect emissions (Scope 2) by location in tonnes (t) of CO <sub>2</sub> equivalent or equivalent unit, including (where this would allow greater transparency or comparability over time) by	776 071
1a	Country	Poland
1b	Branches: Elektrownia Bełchatów, Elektrownia Opole, Elektr Elektrownia Rybnik, Kopalnia Węgla Brunatnego Bełchatów,	
1c	Type of energy	
	electric	742 068
	thermal	34 004
	cooling	not applicable
	steam	not applicable
1d	Type of activity	
	Production of electricity and heat	
	lignite mining	
2	If applicable: gross indirect emissions (scope 2) on a market basis, in tonnes (t) of CO <sub>2</sub>	no information from counterparties for scope 2 market-based calculation
3.	Gases taken into account in the calculations:	
	CO <sub>2</sub>	YES
	CH4	NO
	N2O	NO
	HFC	NO
	PFC	NO
	SF6	NO
	NF3	NO
4	The adopted base year for the calculation, together with indication of	2021
	why a particular year was chosen	2021 is the first year in which PGE Group's carbon footprint was calculated and made public
	level of emission in base year	688 395
	context of any significant changes in emissions that resulted in a recalculation of the mission base for the base year	
5	Source of emission factors and Global Warming Potential (GWP) used, or reference to the source of the GWP	GHG Protocol, KOBIZE, DERFA, IPCC
6	Approach to issue consolidation: equity participation, financial control or operational control.	operational control
7	Standards, methodologies, assumptions and/or calculation tools used	GHG Protocol, standard ISO 14064-1:2018, system tools for calculating carbon footprint

### | GRI 305-2 |

1	Gross indirect emissions (Scope 2) by location in tonnes (t) of $CO_2$ equivalent or equivalent unit, including (where this would allow greater transparency or comparability over time) by	19 223
1a	Country	Poland
	Branch/Company: Oddział Elektrociepłownia w Bydgoszczy Wielkopolskim, Oddział Wybrzeże w Gdańsku, Oddział Elektr	ociepłownia w Kielcach, Oddział nr 1 w Krakowie,
1b	Oddział Elektrociepłownia w Lublinie Wrotków, Oddział Elekt Zgierzu, Elektrociepłownia "Zielona Góra" SA, Zespół Elektro SA, Oddział w Szczecinie - Elektrociepłownia Pomorzany, Od Office	ciepłowni Wrocławskich KOGENERACJA SA, PGE Toruń
	Zgierzu, Elektrociepłownia "Zielona Góra" SA, Zespół Elektro SA, Oddział w Szczecinie - Elektrociepłownia Pomorzany, Od	ciepłowni Wrocławskich KOGENERACJA SA, PGE Toruń
	Zgierzu, Elektrociepłownia "Zielona Góra" SA, Zespół Elektro SA, Oddział w Szczecinie - Elektrociepłownia Pomorzany, Od Office	ciepłowni Wrocławskich KOGENERACJA SA, PGE Toruń
	Zgierzu, Elektrociepłownia "Zielona Góra" SA, Zespół Elektro SA, Oddział w Szczecinie - Elektrociepłownia Pomorzany, Od Office <b>Type of energy</b>	ciepłowni Wrocławskich KOGENERACJA SA, PGE Toruń dział w Szczecinie -Elektrociepłownia Szczecin, Central
	Zgierzu, Elektrociepłownia "Zielona Góra" SA, Zespół Elektro SA, Oddział w Szczecinie - Elektrociepłownia Pomorzany, Od Office <b>Type of energy</b> electric	ciepłowni Wrocławskich KOGENERACJA SA, PGE Toruń dział w Szczecinie -Elektrociepłownia Szczecin, Central 19 016



1d	Type of activity	
IU	production of electricity and heat	
2	Gross indirect emissions (scope 2) marked-based, in tonnes (t) of CO <sub>2</sub>	no information from counterparties for scope 2 market-based calculation
3	Gases taken into account in the calculations:	
	CO <sub>2</sub>	YES
	CH4	NO
	N2O	NO
	HFC	NO
	PFC	NO
	SF6	NO
	NF3	NO
4	The adopted base year for the calculation, together with indication of	2021
	why a particular year was chosen	2021 is the first year in which PGE Group's carbon footprint was calculated and made public
	level of emission in base year	10 514
	context of any significant changes in emissions that resulted in a recalculation of the mission base for the base year	Increased energy purchases
5	Source of emission factors and Global Warming Potential (GWP) used, or reference to the source of the GWP	GHG Protocol, KOBIZE, DERFA, IPCC
6	Approach to issue consolidation: equity participation, financial control or operational control.	operational control
7	Standards, methodologies, assumptions and/or calculation tools used	GHG Protocol, standard ISO 14064-1:2018, system tools for calculating carbon footprint

# | GRI 305-2 |

1	Gross indirect emissions (scope 2) location-based, in tonnes (t) of $CO_2$	15 430
1a	Country	Poland
1b	Branches: ZEW Porąbka- Żar, ZEW Dychów, ZEW Solina - I	Myczkowce, EW Żarnowiec, Central Office
	Branch ZEW Porąbka-Żar	
	Branch ZEW Dychów	
	Branch ZEW Solina - Myczkowce	
	Branch EW Żarnowiec	
	PGE Energia Odnawialna SA	
1c	Type of energy	
	electric	14 762
	thermal	263
	cooling	not applicable
	steam	not applicable
1d	Type of activity	
	production of electricity	
2	Gross indirect emissions (scope 2) marked-based, in tonnes (t) of $CO_2$	15 025
3	Gases taken into account in the calculations:	
	CO <sub>2</sub>	YES
	CH4	NO
	N2O	NO
	HFC	NO
	PFC	NO
	SF6	NO
	NF3	NO
4	The adopted base year for the calculation, together with indication of	2021
	why a particular year was chosen	2021 is the first year in which PGE Group's carbon footprint was calculated and made public
	level of emission in base year	10 812
	context of any significant changes in emissions that resulted in a recalculation of the mission base for the base year	not applicable



5	Source of emission factors and Global Warming Potential (GWP) used, or reference to the source of the GWP	GHG Protocol, KOBIZE, DERFA, IPCC
6	Approach to issue consolidation: equity participation, financial control or operational control.	operational control
7	Standards, methodologies, assumptions and/or calculation tools used	GHG Protocol, standard ISO 14064-1:2018, system tools for calculating carbon footprint

# | GRI 305-2 |

# PGE Dystrybucja

1	Gross indirect emissions (scope 2), in tonnes (t) of CO <sub>2</sub>	1 381 213
1a	Country	Poland
1b	Branches: Skarżysko-Kamienna Branch, Warsaw Branch, R. Białystok Branch, Łódź Branch, Head Office	zeszów Branch, Zamość Branch, Lublin Branch,
1c	Type of energy	
	electric	49 228
	thermal	9 393
	cooling	not applicable
	steam	not applicable
	Type of activity	
	distribution of electricity	
2	Gross indirect emissions (scope 2) marked-based, in tonnes (t) of $CO_2$ or similar unit	no information from counterparties for scope 2 market-based calculation
3	Gases taken into account in the calculations:	
	CO <sub>2</sub>	YES
	CH4	NO
	N2O	NO
	HFC	NO
	PFC	NO
	SF6	NO
	NF3	NO
4	The adopted base year for the calculation, together with indication of	2021
	why a particular year was chosen	2021 is the first year in which PGE Group's carbon footprint was calculated and made public
	level of emission in base year	1 428 506
	context of any significant changes in emissions that resulted in a recalculation of the mission base for the base year	none
5	Source of emission factors and Global Warming Potential (GWP) used, or reference to the source of the GWP	GHG Protocol, KOBIZE, DERFA, IPCC
6	Approach to issue consolidation: equity participation, financial control or operational control.	operational control
7	Standards, methodologies, assumptions and/or calculation tools used	GHG Protocol, standard ISO 14064-1:2018, system tools for calculating carbon footprint

Other indirect greenhouse gas emissions (scope 3)

# | GRI 305-3 |

## PGE Górnictwo i Energetyka Konwencjonalna

1	Gross other indirect emissions (scope 3), in tonnes (t) of CO2 equivalent	22 296 274
1a	Country	Poland
1b	Branches: Elektrownia Bełchatów, Elektrownia Opole, Elektro Elektrownia Rybnik, Kopalnia Węgla Brunatnego Bełchatów, K	ownia Turów, Elektrownia Dolna Odra Topalnia Węgla Brunatnego Turów, Central Office
1c	Type of energy	
	electric	
	thermal	
	cooling	
	steam	
1d	Type of activity	



	production of electricity and heat	
	lignite mining	
2	Gases taken into account in the calculations:	
	CO <sub>2</sub>	YES
	CH4	NO
	N2O	NO
	HFC	NO
	PFC	NO
	SF6	NO
	NF3	NO
3	Biogenic CO <sub>2</sub> in tonnes (t) of CO <sub>2</sub> equivalent	124,5
4	Other Scope 3 indirect emission categories and activities included in the calculations	22 296 150
5	The adopted base year for the calculation, together with indication of	2021
	why a particular year was chosen	2021 is the first year in which PGE Group's carbon footprint was calculated and made public
	level of emission in base year	21 523 351
	context of any significant changes in emissions that resulted in a recalculation of the base year emissions base	none
5	Source of emission factors and Global Warming Potential (GWP) used, or reference to the source of the GWP	GHG Protocol, KOBIZE, DERFA, IPCC
6	Approach to issue consolidation: equity participation, financial control or operational control.	operational control
7	Standards, methodologies, assumptions and/or calculation tools used	GHG Protocol, standard ISO 14064-1:2018, system tools for calculating carbon footprint

## | GRI 305-3 |

1	Gross other indirect emissions (scope 3) location- based, in tonnes (t) of CO2	1 937 297
1a	Country	Poland
1b	Branch/Company: Branch Elektrociepłownia w Bydgoszczy, Branch Wybrzeże w Gdańsku, Branch Elektrociepłownia w Kie w Lublinie Wrotków, Branch Elektrociepłownia w Rzeszowie, Elektrociepłownia "Zielona Góra" SA, Zespół Elektrociepłowni Branch in Szczecin - Elektrociepłownia Pomorzany, Branch in	, Branch Elektrociepłownia w Gorzowie Wielkopolskim, elcach, Branch 1 in Kraków, Branch Elektrociepłownia Oddział Elektrociepłownia w Zgierzu, Wrocławskich KOGENERACJA SA, PGE Toruń SA,
1c	Type of energy	
	electric	724 549
	thermal	1 212 748
	cooling	not applicable
	steam	not applicable
1d	Type of activity	
	production of electricity and heat	
2	Gases taken into account in the calculations:	
	CO <sub>2</sub>	YES
	CH4	NO
	N2O	NO
	HFC	NO
	PFC	NO
	SF6	NO
	NF3	NO
	all	NO
3	Biogenic $CO_2$ in tonnes (t) of $CO_2$ equivalent or similar unit	37 835
4	Other Scope 3 indirect emission categories and activities included in the calculations	1 899 462
5	The adopted base year for the calculation, together with indication of	2021
	why a particular year was chosen	2021 is the first year in which PGE Group's carbon footprint was calculated and made public
	level of emission in base year	1 973 654



	context of any significant changes in emissions that resulted in a recalculation of the mission base for the base year	none
5	Source of emission factors and Global Warming Potential (GWP) used, or reference to the source of the GWP	GHG Protocol, KOBIZE, DERFA, IPCC
6	Approach to issue consolidation: equity participation, financial control or operational control.	operational control
7	Standards, methodologies, assumptions and/or calculation tools used	GHG Protocol, standard ISO 14064-1:2018, system tools for calculating carbon footprint

## | GRI 305-3 |

1	Gross other indirect emissions (scope 3), in tonnes	
	(t) of CO <sub>2</sub> equivalent	12 188
1a	Country	Poland
1b	Branches: ZEW Porąbka- Żar, ZEW Dychów, ZEW Solina – M	Myczkowce, EW Zarnowiec, Central Office
1c	Type of energy	
	electric	not applicable
	thermal	not applicable
	cooling	not applicable
	steam	not applicable
1d	Type of activity	
	production of electricity	
2	Gases taken into account in the calculations:	
	CO <sub>2</sub>	YES
	CH4	NO
	N2O	NO
	HFC	NO
	PFC	NO
	SF6	NO
	NF3	NO
3	Biogenic CO <sub>2</sub> in tonnes (t) of CO <sub>2</sub> equivalent	not applicable
4	Other Scope 3 indirect emission categories and activities included in the calculations	not applicable
5	The adopted base year for the calculation, together with indication of	2021
	why a particular year was chosen	2021 is the first year in which PGE Group's carbon footprint was calculated and made public
	level of emission in base year	10 110
	context of any significant changes in emissions that	
	resulted in a recalculation of the mission base for the base year	none
	Source of emission factors and Global Warming	
5	Potential (GWP) used, or reference to the source of the GWP	GHG Protocol, KOBIZE, DERFA, IPCC
6	Approach to issue consolidation: equity participation, financial control or operational control.	operational control
7	Standards, methodologies, assumptions and/or calculation tools used	GHG Protocol, standard ISO 14064-1:2018, system tools for calculating carbon footprint



# | GRI 305-3 |

## PGE Dystrybucja

1	Gross other indirect emissions (scope 3), in tonnes (t) of $CO_2$ equivalent	416 890
1a	Country	Poland
1b	<b>Branches:</b> Skarżysko-Kamienna Branch, Warsaw Branch, Rz Białystok Branch, Łódź Branch, Head Office	zeszów Branch, Zamość Branch, Lublin Branch,
1c	Type of energy	
	electric	not applicable
	thermal	not applicable
	cooling	not applicable
	steam	not applicable
1d	Type of activity	
	transmission of electricity	
2	Gases taken into account in the calculations:	
	CO <sub>2</sub>	YES
	CH4	NO
	N2O	NO
	HFC	NO
	PFC	NO
	SF6	NO
	NF3	NO
	all	NO
3	Biogenic CO <sub>2</sub> in tonnes (t) of CO <sub>2</sub> equivalent or similar unit	not applicable
4	Other Scope 3 indirect emission categories and activities included in the calculations	not applicable
5	The adopted base year for the calculation, together with indication of	2021
	why a particular year was chosen	2021 is the first year in which PGE Group's carbon footprint was calculated and made public
	level of emission in base year	437 974
	context of any significant changes in emissions that resulted in a recalculation of the mission base for the base year	none
5	Source of emission factors and Global Warming Potential (GWP) used, or reference to the source of the GWP	GHG Protocol, KOBIZE, DERFA, IPCC
6	Approach to issue consolidation: equity participation, financial control or operational control.	operational control
7	Standards, methodologies, assumptions and/or calculation tools used	GHG Protocol, standard ISO 14064-1:2018, system tools for calculating carbon footprint



# Intensity of greenhouse gas emissions

### | GRI 305-4 |

# PGE Górnictwo i Energetyka Konwencjonalna

Greenhouse gas emission intensity factor for the organisation	0,9788
Selected denominator for the calculation of the indicator (organisation-specific)	63 033 322 (gross sum of electricity and heat production)
Indicator by:	
Country	Poland
Branches: Elektrownia Bełchatów, Elektrownia Opole, Elektrownia Turów, E Elektrownia Rybnik, Kopalnia Węgla Brunatnego Bełchatów, Kopalnia Węgla	
Type of source of emission	
combustion in stationary sources (a)	0,962835
combustion in mobile sources (c)	0,000612
process (b)	0,013048
volatile (d)	0,002363
Type of activity	
Production of electricity and heat	
lignite mining	
Types of greenhouse gas emissions used in the indicator	
Scope 1	YES
Scope 2	YES
Scope 3	NO
Gases taken into account in the calculations:	
CO <sub>2</sub>	YES
CH4	YES
N2O	YES
HFC	YES
PFC	NO
SF6	NO
NF3	NO
	specific) Indicator by: Country Branches: Elektrownia Bełchatów, Elektrownia Opole, Elektrownia Turów, E Elektrownia Rybnik, Kopalnia Węgla Brunatnego Bełchatów, Kopalnia Węgla Type of source of emission combustion in stationary sources (a) combustion in mobile sources (c) process (b) volatile (d) Type of activity Production of electricity and heat lignite mining Types of greenhouse gas emissions used in the indicator Scope 1 Scope 2 Scope 3 Gases taken into account in the calculations: CO <sub>2</sub> CH4 N2O HFC PFC SF6

Greenhouse gas emissions indicator Total greenhouse gas emissions

Indicator specific to the organisation

#### | GRI 305-4 |

		0.204
1	Greenhouse gas emission intensity factor for the organisation	0.384
2	Selected denominator for the calculation of the indicator (organisation-specific)	22 474 431 (gross sum of electricity and heat production)
3	Indicator by:	
3a	Country	Poland
3b	<b>Branch/Company:</b> Oddział Elektrociepłownia w Bydgoszczy, Oddział Elektro Wielkopolskim, Oddział Wybrzeże w Gdańsku, Oddział Elektrociepłownia w k Oddział Elektrociepłownia w Lublinie Wrotków, Oddział Elektrociepłownia w w Zgierzu, Elektrociepłownia "Zielona Góra" SA, Zespół Elektrociepłowni Wr Toruń SA, Oddział w Szczecinie - Elektrociepłownia Pomorzany, Oddział w S Central Office	Kielcach, Oddział nr 1 w Krakowie, Rzeszowie, Oddział Elektrociepłownia ocławskich KOGENERACJA SA, PGE
3c	Type of source of emission	
	combustion in stationary sources (a)	0.3805686
	combustion in mobile sources (c)	0.0011860
	process (b)	0.0009995
	volatile (d)	0.0009995
3d	Type of activity	
	production of electricity and heat	
4	Types of greenhouse gas emissions used in the indicator	
	Scope 1	YES



	Scope 2	YES
	Scope 3	NO
5	Gases taken into account in the calculations:	
	CO <sub>2</sub>	YES
	CH4	YES
	N2O	YES
	HFC	YES
	PFC	NO
	SF6	NO
	NF3	NO

## | GRI 305-4 |

1	Greenhouse gas emission intensity factor for the organisation	0.02606
2	Selected denominator for the calculation of the indicator (organisation-specific)	2 923 717 (gross production of electricity)
3	Indicator by:	
3a	Country	Poland
3b	Branches: ZEW Porąbka- Żar, ZEW Dychów, ZEW Solina – Myczkowce, EW	Żarnowiec, Central Office
3c	Type of source of emission	
	combustion in stationary sources (a)	0.000039
	combustion in mobile sources (c)	0.000276
	process (b)	NO
	volatile (d)	0.0206
3d	type of activity	
	production of electricity	
4	Types of greenhouse gas emissions used in the indicator	
	Scope 1	YES
	Scope 2	YES
	Scope 3	NO
5	Gases taken into account in the calculations:	
	CO <sub>2</sub>	YES
	CH4	YES
	N2O	NO
	HFC	YES
	PFC	NO
	SF6	NO
	NF3	NO
	all	NO



# Reduction of GHG emissions

## | GRI 305-5 |

# PGE Górnictwo i Energetyka Konwencjonalna

GHG emission reductions achieved as a result of the measures taken (in tonnes (t) of $\text{CO}_2$ equivalent	none - the increase in CO <sub>2</sub> in 2022 compared to 2021 was due to an increase in the load on generating units and an increase in production, and thus an increase in fuel and raw material consumption.
Gases taken into account in the calculations:	
CO <sub>2</sub>	YES
CH4	YES
N2O	YES
HFC	YES
PFC	NO
SF6	NO
NF3	NO
all	
The adopted base year for the calculation, together with indication of	2021
why a particular year was chosen	2021 is the first year in which PGE Group's carbon footprint was calculated and made public
level of emission in base year	83 714 662
Scopes within which emission reductions have been achieved	
Scope 1	NO
level of reduction	
Scope 2	NO
level of reduction	
Scope 3	NO
level of reduction	
Standards, methodologies, assumptions and/or calculation tools used	GHG Protocol, standard ISO 14064- 1:2018, system tools for calculating carbon footprint

| GRI 305-5 |

GHG emission reductions achieved as a result of the measures taken (in tonnes (t) of $CO_2$ equivalent	859 644
Gases taken into account in the calculations:	
CO <sub>2</sub>	YES
CH4	YES
N2O	YES
HFC	YES
PFC	NO
SF6	NO
NF3	NO
all	NO
The adopted base year for the calculation, together with indication of	2021
why a particular year was chosen	2021 is the first year in which PGE Group's carbon footprint was calculated and made public
level of emission in base year	11 419 043
Scopes within which emission reductions have been achieved	
Scope 1	YES
level of reduction	831 996
Scope 2	NO
level of reduction	
Scope 3	YES
level of reduction	36 358



Standards, methodologies, assumptions and/or calculation tools	GHG Protocol, standard ISO 14064- 1:2018, system tools for calculating
used	carbon footprint

## | GRI 305-5 |

# PGE Energia Odnawialna

GHG emission reductions achieved as a result of the measures taken (in tonnes (t) of $CO_2$ equivalent	none
Gases taken into account in the calculations:	
CO <sub>2</sub>	YES
CH4	YES
N2O	NO
HFC	YES
PFC	NO
SF6	NO
NF3	NO
The adopted base year for the calculation, together with indication of	2021
why a particular year was chosen	2021 is the first year in which PGE Group's carbon footprint was calculated and made public
level of emission in base year	44 113
Scopes within which emission reductions have been achieved	
Scope 1	NO
level of reduction	
Scope 2	NO
level of reduction	
Scope 3	NO
level of reduction	
Standards, methodologies, assumptions and/or calculation tools used	GHG Protocol, standard ISO 14064- 1:2018, system tools for calculating carbon footprint

#### | GRI 305-5 |

# PGE Dystrybucja

GHG emission reductions achieved as a result of the measures taken (in tonnes (t) of $CO_2$ equivalent	70 162.5
Gases taken into account in the calculations:	
CO <sub>2</sub>	YES
CH4	YES
N2O	NO
HFC	YES
PFC	NO
SF6	NO
NF3	NO
The adopted base year for the calculation, together with indication of	2021
why a particular year was chosen	2021 is the first year in which PGE Group's carbon footprint was calculated and made public
level of emission in base year	1 885 249
Scopes within which emission reductions have been achieved	
Scope 1	YES
level of reduction	1 785.5
Scope 2	YES
level of reduction	47 293
Scope 3	YES
level of reduction	21 084
Standards, methodologies, assumptions and/or calculation tools used	GHG Protocol, standard ISO 14064- 1:2018, system tools for calculating carbon footprint



Emissions of ozone-depleting substances (ODS)

#### | GRI 305-6 |

# PGE Górnictwo i Energetyka Konwencjonalna, PGE Energia Ciepła, PGE Energia Odnawialna, PGE Dystrybucja

1	Production of ozone-depleting substances (ODS) in metric tonnes of CFC-11 (trichlorofluoromethane) equivalent	not applicable
	Imports of ozone-depleting substances (ODS) in metric tonnes of CFC-11 (trichlorofluoromethane) equivalent	not applicable
	Exports of ozone-depleting substances (ODS) in metric tonnes of CFC-11 (trichlorofluoromethane) equivalent	not applicable

Nitrogen oxides (NO<sub>X</sub>), sulfur oxides (SO<sub>X</sub>), and other significant air emissions

#### | GRI 305-7 |

# PGE Górnictwo i Energetyka Konwencjonalna, PGE Energia Ciepła, PGE Energia Odnawialna, PGE Dystrybucja

1	Please provide data on significant air emissions (in kg or multiples) for each of the following:	PGE GIEK	PGE EC	PGE EO	PGE Dystrybucja
	SO <sub>x</sub>	47 342 676	9 655 995	not applicable	3 109
	NOx	42 815 020	7 521 767	not applicable	13 822
	Persistent organic pollutants (POP)	not applicable	not applicable	not applicable	not applicable
	Volatile organic compounds (VOC)	not applicable	not applicable	not applicable	not applicable
	Hazardous air pollutants (HAP)	not applicable	not applicable	not applicable	not applicable
	Particulate matter (PM)	1 278 420	611 547	not applicable	not applicable
	Other standard categories of emissions to air as defined in the relevant legislation	not applicable	not applicable	not applicable	not applicable
2	Please indicate the source of the emission factors used	Factors determined on the basis of measurements carried out by accredited entities		not applicable	not applicable
3	Standards, methodologies, assumptions and/or calculation tools used	Emission standards set in accordance with applicable legislation and administrative decisions. Emission volumes given on the basis of indications from continuous monitoring systems and periodic measurements.		not applicable	not applicable



# Biodiversity

Significant impacts of activities, products and services on biodiversity

# | GRI 304-2 |

# PGE Górnictwo i Energetyka Konwencjonalna

1a	Nature of significant direct impacts on biodiversity in relation to one or more of the following:			
	Construction or use of production facilities, mines and transport infrastructure	ELR: Rybnik Reservoir - surface water used for technological purposes.		
	Contamination (introduction of substances that do not naturally occur in the habitat)	Discharge of treated industrial wastewater and mine drainage water.		
	Introduction of invasive species, pests and pathogens	The activity does not lead to the introduction of invasive species, pests or pathogens.		
	Species extinction	Activities do not lead to species extinction.		
	Habitat destruction	Activities do not lead to habitat destruction. Removal of trees and shrubs and mowing of grasses takes place outside the bird breeding season.		
	Changes in ecological processes outside the natural range of variability (such as salinity or changes in groundwater levels)	Groundwater (groundwater) abstraction is carried out for drinking water and process water recharge. This abstraction is carried out in accordance with hydrogeological documentation, in an amount not exceeding the exploitable resources of the intakes.		
1b	Nature of significant indirect effects on biodiversity in relation to one or more of the following (please describe)			
	Construction or use of production facilities, mines and transport infrastructure	No impact		
	Contamination (introduction of substances that do not naturally occur in the habitat)	Introduction of gaseous pollutants and $\text{CO}_2$ into the air.		
	Introduction of invasive species, pests and pathogens	The activity does not lead to the indirect introduction of invasive species, pests or pathogens.		
	Species extinction	Activities do not lead to the indirect extinction of species.		
	Habitat destruction	Activities do not lead to indirect habitat destruction.		
	Changes in ecological processes outside the natural range of variability (such as salinity or changes in groundwater levels)	Activities do not lead to changes in ecological processes outside the natural range of variability.		
2a	Significant direct positive and negative impacts in relation to			
	the following: affected species	The company discharges only treated wastewater that is safe for the aquatic environment and does not adversely affect aquatic species and the aquatic ecosystem. The Company carries out quantitative and qualitative monitoring of discharged wastewater. The quantity of substances released in the treated wastewater is in accordance with the permits held, as well as with the applicable law. ELR: Rybnik Reservoir has a positive impact on fauna and flora. Rybnik Reservoir plays the most important role in winter, when it becomes one of the wintering places for wetland birds in Silesia. The elevated water temperature attracts not only birds associated with the aquatic environment, but also raptors and passerines. Apart from rare species, i.e. white-tailed godwit, grey-headed gull, common species such as black- headed gull, grey-headed gull, white-headed gull, cormorant, mallard or coot, also appear, and the concentration of one species may reach 5,000 individuals. During the breeding season, on the other hand, side ponds with a narrow strip of riparian vegetation surrounded by pine forests, fields and meadows are attractive for birds. It is then possible to observe grebes, aquatic warblers or bitterns listed in the Polish Red Book of Animals. A total of 74 wetland bird species were found, of which 22 were breeding.		
	extent of the area affected	The extent of the impact of water use in terms of deep water abstraction corresponds to the extent of the depression funnel of the intake. Pumping of groundwater does not adversely affect surface waters. ELR: The area of the Rybnik Reservoir together with the surrounding green areas. Around the Rybnik Reservoir there are natural protected areas in the form of the Cistercian Landscape Compositions of the Ore Mountains Landscape Park.		



	duration of impact	The duration of impact on groundwater and watercourses into which wastewater is discharged is related to the duration of individual permits, as well as the possibility of exploiting the resource. ELR: Rybnik Reservoir - the duration of the positive impact is assessed to be continuous.
	reversibility or irreversibility of effects	Groundwater and surface water abstraction is carried out in accordance with hydrogeological documentation and permits. Resources are managed rationally to ensure their renewability. Where required, binding protection zones have been established, which specify prohibitions, orders and restrictions on land use and water use. Activities do not cause harm to the aquatic environment and terrestrial ecosystems. Also, the discharge of wastewater into receiving bodies is carried out in accordance with permits and does not cause irreversible effects.
2b	Significant indirect positive and negative impacts in relation to the following:	No indirect impact.

| GRI 304-2 |

# PGE Energia Ciepła and subsidiaries

1a	Nature of significant direct impacts on biodiversit	y in relation to one or more of the following:
	Construction or use of production facilities, mines and transport infrastructure	As part of the planned investments related to the construction of new, low-emission emission sources, a nature inventory was carried out as part of the procedure for obtaining an environmental decision for specific sites within the boundaries of existing CHPs. The planned investments are located away from existing forms of nature conservation.
	Contamination (introduction of substances that do not naturally occur in the habitat)	not applicable
	Introduction of invasive species, pests and pathogens	not applicable
	Species extinction	not applicable
	Habitat destruction	Valuable or protected habitats are located at considerable distances so that they are not affected by the impact and comply with environmental legislation. These are typical industrial areas, characterised by low biodiversity. The investments will not be environmentally burdensome, i.e. they will not emit harmful compounds, substances or generate noise to an extent that could adversely affect the natural surroundings.
	Changes in ecological processes outside the natural range of variability (such as salinity or changes in groundwater levels)	All investments were preceded by obtaining a decision on environmental conditions. The process of obtaining the decision involves gathering a lot of information about the environment in the location of the planned project. At this stage, field surveys were carried out to inventory potential animal and plant species, as well as the habitats located there. None of the projects required significant interference with the natural environment.
1b	Nature of significant indirect impacts on biodivers	sity in relation to one or more of the following:
	Construction or use of production facilities, mines and transport infrastructure	The purpose of the nature inventories was to examine whether there might be species (in particular protected species) and their habitats and natural habitats in the area designated for the investment, including those within the range of the impact of the investment. Recognition was also made of ecological corridors of animal migration of local importance remaining within the impact range of the investment. The area of the planned investments is located within the boundaries of the existing thermal power plants, directly adjacent to the existing installations and occupied by unused ruderal land. The herbaceous vegetation overgrowing the area is ruderal, segregated, dryland communities.
	Contamination (introduction of substances that do not naturally occur in the habitat)	The investments will not be environmentally burdensome, i.e. they will not emit harmful compounds, substances or generate noise to an extent that could adversely affect the natural surroundings. The decarbonisation process initiated



		in PGE EC will contribute to the elimination of coal sources. At the moment, the most important investments concern the replacement of coal sources with gas sources emitting significantly less pollution. On the energy scale, gas is considered the reference fuel.
	Introduction of invasive species, pests and pathogens	not applicable
	Species extinction	not applicable
	Habitat destruction	not applicable
	Changes in ecological processes outside the natural range of variability (such as salinity or changes in groundwater levels)	answer in accordance with point 1a in this regard
2b	Significant direct positive and negative impacts in relation to the following:	The planned development areas are located within the boundaries of the existing CHP plants, directly adjacent to
2a	Significant indirect positive and negative impacts in relation to the following:	the existing installations and occupied by unused ruderal land. The herbaceous vegetation overgrowing the area is ruderal, segregated, dryland communities. The investment will not cause any environmental nuisance, i.e. it will not emit harmful compounds, substances or generate noise to an extent that could adversely affect the natural surroundings.

# | GRI 304-2 |

# PGE Energia Odnawialna

a Nature of significant direct impact on biodiversity for one or more of the following: (please describe)		iodiversity for one or more of the following:
	Construction or use of production facilities, mines and transport infrastructure	The hydroelectric power station in Solina with a pumped storage unit located at the base of the concrete dam. The hydroelectric power station consists of an underwater part and a machinery hall with an auxiliary building. The installations in the hydroelectric power plant consist of equipment used to generate electricity. The power plant is equipped with 4 vertical turbine sets, including 2 turbine sets with classic Francis turbines and 2 turbine sets with reversible Francis turbines. Water is supplied to the turbines from the Solina reservoir through water intakes constituting steel pipelines concreted in the body of the Solina dam. The worked water is discharged through the outlets of these pipelines to the Myczkowce reservoir. The Myczkowce hydropower station consists of a reservoir, an earth dam with a concrete overflow part, a pressure tunnel supplying water to the pow station, an impact chamber, the Myczkowce hydroelectric power station and the Myczkowce offshore wind farm. The Myczkowce hydroelectric power station is equipped with two vertical turbine units with Kaplan-type turbines. Water to the turbines is fed from the Myczkowce reservoir via a pressure tunnel, while the rinsed water is discharged into the San River. Offshore wind farm Myczkowce was bu in 2006. Water to the power station is supplied from Myczkowce reservoir. The discharge of rinsed water takes place into the river Sar below the Myczkowce dam. The small hydropower plant operates throughout the year as a run-of-river power plant from the natural flow, thus ensuring the realisation of the biological flow below the Myczkowce dam. The power plant operates in an automatic, unmanne system with a remote control visualisation system. During the operation of the installation at the Solina - Myczkowce hydroelectric power station, no dust or gases are emitted into the environment. Fo wind farms there is a lack of data with such a high level of detail, in 2022 no assessment procedure was carried out for an investment in a area of high biodiversity,
	Contamination (introduction of substances that do not naturally occur in the habitat)	Sewage disposal is carried out in accordance with the water permits held.
	Introduction of invasive species, pests and pathogens	not applicat
		not applicab



	Habitat destruction	not applicable
	Changes in ecological processes outside the natural range of variability (such as salinity or changes in groundwater levels)	not applicable
1b	Nature of significant indirect effects on (please describe)	biodiversity in relation to one or more of the following:
	Construction or use of production facilities, mines and transport infrastructure	answer in accordance with point 1a in this regard
	Contamination (introduction of substances that do not naturally occur in the habitat)	answer in accordance with point 1a in this regard
	Introduction of invasive species, pests and pathogens	not applicable
	Species extinction	not applicable
	Habitat destruction	not applicable
	Changes in ecological processes outside the natural range of variability (such as salinity or changes in groundwater levels)	not applicable
2a	Significant direct positive and negative impacts in relation to the following:	There is a Natura 2000 SAC (Upper San River Basin) on the San River above the Solina Reservoir and below the Myczkowce Dam. Individual river sections included in the Natura 2000 area are directly adjacent to
2a	Significant indirect positive and negative impacts in relation to the following:	or part of the East Beskid Mountains Protected Landscape Area and the East Carpathian International Biosphere Reserve. The area borders on the SAC and SPA Góry Słonne and SAC and SPA Bieszczady. There are 3 nature reserves in the area: Nad jeziorem Myczkowieckim, Przełom Sanu pod Mokrem and Przełom Sanu pod Grodziskiem. The technological process, the exploitation of the facilities and the investments carried out in the Unit do not cause interference in the biodiversity of the protected areas.



# Habitats protected or restored

# | GRI 304-3 |

# PGE Górnictwo i Energetyka Konwencjonalna

1	Size of all habitat areas protected or restored	<ul> <li>ELT: 485 ha</li> <li>ELR: Rybnik Reservoir area: approx. 464 ha. Area of Rybnik Power Plant and Reservoir, excluded from "Cistercian Landscape Compositions of the Great Ore": approx. 1.083 ha (2.2% of the current Park area)</li> <li>KWB: 68.6 ha</li> </ul>
2	Location of all habitat areas protected or restored	ELT: 1. Areas of protected habitats within the Natura 2000 area PLH02006 Przełomowa Dolina Nysy Łużyckiej - max. up to 20 km from ELT Branch: 3150 Old river beds and eutrophic water reservoirs - 32 patches - 14.07 ha; 3260 Lowland and submontane rivers with Trichophyton communities -38 ha; 6410 Molinia meadows - 8 ha; 6430 Mountain and riparian herbs - 10 patches of less than 500 m2; 6510 Lowland and submontane fresh meadows - 31 patches - 121 ha; 9130 Fertile beech forests - 6 patches - 52.75 ha; 9170 Central European oak-hornbeam - 45 patches - 144 ha; 9180 Maple-leaf forest - 1 habitat - 0.2 ha; 91E0 Willow, poplar, alder and ash forests - 26 patches - 16 ha. 2. Natural areas outside Natura 2000 area in the area of Bogatynia Municipality - up to 7,5 km from the ELT Branch: 6510 Lowland and submontane fresh meadows - 9 patches - 13.4 ha; 9130 Fertile beech forests - 6 patches - 52.75 ha; 9170 Central European oak-hornbeam - 42 patches - 62.5 ha; 91E0 Willow, poplar, alder and ash forests - 14.5 ha. ELR: Pursuant to Decree No. 181/93 of the Katowice Voivode of 23 November 1993 (Official Journal of the Katowice Voivode of 23 November 1993 (Official Journal of the Katowice Voivode sip No. 15*, item 130), highly urbanised areas were excluded from the Landscape Park "Cystercian Landscape Compositions of the Ore Mountains", including the Rybnik Reservoir". The area of the Rybnik Power Plant together with the reservoir of water used for technological purposes, the so-called "Rybnik Reservoir". The area of the Rybnik Power Plant is anthropogenically transformed and constantly influenced by human activity. There is no vegetation except grass. The mammal fauna is poor, being composed of species habitually associated with these areas. The nearest Natura 2000 sites are located at a much greater distance than the analysed fifty times the height of the highest point of gas or dust introduction into the air, i.e. 6.5 km from Elektrownia Rybnik. No protected habitats in the area of Elektrownia Rybnik. Rybnik Reservoir and th
3	Has the target effect of habitat restoration been or is it approved by independent external experts?	YES
4	Are there partnerships with other organisations for habitat protection or restoration, other than where the organisation has overseen and implemented conservation or restoration activities?	NO
5	Please indicate the status of each area, based on their status at the end of the reporting period	Mines: land rehabilitated/undergoing rehabilitation Power plants: areas under monitoring
6	Please indicate the standards, methodologies and assumptions used	Identification according to the guidelines in Interpretation Manual ver 27 (2007) Technical documents



| GRI 304-3 |

# PGE Energia Ciepła and subsidiaries

no data

| GRI 304-3 |

### PGE Energia Odnawialna

1	Size of all habitat areas protected or restored	WINDOW FARMS - Ordinance on the establishment of a Management Plan of Protective Tasks for the Natura 2000 area PLB320009 Zalew Szczeciński is currently in preparation (RDOŚ Szczecin, Urząd Morski Szczecin). Sites of priority bird species will be indicated in the PZO. 6. 7186.16 ha. PORĄBKA -Data concerning the Natura 2000 area - Beskid Mały, which neighbours the facilities of the Branch. The data comes from the website of the General Directorate for Environmental Protection.
2	Location of all habitat areas protected or restored	Porąbka - Area code PLH240023
3	Has the target effect of habitat restoration been or is it approved by independent external experts?	NO
4	Are there partnerships with other organisations for habitat protection or restoration, other than where the organisation has overseen and implemented conservation or restoration activities?	NO
5	Status of individual areas, based on their status at the end of the reporting period	not applicable
6	Please indicate the standards, methodologies and assumptions used	Porąbka - information obtained from the website of the General Directorate for Environmental Protection

IUCN Red List species and national conservation list species with habitats in areas affected by operations

| GRI 304-4 |

# PGE Górnictwo i Energetyka Konwencjonalna

1	the organisation's activities by level of risk of extinction:	
	Critically endangered	not identified
	Endangered	not identified
	Exposed	ELR: grebe
	Imminent threats	KWT: Blue-throated Praying Mantis, Blue-throated Praying Mantis
	Less vulnerable	<ul> <li>ELT:</li> <li>Plants - 15 protected species on 107 sites according to the Regulation of the Minister of the Environment of 9 October 2014 on the protection of plant species;</li> <li>Lichenobiota (lichens) - 8 species protected according to the Regulation of the Minister of the Environment of 9 October 2014 on the protection of species of fungi;</li> <li>Invertebrates - 4 strictly protected species listed in Annex II of the Habitats Directive and 11 species protected according to the Regulation of the Minister of Environment of 6 October 2014 on the protection of species of fungi;</li> <li>Ichthyofauna - 1 species protected under Regulation of the Minister of Environment of 6 October 2014 on the protected species of fungi;</li> <li>Amphibians and Reptilians - 16 strictly and partially protected species listed in Annex II and IV of the Habitats Directive;</li> <li>Birds - 17 protected species (a total of 93 species were identified in the study area;</li> <li>Mammals - 24 species under species protection in Poland.</li> <li>ELR: Aquarius, dirk</li> </ul>

# Total number of IUCN Red List and National Conservation List species with habitats in areas affected by



| GRI 304-4 |

# PGE Energia Ciepła

no data

| GRI 304-4 |

#### PGE Energia Odnawialna

1	Total number of IUCN Red List and National Conservation List species with habitats in areas affected by the organisation's activities by level of risk of extinction:	
	Critically endangered	not identified
	Endangered	not identified
	Exposed	1
	Imminent threats	1
	Less vulnerable	29

In the area PLB320009 Zalew Szczecinski at least 25 bird species from the Annex I of the Birds Directive occur, 9 species from the Polish Red Book (PCK). It should be emphasized that the species mentioned above occur in the entire area of Natura 2000 PLB320009 Zalew Szczeciński, therefore also in inland waters or in ecosystems suitable for them (e.g. forest, rushes), which does not have to mean their occurrence in the area of PGE EO activity on land - in the area of arable fields. 7. The area of the company's operations, operation of the facilities and conducted investments do not cause interference in biodiversity of protected areas and areas outside protected areas. The water management carried out in the reservoirs and the operation of the power plant in particular does not pose significant threats to the ichthyofauna.

### Waste management

Waste generation and significant waste-related impacts in 2022.

| GRI 306-1 |

#### PGE Górnictwo i Energetyka Konwencjonalna

Significant actual impacts of the organisation related to waste, including:		
Inputs, activities and outputs that lead to these impacts	PGE Górnictwo i Energetyka Konwencjonalna, being fully aware of the obligations resulting from its role as a producer of classic ash, fluidised bed ash and calcium sulphate (gypsum from FGD), carried out the relevant registrations of these substances with the European Chemicals Agency (ECHA) - pre-registration (2008) and registration proper (2010) in the largest tonnage range, i.e. above 1,000 tonnes/year. Such a tonnage band, i.e. the quantity produced/traded, required the preparation of registration dossiers to the fullest extent.	
Do these impacts relate to waste generated within the organisation's own operations or to waste generated upstream or downstream in its value chain?	The primary purpose of the production processes taking place in power plants is to generate electricity and heat, which are traded on the market. The process of producing electricity comes down to the conversion of the chemical energy of the fuel into heat, heat into mechanical energy and then mechanical energy into electricity. The basic process of converting the chemical energy of a fuel into heat takes place in boiler plants, through the process of oxidation. The combustion of fuels results in the release into the atmosphere of substances contained in the fuel, including sulphur dioxide, which adversely affects the environment through further reactions. Accompanying the main process is the flue gas desulphurisation process using wet technology. This technology is the most proven in the world energy industry, used for the flue gas desulphurisation process, classified as BAT. The company carries out many projects and investments to minimise its environmental impact and protect the natural ecosystems in its surroundings.	

#### | GRI 306-1 |

#### PGE Energia Ciepła and subsidiaries

Significant actual impacts of the organisation related to waste, including:



Inputs, activities and outputs that lead to these impacts	The input to the production process is fuels (coal, biomass, municipal waste), while the output is combustion by-products such as ash, slag and gypsum from flue gas cleaning. The majority of the post-process outfall volume is transferred to external customers, either as waste or 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. 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.
Do these impacts relate to waste generated within the organisation's own operations or to waste generated upstream or downstream in its value chain?	As a general rule, the raw materials (fuels) and substances used for the production of electricity and heat are sourced from outside the organisation (the exception is municipal waste, which is already waste to begin with and is recovered at waste- to-energy incinerator).

#### | GRI 306-1 |

#### PGE Energia Odnawialna

Significant actual impacts of the organisation related to waste, including:	
Inputs, activities and outputs that lead to these impacts	In the operation of the facilities, waste classified as hazardous and non-hazardous is generated. The waste generated is handed over to a specialist company with the legally required waste management permits. Transport is outsourced to a specialist company, which collects the waste for disposal. In addition, waste treatment of rivers is carried out at aquatic facilities.
Do these impacts relate to waste generated within the organisation's own operations or to waste generated upstream or downstream in its value chain?	The facilities generate waste during operation, servicing, repair and maintenance work. The amount of waste generated is small and is entirely handed over to authorised collectors. Once generated, segregation and selective storage of generated waste is carried out in a way that prevents its negative impact on the environment and human health. Measures are carried out to reduce the generation of waste "at source".

For PGE Dystrybucja - no significant impact on waste generation from ongoing electricity investments.

Waste generated in 2022.

#### | GRI 306-3 |

#### PGE Górnictwo i Energetyka Konwencjonalna

Total weight of waste generated (in metric tonnes)	6 530 571
Non-hazardous waste	6 529 619.5
Hazardous waste	951.5

## | GRI 306-3 |

# PGE Energia Ciepła and subsidiaries

Total weight of waste generated (in metric tonnes)	500 643
Non-hazardous waste	495 783
Hazardous waste	4 860

#### | GRI 306-3 |

### PGE Energia Odnawialna

Total weight of waste generated (in metric tonnes)	940
Non-hazardous waste	906
Hazardous waste	34



| GRI 306-3 |

# PGE Dystrybucja

Total weight of waste generated (in metric tonnes)	3 698
Non-hazardous waste	2 527
Hazardous waste	1 171

Waste recovered in 2022.

| GRI 306-4 |

# PGE Górnictwo i Energetyka Konwencjonalna

Total weight of waste recovered (in metric tonnes)	3 913 364.5
Total weight of recovered waste by waste category	
Non-hazardous waste	3 912 899
Hazardous waste	465
Total weight of hazardous waste recovered (in metric tonnes)	465
Total weight of hazardous waste recovered by recovery method	
Preparation for re-use	total, t
within the organisation	0
outside the organisation	0
Recycling	129
within the organisation	0
outside the organisation	129
Other waste recovery methods	336
within the organisation	0
outside the organisation	336
Total weight of non-hazardous waste recovered (in metric tonnes)	
Total weight of recovered non-hazardous waste by recovery method (in metric	3 912 899
tonnes)	5 912 899
Preparation for re-use	total, t
within the organisation	0
outside the organisation	0
Recycling	5 056.5 total, t
within the organisation	0
outside the organisation	5 056.5
Other waste recovery methods	3 907 843 total, t
within the organisation	3 903 991
outside the organisation	3 852
Method of determining waste treatment	
Other contextual information necessary to understand the data and how it was collated.	Quantitative data based on BDO records. Information on waste management is obtained from recipients, in contracts with individuals and administrative decisions held by waste collectors.

# | GRI 306-4 |

# PGE Energia Ciepła and subsidiaries

Total weight of waste recovered (in metric tonnes)	527 648
Total weight of recovered waste by waste category	
Non-hazardous waste	522 805
Hazardous waste	4 843
Total weight of hazardous waste recovered (in metric tonnes)	4 843
Total weight of hazardous waste recovered by recovery method	
Preparation for re-use	total, t
within the organisation	
outside the organisation	
Recycling	total, t
within the organisation	
outside the organisation	



Other waste recovery methods	total, t
within the organisation	
outside the organisation	4 843
Total weight of non-hazardous waste recovered (in metric tonnes)	522 805
Total weight of recovered non-hazardous waste by recovery method (in metric tonnes)	
Preparation for re-use	total, t
within the organisation	
outside the organisation	
Recycling	total, t
within the organisation	
outside the organisation	
Other waste recovery methods	total, t
within the organisation	86 865
outside the organisation	435 941
Method of determining waste treatment	
Other contextual information necessary to understand the data and how it was collated.	Quantitative data based on BDO records. Information on waste management is obtained from recipients, in contracts with individuals and administrative decisions held by waste collectors.

# | GRI 306-4 |

PGE Energia Odnawialna and PGE Dystrybucja - the indicator does not apply to these companies



Waste transferred for disposal in 2022.

# | GRI 306- 5|

# PGE Górnictwo i Energetyka Konwencjonalna

Total weight of waste sent for disposal (in metric tonnes)	4 580 196
Non-hazardous waste	4 579 795
Hazardous waste	
Total weight of hazardous waste sent for disposal (in metric tonnes)	400.45
Total weight of recovered hazardous waste sent for disposal by treatment method	400.45
Incineration (with energy recovery)	0
within the organisation	0
outside the organisation	0
Incineration (without energy recovery)	0
within the organisation	0
outside the organisation	0
Landfill	0
within the organisation	0
outside the organisation	0
Other treatment methods	400.45
within the organisation	0
outside the organisation	400.45
Total weight of non-hazardous waste sent for disposal (in metric tonnes)	4 579 395
Total weight of recovered non-hazardous waste sent for disposal by treatment method	
Incineration (with energy recovery)	0
within the organisation	0
outside the organisation	0
Incineration (without energy recovery)	0
within the organisation	0
outside the organisation	0
Waste storage	4 286 817
within the organisation	4 269 182
outside the organisation	17 635
Other treatment methods	292 578
within the organisation	168 520
outside the organisation	124 058

# | GRI 306- 5|

# PGE Energia Ciepła and subsidiaries

Total weight of waste sent for disposal (in metric tonnes)	73 345
Non-hazardous waste	73 344.5
Hazardous waste	0.817
Total weight of hazardous waste sent for disposal (in metric tonnes)	
Total weight of recovered hazardous waste sent for disposal by treatment method	0.817
Incineration (with energy recovery)	total, t
within the organisation	not applicable
outside the organisation	not applicable
Incineration (without energy recovery)	total, t
within the organisation	not applicable
outside the organisation	not applicable
Landfill	total, t
within the organisation	not applicable
outside the organisation	not applicable
Other treatment methods	total, t
within the organisation	not applicable
outside the organisation	0.817
Total weight of non-hazardous waste sent for disposal (in metric tonnes)	not applicable
Total weight of recovered non-hazardous waste sent for disposal by treatment method	73 344
Incineration (with energy recovery)	total, t
within the organisation	not applicable
outside the organisation	not applicable
Incineration (without energy recovery)	total, t



Method of determining waste treatment	
outside the organisation	not applicable
within the organisation	not applicable
Other treatment methods	total, t
outside the organisation	25 210
within the organisation	48 133
Waste storage	total, t
outside the organisation	not applicable
within the organisation	not applicable

#### | GRI 306- 5|

# PGE Energia Odnawialna

Total weight of waste sent for disposal (in metric tonnes)	920
Non-hazardous waste	886
Hazardous waste	34
Total weight of hazardous waste sent for disposal (in metric tonnes)	34
Total weight of recovered hazardous waste sent for disposal by treatment method	
Incineration (with energy recovery)	total, t
within the organisation	not applicable
outside the organisation	not applicable
Incineration (without energy recovery)	total, t
within the organisation	not applicable
outside the organisation	not applicable
Landfill	total, t
within the organisation	not applicable
outside the organisation	not applicable
Other treatment methods	total, t
within the organisation	not applicable
outside the organisation	34
Total weight of non-hazardous waste sent for disposal (in metric tonnes)	886
Total weight of recovered non-hazardous waste sent for disposal by treatment method	not applicable
Incineration (with energy recovery)	total, t
within the organisation	not applicable
outside the organisation	not applicable
Incineration (without energy recovery)	total, t
within the organisation	not applicable
outside the organisation	not applicable
Waste storage	not applicable
within the organisation	total, t
outside the organisation	not applicable
Other treatment methods	total, t
within the organisation	not applicable
outside the organisation	886
	Under the Waste Act
Method of determining waste treatment	and waste generation permits.

#### | GRI 306- 5|

# PGE Dystrybucja

Total weight of waste sent for disposal (in metric tonnes)	3698
Non-hazardous waste	2 527
Hazardous waste	1171

Waste management at PGE Dystrybucja is carried out in accordance with the standardised "Waste Management Manual at PGE Dystrybucja SA". On the basis of signed agreements with subcontractors, waste generators are subcontractors who transfer waste in BDO to authorised operators. The same applies to waste generated by PGE Dystrybucja, where waste is also transferred in BDO to authorised operators.



Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with environmental laws and regulations at companies that have the biggest impact on the surroundings [PLN].

#### [own indicator]

PGE GIEK	2022	Commentary
Amount of cash penalties imposed in given year for violations of environmental protection laws and regulations	PLN 10,000	<b>ELB</b> With the decision of the Łódzkie Voivodeship Inspector of Environmental Protection of 2.12.2022, PGE GiEK SA Oddział Elektrownia Bełchatów was imposed an administrative fine for operating a visual inspection system of waste storage sites in quaternary A of the landfill site for non-hazardous and non- obsolete waste in Rogowiec contrary to the provisions of art. 25(6a) of the Waste Act of December 14, 2012.
	166.98 PLN/day.	<b>KWB</b> By a decision of the Lodz Voivodeship Environmental Protection Inspector of 14.11.2022, the running penalty for exceeding the permissible noise level in 2018 (concerns Kamien 36) was decided. The total amount of the penalty for the exceedance in question will be determined by a separate administrative decision.
	PLN 88 756.00	<b>KWB</b> Penalty for exceeding noise limit in 2022.
	PLN 5 000.00	<b>KWT</b> Penalty for using water without the required water permit.
Value of cash penalties paid/to be paid during the year for non-compliance with environmental laws and regulations	PLN 10 000	<b>ELB</b> With the decision of the Łódzkie Voivodeship Inspector of Environmental Protection of 2.12.2022, an administrative fine was imposed on PGE GiEK SA Oddział Elektrownia Bełchatów for operating a visual inspection system of waste storage sites in the A quarter of the landfill site for non-hazardous and inert waste in Rogowiec contrary to the provisions of art. 25(6a) of the Waste Act of December 14, 2012.



PGE EC and subsidiaries	2022	Commentary
Amount of cash penalties imposed in given year for violations of environmental protection laws and regulations	0	
Value of cash penalties paid/to be paid during the year for non-compliance with environmental laws and regulations	0	

PGE Energia Odnawialna	2022	Commentary
Amount of cash penalties imposed in given year for violations of environmental protection laws and regulations	0	
Value of cash penalties paid/to be paid during the year for non-compliance with environmental laws and regulations	0	

PGE Dystrybucja	2022	Commentary
Amount of cash penalties imposed in given year for violations of environmental protection laws and regulations	0	
Value of cash penalties paid/to be paid during the year for non-compliance with environmental laws and regulations	0	



# SELECTED INDICATORS IN THE ENVIRONMENTAL AREA AT PGE SA:

The following indicators demonstrate the company's approach to managing its environmental impact in terms of energy, water and paper consumption at the PGE SA site.

Annual electricity consumption at PGE S	SA headquarters		
	2022	2021	2020
Energy for administrative purposes (MWh)	1 785	1 716	1 594
Energy for administrative and technical purposes (server rooms) (MWh)	853	914	909

Energy consumption for administrative purposes has increased slightly compared to the previous year. This can be influenced by the higher number of occupants in the building as well as weather conditions (fewer days of sunshine).

Annual consumption of thermal energy	at PGE SA headquarters		
	2022	2021	2020
Annual thermal energy consumption (in GJ)	7 453	8 460	6 980
Annual thermal energy consumption (w GJ/m <sup>3</sup> )	0.07	0.08	0.06

Annual heat consumption decreased slightly year on year. A possible influence on the lower heat consumption may be the investment currently being made to replace the windows.

Annual consumption of sheets of paper	at PGE SA headquarters		
	2022	2021	2020
Paper for office printing (counted in A4 format, sheets)	835 449	841 958	873 085
Use of paper for office printing (A4 format/person)	1021	1 201	1 317

Paper consumption per employee of PGE SA is regularly decreasing. Increased employee awareness, as well as the electronic circulation of documents and correspondence, contribute to lower paper consumption.

Annual water consumption and wastewater d	ischarge at PGE S.A.'s heac	lquarters	
	2022	2021	2020
Annual water consumption and wastewater discharge (m3)	5 399	4 711	4 152
Annual water consumption and wastewater discharge (m3/person)	6.6	6.7	6.3

Water consumption and sewage disposal have increased due to the ongoing renovation work on the building, as well as the higher number of occupants, both employees and visitors.

Annual toner consumption at PGE S.A.'s	s headquarters		
	2022	2021	2020
Annual toner consumption (in pcs)	218	130	183
Annual toner consumption (in pcs/person)	0.27	0.18	0.27

The number of toner units purchased is higher due to the centralisation of business areas and an increase in the number of locations for which new printers must be provided with toner.

Energy-efficient LED lamps at PGE S.A.	's headquarters			
2022 2021 202				
LED lamps (in %)	80	71	66	

Due to the pandemic period, renovation work was put on hold, so the luminaries were replaced to a minor extent.



# SELECTED INDICATORS IN THE AREA OF LABOUR ISSUES AT PGE GROUP AND PGE SA

Total number of employees by type of employment and type of employment contract, by gender (number persons) At December 31

| GRI 2-7 | GC-6 |

PGE Group	D	Data for 2022	
	Female	Male	Total
Total number of employees	7 805	30 550	38 355
Number of full-time contract employees	7 728	30 456	38 184
Number of part-time employees under contract	77	95	172
Number of employees with permanent employment contracts	6 889	27 911	34 800
Number of employees with fixed-term employment contracts	916	2 639	3 555
Employees employed under a contract of mandate	555	570	1 125
Employees employed under a works contract	3	6	9
Number of self-employed staff	6	36	42
Ratio of self-employed staff to all employees	0.08%	0.1%	0.1%

PGE SA	Dat	Data for 2022	
	Female	Male	Total
Total number of employees	406	412	818
Number of full-time contract employees	396	404	800
Number of part-time employees under contract	10	8	18
Number of employees with permanent employment contracts	377	378	755
Number of employees with fixed-term employment contracts	29	34	63
Employees with a contract of employment (A)	3	2	5
Employees employed under a works contract (B)			0
Number of self-employed staff			0
Ratio of self-employed staff to all employees	0%	0%	0%

Total number of associates who are not employees and whose work is controlled by the organisation (in persons). At December 31

#### | GRI 2-8 |

PGE Group		Data for 2022	
	Female	Male	Total
Total number of non-employee collaborators whose work is controlled by the organisation. At December 31, 2022. Collaborators include contract workers, agency workers, self-employed, interns, apprentices and subcontractors.	192	210	402

PGE SA		Data for 2022	
Total number of non-employee collaborators whose work is controlled by the organisation. At December 31, 2022.	Female	Male	Total
	0	0	0



# Total annual remuneration ratio

The indicator is presented for the key business segments: PGE SA, PGE Energia Ciepła, PGE Górnictwo i Energetyka Konwencjonalna, PGE Energia Odnawialna, PGE Dystrybucja and PGE Obrót

	Data for 2022					
	PGE SA	PGE Energia Ciepła	PGE GiEK	PGE Energia Odnawialna	PGE Dystrybucja	PGE Obrót
Ratio of total annual remuneration for the highest paid person in the organisation to the median total annual remuneration for all employees (excluding the highest paid person)	599.2%	1304.9%	714%	440.5%	771.3%	798.1%
Ratio of the percentage increase in total annual remuneration for the highest paid person in the organisation to the median percentage increase in total annual remuneration for all employees (excluding the highest paid person)	0%*	4.8%	0%	67.5%	0%	59.7%

0%\* - this value means that the highest paid person in the organisation did not receive a raise in 2022.

Number of employees covered by the collective agreement (in persons). At December 31

# | GRI 2-30 | GC-3 |

PGE Group	Data for 2022	Data for 2021	Data for 2020
Number of staff	38 355	38 299	40 444
Number of employees covered by the collective agreement	28 828	29 486	30 861
Percentage of employees covered by collective agreements	75.2%	77.0%	76.3%

PGE SA	Data for 2022	Data for 2021	Data for 2020
Number of staff	818	701	618
Number of employees covered by the collective agreement	0	0	1
Percentage of employees covered by a collective agreement (in relation to all employees)	0%	0%	0%

All employees are covered by the labour code and regulations and, depending on the company, by resolutions of the Board of Directors adopting uniform remuneration rules.

Total number of new hires, leavers and employee recruitment and turnover rates by age group, gender (in persons). At December 31

#### | GRI 401-1 | GC-6|

PGE Group	Data for 2022	Data for 2021	Data for 2020
Total number of employees	38 355	38 299	40 444
Total number of employees newly recruited during the reporting period, of which:	3 810	1 973	1 927
Female	1 002	659	579
Male	2 808	1 314	1 348
Under 30 years of age	1 179	537	568
30-50 years of age	2 260	1 222	1 076
Over 50 years of age	371	214	283
Percentage of employees newly hired during the reported period, of which:	10%	5%	5%
Female	3%	2%	1%



Male	7%	3%	3%
Under 30 years of age	3%	1%	1%
30-50 years of age	6%	3%	3%
Over 50 years of age	1%	1%	1%
Total number of employees who left during the reported period, including:	3 385	4 232	3 695
Female	645	1 053	1 031
Male	2 740	3 179	2 664
Under 30 years of age	366	420	394
30-50 years of age	1 218	1 356	1 078
Over 50 years of age	1 801	2 456	2 223
Percentage of employees who left during the reported period, including:	9%	11%	9%
Female	2%	3%	3%
Male	7%	8%	7%
Under 30 years of age	1%	1%	1%
30-50 years of age	3%	4%	3%
Over 50 years of age	5%	6%	5%

PGE SA	Data for 2022	Data for 2021	Data for 2020
Total number of employees	818	701	618
Total number of employees newly recruited during the reporting period, including:	171	201	83
Female	71	90	33
Male	100	111	50
Under 30 years of age	39	32	11
30-50 years of age	119	153	61
Over 50 years of age	13	16	11
Percentage of employees newly recruited during the reporting period, of which:	21%	29%	13%
Female	9%	13%	5%
Male	12%	16%	8%
Under 30 years of age	5%	5%	2%
30-50 years of age	15%	22%	10%
Over 50 years of age	2%	2%	2%
Total number of employees who left during the reported period, including:	49	114	132
Female	17	47	53
Male	32	67	79
Under 30 years of age	5	14	19
30-50 years of age	35	73	77
Over 50 years of age	9	27	36
Percentage of employees who left during the reported period, including:	6%	16%	21%
Female	2%	7%	9%
Male	4%	10%	13%
Under 30 years of age	1%	2%	3%
30-50 years of age	4%	10%	12%
Over 50 years of age	1%	4%	6%

Parental leave. At 31 December.

#### | GRI 401-3 |

PGE Group		Data for 2022	
	Female	Male	Total
Total number of employees who were entitled to parental, maternity, paternity leave	240	431	671
Total number of employees who have taken parental, maternity, paternity leave	264	375	639
Total number of employees who returned to work during the reporting period following the end of parental, maternity, paternity leave	264	375	639



Total number of employees who returned to work at the end of parental, maternity, paternity leave and who were still employed 12 months after their return to work	170	346	516
Return to work rate of employees who have taken parental leave	100%	100%	100%
Retention rate for employees who have taken parental leave	86.7%	92.4%	90.4%

PGE SA		Data for 2022	
	Female	Male	Total
Total number of employees who were entitled to parental, maternity, paternity leave	8	33	41
Total number of employees who have taken parental, maternity, paternity leave	25	21	46
Total number of employees who returned to work during the reporting period following the end of parental, maternity, paternity leave	25	21	46
Total number of employees who returned to work at the end of parental, maternity, paternity leave and who were still employed 12 months after their return to work	30	16	46
Return to work rate of employees who have taken parental leave	100%	100%	100%
Retention rate for employees who have taken parental leave	96.8%	88.9%	93.9%

	Total number of employees who returned to work after parental leave	×100
Return-to-work indicator	Total number of employees who should return to work after parental leave	x100
Employee retention rate	The total number of employees employed in the organisation 12 months after returning from parental leave	×100
	Total number of employees who returned from parental leave during the reporting period	

Number of training hours per year per employee by employment structure (in persons). At December 31

#### | GRI 404-1 | GC-6 |

PGE Group	Data for 2022
Total number of training hours (total for the year)	342 972.30
Total number of employees	38 355
Average number of training hours during reporting period per employee - total	8.94
Average number of training hours during reporting period per employee, including:	21.66
Female	11.15
Male	8.22
Upper management (management board and directors)	33.61
Management positions	18.03
Other employees	7.78



Average number of training hours per year per employee by employment category and gender.

# | GRI 404-1 |

PGE SA	Data for 2022
Total number of training hours (total for the year)	5 879.5
Total number of employees	818
Average number of training hours during reporting period per employee - total	7.19
Average number of training hours during reporting period per employee, including:	7.08
Female	7.75
Male	6.63
Upper management (management board and directors)	12.63
Management positions	10.65
Other employees	5.95

Percentage of employees subject to regular job quality assessment and career development reviews by gender. At December 31

## | GRI 404-3 | GC-6 |

PGE Group	Data for 2022	Data for 2021	Data for 2020
Percentage of employees subject to regular job quality assessment and career development reviews by gender:	18.4%	16.4%	15.4%
Number of employees regularly receiving work evaluations	7 057	6 286	6 228
Number of women regularly receiving work evaluations	2 722	2 472	2 396
Number of men regularly receiving work evaluations	4 335	3 814	3 832
Number of directors (management posts, names can differ depending on the company)	1 124	1 034	1 119
Percentage of employees receiving regular appraisals of their work (women and men combined - percentage of total number of all employees)			
women (% of women out of all women)	34.9%	32%	29.3%
men (% of men out of all men)	14.2%	12.5%	11.9%
Directors	38.1%	35.9%	38.3%

PGE SA	Data for 2022	Data for 2021	Data for 2020
Percentage of employees subject to regular job quality assessment and career development reviews by gender:	100%	100%	100%
Number of employees regularly receiving work evaluations	818	701	618
Number of women regularly receiving work evaluations	406	356	311
Number of men regularly receiving work evaluations	412	345	307
Number of directors (management posts, names can differ depending on the company)	183	159	151
Percentage of employees receiving regular appraisals of their work (women and men combined - percentage of total number of all employees)			
women (% of women out of all women)	100%	100%	100%
men (% of men out of all men)	100%	100%	100%
Directors	100%	100%	100%



Composition of management and supervisory bodies, management staff, by category, gender and age At December 31

#### | GRI 405-1 | GC-6 |

PGE Group	Data for 2022	Data for 2021	Data for 2020
Number of people in the Management Board	91	81	89
Number of people on the management board of the			
organisation in each of the following categories:			
Female	8	8	ç
Male	83	73	80
age: under 30	0	1	(
age: 30–50	51	49	62
age: over 50	40	31	27
Number of people in the Supervisory Board	201	191	197
Number of people on the organisation's Supervisory Board in each of the following categories:			
Female	50	52	54
Male	151	139	143
age: under 30	1	1	2
age: 30-50	133	130	137
age: over 50	67	60	58
Total number of employees	38 355	38 299	40 444
Number of employees in each of the following categories:			
Female	7 805	7 735	8 173
Male	30 550	30 564	32 271
age: under 30	2 939	2 864	3 059
age: 30-50	18 410	18 261	19 550
age: over 50	17 006	17 174	17 835
Percentage of people on the Management Board of the organisation in each of the following categories:			
Female	8.8%	9.9%	10.1%
Male	91.2%	90.1%	89.9%
age: under 30	0%	1.2%	0%
age: 30-50	56%	60.5%	69.7%
age: over 50	44%	38.3%	30.3%
Percentage of people on the organisation's Supervisory Board in each of the following categories:			
Female	24.9%	27.2%	27.4%
Male	75.1%	72.8%	72.6%
age: under 30	0.5%	0.5%	1%
age: 30-50	66.2%	68.1%	69.5%
age: over 50	33.3%	31.4%	29.4%
Percentage of employees in each of the following categories:			
Female	20.3%	20.2%	20.2%
Male	79.7%	79.8%	79.8%
age: under 30	7.7%	7.5%	7.6%
age: 30–50	48%	47.7%	48.3%
age: over 50	44.3%	44.8%	44.1%



PGE SA	Data for 2022	Data for 2021	Data for 2020
Number of people in the Management Board	5	6	6
Number of people on the Management Board of the organisation in each of the following categories:			
Female	1	1	1
Male	4	5	5
age: under 30	0	1	
age: 30-50	2	3	5
age: over 50	3	2	1
Number of people in the Supervisory Board	8	9	8
Number of people on the organisation's Supervisory Board in each of the following categories:			
Female	2	2	2
Male	6	7	6
age: under 30	0	0	0
age: 30-50	3	4	4
age: over 50	5	5	4
Total number of employees	818	701	618
Number of employees in each of the following categories:			
Female	406	356	311
Male	412	345	307
age: under 30	66	68	54
age: 30-50	647	548	480
age: over 50	105	85	84
Percentage of people on the Management Board of the organisation in each of the following categories:			
Female	20%	16.7%	16.7%
Male	80%	83.3%	83.3%
age: Under 30	0%	16,7%	0%
age: 30-50	40%	50%	83.3%
age: over 50	60%	33,3%	16.7%
Percentage of people on the organisation's Supervisory Board in each of the following categories:			
Female	25%	22.2%	25%
Male	75%	77.8%	75%
age: under 30	0%	0%	0%
age: 30–50	37.5%	44.4%	50%
age: over 50	62.5%	55.6%	50%
Percentage of employees in each of the following categories:			
Female	49.6%	50.8%	50.3%
Male	50.4%	49.2%	49.7%
age: under 30	8.1%	9.7%	8.7%
age: 30–50	79.1%	78.2%	77.7%
age: over 50	12.8%	12.1%	13.6%



Percentage of employees who will become eligible to retire in 5 and 10 years, with a breakdown by type of work performed. At December 31

# [own indicator]

PGE Group	Data as at 31. 12. 2022	Data as at 31. 12. 2021
Number of employees eligible to retire within 5 years	5 397	5 905
Directors	100	136
Managers	367	555
Experts	284	302
Office staff	915	1 019
Operations staff	3 300	3 445
Other	431	448
Percentage of employees eligible to retire within 5 years		
Directors	17%	22%
Managers	16%	24%
Experts	14%	15%
Office staff	16%	18%
Operations staff	13%	14%
Other	23%	16%
Number of employees eligible to retire within 10 years (cumulative)	11 516	12 402
Directors	196	189
Managers	753	790
Experts	544	533
Office staff	1 565	1 643
Operations staff	7 862	8 397
Other	596	850
Percentage of employees eligible to retire within 10 years		
Directors	33%	31%
Managers	32%	35%
Experts	26%	27%
Office staff	27%	29%
Operations staff	31%	34%
Other	32%	31%

Percentage of employees who will become eligible to retire in 5 and 10 years, with a breakdown by type of work performed. At December 31

PGE SA	Data as at 31. 12. 2022	Data as at 31. 12. 2021
Number of employees eligible to retire within 5 years	18	17
Directors	2	1
Managers	2	2
Experts	10	10
Office staff	4	4
Operations staff		
Other		
Percentage of employees eligible to retire within 5 years		
Directors	3%	1%
Managers	2%	3%
Experts	3%	3%
Office staff	2%	2%
Operations staff	0%	0%
Other	0%	0%
Number of employees eligible to retire within 10 years (cumulative)	83	34
Directors	11	6
Managers	10	4
Experts	40	16
Office staff	22	8
Operations staff		
Other		
Percentage of employees eligible to retire within 10 years		
Directors	14%	8%

Non-financial report on the activities of PGE Polska Grupa Energetyczna S.A. and PGE Group for 2022



Managers	9%	5%
Experts	11%	5%
Office staff	8%	4%
Operations staff	0%	0%
Other	0%	0%

# Implementation of the Voluntary Redundancy Program (number of people).

#### [own indicator]

Voluntary Rodundancy Program in 2021	34
Voluntary Recumulancy Program in 2021	52
Voluntary Redundancy Program in 2020	35

PGE SA	
Voluntary Redundancy Program in 2022	0
Voluntary Redundancy Program in 2021	52
Voluntary Redundancy Program in 2020	22



Type of injury and rates of injury, occupational diseases, lost days, and absenteeism, and total number of work-related fatalities, by region and by gender

#### | GRI 403-9 |

PGE Group	Data for 2022	Data for 2021	Data for 2020
Total number of all occupational accident victims, including:	130	160	176
Women [number of victims]	7	13	13
Men [number of victims]	123	147	164
Number of fatal accidents	0	0	3
Women [number of victims]	0	0	0
Men [number of victims]	0	0	3
Number of mass accidents	4	2	1
Women [number of victims]	0	0	0
Men [number of victims]	10	4	2
Number of serious accidents	2	1	2
Women [number of victims]	0	0	0
Men [number of victims]	2	1	2
Number of light accidents	118	155	170
Women [number of victims]	7	13	12
Men [number of victims]	111	142	158
Accident frequency rate*	3.40	4.17	4.35
Accident severity rate**	62,38	64,63	68,68
Absentee rate***	8 110	10 340	11 675
Female	271	568	582
Male	7 839	9 772	11 093
LTIFR Lost Time Injury Frequency Rate****	2.1		
number of cases of diagnosed occupational disease	0		
number of identified deaths due to occupational disease	0		
Total number of accidents at work	124		
Total number of victims in accidents equated to accidents at work	2		
Number of Potentially Accidental Events	175		

 Accident frequency rate\*
 Number of injured workers in occupational accidents per year

 Accident frequency rate\*
 x1 000

 Number of employees<br/>As at 31.12 of the year for which the report is made<br/>(Actual - FTEs all, i.e. active and inactive)
 x1 000

 Total number of days of incapacity of victims of<br/>accidents at work
 Total number of days of incapacity of victims of<br/>accidents at work

 Accident severity rate\*\*
 Number of workers injured in accidents at work<br/>(excluding fatalities)



Number of injured workers in accidents at work resulting in absenteeism or death (per year)

LTIFR Lost	Time Injury
Frequency	Rate ****

- x1 000 000

Number of hours worked by employees in the year for which the report is made

For the calculation of the above indicators, victims of accidents at work are taken into account. Injured persons in accidents on the way to and from work and injured persons in events equated with accidents at work, referred to in art. 3 sec. 2 of the Act on Social Insurance for Accidents at Work and Occupational Diseases (i.e. Journal of Laws of 2022, item 2189), are not taken into account. In Poland, the TRIFR and LTIFR indicators have practically the same value, since, according to the law, any injury caused by an external cause in connection with work requires such an incident to be recorded as a work accident and, in the vast majority of cases, this is associated with sickness absence. By employees, it is meant employees of PGE Group companies.

## Our ambition: zero accidents

The measures taken in PGE Group contributed to a reduction in the number of accidents at work by 30 compared to 2021 and by 46 compared to 2020. The accident frequency (frequency) indicator was also reduced by 0.77 compared to 2021 and 0.95 compared to 2020. It indicates the number of accidents at work, as defined in art. 3 sec. of the Act of 30 October 2002 on social insurance for accidents at work and occupational diseases (as amended) per 1,000 employees (FTEs). The value of this indicator for 2022 was **3.40**.

According to GUS data ('Accidents at work in 2021 - preliminary data') in similar sections and divisions in 2021, the similar rate in Poland was:

- Generation and supply of electricity, gas, steam and hot water: 5.96
- Mining and quarrying: 14.17

Data for 2022 is not yet available, but the available data shows that PGE Group's performance for 2021 was better than the average in these sections and divisions in Poland, and the data for 2022 shows a further reduction in this indicator.

In 2022, PGE Group unveiled a new Lost Time Injury Frequency Rate (LTIFR).

	Number of injured workers in accidents at work resulting in absenteeism or death (per year)	
LTIFR Lost Time Injury Frequency Rate		- x1 000 000
	Number of hours worked by employees in the year for	

Number of hours worked by employees in the year for which the report is made

It indicates the number of accidents at work, as defined in art. 3 sec. 1 of the Act of 30 October 2002 on social insurance for accidents at work and occupational diseases (causing absenteeism or death) per 1 million hours worked.

This amounted to 2.1 (accidents/per million hours worked).

In 2022, there were 2 heavy worker accidents and no worker fatalities. This indicates a continuation of this rate at a similar level compared to 2021 and a continuation of the improvement compared to 2020 and 2019. The Health and Safety Improvement Framework Plan 2023 includes tasks in the areas where these incidents occurred.

In 2022, there were 4 mass accidents in which 10 people were injured. These were so-called light accidents related to road traffic accidents. A total of 175 near-misses were reported, i.e. sudden, work-related incidents that did not result in injury. The reporting of such incidents demonstrates a developing safety culture and allows action to be taken before accidents occur.



In addition, 2 accidents equated with an accident at work were identified in 2022, in accordance with art. 3 sec. 2 of the Act of 30 October 2002 on social insurance for accidents at work and occupational diseases (as amended), an accident suffered by an employee is treated as equal to an accident at work:

- during a business trip,
- during training in general self-defence,
- when carrying out tasks mandated by trade union organisations that are active at the employer.

PGE SA	Data for 2022	Data for 2021	Data for 2020
Total number of all occupational accident victims, including:	0	1	0
Women [number of victims]	0	1	0
Men [number of victims]	0	0	0
Number of fatal accidents	0	0	0
Women [number of victims]	0	0	0
Men [number of victims]	0	0	0
Number of mass accidents	0	0	0
Women [number of victims]	0	0	0
Men [number of victims]	0	0	0
Number of serious accidents	0	0	0
Women [number of victims]	0	0	0
Men [number of victims]	0	0	0
Number of light accidents	0	1	0
Women [number of victims]	0	1	0
Men [number of victims]	0	0	0
Accident frequency rate*	0	1.43	0
Accident severity rate**	0	14	0
Absentee rate***	0	14	0
Female	0	14	0
Male	0	0	0
LTIFR Lost Time Injury Frequency Rate	0		
number of cases of diagnosed occupational disease	0		
number of identified deaths due to occupational disease	0		
Total number of accidents at work	0		
Total number of victims in accidents equated to accidents at work	1		
Number of Potentially Accidental Events	0		

There were no accidents at work at PGE SA in 2022, thanks to the fact that a number of health and safety awareness activities were undertaken in the administrative and office area. There was one accident equated to an accident at work during a business trip.



# SELECTED INDICATORS IN THE AREA OF SOCIAL ISSUES AT PGE GROUP AND PGE SA

Indicators such as:

- SAIDI (average duration of electricity interruptions) and SAIFI (average frequency of electricity interruptions), are presented in the "Customer" section.
- GRI Indicator 418-1 'Total number of substantiated complaints regarding breaches of customer privacy and data loss' is presented in the chapter 'Information security management'.

Compliance with laws and regulations

## | GRI 2-27 |

PGE Group	
Total number of relevant cases fined (fine)	1
Total number of relevant cases on which a non-monetary penalty (sanction) was imposed	15
Total number of material cases of non-compliance with laws and regulations during the reporting period and breakdown by:	16
Total amount of fines for instances of non-compliance with laws and regulations that occurred during the current reporting period	8 800 477.6
Total amount of fines for cases of non-compliance with laws and regulations that occurred in previous reporting periods (2020-2021)	9 620 199.19
Total amount of penalties for cases of non-compliance with laws and regulations that were paid during the reporting period	8 106 215.87
Description of significant cases of non-compliance with laws and regulations in 2022	Failure to issue connection conditions within the statutory deadlines between 2015 and 2017, objections from the Health and Safety Executive or Building Inspector, employee matters (regarding dismissal, punishment of an employee)
Description of how significant cases of non-compliance were identified	Inspection of the President of the Energy Regulatory Office after the findings of the Supreme Audit Office, lawsuits of employees, Inspection of the Public Inspection and Occupational Health and Safety

PGE SA	
Total number of relevant cases fined (fine)	0
Total number of relevant cases on which a non-monetary penalty (sanction) was imposed	1
Total number of material cases of non-compliance with laws and regulations during the reporting period and breakdown by:	1
Total amount of fines for instances of non-compliance with laws and regulations that occurred during the current reporting period	
Total amount of fines for cases of non-compliance with laws and regulations that occurred in previous reporting periods (2020-2021)	434.44
Total amount of penalties for cases of non-compliance with laws and regulations that were paid during the reporting period	0
Description of significant cases of non-compliance with laws and regulations in 2022	conclusions after the NIK audit were to strengthen supervision of foundations and to improve documentation of oversight of funds spent
Description of how significant cases of non-compliance were identified	NIK inspections



# Direct economic value, produced and distributed

# | GRI 201-1 |

a. Direct economic value in 2022, in thousands PLN	Data from the organisation	Operating revenue and costs	Other operating activity	Financing activities and share of associate
A Total revenue	77 141 539.54	73 435 462.02	3 128 618.66	577 458.86
B Operating costs*	43 256 025.17	40 950 712.02	1 101 935.87	483 969.26
B Salaries and employee benefits	6 075 379.71			
B Payments to providers of capital (dividends)	282 658.86			
B Costs of CO <sub>2</sub> emissions	20 325 485.94			
B Payments to the State (taxes)	3 671 718.97			
B Social investment (donations and investment in society)	74 819.44			
B Sponsoring	65 146.14			
Retained economic value (a-b)	3 390 305.31			

\*excluding the costs of salaries and employee benefits, payments to providers of capital, CO<sub>2</sub>, payments to the state (taxes), social investment and sponsorship.



# SELECTED INDICATORS IN THE AREA OF HUMAN RIGHTS AND ANTI-CORRUPTION AT PGE GROUP AND PGE SA

Total number of cases of discrimination

#### | GRI 406-1 |

PGE Group	
Total number of cases of discrimination in 2022	0
PGE SA	
Total number of cases of discrimination in 2022	0

Total number of staff training hours on human rights policies and percentage of staff trained

## [own indicator] | GC-2 |

PGE Group	2022
Total number of training hours completed	2 102
Number of employees trained	4 956
Percentage of employees trained	13%
Number of employees with valid Code of Ethics training as at December 31, 2022	35 620
Percentage of employees with valid Code of Ethics training as at December 31, 2022	97%

PGE SA	2022
Total number of training hours completed	50
Number of employees trained	207
Percentage of employees trained	25%
Number of employees with valid Code of Ethics training as at December 31, 2021	807
Percentage of employees with valid Code of Ethics training as at December 31, 2021	99%

Training of employees on the Code of Ethics and on policies and procedures for respecting human rights is mandatory and repeated periodically for all persons in companies where a compliance management system - Compliance - is implemented. The training is valid for three years. After this period, it is repeated as refresher training.

Confirmed cases of corruption and actions taken in response to them

## | GRI 205-3 |

PGE Group and PGE SA	2022
Total number of confirmed cases of corruption	not identified
Nature of confirmed cases of corruption	not applicable
Total number of confirmed cases where employees have been dismissed or disciplined in connection with corruption	0
Total number of confirmed cases where a contract with a business partner was terminated or such a contract was not renewed due to breaches related to corruption	0
Have there been any public dealings with the organisation or its employees regarding corruption during the reporting period	no



Total number and % of PGE Group companies evaluated in terms of corruption:

Own indicator	2022
Number of companies assessed for corruption risk	21*
Percentage of companies evaluated in terms of corruption risk	100%

\* Each of the companies with Compliance structures was assessed in 2022 for, among other things, the risk of corruption. As at December 31, 2022, these included 21 PGE Group companies: PGE SA, PGE GiEK, PGE Energia Ciepła, PGE Energia Odnawialna, PGE Dystrybucja, PGE Obrót, PGE Synergia, PGE Systemy, PGE Baltica, PGE Dom Maklerski, Bestgum, Betrans, Elbest Security, Elbis, Elbest, Elmen, Eltur Serwis, MegaSerwis, Megazec, Ramb and PGE Ekoserwis.

Communication and training on the organisation's anti-corruption policies and procedures

| GRI 205-2 | GC-10 |

	PGE Group	PGE SA
Total number of members of the governing body to whom the organisation's anti- corruption procedures have been communicated	156	13
Percentage of members of the governing body to whom the organisation's anti- corruption policies and procedures have been communicated	92%	100%
The total number of employees to whom existing organisation's anti-corruption policies and procedures (if the organisation has its own defined employee structure, different from the one below, the form should be adapted accordingly)	35530	797
Upper management	2557	202
Other employees	32973	595
Percentage of employees to whom existing the organisation's anti-corruption policies and procedures	97%	97%
Upper management	96%	97%
Other employees	97%	98%
Total number of members of the management body who have received anti- corruption training	156	13
Percentage of governing body members who have received anti-corruption training	92%	100%
Total number of employees who have received anti-corruption training	35530	797
Upper management	2557	202
Other employees	32973	595
Percentage of employees who have received anti-corruption training	97%	97%
Upper management	96%	97%
Other employees	97%	98%



# 5.3 Approval of the report on non-financial information

This report on non-financial information of PGE Polska Grupa Energetyczna SA and PGE Group for 2022 was approved for release by the Management Board of the parent company on March 20, 2023.

Warsaw, March 20, 2023

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

President of the Management Board	Wojciech Dąbrowski	signed with a qualified electronic signature		
Vice-President of the Management Board	Wanda Buk	signed with a qualified electronic signature		
Vice-President of the Management Board	Lechosław Rojewski	signed with a qualified electronic signature		
Vice-President of the Management Board	Paweł Śliwa	signed with a qualified electronic signature		
Vice-President of the Management Board	Ryszard Wasiłek	signed with a qualified electronic signature		
Vice-President of the Management Board	Rafał Włodarski	signed with a qualified electronic signature		

# 5.4 Industry glossary

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 industries including fisheries and aquaculture, processed biomass, in particular in the form of briquettes, pellets, torrefaction and biocarbon, and 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 waste water, in particular sewage sludge, in accordance with waste legislation on the eligibility of the energy fraction recovered from the thermal treatment of waste
Biodiversity	the biodiversity of life forms on earth
BREF	Best Available Techniques Reference Document
CO <sub>2</sub>	carbon dioxide
ССІ	Corporate Community Involvement
CSR	Corporate Social Responsibility
Distribution	transport of energy through distribution grid of high (110 kV), medium (15kV) and low (400V) voltage in order to supply it to customers
Pumped-storage plants	a special type of hydroelectric power plant that allows electricity to be stored. This uses an upper reservoir into which water is pumped from a lower reservoir, using electricity (usually excess in the system). Pumped storage power plants provide regulation services to the national electricity system. During periods of increased electricity demand, water from the upper reservoir is drained by a turbine. In this way, electricity is produced
EMAS	EMAS (EcoManagement and Audit Scheme). The EcoManagement and Audit Scheme (EMAS). It is an EU environmental certification scheme which operates on the basis of Regulation (EC) No 1221/2009 of the European Parliament and of the Council of 25 November 2009 on the voluntary participation by organisations in a Community eco-management and audit scheme (EMAS)
EW	hydropower plant
EU ETS	European Union Greenhouse Gas Emission Trading Scheme. EU ETS is a key element of the EU's policy on the fight against climate change and its key tool for reducing greenhouse gas emissions in a feasible manner. It is the world's first and so far largest carbon market
European Green Deal	the European Union's roadmap for a sustainable economy to achieve climate neutrality by 2050. Achieving this goal will require a socio-economic transformation in Europe: one that is cost- effective and fair and socially sustainable. The new program consists of initiatives in a number of closely interlinked areas, e.g. climate, environment, energy, transport, industry, agriculture and sustainable finance policies. The EU will also provide financial support and technical assistance to the people, businesses and regions most affected by the transition to a green economy. This will be done through the Just Transition Mechanism, under which the most affected regions are expected to receive EUR 150 billion between 2021 and 2027
Photovoltaic farm	Installation for the production of electricity using solar radiation
Offshore farm	wind farm in the sea
Onshore farm	wind farm on land
GJ	Gigajoule, a unit of work/heat in the SI system, $1 \text{ GJ} = 1000/3.6 \text{ kWh} = approximately 278 \text{ kWh}$
GWh	gigawatt hour, unit of electricity, 1 GWh = 1 000 000 kWh







SAIDI	System Average Interruption Duration Index - an indicator of the average (mean) system duration of an interruption (long, very long and catastrophic), expressed in minutes per customer per year, which is the sum of the product of its duration and the number of customers affected during the year, divided by the total number of customers served. SAIDI does not include outages of less than 3 minutes and is determined separately for planned and unplanned outages. It applies to outages on the low voltage (LV), medium voltage (MV) and high voltage (HV) networks, while the SAIDI indicator in the quality tariff does not include outages on LV
SAIFI	System Average Interruption Frequency Index – measures the average frequency (number) of interruptions, expressed as the number of customers exposed to the effects of all interruptions in a given year divided by the total number of customers. SAIFI does not include interruptions under 3 minutes and is set separately for planned and unplanned interruptions. It applies to outages on the low voltage (LV), medium voltage (MV) and high voltage (HV) networks, while the SAIFI in the quality tariff does not include outages on LV
Low voltage (LV) line	a power line with nominal voltage of up to 1 kV
Medium voltage (MV) line	a power line with nominal voltage of between 1 kV and 110 kV
High voltage (HV) line	a power line with nominal voltage of 110 kV
SO <sub>x</sub>	sulphur dioxide
Start-up	an enterprise at an early stage of development, created to build new products or services and operating under conditions of high uncertainty. The most frequently cited characteristics of start- ups are: short operating history (up to 10 years), innovativeness, ability to expand the venture, higher risk than 'traditional' ventures, but also potentially higher return on investment.
TOR	Terms of Reference
Tariff	list of prices and rates and terms of application of the same, devised by an energy enterprise and introduced as binding on the customers specified therein in the manner defined by an act of parliament
UPS	Combustion by-products
CSI	Customer satisfaction index
NPS	customer loyalty index
Co-firing	generation of electricity or heat based on the process of common, simultaneous combustion of biomass or biogas with other fuels, in a single device; some of the energy produced this way may be considered as energy produced from renewable sources



# 5.5 Contact

| GRI 2-3 |

If, after reading this report, you would like to share your insights or ideas, please do not hesitate to contact us. We look forward to receiving your emails:

Investor Relations and ESG Department,

e-mail:esg@gkpge.pl



# Appendix 1: PGE Group's nuclear and natural gas activities in terms of the EU Environmental Taxonomy

Disclosure in accordance with Annex III of Commission Delegated Regulation (EU) 2022/1214, supplementing Commission Delegated Regulation (EU) 2021/2178 with Annex XII on standard templates for the disclosure of information referred to in art. 8 sec. 6 and 7. – i.e. for nuclear and natural gas activities

Model 1 Nuclear and natural gas activities								
Line	Nuclear energy activities							
1.	The company conducts, finances or has exposure to the research, development, demonstration and deployment of innovative power generation facilities that produce energy through nuclear processes with minimal fuel cycle waste.	NO						
2.	The company constructs, finances or has exposure to the construction and safe operation of new nuclear facilities for the generation of electricity or process heat, including for district heating or industrial processes such as hydrogen production, as well as their safety upgrades using the best available technology.	NO						
3.	The company safely operates, finances or has exposure to existing nuclear facilities generating electricity or process heat, including for district heating or industrial processes such as hydrogen production from nuclear power.	NO						
	Natural gas activities							
4.	The company constructs or operates facilities for the generation of electricity using gaseous fossil fuels, finances this activity or has exposure to it.	YES						
5.	The company builds, modernises and operates combined heat/cooling and electricity facilities using gaseous fossil fuels, finances this activity or has exposure to it.	YES						
6.	The company constructs, modernises and operates heat/cooling generation facilities using gaseous fossil fuels, finances or has exposure to these activities.	YES						

## Turnover

Formula 2 Systematic economic activity (denominator)							
Line		Amount and share (information to be provided in monetary amounts and percentages)					
	Types of economic activity	CCM + CCA		Climate change mitigation (CCM)		Climate change adaptation (CCA)	
		Amount (PLNm)	%	Amount (PLNm)	%	Amount (PLNm)	%
1.	Amount and share of economic activity following the systematics referred to in Section 4.26 of Annexes I and II of Delegated Regulation (EU) 2021/2139 in the denominator of the applicable key performance indicator	0	0.0%	0	0.0%	0	0.0%
2.	Amount and share of economic activity following the systematics referred to in Section 4.27 of Annexes I and II of Delegated Regulation (EU) 2021/2139 in the	0	0.0%	0	0.0%	0	0.0%



	denominator of the applicable key performance indicator						
3.	Amount and share of economic activity following the systematics referred to in Section 4.28 of Annexes I and II of Delegated Regulation (EU) 2021/2139 in the denominator of the applicable key performance indicator	0	0.0%	0	0.0%	0	0.0%
4.	Amount and share of economic activity following the systematics referred to in Section 4.29 of Annexes I and II of Delegated Regulation (EU) 2021/2139 in the denominator of the applicable key performance indicator	0	0.0%	0	0.0%	0	0.0%
5.	Amount and share of economic activity following the systematics referred to in Section 4.30 of Annexes I and II of Delegated Regulation (EU) 2021/2139 in the denominator of the applicable key performance indicator	0	0.0%	0	0.0%	0	0.0%
6.	Amount and share of economic activity following the systematics referred to in Section 4.31 of Annexes I and II of Delegated Regulation (EU) 2021/2139 in the denominator of the applicable key performance indicator	0	0.0%	0	0.0%	0	0.0%
7.	Amount and share of other systematic economic activities not listed in rows 1-6 above in the denominator of the applicable key performance indicator	7 935	10.8%	7 935	10.8%	0	0.0%
8.	Overall applicable key performance indicator	73 435		73 435		0	

	Model 3 Systematically compliant economic activity (numerator)									
		Amount and share (information to be provided in monetary amounts and percentages)								
Line	Types of economic activity	CCM + CCA Climate change mitigation (CCM)		Climate changed adaptation (CO	-					
		Amount (PLNm)	%	Amount (PLNm)	%	Amount (PLNm)	%			
1.	Amount and share of economic activity following the systematics referred to in Section 4.26 of Annexes I and II of Delegated Regulation (EU) 2021/2139 in the numerator of the applicable key performance indicator	0	0.0%	0	0.0%	0	0.0%			
2.	Amount and share of economic activity following the systematics referred to in Section 4.27 of Annexes I and II of Delegated Regulation (EU) 2021/2139 in the numerator of the applicable key performance indicator	0	0.0%	0	0.0%	0	0.0%			



3.	Amount and share of economic activity following the systematics referred to in Section 4.28 of Annexes I and II of Delegated Regulation (EU) 2021/2139 in the numerator of the applicable key performance indicator	0	0.0%	0	0.0%	0	0.0%
4.	Amount and share of economic activity following the systematics referred to in Section 4.29 of Annexes I and II of Delegated Regulation (EU) 2021/2139 in the numerator of the applicable key performance indicator	0	0.0%	0	0.0%	0	0.0%
5.	Amount and share of economic activity following the systematics referred to in Section 4.30 of Annexes I and II of Delegated Regulation (EU) 2021/2139 in the numerator of the applicable key performance indicator	0	0.0%	0	0.0%	0	0.0%
6.	Amount and share of economic activity following the systematics referred to in Section 4.31 of Annexes I and II of Delegated Regulation (EU) 2021/2139 in the numerator of the applicable key performance indicator	0	0.0%	0	0.0%	0	0.0%
7.	Amount and share of other systematic economic activities not listed in rows 1-6 above in the numerator of the applicable key performance indicator	7 935	100%	7 935	100%	0	0.0%
8.	Total amount and total share of systematic economic activities in the numerator of the applicable key performance indicator	7 935	100%	7 935	100%	0	0.0%

Line	Types of economic activity	Amount and share (information to be provided in monetary amounts and percentages)							
		CCM + CCA	L.			Climate changed adaptation (Co			
		Amount (PLNm)	%	Amount (PLNm)	%	Amount (PLNm)	%		
1.	Amount and share of economic activities eligible for the systematics but not in line with the systematics referred to in Section 4.26 of Annexes I and II of Delegated Regulation (EU) 2021/2139 in the denominator of the applicable key performance indicator	0	0.0%	0	0.0%	0	0.0%		
2.	Amount and share of economic activities eligible for the systematics but not in line with the systematics referred to in Section 4.27 of Annexes I and II of Delegated Regulation (EU) 2021/2139 in the denominator of the applicable key performance indicator	0	0.0%	0	0.0%	0	0.0%		



3.	Amount and share of economic activities eligible for the systematics but not in line with the systematics referred to in Section 4.28 of Annexes I and II of Delegated Regulation (EU) 2021/2139 in the denominator of the applicable key performance indicator	0	0.0%	0	0.0%	0	0.0%
4.	Amount and share of economic activities eligible for the systematics but not in line with the systematics referred to in Section 4.29 of Annexes I and II of Delegated Regulation (EU) 2021/2139 in the denominator of the applicable key performance indicator	0	0.0%	0	0.0%	0	0.0%
5.	Amount and share of economic activities eligible for the systematics but not in line with the systematics referred to in Section 4.30 of Annexes I and II of Delegated Regulation (EU) 2021/2139 in the denominator of the applicable key performance indicator	1 602	2.2%	1 602	2.2%	0	0.0%
6.	Amount and share of economic activities eligible for the systematics but not in line with the systematics referred to in Section 4.31 of Annexes I and II of Delegated Regulation (EU) 2021/2139 in the denominator of the applicable key performance indicator	87	0.1%	87	0.1%	0	0.0%
7.	Amount and share of other economic activities eligible for the systematics but not in line with the systematics, not listed in rows 1-6 above in the denominator of the applicable key performance indicator	2 653	3.6%	2 653	3.6%	0	0.0%
8.	Total amount and total share of economic activities eligible for the systematics but not in line with the systematics in the denominator of the applicable key performance indicator	4 342	5.9%	4 342	5.9%	0	0.0%

	Template 5 Business activities not eligible for systematisation									
Line	Types of economic activity	Amount (PLNm)	%							
1.	Amount and share of economic activities not eligible for the systematics referred to in Section 4.26 of Annexes I and II of Delegated Regulation (EU) 2021/2139 in the denominator of the applicable key performance indicator	0	0.0%							
2.	Amount and share of economic activities not eligible for the systematics referred to in Section 4.27 of Annexes I	0	0.0%							



	and II of Delegated Regulation (EU) 2021/2139 in the denominator of the applicable key performance indicator		
3.	Amount and share of economic activities not eligible for the systematics referred to in Section 4.28 of Annexes I and II of Delegated Regulation (EU) 2021/2139 in the denominator of the applicable key performance indicator	0	0.0%
4.	Amount and share of economic activities not eligible for the systematics referred to in Section 4.29 of Annexes I and II of Delegated Regulation (EU) 2021/2139 in the denominator of the applicable key performance indicator	0	0.0%
5.	Amount and share of economic activities not eligible for the systematics referred to in Section 4.30 of Annexes I and II of Delegated Regulation (EU) 2021/2139 in the denominator of the applicable key performance indicator	0	0.0%
6.	Amount and share of economic activities that do not qualify for the systematics referred to in Section 4.31 of Annexes I and II of Delegated Regulation (EU) 2021/2139 in the denominator of the applicable key performance indicator	0	0.0%
7.	Amount and share of other non-systematic economic activities not listed in rows 1-6 above in the denominator of the applicable key performance indicator	61 158	83.3%
8.	Total amount and total share of non-systematic economic activities in the denominator of the applicable key performance indicator	61 158	83.3%



## CapEx

	Formula	2 Systematic eco	nomic a	ctivity (denomina	itor)		
		Amount and shar	re (infor	mation to be prov percentages		monetary amount	s and
Line	Types of economic activity	CCM + CCA	۱.	Climate chan mitigation (C		Climate chan adaptation (C	
		Amount (PLNm)	%	Amount (PLNm)	%	Amount (PLNm)	%
1.	Amount and share of economic activity following the systematics referred to in Section 4.26 of Annexes I and II of Delegated Regulation (EU) 2021/2139 in the denominator of the applicable key performance indicator	0	0.0%	0	0.0%	0	0.0%
2.	Amount and share of economic activity following the systematics referred to in Section 4.27 of Annexes I and II of Delegated Regulation (EU) 2021/2139 in the denominator of the applicable key performance indicator	0	0.0%	0	0.0%	0	0.0%
3.	Amount and share of economic activity following the systematics referred to in Section 4.28 of Annexes I and II of Delegated Regulation (EU) 2021/2139 in the denominator of the applicable key performance indicator	0	0.0%	0	0.0%	0	0.0%
4.	Amount and share of economic activity following the systematics referred to in Section 4.29 of Annexes I and II of Delegated Regulation (EU) 2021/2139 in the denominator of the applicable key performance indicator	0	0.0%	0	0.0%	0	0.0%
5.	Amount and share of economic activity following the systematics referred to in Section 4.30 of Annexes I and II of Delegated Regulation (EU) 2021/2139 in the denominator of the applicable key performance indicator	0	0.0%	0	0.0%	0	0.0%
6.	Amount and share of economic activity following the systematics referred to in Section 4.31 of Annexes I and II of Delegated Regulation (EU) 2021/2139 in the denominator of the applicable key performance indicator	0	0.0%	0	0.0%	0	0.0%
7.	Amount and share of other systematic economic activities not listed in rows 1-6 above in the denominator of the applicable key performance indicator	3 852	47.2%	3 852	47.2%	0	0.0%
8.	Overall applicable key performance indicator	8 168		8 168			

Model 3 Systematically compliant economic activity (numerator)



		Amount and share (information to be provided in monetary amounts and percentages)						
Line	Types of economic activity	CCM + CCA		Climate chan mitigation (CC		Climate chan adaptation (C		
		Amount (PLNm)	%	Amount (PLNm)	%	Amount (PLNm)	%	
1.	Amount and share of economic activity following the systematics referred to in Section 4.26 of Annexes I and II of Delegated Regulation (EU) 2021/2139 in the numerator of the applicable key performance indicator	0	0.0%	0	0.0%	0	0.0%	
2.	Amount and share of economic activity following the systematics referred to in Section 4.27 of Annexes I and II of Delegated Regulation (EU) 2021/2139 in the numerator of the applicable key performance indicator	0	0.0%	0	0.0%	0	0.0%	
3.	Amount and share of economic activity following the systematics referred to in Section 4.28 of Annexes I and II of Delegated Regulation (EU) 2021/2139 in the numerator of the applicable key performance indicator	0	0.0%	0	0.0%	0	0.0%	
4.	Amount and share of economic activity following the systematics referred to in Section 4.29 of Annexes I and II of Delegated Regulation (EU) 2021/2139 in the numerator of the applicable key performance indicator	0	0.0%	0	0.0%	0	0.0%	
5.	Amount and share of economic activity following the systematics referred to in Section 4.30 of Annexes I and II of Delegated Regulation (EU) 2021/2139 in the numerator of the applicable key performance indicator	0	0.0%	0	0.0%	0	0.0%	
6.	Amount and share of economic activity following the systematics referred to in Section 4.31 of Annexes I and II of Delegated Regulation (EU) 2021/2139 in the numerator of the applicable key performance indicator	0	0.0%	0	0.0%	0	0.0%	
7.	Amount and share of other systematic economic activities not listed in rows 1-6 above in the numerator of the applicable key performance indicator	3 852	100%	3 852	100%	0,00	0.0%	
8.	Total amount and total share of systematic economic activities in the numerator of the applicable key performance indicator	3 852	100%	3 852	100%	0,00	0.0%	

Model 4 Business activities eligible for the systematics but not in line with the systematics



		Amount and share (information to be provided in monetary amounts and percentages)					
Line	Types of economic activity	CCM + CCA	<b>L</b>	Climate chan mitigation (C		Climate chang adaptation (CC	-
		Amount (PLNm)	%	Amount (PLNm)	%	Amount (PLNm)	%
1.	Amount and share of economic activities eligible for the systematics but not in line with the systematics referred to in Section 4.26 of Annexes I and II of Delegated Regulation (EU) 2021/2139 in the denominator of the applicable key performance indicator	0	0.0%	0	0.0%	0	0.0%
2.	Amount and share of economic activities eligible for the systematics but not in line with the systematics referred to in Section 4.27 of Annexes I and II of Delegated Regulation (EU) 2021/2139 in the denominator of the applicable key performance indicator	0	0.0%	0	0.0%	0	0.0%
3.	Amount and share of economic activities eligible for the systematics but not in line with the systematics referred to in Section 4.28 of Annexes I and II of Delegated Regulation (EU) 2021/2139 in the denominator of the applicable key performance indicator	0	0.0%	0	0.0%	0	0.0%
4.	Amount and share of economic activities eligible for the systematics but not in line with the systematics referred to in Section 4.29 of Annexes I and II of Delegated Regulation (EU) 2021/2139 in the denominator of the applicable key performance indicator	1 957	24.0%	1 957	24.0%	0	0.0%
5.	Amount and share of economic activities eligible for the systematics but not in line with the systematics referred to in Section 4.30 of Annexes I and II of Delegated Regulation (EU) 2021/2139 in the denominator of the applicable key performance indicator	602	7.4%	602	7.4%	0	0.0%
6.	Amount and share of economic activities eligible for the systematics but not in line with the systematics referred to in Section 4.31 of Annexes I and II of Delegated Regulation (EU) 2021/2139 in the denominator of the applicable key performance indicator	28	0.3%	28	0.3%	0	0.0%
7.	Amount and share of other economic activities eligible for the systematics but not in line with the systematics, not listed in rows 1-6 above in the denominator of the applicable key performance indicator	461	5.6%	461	5.6%	0	0.0%



8. Bigliable for the systematics but not in line with the systematics in the denominator of the applicable key performance indicator	3 048	37.3%	3 048	37.3%	0	0.0%	
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	Template 5 Business activities not eligible for systematisation								
Line	Types of economic activity	Amount (PLNm)	%						
1.	Amount and share of economic activities not eligible for the systematics referred to in Section 4.26 of Annexes I and II of Delegated Regulation (EU) 2021/2139 in the denominator of the applicable key performance indicator	0	0.0%						
2.	Amount and share of economic activities not eligible for the systematics referred to in Section 4.27 of Annexes I and II of Delegated Regulation (EU) 2021/2139 in the denominator of the applicable key performance indicator	0	0.0%						
3.	Amount and share of economic activities not eligible for the systematics referred to in Section 4.28 of Annexes I and II of Delegated Regulation (EU) 2021/2139 in the denominator of the applicable key performance indicator	0	0.0%						
4.	Amount and share of economic activities not eligible for the systematics referred to in Section 4.29 of Annexes I and II of Delegated Regulation (EU) 2021/2139 in the denominator of the applicable key performance indicator	0	0.0%						
5.	Amount and share of economic activities not eligible for the systematics referred to in Section 4.30 of Annexes I and II of Delegated Regulation (EU) 2021/2139 in the denominator of the applicable key performance indicator	0	0.0%						
6.	Amount and share of economic activities that do not qualify for the systematics referred to in Section 4.31 of Annexes I and II of Delegated Regulation (EU) 2021/2139 in the denominator of the applicable key performance indicator	0	0.0%						
7.	Amount and share of other non-systematic economic activities not listed in rows 1-6 above in the denominator of the applicable key performance indicator	1 268	15.5%						
8.	Total amount and total share of economic activities eligible for the systematics but not in line with the systematics in the denominator of the applicable key performance indicator	1 268	15.5%						



## Wydatki operacyjne (OpEx)

	Formula 2 Systematic economic activity (denominator)							
		Amount and share (information to be provided in monetary amounts and percentages)						
Line	Types of economic activity	CCM + CCA		Climate change mitigation (CCM)		Climate change adaptation (CCA)		
		Amount (PLNm)	%	Amount (PLNm)	%	Amount (PLNm)	%	
1.	Amount and share of economic activities not eligible for the systematics referred to in Section 4.26 of Annexes I and II of Delegated Regulation (EU) 2021/2139 in the denominator of the applicable key performance indicator	0	0.0%	0	0.0%	0	0.0%	
2.	Amount and share of economic activity following the systematics referred to in Section 4.27 of Annexes I and II of Delegated Regulation (EU) 2021/2139 in the denominator of the applicable key performance indicator	0	0.0%	0	0.0%	0	0.0%	
3.	Amount and share of economic activity not eligible for the systematics referred to in Section 4.28 of Annexes I and II of Delegated Regulation (EU) 2021/2139 in the denominator of the applicable key performance indicator	0	0.0%	0	0.0%	0	0.0%	
4.	Amount and share of economic activity following the systematics referred to in Section 4.29 of Annexes I and II of Delegated Regulation (EU) 2021/2139 in the denominator of the applicable key performance indicator	0	0.0%	0	0.0%	0	0.0%	
5.	Amount and share of economic activity following the systematics referred to in Section 4.30 of Annexes I and II of Delegated Regulation (EU) 2021/2139 in the denominator of the applicable key performance indicator	0	0.0%	0	0.0%	0	0.0%	
6.	Amount and share of economic activity following the systematics referred to in Section 4.31 of Annexes I and II of Delegated Regulation (EU) 2021/2139 in the denominator of the applicable key performance indicator	0	0.0%	0	0.0%	0	0.0%	
7.	Amount and share of other systematic economic activities not listed in rows 1-6 above in the denominator of the applicable key performance indicator	324	32.5%	324	32.5%	0	0.0%	
8.	Overall applicable key performance indicator	998		998		0		

Model 3 Systematically compliant economic activity (numerator)



		Amount and share (information to be provided in monetary amounts and percentages)						
Line	Types of economic activity	CCM + CCA		Climate change mitigation (CCM)		Climate change adaptation (CCA)		
		Amount (PLNm)	%	Amount (PLNm)	%	Amount (PLNm)	%	
1.	Amount and share of economic activity following the systematics referred to in Section 4.26 of Annexes I and II of Delegated Regulation (EU) 2021/2139 in the numerator of the applicable key performance indicator	0	0.0%	0	0.0%	0	0.0%	
2.	Amount and share of economic activity following the systematics referred to in Section 4.27 of Annexes I and II of Delegated Regulation (EU) 2021/2139 in the numerator of the applicable key performance indicator	0	0.0%	0	0.0%	0	0.0%	
3.	Amount and share of economic activity following the systematics referred to in Section 4.28 of Annexes I and II of Delegated Regulation (EU) 2021/2139 in the numerator of the applicable key performance indicator	0	0.0%	0	0.0%	0	0.0%	
4.	Amount and share of economic activity following the systematics referred to in Section 4.29 of Annexes I and II of Delegated Regulation (EU) 2021/2139 in the numerator of the applicable key performance indicator	0	0.0%	0	0.0%	0	0.0%	
5.	Amount and share of economic activity following the systematics referred to in Section 4.30 of Annexes I and II of Delegated Regulation (EU) 2021/2139 in the numerator of the applicable key performance indicator	0	0.0%	0	0.0%	0	0.0%	
6.	Amount and share of economic activity following the systematics referred to in Section 4.31 of Annexes I and II of Delegated Regulation (EU) 2021/2139 in the numerator of the applicable key performance indicator	0	0.0%	0	0.0%	0	0.0%	
7.	Amount and share of other systematic economic activities not listed in rows 1-6 above in the numerator of the applicable key performance indicator	324	100%	324	100%	0	0.0%	
8.	Total amount and total share of systematic economic activities in the numerator of the applicable key performance indicator	324	100%	324	100%	0	0.0%	

Model 4 Business activities eligible for the systematics but not in line with the systematics



		Amount and share (information to be provided in monetary amounts and percentages)					
Line	Types of economic activity	CCM + CCA		Climate change mitigation (CCM)		Climate change adaptation (CCA)	
		Amount (PLNm)	%	Amount (PLNm)	%	Amount (PLNm)	%
1.	Amount and share of economic activities eligible for the systematics but not in line with the systematics referred to in Section 4.26 of Annexes I and II of Delegated Regulation (EU) 2021/2139 in the denominator of the applicable key performance indicator	0	0.0%	0	0.0%	0	0.0%
2.	Amount and share of economic activities eligible for the systematics but not in line with the systematics referred to in Section 4.27 of Annexes I and II of Delegated Regulation (EU) 2021/2139 in the denominator of the applicable key performance indicator	0	0.0%	0	0.0%	0	0.0%
3.	Amount and share of economic activities eligible for the systematics but not in line with the systematics referred to in Section 4.28 of Annexes I and II of Delegated Regulation (EU) 2021/2139 in the denominator of the applicable key performance indicator	0	0.0%	0	0.0%	0	0.0%
4.	Amount and share of economic activities eligible for the systematics but not in line with the systematics referred to in Section 4.29 of Annexes I and II of Delegated Regulation (EU) 2021/2139 in the denominator of the applicable key performance indicator	0	0.0%	0	0.0%	0	0.0%
5.	Amount and share of economic activities eligible for the systematics but not in line with the systematics referred to in Section 4.30 of Annexes I and II of Delegated Regulation (EU) 2021/2139 in the denominator of the applicable key performance indicator	34	3.4%	34	3.4%	0	0.0%
6.	Amount and share of economic activities eligible for the systematics but not in line with the systematics referred to in Section 4.31 of Annexes I and II of Delegated Regulation (EU) 2021/2139 in the denominator of the applicable key performance indicator	1	0.1%	1	0.1%	0	0.0%
7.	Amount and share of other economic activities eligible for the systematics but not in line with the systematics, not listed in rows 1-6 above in the denominator of the applicable key performance indicator	51	5.1%	51	5.1%	0	0.0%



<ul> <li>8.</li> <li>8.</li> <li>applicable key performance indicator</li> </ul>	85	8.5%	85	8.5%	0	0.0%
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	Template 5 Business activities not eligible for systematisation					
Line	Types of economic activity	Amount (PLNm)	%			
1.	Amount and share of economic activities not eligible for the systematics referred to in Section 4.26 of Annexes I and II of Delegated Regulation (EU) 2021/2139 in the denominator of the applicable key performance indicator	0	0.0%			
2.	Amount and share of economic activities not eligible for the systematics referred to in Section 4.27 of Annexes I and II of Delegated Regulation (EU) 2021/2139 in the denominator of the applicable key performance indicator	0	0.0%			
3.	Amount and share of economic activities not eligible for the systematics referred to in Section 4.28 of Annexes I and II of Delegated Regulation (EU) 2021/2139 in the denominator of the applicable key performance indicator	0	0.0%			
4.	Amount and share of economic activities not eligible for the systematics referred to in Section 4.29 of Annexes I and II of Delegated Regulation (EU) 2021/2139 in the denominator of the applicable key performance indicator	0	0.0%			
5.	Amount and share of economic activities not eligible for the systematics referred to in Section 4.30 of Annexes I and II of Delegated Regulation (EU) 2021/2139 in the denominator of the applicable key performance indicator	0	0.0%			
6.	Amount and share of economic activities that do not qualify for the systematics referred to in Section 4.31 of Annexes I and II of Delegated Regulation (EU) 2021/2139 in the denominator of the applicable key performance indicator	0	0.0%			
7.	Amount and share of other non-systematic economic activities not listed in rows 1-6 above in the denominator of the applicable key performance indicator	589	59.0%			
8.	Total amount and total share of non-systematic economic activities in the denominator of the applicable key performance indicator	589	59.0%			