



**Integrated Report
PGE Polska Grupa Energetyczna SA
and the PGE Capital Group
for the year 2022**



Leading in the green transition

Contents

5 DIRECTION PGE 2050

- 6 Letter of the CEO
- 8 Business model evolution
- 9 Building sustainable value
- 10 PGE in figures
- 16 Direction climate neutrality
- 18 Strategy Implementation - Key actions in 2022
- 20 Coal assets spin-off

23 SUSTAINABLE INVESTMENTS

- 24 Capital expenditures 2022
- 26 Offshore wind farms
- 28 Onshore wind farms
- 30 Photovoltaics development program
- 32 Building low-carbon capacity
- 34 Decarbonisation of district heating
- 36 Electricity distribution
- 38 Energy storage



41 ESG – FOUNDATION OF DEVELOPMENT

- 42 Leading in the green transition
- 44 PGE Group's carbon footprint
- 46 Concern for air quality
- 48 Water resources
- 49 Biodiversity
- 50 Circular economy
- 52 Waste and land rehabilitation
- 54 Just transition
- 56 Energy security
- 58 Growth impulse
- 60 Employees
- 62 Cooperation with business partners
- 64 Customers
- 66 Key social projects
- 68 Approach to managing ESG issues
- 70 Supporting Sustainable Development Goals
- 72 Shareholders and investors
- 74 Organisational Culture

77 BUSINESS ACTIVITY

- 78 Financial results
- 84 Operating results







DIRECTION PGE 2050

Letter of the CEO

Dear Readers,

Our customers need clean, green and affordable energy. Creating a well-considered development path for our company towards achieving net zero as soon as possible is the practical implementation of the sustainable development goals and an expression of concern for society and the climate.

PGE is responding with unwavering commitment to the new geopolitical and economic challenges in Europe. It is dynamically building a stable, independent power industry that guarantees an uninterrupted supply of electricity and heat to consumers.

We have consistently pursued this path in 2022 and we will not stop in our efforts. PGE's focus on investment will be made possible by assuming the role of the guardian of the ongoing security of electricity production in Poland by the National Energy Security Agency, which will take over the coal assets of energy companies.

As the leader of Poland's energy transition, we will actively support others in this process, taking care of all our key stakeholders, including: our employees, customers, suppliers, contractors and local communities.

PGE is committed to environmentally friendly energy and the development of zero- and low-carbon sources: offshore wind, onshore renewables, system heat, power- and pumped storage as well as low-carbon conventional power generation. We will invariably pursue circular policy principles that ensure efficient management of raw materials, minimise environmental impact and maximise the potential of natural resources.

Running capital-intensive investment programmes and implementing new services requires ensuring the financial predictability of our business model. One option to reduce financing costs is to ensure the sustainability of our Group. As early as 2023, we entered into our first financing agreement directly based on ESG rating results.

The proper management of ESG factors in the organisation in 2022 was taken care of by the Sustainable Development Committee, which I personally head. We have also appointed a Management Board representative for ESG issues, who, among other things, ensures consistency of action in this area across the Group.

Our company is already effectively meeting the growing demands in the ESG area. Last year, the PGE Group took part in the global CDP survey for the second time, achieving one of the best results among key Polish companies. We are leading the way in the green transition and will support Poles in this shift with unfailing commitment. Our goal is to create the value of the PGE Group based on reliable business partners, environmental responsibility and social trust. In this spirit, we will also consistently pursue our business strategy and transparently report on its progress, which is also reflected in the Integrated Report formula.



Wojciech Dąbrowski

CEO

PGE Polska Grupa Energetyczna SA

Business model evolution



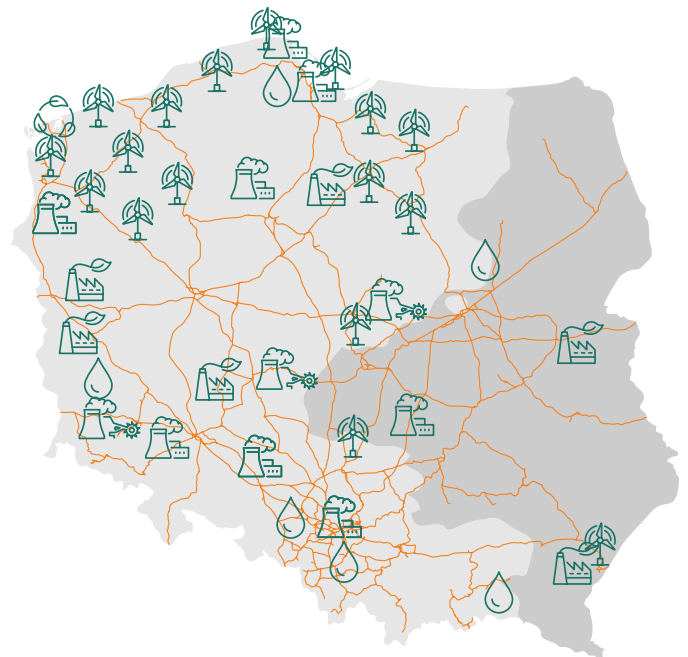
We are the biggest vertically-integrated producer and supplier of electricity and heat in Poland. We are changing and so is the Group's structure and our impact on the environment.

In 2023 PGE Group expanded its operations to include the rail power segment and became a major distributor and seller of energy to the rail sector.

From production to delivery to customers

We operate across the entire energy value chain. We produce electricity and heat at our power plants and CHPs from both fossil fuels and renewable energy sources. We then supply and sell these to our customers throughout Poland, both households and businesses, institutions and local authorities. We also provide additional services in the field of energy.

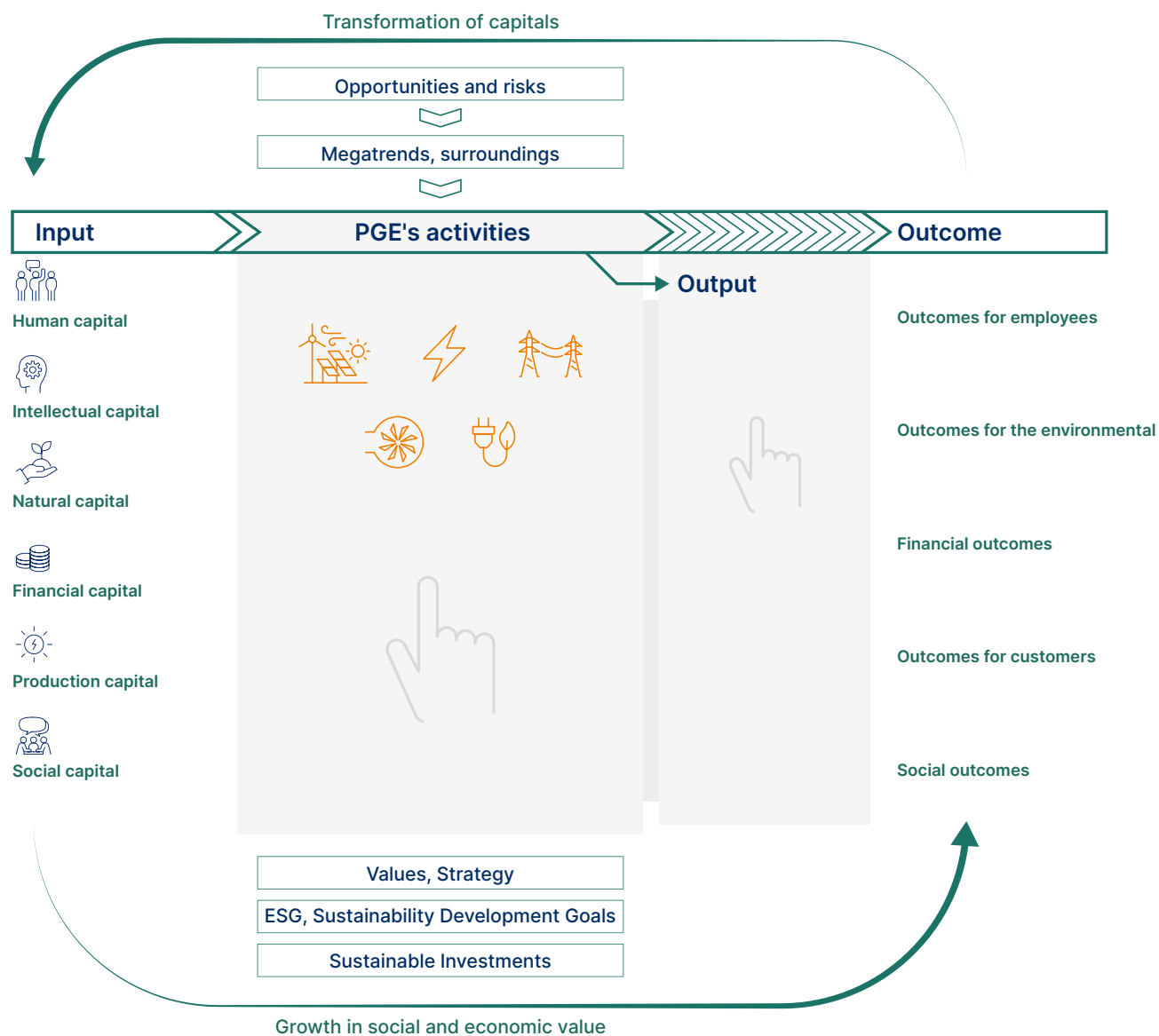
Our activities are complemented by our activities in the area of circular economy. Combustion by-products management at PGE Group, based on circular economy, leads to the use of waste as full-value substances managed in other branches of the economy. In 2023, the PGE Group's activities expanded to include the segment of energy services for the railway sector, and PGE Energetyka Kolejowa supplies and sells energy to the traction network throughout Poland.



Main assets of the PGE Capital Group*

- Hard coal
- Biomass
- Lignite
- Wind
- Natural gas
- Water

Building sustainable value



More information:
<https://raportzintegrowany2022.gkpge.pl/en/>

PGE in figures

Human capital

Contribution

	2022	2021	2020
Number of employees	38 355	38 299	40 444
Share of female employees	20.30%	20.20%	20.20%
Share of male employees	79.70%	79.80%	79.80%

Results

	2022	2021	2020
Employee benefits expenses	6 092	5 098	5 450
Total number of training hours completed	42 872	50 034	42 105
Total number of work-related accidents	130	160	176
Accident frequency rate*	3.40	4.17	4.35
Accident seriousness indicator**	62.38	64.63	68.68

* number of accidents/ number of employees * 1000

** total number of absent days of people injured at work / number of people injured at work (excluding victims of fatal accidents)



Social capital

Contribution

- Organisational culture based on dialogue with employees and the surroundings.
- Adoption of PGE Group's Code of Ethics and the resulting provisions in the Code of Conduct for PGE Group's Business Partners and the Anti-corruption Policy.
- Since 2011 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 („Energy Professionals in the Warsaw Uprising – we remember the heroes”, „Energetic Backpack”).
- 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!”.
- PGE S.A.'s marketing activities, understood as sports and culture sponsoring and advertising activities, including image and sales ad campaigns and other forms of brand promotion, contributes to strengthening the position of the PGE brand.



Results

	2022
Taxes paid to central budget (PLN million)	3 897
Social security contributions (PLN million)	1 554
Taxes paid to local governments (voivodship, powiat and municipality budgets) (PLN million)	2 189
Customer satisfaction index (CSI)	88.0%

- Employee volunteering: since the first edition of the program, i.e. since 2014, we completed approx. 300 projects across the whole country. These included building new playgrounds, renovating school classrooms and delivering complete equipment for kids and youth day centres.
- PGE's volunteer projects in 2022 focused primarily on environmental topics and concerned mainly cleaning works in the Kampinos National Park, the Roztocze National Park and the Bieszczady Mountain.
- Energy Backpack: this is a continuation of a campaign started over a dozen years ago by Łódź-based electricians and consisting of gifting school supplies to first-graders. Since 2016, the company has donated almost 2,000 schoolbags.
- White stork protection: our energy professionals have for many years been participating in activities intended to protect the white stork, mainly by setting up platforms on LV line pillars. So far, we have installed over 28.7 thousand platforms (including 787 in 2022) within our distribution area to ensure bird safety.
- Forests full of energy: this is an in-house ecological initiative created in 2000 by energy professionals from PGE Dystrybucja and developed by employees from other PGE Group companies.
- „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.

Financial capital

Contribution

	2022	2021
Equity (PLN million)	54 383	48 291
Net debt (PLN million)	-2 656	4 228
Available/unused financing (PLN million)	22 235/14 413	20 186/10 365
Volume of allocated free CO ₂ allowances (million tonnes)	0.63	0.64
Regulatory asset base in Distribution (PLN million)	19 620	18 929
Capital expenditures (PLN million)	7 053	4 662
Net debt (PLN million)	-2 656	4 228
Available/unused financing (PLN million)	22 235/14 413	20 186/10 365

Results

	2022	2021
Sales revenue (PLN m)	73 435	52 730
EBITDA (PLN m)	8 657	9 535
EBITDA margin	12%	18%
EBIT (PLN m)	4 299	5 123
Net cash from operating activities (PLN m)	11609	7 456
Net profit (PLN m)	3 390	3 945
Earnings per share (PLN)	1.56	2.12
Net debt/12 M EBITDA (x)	-0.31	0.44
Rating (Moody's/Fitch)	Baa1/ BBB+	Baa1/ BBB+

Intellectual capital

Contribution

- PGE employees' knowledge and skills
- Concessions for activities related to lignite mining and the production distribution and trade in electricity and heat
- IT systems for infrastructure operations, customer service and support of management and communication
- Effective procedures



Results

- We have introduced a model for developing and implementing new solutions for the management of high-risk undertakings. In 2022 we continued operations of PGE Ventures, Corporate Venture Capital funds, whose goal is to invest in start-ups. PGE Ventures is able to meet the capital needs of startups at all stages of development (from the seed phase, through the growth phase, to the expansion phase).
- The portfolio of projects includes, among others companies:
 - ConnectPoint –has implemented systems to manage wind farms, CHPs, municipal distribution and power plants in Europe. These solutions will improve the efficiency of generation and distribution processes. As a result, the operational costs and CO2 emissions can be reduced.
 - PySENSE – is Polish technological company offering complexed telecommunications solutions in range of Internet of Things.
- Our search for innovations is aligned with the idea of transformation towards circular economy.
- Research and Development Centre for the Circular Economy is the specialised research facility established for the development of technologies and solutions for recovery of raw materials. 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.

Natural capital

Contribution

	2022	2021
Industrial resources of lignite (million tonnes)	782	837
Lignite extraction (million tonnes)	51.1	47.2
Use of hard coal (million tonnes)	10.74	11.98
Use of natural gas (million m ³)	832.9	1173.40
Use of biomass (million tonnes)	0.481	0.709
Use of renewable resources (water, wind, sun) – gross output (TWh)	2.24	2.33
Water abstraction for production purposes (million m ³)	23 343 193	26 529 119

Results

	2022	2021
CO ₂ emissions (million tonnes)	70.01	70.75
NO _x emissions (tonnes)	50 337	52 818
SO ₂ emissions (tonnes)	56 999	62 931
Particulate matter emissions (tonnes)	1 890	2 033
Quantity of hazardous waste (tonnes)	7 017	6 168
Quantity of waste other than hazardous (tonnes)	7 028 836	6 194 850

Productive capital

Contribution

	2022	2021
Number of lignite-based plants	2	2
Number of hard coal-based plants	3	3
Number of CHP plants	16	16
Number of wind farms	20	17
Number of hydro-power plants and pumped-storage plants	33	33
Number of photovoltaic plants	24	5
Installed electricity capacities at conventional assets (MW)	15 460	15 460
Installed heating capacities (MW)	7 766	7 685
Installed renewables capacities (MW)	1 177	1 070
Installed pumped storage capacities* (MW)	1 258	1 258
Number of distribution stations	96 588	95 987
Capacity of distribution stations (MVA)	33 475	32 956
Length of distribution lines (km)	298 670	297 029

* without pumped storage plants with natural in-flow

Results

	2022	2021
Net electricity output conventional assets (TWh)	62.94	65.75
Net electricity output renewable assets (TWh)	2.24	2.33
Net electricity output pumped storage assets (TWh)	0.95	0.69
Distribution of electricity (TWh)	37.07	37.74
Production of heat (PJ)	52.79	56.77
Sale of heat (PJ)	51.28	55.07

Direction climate neutrality



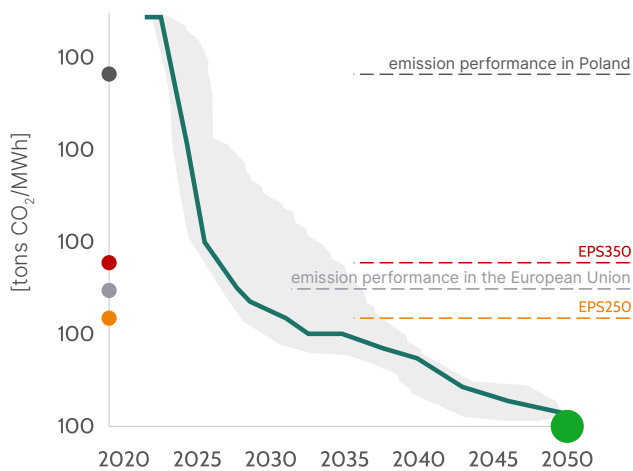
Changes in the environment and, most importantly, societal expectations define the vision for the energy sector. PGE is the leader of the transition and modernisation of the energy sector in Poland and supports the development of a market environment conducive to the energy transition. A socially equitable decarbonisation with the target of achieving climate neutrality.

Decarbonisation roadmap

We will achieve sustainable decarbonisation by changing generation technologies, expanding renewable capacity and enabling customers to participate in the energy transition through attractive product offerings.

Systematically moving along the decarbonization path set in 2020, we have moved closer to our goal in the past year. With the announcement of the Strategy update, we are accelerating in action and precisely defining our milestones.

Systematic reduction of emission intensity of PGE Group



Strategic objectives en route to zero emissions

**2.5 GW (2030),
>6.5 GW (2040)**

Offshore wind capacity



50%

Share of renewable energy in portfolio (2030)



Energy and economic security

A systematic increase in the share of renewable capacities and diversification of the fuels used is at the same time a way to increase Poland's energy security through independence from fossil fuels and the costs of CO2 emissions burdening the bills of Polish households and businesses.

An active investment process being pursued by PGE, with the simultaneous operation of the conventional base of the power system in the new ownership structure with the dominant role of the State Treasury, is a guarantee of uninterrupted electricity and heat supply.

In this way, the energy transition will be implemented in a socially responsible manner and will aim to ensure the lowest possible costs for energy users in Poland.

Climate neutrality as a development opportunity

Changes in the environment are not only a threat and a challenge for the sector but also an opportunity to provide an investment stimulus for the economy through the construction of new generating sources and the modernisation of energy infrastructure.

The transition of the energy sector should translate into economic development, sustainable growth for companies and cities as well as an equitable transition of regions hitherto associated with coal mining.

It is also an opportunity to build a new business profile and create lasting value for PGE Group in both economic and social terms.

0.8 GW (2030)



Energy storage

>3 GW (2030)



Photovoltaics capacity

>1 GW (2030)



Onshore wind capacity

85%



Zero- and low-emission sources (2030)

Strategy Implementation - Key actions in 2022



Environmentally friendly energy

Evolution of the generating portfolio towards renewable units and the lack of investment in new mining and coal production

Share of zero- and low-emission sources in heat production

- New EC Czechnica – construction of a gas-steam unit
- EC Gdynia, EC Gorzów, EC Lublin, EC Zgierz, EC Rzeszów – construction of reserve and peak load boilers
- EC Gdańsk, EC Wrocław – preparation for the construction of new low emission sources
- EC Kraków – development of complete design documentation for a high-pressure gas connection

PV programme

- Capacities built in 2022: 19 MW, in progress: 154 MW
- Capacity in construction permits: approx. 250 M
- Land secured: approx. 3500 ha

Offshore in the Baltic Sea

- 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
- Contract signed for a construction design, including obtaining building permits for Baltica 2&3
- The European Commission's Decision to grant support for the Baltica 2 and Baltica 3 projects and receipt of the second decision of the URE President setting the Price of Support under the Contract for Difference (CfD)

- Submitted applications for Permit to Erect Artificial Islands in water bodies. Successful applications (not final decisions) for 3.9 GW

Onshore: new power

- Acquisition of wind farms with a total capacity of 84 MW and average annual generation at the level of 240 MWh thousand

Modern energy services

Maintaining the highest level of customer satisfaction on the energy market

New energy storage facilities in Poland

- Announcement of tender for a battery electricity storage facility in Żarnowiec with a capacity of over 200 MW
- Commissioning of large-scale battery electricity storage projects with a total capacity of 750 MW
- Commissioning of a distributed storage project across 50 locations with a total capacity of approx. 270 MW
- Development of energy storage projects as part of hybrid RES systems with a capacity of approx. 79 MW and storage projects for distribution grids with a total capacity of approx. 6 MW
- Feasibility study for the construction of Młoty pumped-storage power plant

Increase of profitability of energy services

- Connections of new customers to district heating network (+218MWt)

Highest customer satisfaction score on the market maintained

- Maintained our leading position in the G customer service proces (Customer Service Office)
- Remained in second place in retail customer satisfaction index y/y (G tariff) with a CSI of 88%

RES installations for customers

- Sales of PV installations up to 50kWp with a total volume of 6.6 MWp, number of contracts 590
- Implementation of PPA sales model
- „Naturally, its Energy“ (RES Energy product offer (approx. 2.8 TWh in 2022)

Shorter interruptions in energy supply

- •Addition of equipment necessary to support the PPN work process
- Patent protection obtained for inventions for power supply and reducing the impact of accidents

Efficient and effective organisation

Effective cooperation of qualified staff and integrated ICT systems will allow to improve productivity and cost effectiveness

Savings in property maintenance costs

- Transition to gas fuel in district heating
- Use of drones and robots for inspection works at wind farms and hydropower plants

Share of aid funds in the financial needs of the PGE Group until 2030

- Approx. PLN 220m in financing raised, including PLN 76m in grants

Unified organisational structure and management system

- Update of internal business procedures and processes to more efficiency implement Strategy, including operating model and investment policy
- Selection of key performance indicators (KPIs) based on PGE Group's strategy – direct link between strategic objectives and bonus system
- Systemising and streamlining coal-based generating assets for the purposes of the carve-out process

Ability to remotely service clients

- Expansion of electronic contact and sales channels
- Nearly 1.4 million clients using electronic invoices



Coal assets spin-off



The carve-out of coal assets to the National Energy Security Agency (NABE) is an important part of the transformation program of the Polish energy sector. The role of NABE will be to ensure energy security through stable supplies of energy produced from coal and ensuring the necessary availability of power in the National Energy System. At the same time, NABE will ensure stable functioning of the coal sector in the perspective of 2049 (under the current social contract on the transformation of the mining sector).



We welcome the presentation of the proposal of terms of the transaction for the acquisition of coal assets from PGE and other energy groups. This is a breakthrough step in the process of creating NABE. The detailed terms and conditions of the transaction will still be negotiated. In turn, its finalization will reduce the risk of the Group's CO2 costs and open PGE to the possibility of obtaining financing for investments consistent with the strategic direction that we - as the leader of the energy transformation in Poland - have set

for ourselves. At the same time, PGE GiEK's debt to PGE S.A. will be settled and repaid consistently, which, in addition to the amount obtained from the sale of coal asset, will be important for our potential to finance transformation investments. In this way, we will build a new lasting value of the Polish Energy Group.



Wojciech Dąbrowski
President of the Management Board,
PGE Polska Grupa Energetyczna

Draft document of the Transformation of the power sector in Poland

Spring 2021

Agreement between Energy groups and State Treasury on co-operation

July 2021

Final document of the Transformation adopted by the Council of Ministers

March 2021

In March 2022, the government adopted a program to transform the electricity sector and spin off coal assets from energy groups. As a result, coal-fired power plants and lignite mines will be grouped in a separate entity with a 100% State Treasury ownership (National Energy Security Agency – NABE). This will allow PGE to focus on development in line with the Strategy in areas changing the face of the Polish energy sector – primarily renewable energy, energy distribution and decarbonisation of the heating sector. At the same time, concentration of generation within a single entity will secure Poland’s energy security and an uninterrupted energy transition process.

Acquisition by the State Treasury from PGE Polska Grupa Energetyczna S.A, ENEA S.A, ENERGA S.A., TAURON Polska Energia S.A. of all assets related to power generation at hard coal- and lignite-fuelled power plants, including service companies providing services to them.

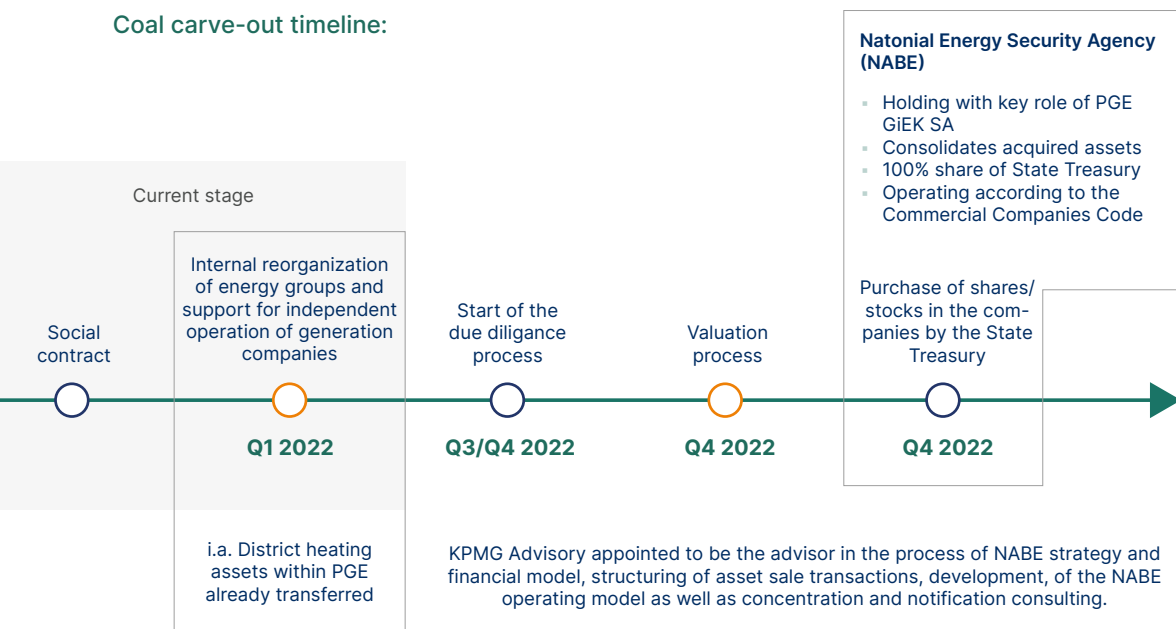
Highlights of the process:

- Due to the inseparability of lignite-fuelled energy complexes, the assets to be acquired will also include lignite mines
- Hard coal mining assets will not be integrated into the coal-fired generation entity
- District heating assets in connection with planned upgrades to low- and zero-carbon sources will not be subject to the spin-off

Transfer of assets:

- The acquisition would take place through the purchase of shares of individual companies directly by the State Treasury and their subsequent consolidation within NABE
- Materials terms and conditions of the conclusion of the preliminary agreement for the sale of the share to the State Treasury, particularly include:
 - reaching an agreement in terms of content of the Transaction documentation, including future financing of NABE and obtaining initial credit decisions from banks for financing of NABE,
 - positive consideration by the Prime Minister of the request for acquisition of shares by the State Treasury from the Reprivatisation Fund

Coal carve-out timeline:





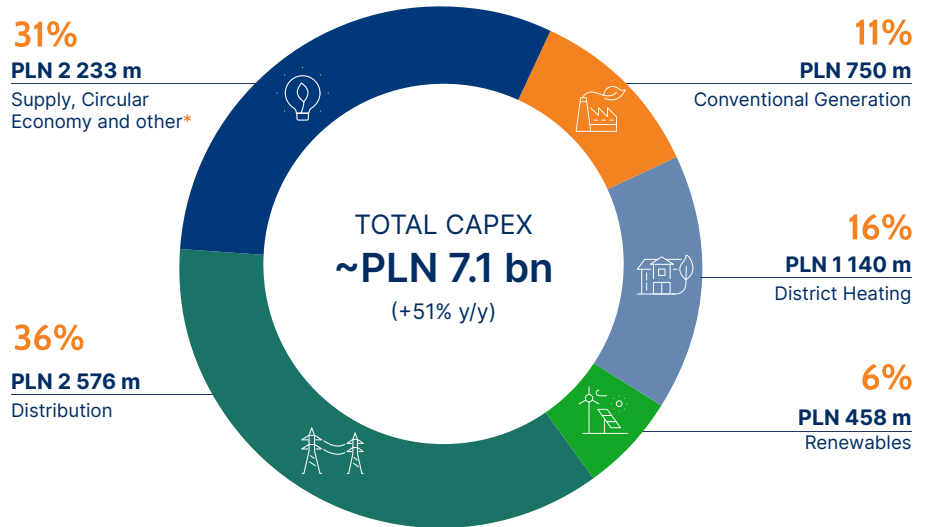
Integrated Report 2022
/ Sustainable investments

SUSTAINABLE INVESTMENTS

Capital expenditures 2022



In 2022, PGE Group's capital expenditures reached approx. PLN 7.1 billion (up 51% year-on-year).



*includes construction of new units at PGE Gryfino 2050 (approx. PLN 2bn PLN)



Key projects**CAPEX in 2022**

Construction of CCGT units in PGE Gryfino	PLN 2.0 bn
Construction of New Czechnica CHP plant	PLN 392 m
Modernisation of distribution assets	PLN 1 407 m
New projects in Distribution segment	PLN 1 154 m

Capital expenditures by operating segment

Segment (PLNm)	Q4 2022	Q4 2021	y/y	12M 2022	12M 2021	y/y
Conventional Generation	350	50	600%	750	1 759	-57%
District Heating	618	236	162%	1 140	610	87%
Distribution, including:	1 361	440	209%	2 576	1 358	90%
Connection of new customers	490	210	133%	1 097	626	75%
Distribution lines and grids	577	134	331%	956	359	166%
Renewables, including:	258	85	204%	458	189	142%
Modernisations and replacements	51	27	89%	105	86	22%
Supply, Circular Economy and other	682	810	-16%	2 233	862	159%
TOTAL	3 269	1 621	102%	7 157	4 778	50%
TOTAL (including consolidation adjustments)	3 219	1 593	102%	7 053	4 662	51%

* In Q4 2021, the project to build units at the Dolna Odra plant was transferred from Conventional Generation to Other Activity (along with all capital expenditure incurred in the previous quarters of 2021)

Offshore wind farms



Offshore wind farms will transform the image of the Polish energy sector, generating inexpensive, clean energy and providing the impetus to build a new industry in the national economy.

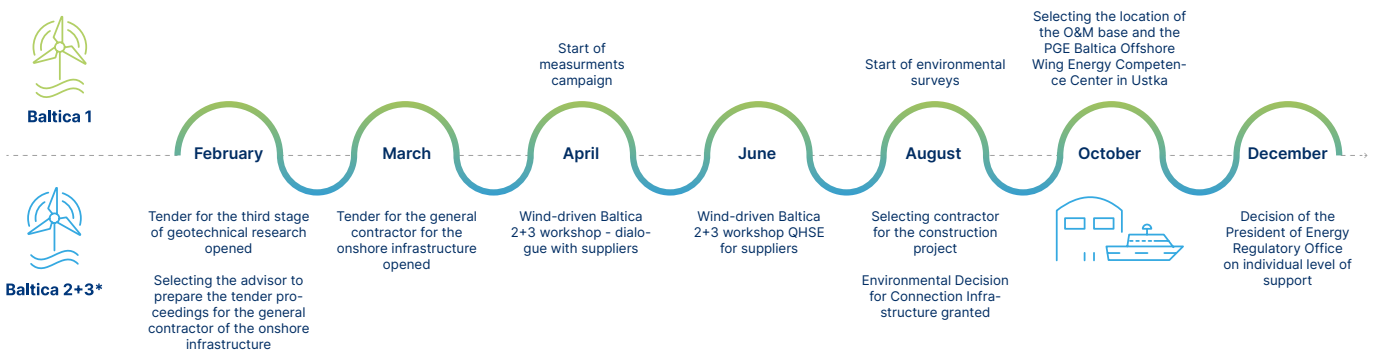
2022 and 2023 in Baltica projects

In August we selected the contractor for the construction project for the offshore part of the Baltica offshore wind farm: it will be a consortium of the Polish branch of Denmark-based Ramboll and the Gdańsk design office Projmors. The contractor will also be responsible for preparing the documentation and obtaining the construction permit for the offshore part of the MFW Baltica project.

In September 2022, a consortium of the Maritime University of Gdynia and MEWO S.A. began environmental studies for the Baltica 1 project. The consortium will also prepare an environmental report and will be responsible for obtaining an environmental decision for the Baltica 1 project issued by the Regional Directorate for Environmental Protection in Gdańsk.

PGE Group offshore wind projects

The most important events in 2022



* Baltica 2+3 stages are developed in cooperation with Ørsted

Already in April 2023 Ørsted and the PGE Group signed an agreement with Siemens Gamesa Renewable Energy for the supply of wind turbines for the Baltica 2 phase with a total capacity of approximately 1.5 GW. In addition to supplying 107 turbines of 14 MW each, Siemens Gamesa will also be responsible for servicing the turbines and supplying spare parts for a period of five years after commissioning. In June 2023 PGE Group and Ørsted signed a contract with a consortium of SEMCO Maritime and PTSC Mechanical & Construction to design, manufacture and commission offshore substations for the Baltica 2 project. The four substations – each equipped with two transformers – will collect electricity generated by wind turbines and export it to land.

In July 2023 PGE Group and Ørsted signed contracts with Navantia-Windar and Orient Cable (NBO), which will provide foundations and internal cables for the Baltica 2 project.

Also in July 2023 the European Investment Bank (EIB) has issued a preliminary credit decision for the Baltica offshore wind project. The total financing package amounts to EUR 1.4 billion – this is a significant step towards securing the optimal financing structure to build PGE's first offshore wind farms in the Baltic Sea.

MFW Baltica - the Baltica 2 stage with a capacity of approximately 1.5 GW is planned for commissioning in 2027, and the Baltica 3 stage with a capacity of approximately 1 GW is planned for commissioning by the end of this decade.

In August 2023 the Ministry of Infrastructure issued decisions on granting permits for the erection of artificial islands, structures and equipment in Polish maritime areas for projects involving the construction of offshore wind farms. The decision concerns, among other things, five areas in the Baltic Sea for which the PGE Group had applied in the adjudication proceedings - details below.

Capacity potential of new areas: over 3.9 GW



Onshore wind farms



PGE is the leader in onshore wind energy. But we are not stopping. We are striving to make optimal use of this technology also on the sites of our current conventional power plants.



As announced, we closed the acquisition of three onshore wind farms by the end of Q2 2022. The investment, with a total capacity of 84.2 MW, is part of the implementation of our business strategy, according to which we will have 1.5 GW of installed capacity in onshore wind farms by 2030. Already with an installed capacity of over 770 MW in wind, we are the leader in renewable energy in Poland.



Wojciech Dąbrowski

President of the Management Board of
PGE Polska Grupa Energetyczna

At the end of 2021, PGE Group had 17 wind farms with a total capacity of 688 MW. Increase of owned zero-carbon capacity in onshore wind farms is planned through own projects but also via acquisitions of operational wind farms and projects at the building permit stage or repowering of existing assets.

In June 2022, we finalised the acquisition of three onshore wind farms with a capacity of 84.2 MW. For PGE Group, this acquisition means an increase in installed capacity from 688 MW to 772 MW of onshore technology and an increase in market share from 9.6% to 10.8%.

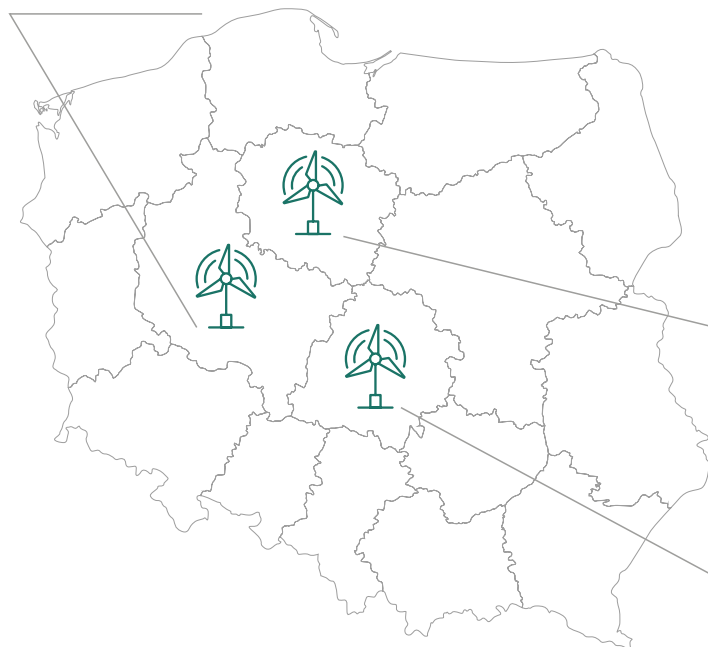
The farms acquired by our Group are located in three different voivodeships: the Kujawsko-Pomorskie voivodeship (36.9 MW WF Radzyń), the Łódzkie voivodeship (22 MW WF Ścieki) and the Wielkopolskie voivodeship (25.3 MW WF Józwin). This amounts to a total of 32 turbines with an overall capacity of 84.2 MW and an average annual production of 240,000 MWh, making it possible to supply electricity to 120,000 households, i.e. a city the size of Lublin. The farms have long-term contracts for the purchase of green electricity by external customers, which partially secure the volumes produced until as late as 2030. They will benefit from a support scheme in the form of green certificates until around 2030.

These farms are characterised by high productivity, in particular the Radzyń site, whose net capacity utilisation of over 3,400 full load hours (FLH) is close to the values achieved by offshore wind farms. In addition, the Ścieki farm is located in the immediate vicinity of the Skoczylody wind farm acquired by PGE in 2020, which will generate additional synergies in their operation within the Group.

PGE expands onshore wind portfolio

Wind farm Józwin in Wielkopolskie voivodeship with capacity of

25.3 MW



These are **32 turbines** in total, with an **overall capacity of**

84.2 MW

and **average annual output of**

240,000 MWh

which is enough to supply electricity to **120,000 households**, or a city the size of Lublin.

Wind farm Radzyń in Kujawsko-Pomorskie voivodeship with capacity of

36.9 MW

Wind farm Ścieki in Łódzkie voivodeship with capacity of

22 MW



Photovoltaics development program



In February 2022, PGE Energia Odnawialna purchased seven PV projects in the Wielkopolskie and Lubuskie voivodeships with a total installed capacity of 26 MW. All of the projects have valid technical connection conditions. The estimated production – at a level of nearly 29 GWh per year – will enable the electricity needs of approx. 12,000 households to be met.

All of these power plants will be commissioned by the end of the third quarter of 2023. They will be built using state-of-the-art photovoltaic modules, the technical parameters of which allow high productivity to be achieved, under weather conditions typical

of the climatic zones found in Poland. As part of the project, accompanying infrastructure related to power evacuation will be built alongside the PV systems.

In July 2022 PGE Energia Odnawialna, a PGE Group company, settled tenders for the construction of five more photovoltaic farms with a total capacity of 17 MW. The new PV units will be built in the Wielkopolskie and Lubuskie voivodeships.

The solar investments will be put into service in 2023. PGE Energia Odnawialna builds them on leased private land. All installations will be built using modern photovoltaic modules with a minimum power of 500 W each.

The largest investment will be the 8 MW PV Pasterzowice (Żagań district). The next smaller farms are: PV Krotoszyn (Krotoszyn district) with a capacity of 5 MW, the two-megawatt PV Ruchocinek (Gniezno district) and two one-megawatt PV Siedlisko 1 and PV Siedlisko 2 (Nowa Sól district).

In October 2022 PGE Energia Odnawialna received permission for the construction of three contiguous PV Żółtańce 1, PV Żółtańce 2 and PV Żółtańce 3 photovoltaic farms. The installations, with a total capacity of 15 MW, will be built on the company's leased 18 ha of land located in the Chełm district of the Lublin region. The photovoltaic farms are scheduled to be commissioned in the second quarter of 2024.

Benefiting from the support mechanism, 19 projects with a total capacity of approximately 18 MW, that won the 2021 auction for the sale of electricity in renewable energy installations up to 1 MW, were implemented.

The investments were built in the zachodniopomorskie, wielkopolskie, lubuskie, łódzkie, lubelskie and mazowieckie voivodeships.

Construction work was completed in November 2022. The panels installed on the farms are bifacial. This means that they absorb light bilaterally, both directly falling on the cell and reflected light reaching from behind.

In December 2022 PGE Energia Odnawialna purchased 28 photovoltaic projects with a total capacity of 59 MW in the Wielkopolskie and Łódzkie provinces. All projects have valid technical connection conditions. The estimated production – at a level of approximately 65 GWh – will enable the demand for electricity to be met by more than 30,000 households.

Scheduled to be commissioned between 2024 and 2025, the power plants will use bifacial photovoltaic modules. Additionally, as part of the project, associated infrastructure related to power derivation will be built alongside the PV power plants.

At the end of 2022, the company started the construction of one of the largest photovoltaic farms in Poland – PV Jeziórko – in Podkarpacie. A 100 MW installation will be built by the end of 2023.

Already in January 2023 PGE Energia Odnawialna received permits for the construction of the following photovoltaic farms with a total capacity of over 100 MW: PV Srebrzyszcze, PV Wrzosów and PV Żółtańce. A construction permit has also been obtained for the 50 MW Kleszczów PV farm, which will be built in the Łódź province.

In March 2023, an agreement was signed with the City of Stalowa Wola and the Euro-Park Stalowa Wola company from the Industrial Development Agency Group. On the basis of this agreement, it will be possible to launch renewable installations with a total capacity of nearly 100 MW on the premises of the Strategic Investment Park Euro-Park Stalowa Wola. The PGE Group will have at its disposal over 70 hectares of land on which solar power plants with a total capacity of 70 MW can be launched. In addition, the construction of 7 wind turbines of up to 4 MW each, a RES service centre and energy storage facilities with a capacity of up to 30 MWh are also under consideration.

In total, by the end of 2023, the PGE Group will have around 500 MW of PV capacity already fully built or under construction.



Building low-carbon capacity



As part of the strategic objective of achieving zero-carbon in 2050, a transition period is assumed in which low-carbon natural gas, among other fuels, will be used.

Investments in gas-fired capacities are part of PGE Group's strategy and result from the need to balance the system with the growing role of RES and a shortage of flexible generating capacity in Poland.

In its future business model, PGE Group envisages a dedicated low-carbon energy segment. Capacity in the segment will come from two investment projects currently in progress: the construction of gas-fired units (PGE Gryfino 2050) and the construction of a new low-carbon unit at the Rybnik power plant.

The two gas-steam units at the Dolna Power plant (project Gryfino 2050) – each with a gross capacity of 683 MW – are a project

of strategic importance to the Polish economy. The contract for the investment was signed with General Electric Global Services GmbH, Polimex Mostostal S.A. and General Electric International Inc in January 2020.

The value of the contract is PLN 3.7 billion net and the value of the 12-year maintenance contract is over PLN 1 billion. The units under construction will constitute the largest and most modern gas-fired power plant in Poland. The investment will be commissioned in 2024 and the new units, powered by low-carbon gas, will replace coal-fired capacity that is being phased out, contributing to the gradual decarbonisation of electricity generation in Poland.

A 17-year contract in the main auction of the capacity market, which will take effect from 2024, is secured for the capacities of the new Dolna Odra plant. They will meet strict environmental standards for emissions. Currently, the average emissions for power generation in the National Power System is around 0.8 tonnes CO₂/MWh.

In the new units, the emissions will be below 0.35 tonnes of CO₂/MWh. The commissioning of the new units will therefore reduce emissions by approx. 2-3 million tonnes of CO₂ per year.

The new units will produce electricity equivalent to the demand of some 2.5 million households.

The construction of two new gas-fired units will restore the generation potential of the Dolna Odra plant.

Construction of a new gas unit at Rybnik

On February 9, 2023 PGE Polska Grupa Energetyczna signed an agreement with syndicate of Polimex Mostostal S.A., Siemens Energy sp. z o.o. and Siemens Energy Global GmbH & Co. KG for realisation of CCGT unit with a gross capacity of 882 MW in Rybnik with a value of PLN 3 billion net. The order also includes a LTSA worth approx. PLN 0.8 billion net. The project's capital expenditures will be partly – in the amount of approximately PLN 0.88 billion – financed from funds raised through PGE Polska Grupa Energetyczna's Series E share issue, which took place in the first half of 2022.

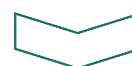
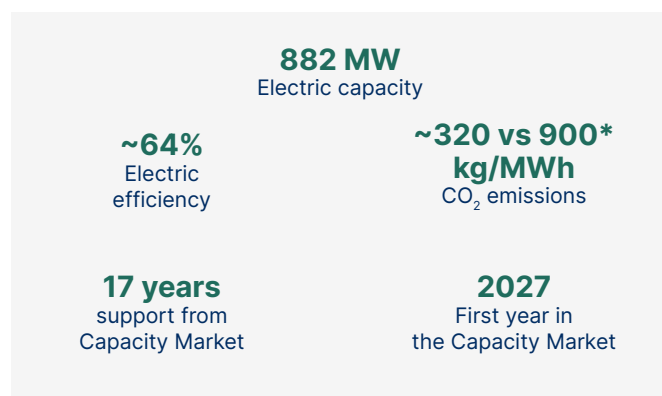
The new gas-fired unit in Rybnik will replace four coal-fired units planned for decommissioning with a total capacity of 900 MW at the existing Rybnik Power Plant. The unit is scheduled to be commissioned in December 2026.

The gas-steam unit in Rybnik will be the largest and most efficient unit of this type in Poland and one of the largest in Europe. The investment will meet the most stringent emission limits resulting from the BAT conclusions for gas-steam units. Emissions of particulates matter and sulphur oxides will be reduced almost to zero, which will significantly affect air quality in the Rybnik region. The emission factor of the new unit is three times lower than for 200 MW class coal-fired units, and amounts to 320 g of CO₂ per kWh of electricity generated.

The new gas-steam unit will have the possibility of co-firing hydrogen in gas fuel. The unit will be cooled in an open system, i.e. with water from the Rybnik Reservoir, which will have a positive impact on the existing ecosystem. The technological solutions applied will ensure compliance with the assumptions of a closed-cycle economy.

W grudniu 2022 roku blok gazowo-parowy w Rybniku uzyskał 17-letni kontrakt w aukcji głównej rynku mocy, który zacznie obowiązywać od 2027 r.

New unit specification



Modern, highly efficient conventional generation

Unit capacity used to ensure energy security

Potential ability to co-fire hydrogen

* Emissions for the coal fired unit

Decarbonisation of district heating



PGE Group's strategy assumes reaching climate neutrality. In the district heating segment, the key date is 2030, when the share of heat generated from zero- or low-emission fuels is to reach 70%.

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.

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.

14 055 GJ

This is how much "green heat" was produced for the residents of Gdansk by electrode boilers

682 tons

Less coal burned thanks to electrode boilers

1 418 tons

Less CO₂ went into the atmosphere thanks to electrode boilers

District-heating transition:

Share of zero- and low-carbon sources in heating production at approx. 70% by 2030

- New EC Czechnica: launch of construction on a gas-and-steam unit with a pumped reserve boiler room and heat accumulator;
- Gdańsk CHP plant: preparation for the construction of new gas sources
- Gorzów CHP plant: 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;
- Zgierz CHP plant: installation of a gas reduction station and new cogeneration units and gas boilers
- Gdynia CHP plant: 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
- Kraków CHP plant: development of complete design documentation for a high-pressure gas connection for production purposes
- Lublin Wrotków CHP plant: construction of foundations for reserve and peak load boiler and gas boilers
- Rzeszów CHP plant: construction of foundations for a gas station, assembly of a reserve and peak load boiler building
- Wrocław CHP plant: preparations for redevelopment of EC1
- New heat source in Gryfino: development of a new technological concept for Gryfino (with a higher RES share).



Electricity distribution



For PGE Dystrybucja S.A., connection tasks are about development, resulting in an increase in connection capacity and contributing to increased connection capabilities in the future.

In 2022 the largest expenditures in amount of PLN 1 097 million were incurred for connection of new off-takers.

LTE450 Programme

The LTE450 communications network is one of PGE Group's most important investment tasks. LTE technology provides voice connectivity as well as, indispensable in this day and age, broadband connectivity. The state-of-the-art LTE450 network and the telecommunications system under construction will support the integration of renewable energy sources, distributed energy and energy storage, as well as providing reliable dispatcher connectivity and remote communication with energy meters. The PGE Group's action plan for the next few years envisages the implementation and launch of basic services of the LTE450 network by 2025, the successive expansion of its coverage, the provision of basic connectivity services, as well as the development of new services dedicated to the energy sector.

The Czosnów node realisation

The PGE Group completed the final stage of the investment in 2022 for the construction of two high-voltage cable lines from the 400/110 kV Mościska substation, which belongs to PSE S.A., to the 110/15 kV substation in Łomianki and towards the 110/15 kV Czosnów substation. On November 22, 2022, the final acceptance

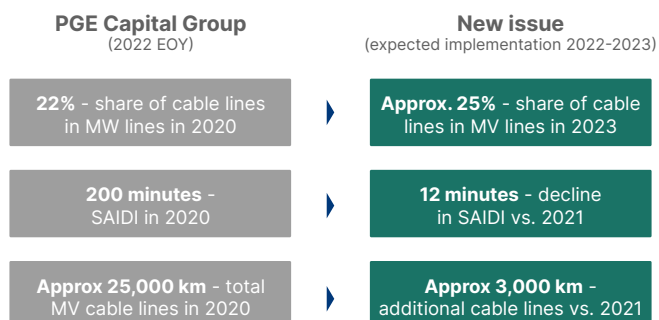
protocol of the investment was signed. These actions have made it possible to 'close the power ring', as a result of which, in the event that one line is switched off or some of its elements are damaged, energy continues to be supplied to customers. The 110/15 kV substation in Czosnów, together with the high-voltage lines, will improve the security of electricity supply and enable new facilities to be connected to the network.

Remote metering program

The implementation of the project is mandatory and results from the requirements placed on Distribution System Operators by lawmakers in the amended Energy Law regarding the installation of remote reading meters. According to the provisions of the law, the DSO has until December 31, 2028, to install remote reading meters connected to a remote reading system representing at least 80% of the total number of end-customer energy consumption points. EP Directive 2019/994 specifies that at least 80% of final customers must be equipped with smart meters. PGE Dystrybucja S.A. has decided to meter 100% of customers by 2030.

Cabling program

The program to increase the share of underground cable lines to minimum 30% in the medium-voltage (MV) network of PGE Dystrybucja by 2030 consists of the reconstruction of medium-voltage power grids from overhead lines to cable lines, in particular in the locations of those sections of overhead lines where the nuisance and failure impact is the greatest. In practice, this means the construction of a total of more than 11,000 km of MV cable lines, while dismantling around 8,800 km of overhead lines. PGE Group currently has the longest overhead and cable network in the country – due to the size and low density of the distribution area, the average share of cable networks in the Group’s MV lines is 22%, against a national average of 28% and a European average of around 50%.



Effects of the network cabling program

- 2 285 km of MV cable lines were completed from the start of the Program in 2019 until the end of December 2022,
- 515 km of MV cable lines were installed in 2022,
- in order to speed up the Cabling Program, a machine for laying underground MV cable lines was purchased at the end of 2022

Increase in the efficiency of connection processes for new consumers and energy sources

The program assumes the modernisation of the grid in order to reduce congestion, increase connection capacities and accelerate connection processes. With the funds raised from the share issue, it will be possible to build an additional 1,100 km of connections and 800 MW of additional connection capacity for RES sources by 2023.



Energy storage

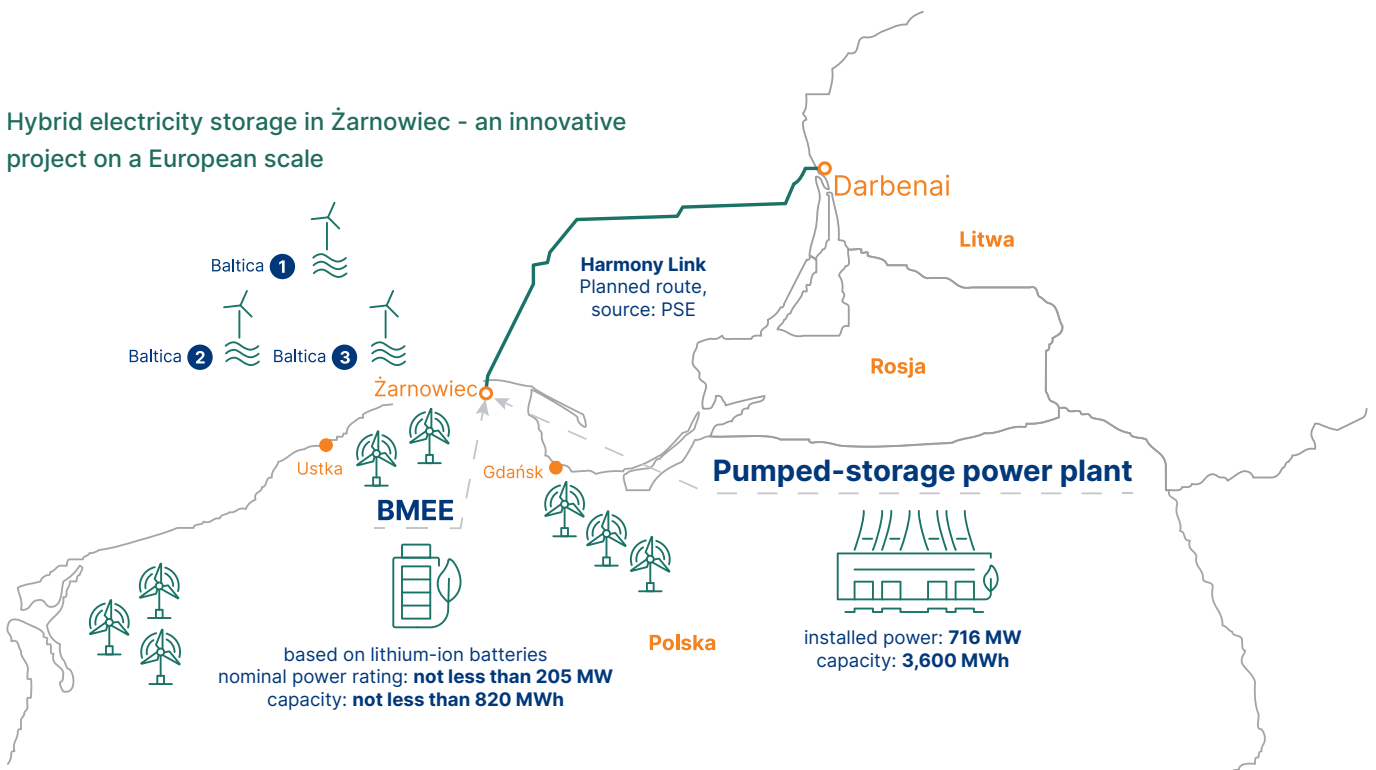


In order to fully exploit the potential of dispersed sources and ensure safe operation of the system, it is necessary to modernise the grid and build energy storage facilities.

In 2022, the following activities have been performed in the PGE Group regarding the implementation of the strategy for the objective Construction of energy storage facilities:

- Announcement of tender for a battery electricity storage facility in Żarnowiec with a capacity of over 200 MW,
- Commissioning of 4 large-scale battery electricity storage projects with a total capacity of 750 MW,
- Commissioning of a distributed storage project across 50 locations with a total capacity of approx. 270 MW,
- Development of 5 energy storage projects as part of hybrid RES systems with a capacity of approx. 80 MW,
- Development of 3 energy storage projects for distribution grids with a total capacity of approx. 6 MW,
- Feasibility study for the construction of Młoty pumped-storage power plant.

Hybrid electricity storage in Żarnowiec - an innovative project on a European scale



Hybrid installation in Żarnowiec

Pumped storage power plant + Battery Energy Storage System in Żarnowiec with a total power rating of 921 MW and capacity of 4,6 GWh



Corresponds with the capacity of the largest conventional units in Poland



Will enable power system restoration



Will deliver electricity to approx. 200,000 households for 5 hours*

*with an average load of 5kW per household





Integrated Report 2022
/ ESG – Foundation of Development





ESG – FOUNDATION OF DEVELOPMENT

Leading in the green transition



Leading is not merely about being a leader and the most advanced energy group in Poland in terms of climate neutrality. It is also about being a helpful company, mindful toward our customers and business partners, supporting them with knowledge and professional business conduct on rapidly-changing global market.

The energy transition in Poland is a tremendous process that impacts the entire society and economy. A change as large as this requires a leader that facilitates decarbonisation without sacrificing the stability of the electricity and heating systems. By changing the energy industry, we are building an organisation that is an integral part of its surroundings – a partner to local communities and the natural environment.



Green transition is part of the PGE Group's business objectives. Thanks to our investments, Poland's residents are already benefiting from electricity produced by environmentally friendly sources. In 2022 alone, energy produced by the PGE Group's renewable sources reached a record high of 1,931 GWh, over 5 percent more than in the previous year. As the leader of Poland's green energy transition, with energy from RES we are able to cover the annual demand of 860,000 households, the size of the Lodz region.



Wojciech Dąbrowski

President of the Management Board of
PGE Polska Grupa Energetyczna

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

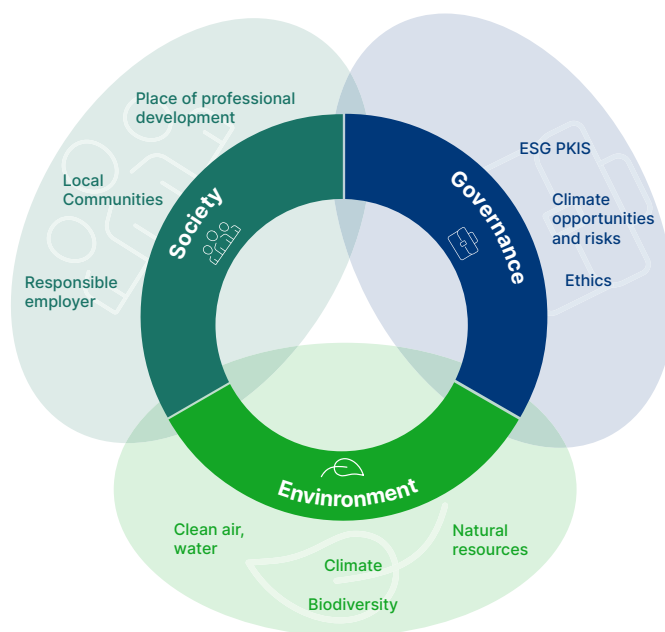
PGE as the leader of sustainable energy transition in Poland, including in environmentally friendly energy, is committed to reducing its impact on the environment through:

- decarbonising generation through technology change, expanding its RES portfolio and enabling its customers to participate in the transition,
- increasing the use of renewable sources and decarbonising the portfolio,
- developing a circular economy,
- reaching climate neutrality
- At the same time, we recognize that PGE's role as a leader in the green transition is to raise public awareness, hence our contribution to promoting energy transition and ESG-based management and engaging business partners.

At the same time, we recognize that PGE's role as a leader in the green transition is to raise public awareness, hence our contribution to promoting energy transition and ESG-based management and engaging business partners.

Sustainable Development

We view our development in the long term, with an eye to the next generation. We consider all aspects of the E-S-G factors and increase their presence in the organization's management processes.



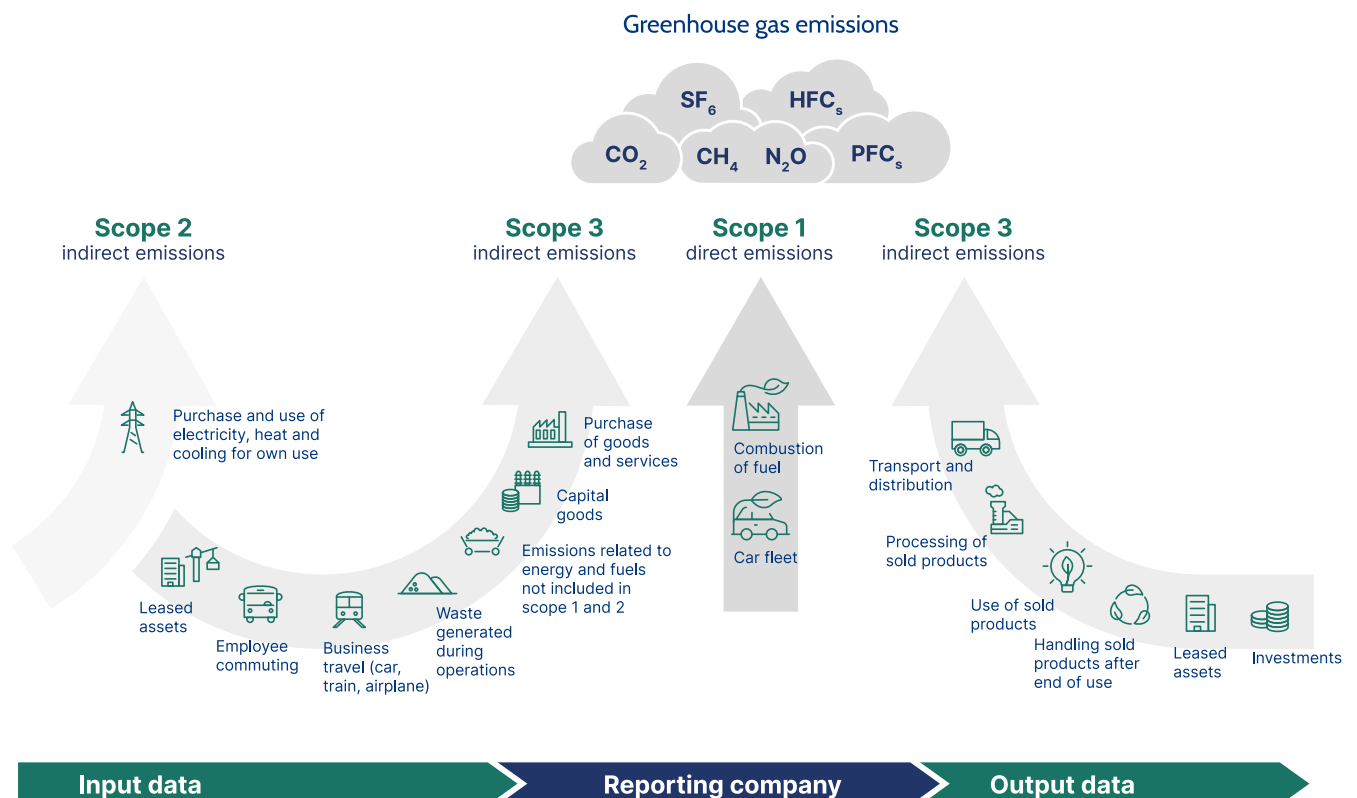
PGE Group's carbon footprint



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 (CO₂), methane (CH₄), carbon oxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulphur hexafluoride (SF₆), caused directly or indirectly by an individual, organisation, event or product.

Simplified diagram of the carbon footprint scopes in an organisation



PGE Group's carbon footprint (t CO ₂ 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.

Concern for air quality



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.

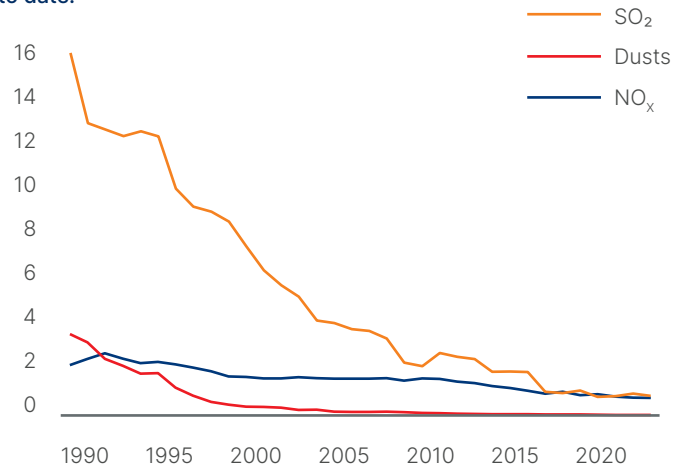
In markets where PGE Energia Ciepła is only a heat producer, buildings with a demand of 182 MWt were connected, whereas in markets where PGE Energia Ciepła operates as an integrated entity and is also a heat distributor, buildings with a demand of 36 MWt were connected.

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: SO₂ by 95%, NO_x by 66%, dust by 99%.

Chart of emission reductions of SO₂, NO_x and dust from 1989 to date.





Water resources



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 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 eight-point 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.



Biodiversity



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
- Protection of storks
- Restoration of the peregrine falcon population
- Long-tailed duck protection
- Bird protection on wind farms
- Restocking of water bodies
- Flowery meadows

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
- League for the Protection of Nature
- Revitalisation of the Crooked Forest



Circular economy



According to PGE’s strategy, one of the ways to achieve the goal of climate neutrality by 2050 is to implement the principles of circular economy in all areas of activity.

Environmental and social effects of implementing Circular Economy Products

Tangible effects of circular economy in line with social expectations



Reducing CO₂ emissions by using secondary raw materials in high-emission industries

Saving natural resources by using anthropogenic resources

Restoring the natural and investment value of post-industrial land

Reducing waste landfilling and liquidating existing landfills

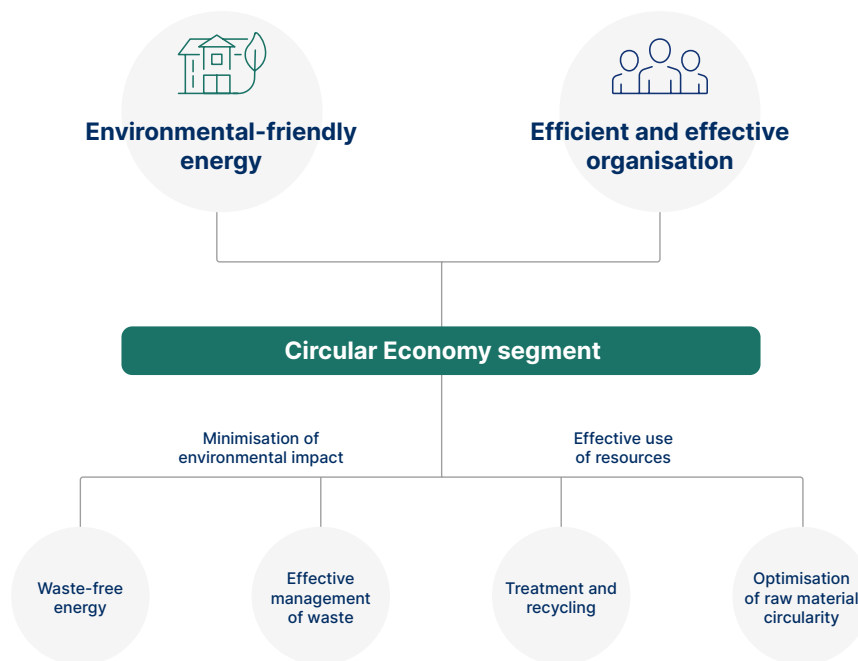
Actively participating in transition of regions

Reducing carbon footprint

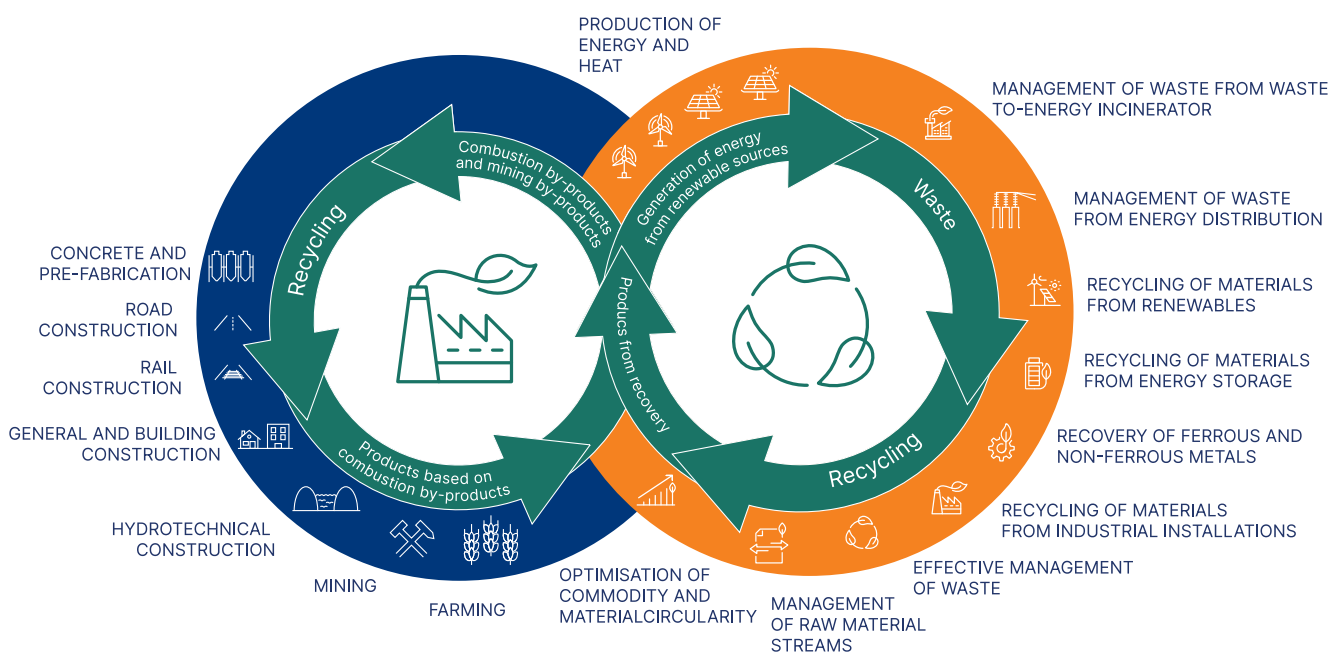
Dedicated Circular Economy segment

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. 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.

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



Current and future management model for Circular Economy at PGE Group



Waste and land rehabilitation



Waste

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.



Land rehabilitation

Land rehabilitation and rehabilitation is one of the most important measures for restoring the use and natural values of post-mining 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.



Just transition



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.

It is also crucial to ensure the energy security of the region and the entire state in the process of gradually reducing coal assets.

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.

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.

- 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.

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.

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.



Energy security



Energy system foundations

The deployment of generation units in the National Power System depends on energy demand, which fluctuates around the clock and changes seasonally. The Transmission System Operator issues work or stand-by orders to generation units in accordance with the rule that units with the lowest variable cost are deployed first. As demand grows, the operator engages further (increasingly expensive) generating units, thereby increasing the wholesale price of energy.

PGE Group has in its portfolio competitive generating units operating on lignite that, owing to their cost advantage and access to their own fuel, are engaged by the operator also during off-peak hours, in practice 24 hours a day, all week long, which accordingly translates into production volumes and economies of scale in the operation of power generating complexes. Hence, the availability of PGE's generating assets directly affects energy security and a competitive price of energy for the Polish economy.

Ancillary system services

PGE Group's generating fleet is distributed throughout the country, which is why we are an important partner for the Transmission System Operator. The operator's role is to balance the system, i.e. to match demand for electricity with electricity supply.

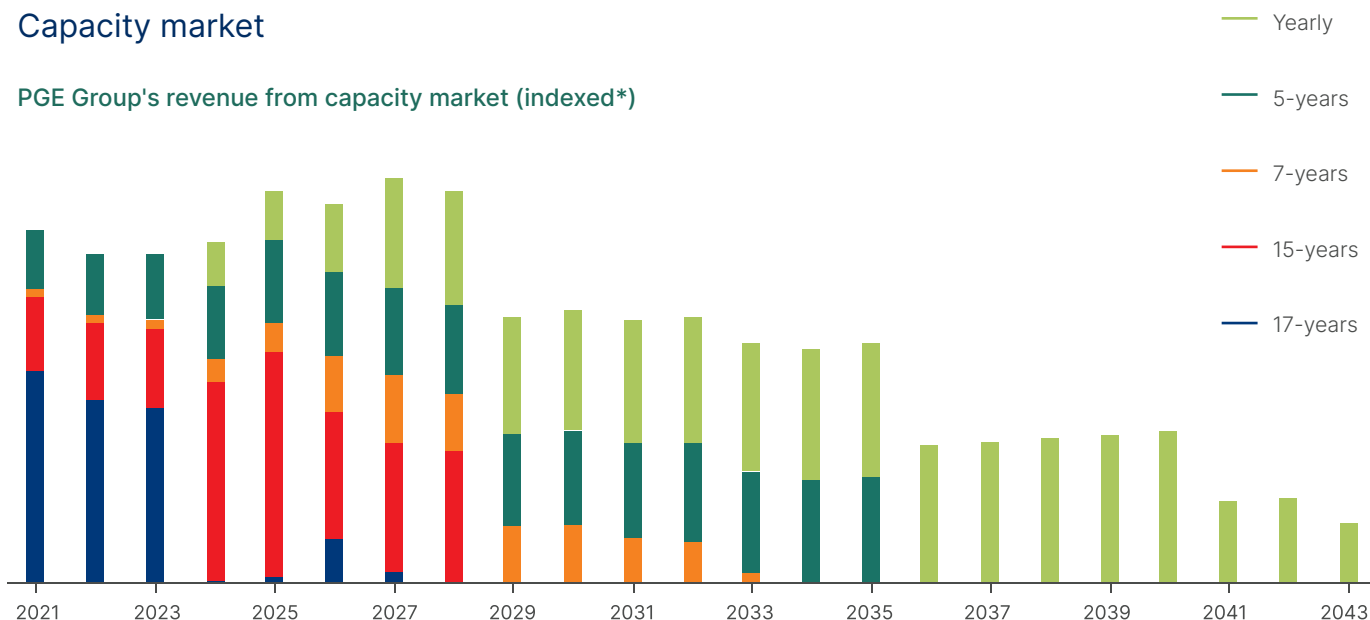


327 PLN million
PGE Group's revenue from ancillary system services
in 2022



Capacity market

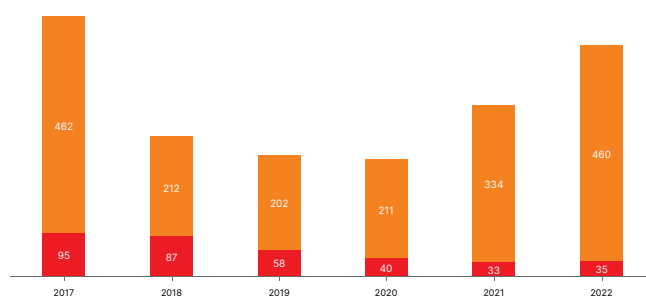
PGE Group's revenue from capacity market (indexed*)



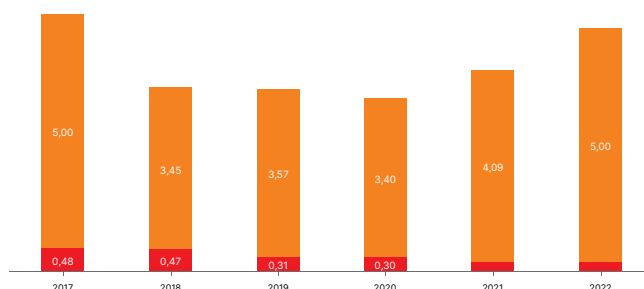
* Revenue estimate based on the contracted auction clearing price. The price of the capacity obligation for multi-year capacity contracts will be subject to annual adjustment with the annual average consumer price index (assumption 3.4% for 2022, 5.1% for 2023, 14.5% for 2024, 13.1% for 2025, 3.5% for 2026 and 2.5% in subsequent years).

As a result of the above auctions, the PGE Group concluded agreements, securing a revenue of more than PLN 2.5 billion per annum during the next 8 years (2021-2028). Multiyear auctions concern new units (at Opole, Turów, Dolna Odra and Rybnik power plants) or modernized ones. Low-emission units (like Dolna Odra or Rybnik) benefit from the extension of the contracted capacity supply period by 2 years. PGE Group is engaged in long-term projects. The construction of new generation capacities and their diversification are some of the key objectives in the Group's strategy. The profitability of investments in generation assets cannot be based solely on the volume of energy produced, but requires an additional support system. The solution is the capacity market in which generating units are remunerated not only for the volume of energy produced but also for their willingness to supply it. Obtaining 17 years of support for the construction of new gas-fired capacity at the Dolna Odra plant and at Rybnik power plant will provide a solid rate of return on investment, while guaranteeing stable revenues.

SAIDI (in minutes/recipient)



SAIFI (number of interruptions per recipient)



Growth impulse

We are one of the largest employers in Poland. We provide stable employment to more than 40 thousand people across around 200 locations throughout the country. Most of our personnel are residents of towns in the vicinity of our assets. Taxes that we pay to the municipalities in which we do business often account for a significant part of their local budgets.

Investments and activities stimulating regions

We are one of the largest domestic investors.

Since the foundation of PGE Group 16 years ago, our capital expenditures have approached PLN 90 billion.

These funds were spent on the construction of new generating capacities, eco-friendly modernisations of existing assets and expansion of power and district heating networks. This is a very large amount, which could have financed, for example, more than 2 000 km of highways in Poland.

90 PLN bn

capital expenditures

7.1 PLN bn

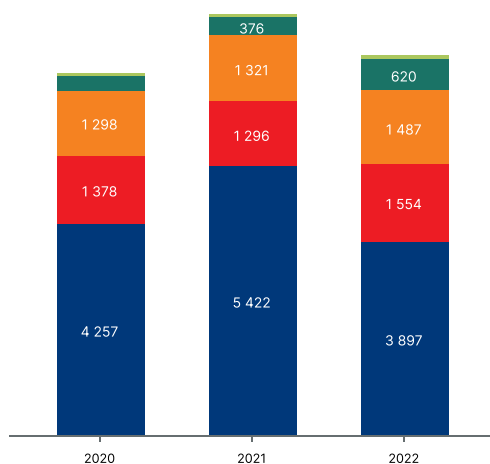
capital expenditures in 2022

A large part of our subcontractors are local firms that, by working with us, have an opportunity to develop their business. Our investments constitute a very substantial element of economic development and their implementation helps to improve the quality of life and work for local communities.

Our contribution to local budgets and state budget

PGE Group is one of the largest payers of taxes in Poland. At state and local level, our business in 2022 brought in approx. PLN 7.6 billion* in tax (approx. PLN 8.5 billion in 2021)*. This amount mainly includes: VAT, taxes and contributions on the remuneration of the Group's employees, real estate tax, corporate income tax, excise tax and other taxes and fees.

Tax impact by level* (in PLN million)



Social Security	1 554
Municipal budgets	1 487
Voivodship budgets	620
County budgets	82
State Treasury	3 897
Total	7 640

* Estimates based on the consolidated financial statements, tax returns and records of other levies paid for the benefit of local governments resulting from the laws in force. The estimated breakdown into individual local government levels was made on basis of information concerning the amounts of taxes paid by individual PGE Group companies, employment at individual companies and voivodships, as well as information about division of income from Personal Income Tax and Corporate Income Tax between the local governments and the State Treasury.

As a result of our activities, local governments (municipality, county and district budgets) received close to PLN 1.8 billion in 2022.



Employees



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.

Diversity policy

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.

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.

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%

Concern for employees' health

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. Pracownicy mogą skorzystać z bezpłatnych badań, webinarów z psychologami, dietetykami czy lekarzami.

Occupational health and safety management system

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

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.

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.



Cooperation with business partners

Rules for cooperating with PGE Group's business partners

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.

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.

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.



14

Numbers of companies at PGE Group where the Purchasing System is implemented



8 721

Numbers of users at PGE Group



31 777

Numbers of procurement procedures in 2022 at PGE Group



PLN 24.7 billion

Estimated value of procurement procedures initiated in 2022 at PGE Group



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.

Maintaining corporate governance in the purchasing process

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).

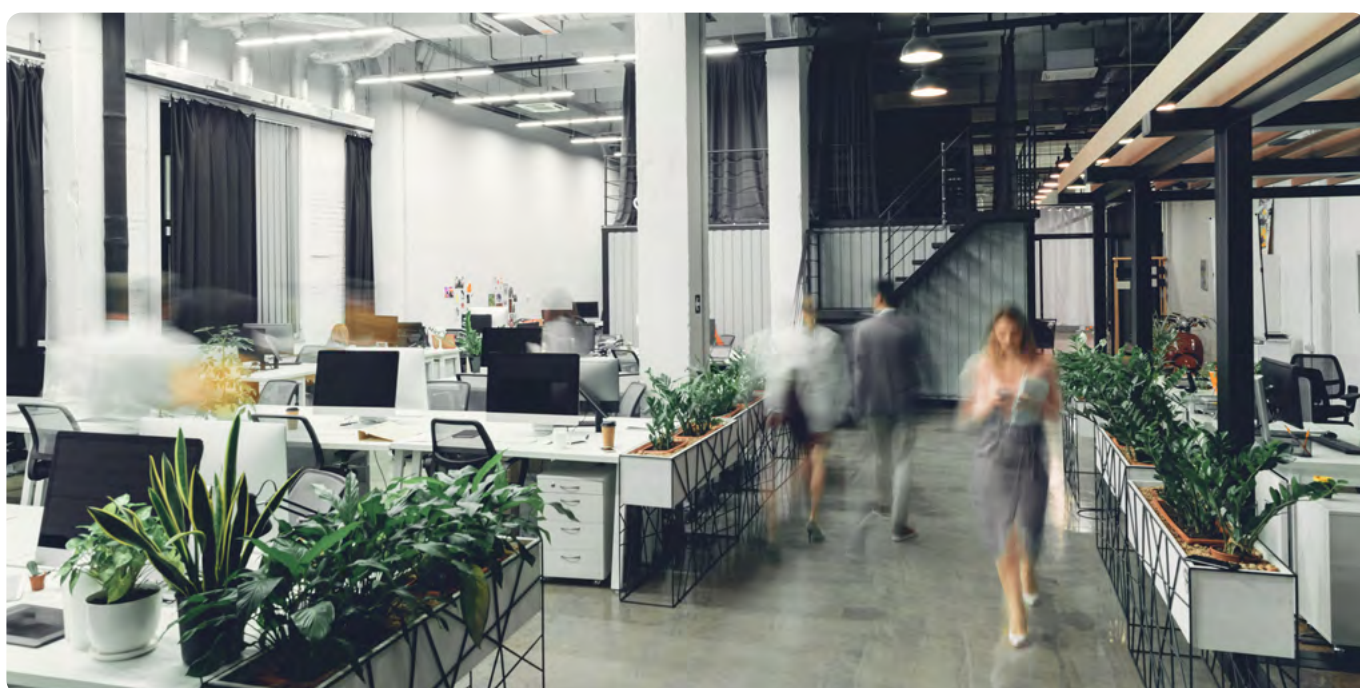
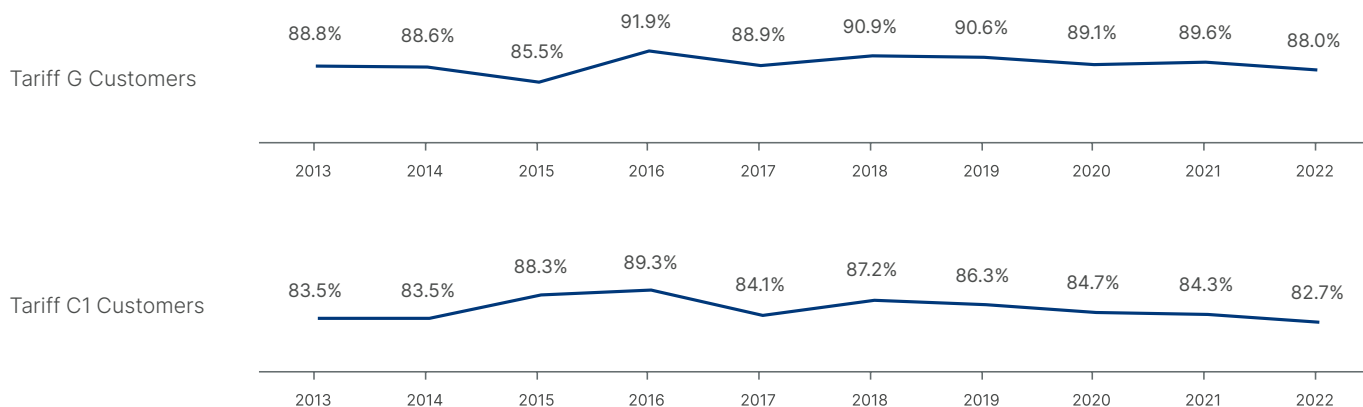


Customer satisfaction indicators

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.

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.

Customer Satisfaction Index

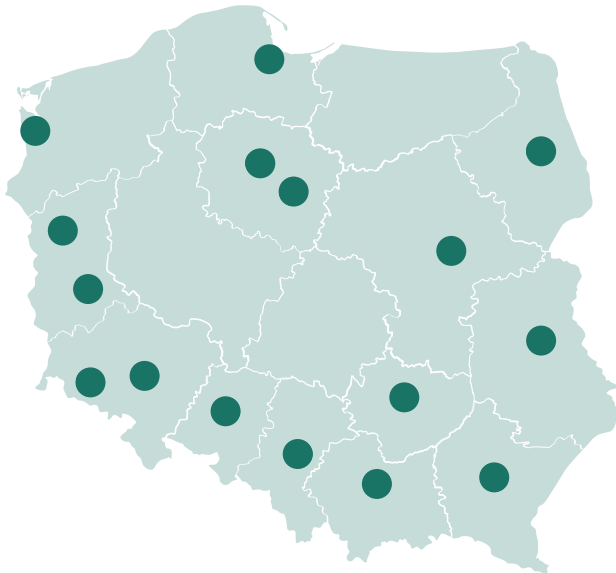


Key social projects

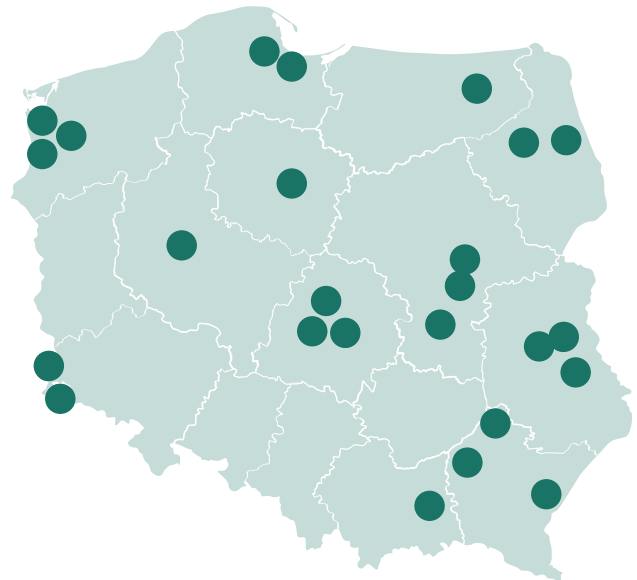
In PGE Group, marketing surveys are carried out periodically, allowing for multidimensional monitoring of customer satisfaction. The marketing research system implemented since 2015 serves this purpose, covering key areas and points of contact for the company-customer relationship.

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.

PGE Group's patronage of philharmonics across the country



Children's and youth teams supported by PGE in 2022



Sponsorship programs	Projects/actions implemented under the programs
PGE - a cultural energy group	<ul style="list-style-type: none">▪ Philharmonics▪ National Museums▪ Local and regional cultural events
PGE Proud of History	<ul style="list-style-type: none">▪ Warsaw Uprising Museum▪ Museum of Polish Children - victims of totalitarianism▪ Local historical events
MOCna Liga PGE	<ul style="list-style-type: none">▪ PGE Narodowy▪ 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▪ PGE Ekstraliga
MOC e-mocji	<ul style="list-style-type: none">▪ PGE Polish Esport League▪ PGE Turów Zgorzelec (e-sport section)
Sport winter with PGE	<ul style="list-style-type: none">▪ PGE Narodowy in winter▪ Polish Figure Skating Federation▪ Polish Speed Skating Federation
The power of wind and water	<ul style="list-style-type: none">▪ Polish Sailing Association▪ Polish Kayak Association▪ Polish Swimming Federation▪ Zofia Klepacka
PGE Junior	<ul style="list-style-type: none">▪ Sports academies (e.g. Widzew Academy Łódź, Judo Academy Poznań, Wilfredo Leon Academy), local sports event



Approach to managing ESG issues

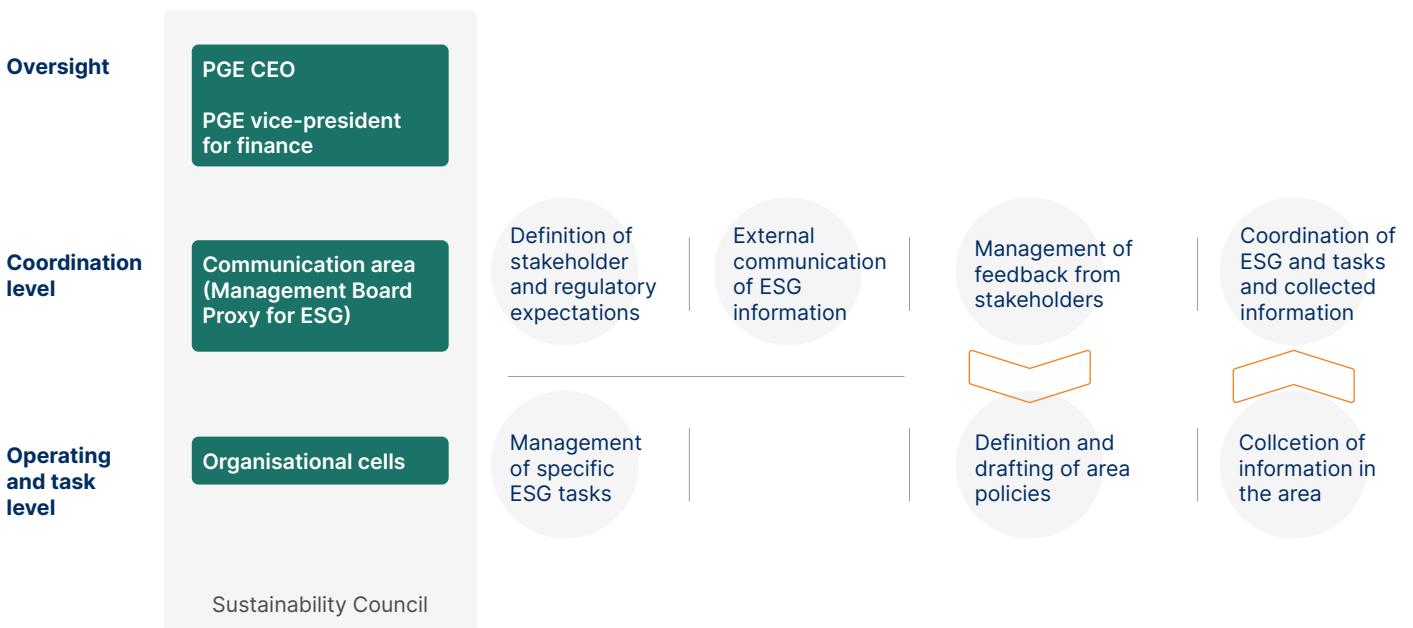


The adoption of PGE Group's strategy to 2030 with an outlook to 2050, which sets out the directions for the energy transition, the decarbonisation of generation and the path to climate neutrality, started the process of implementing structured management of the ESG area in the Group.

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.

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.



Supporting Sustainable Development Goals

Business and its activities play an increasingly important role in how we achieve our sustainable development goals from a global perspective.

The importance of the participation of companies in this process is emphasized by The United Nations, which together with its member states in 2015 announced 17 key themes (SDG) necessary to be completed by 2030 so that we can recognize that our planet is developing in a sustainable way, i.e. safe for us and future generations. These goals focus on three elements: responsible economic growth, inclusive society and environmental protection.

As PGE Group, we are taking action in each of the 17 SDG areas.

PGE Group's new strategy names four of them that are of special importance to us.

Examples of activities:



- Offshore wind farms
- Onshore wind farms
- Photovoltaics development program



- Concern for air quality
- Just Transformation of Belchatow and Turow
- High culture sponsorship



- Circular economy
- Education programs for children
- A responsible approach to water resources management



- Reducing environmental impacts
- PGE Group's carbon footprint
- Decarbonisation of district heating



Shareholders and investors

PGE S.A. is a stock exchange listed company from 2009. PGE S.A. shares are listed in the main market of the Warsaw Stock Exchange, in the continuous trading system. PGE has the biggest market capitalisation among the Polish power companies in the Warsaw Stock Exchange.

PGE's stock liquidity provides investors with the opportunity to freely buy and sell our securities. As a listed company, we treat every investor as a potential shareholder.

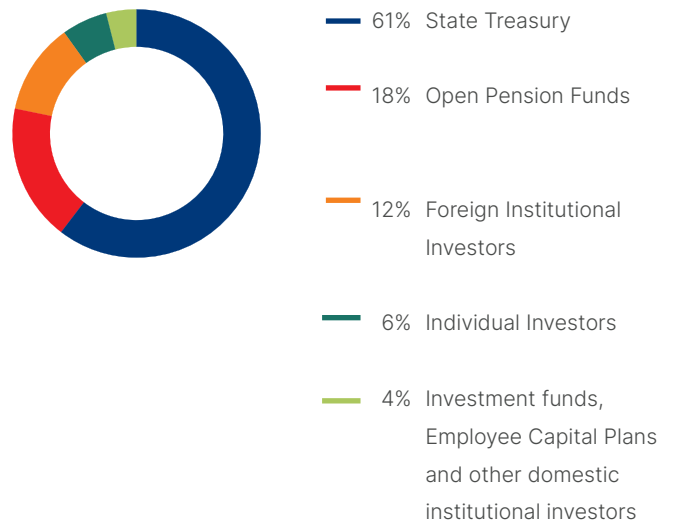
In line with regulations and best practices, we ensure that all investors have equal access to information.

Ownership structure

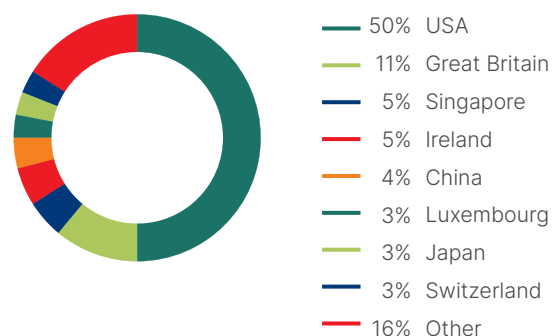
A shareholder identification study was carried out in 2023 – the results are presented below.

As at April 18, 2023, the shareholder structure of PGE Polska Grupa Energetyczna S.A. comprised approximately 59 000 investors, of which the vast majority (approximately 58 000) were individual investors.

In addition to the State Treasury, which holds 60.86% of the shares, the main group in the shareholding was the Open Pension Funds, which hold approximately 18% of the shares in their accounts. Foreign institutional investors, on the other hand, were represented by approximately 12% of the shares. Another group in the shareholding was made up of individual investors, who held approximately 6% of the shares in their accounts. Polish financial institutions held about 4% of the shares, most of which belonged to open investment funds and funds investing under Employee Equity Plans.



Foreign institutional investors (according to the country of registration)



PGE S.A. share price in 2022

In 2022 PGE shares quotation were in range PLN 4.7390-11.0250. Average market capitalisation (value of all shares of the Company) in 2022 amounted to approx. PLN 18 billion. Average trading volume amounted to 2.9 million shares per session and average trading amount reached approx. PLN 23.5 million.



Series E share issue

An issue of new shares in PGE Polska Grupa Energetyczna took place in 2022. The value of the issue was approximately PLN 3.2 billion. Registration of the share capital increase by the court took place on May 18, 2022.

Thanks to the funds obtained from the issue of shares, PGE plans to accelerate the transformation in three main areas: distribution grid (approx. PLN 1.61 billion), renewable sources (approx. PLN 0.47 billion) and decarbonisation by building low-emission sources (approx. PLN 1.11 billion).

As part of the Summary of the Stock Exchange Year 2022, PGE was awarded by the Warsaw Stock Exchange for the highest value of the next issue of shares of a company listed on the Main Market in 2022.

Organisational Culture

We are a big company, employing approx. 38 000 people. For such a large organisation, setting out shared values for an exceptionally diverse group of employees is a great challenge.

The main document in the area of ethics and compliance is the PGE Group Code of Ethics adopted in 2016, which constitutes an overarching declaration and basis for other internal regulations.

The values of PGE Group



PARTNERSHIP

- we are aligned with PGE Group, effectively and creatively cooperate in every area: for customers, owners, employees and business partners; we build relations based on respect.



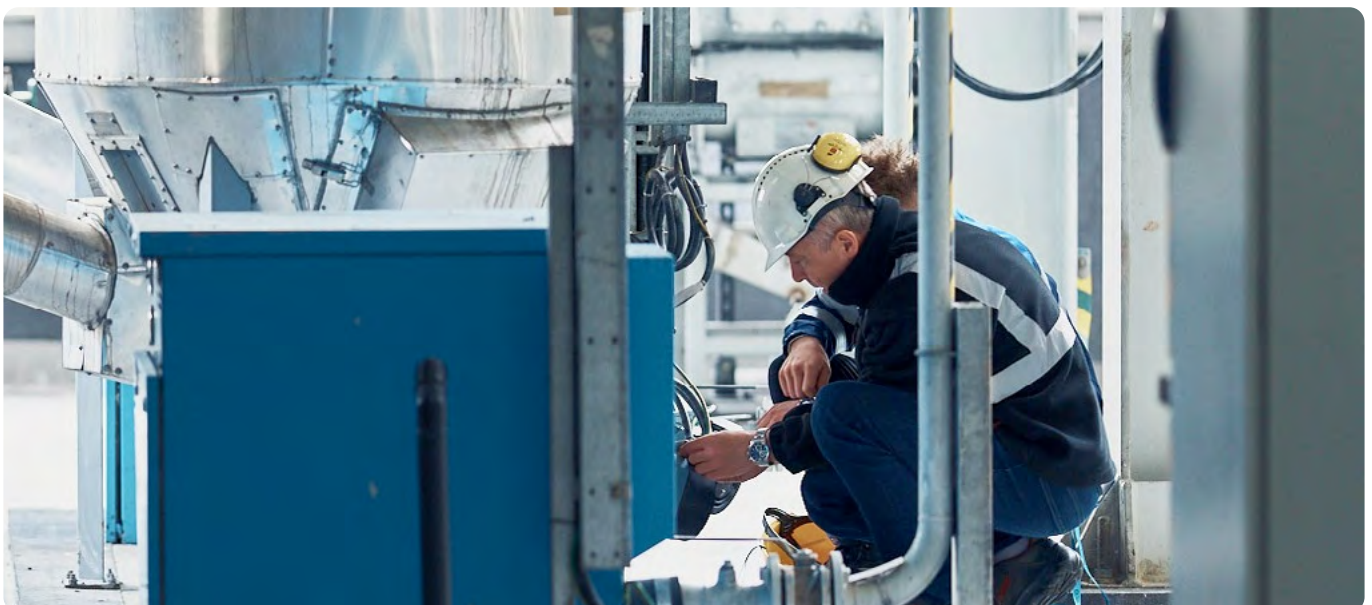
DEVELOPMENT

- we are constantly improving the organisation, processes and technologies, we are searching for innovations and we boldly implement changes.



RESPONSIBILITY

- we care about the country's energy security and the development of Polish economy, about our company's sustainable development and about our company as a good workplace, we act with integrity.



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

Our company

- We are here for our customers
- We care about the natural environment
- We care about PGE Group's sustainable and safe development

Honest external relations

- We care about relations with business partners
- We care about relations with local communities
- We built trust by credibly informing about our activities

People at our company

- We care about friendly working conditions
- We improve ourselves and we are proactive, we show initiative
- Employee safety and health are our priorities

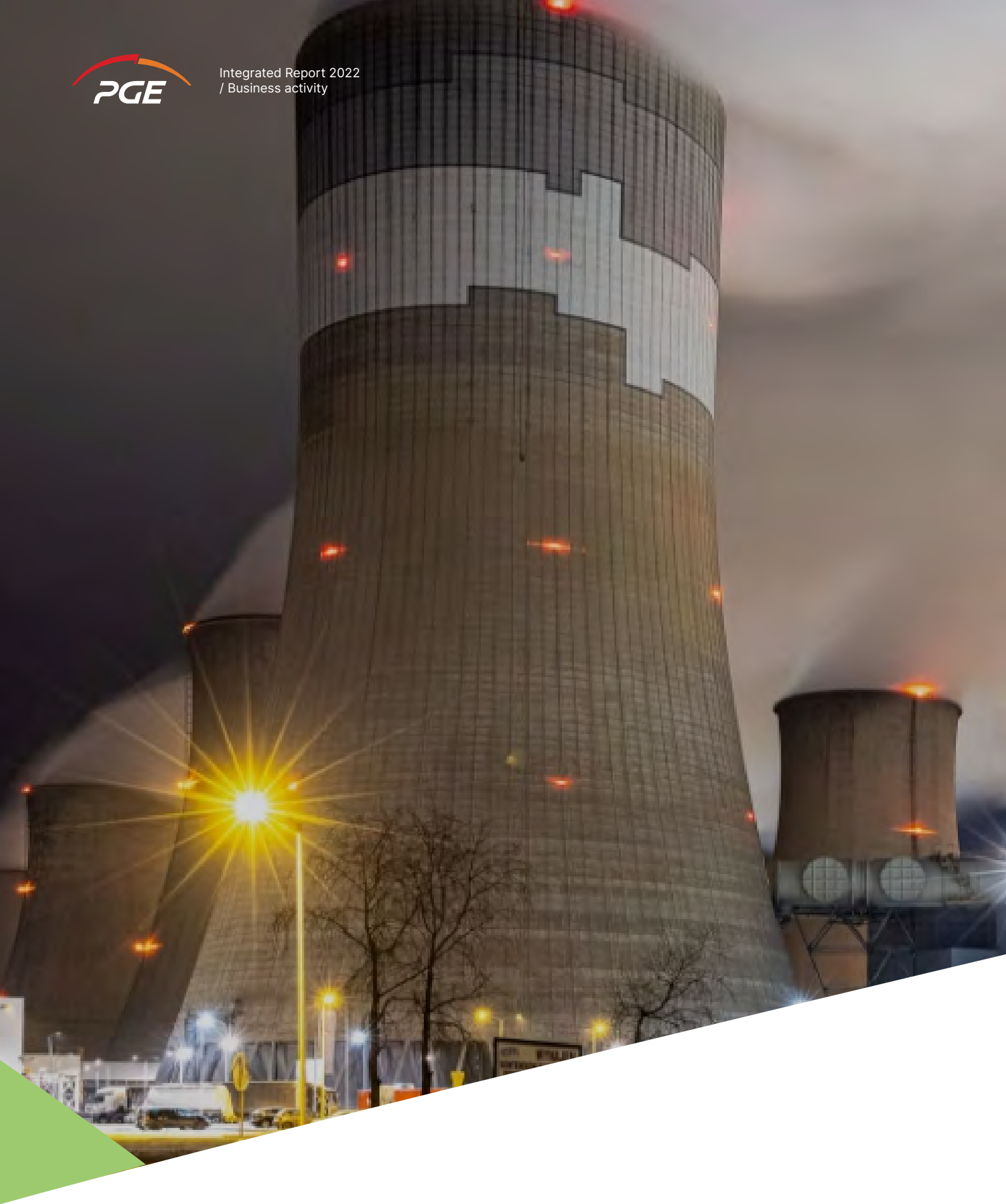
Integrity at our company

- We compete fairly
- We do not tolerate corruption or unfair conduct
- We handle company information responsibly

Code of Ethics - values and rules in everyday work

The Code specifies the attitudes and behaviours that are expected of all employees and managers. The Code streamlines and collects in one place rules that employees should follow inside and outside the organisation, in contacts with business partners or co-workers.







BUSINESS ACTIVITY

Financial results

PGE Group's revenues increased by 39% y/y due to significant rises in energy prices, which is the main product of the Group.

Reported EBITDA amounted to PLN 8.7 billion and decline by 9% y/y due to rapid increases in CO2 costs and cost of production fuels such as hard coal.

Higher operating costs were also influenced by high inflation, which resulted in an increase in other operating costs.

Net profit generated in 2022 amounted to PLN 3.4 billion. Net profit was significantly impacted by non-recurring events in the form of the release of a reclamation provision.

The one-off events were of a non-cash nature and did not affect cash flow from operating activities, which amounted to PLN 11.6 billion.

PLN [m]	2022	2021
STATEMENT OF PROFIT OR LOSS		
REVENUE FROM SALES	73 435	52 772
Cost of sales	(67 694)	(49 163)
GROSS PROFIT ON SALES	5 741	3 609
Distribution and selling expenses	(2 012)	(1 515)
General and administrative expenses	(1 382)	(1 028)
Net other operating income/(costs)	1 952	4 057
OPERATING PROFIT	4 299	5 123
Net financial income / (costs), including:	-189	-250
Interest income calculated using the effective interest rate method	458	35
Share of profit/(loss) of entities accounted for using the equity method	-	-2
GROSS PROFIT	4 110	4 871
Income tax	-720	-926
NET PROFIT	3 390	3 945

PLN [m]	2022	2021
OTHER COMPREHENSIVE INCOME		
Items that may be reclassified to profit or loss in the future:	-640	623
Valuation of debt financial instruments	-3	12
Valuation of hedging instruments	-788	757
Foreign exchange differences from translation of foreign entities	1	-
Deferred tax	150	-146
Items that may not be reclassified to profit or loss in the future:	147	336
Actuarial gains and losses from valuation of provisions for employee benefits	179	404
Deferred tax	-33	-77
Share of profit of equity-accounted entities	1	9
NET OTHER INCOME	-493	959
TOTAL COMPREHENSIVE INCOME	2 897	4 904
NET PROFIT/(LOSS) ATTRIBUTABLE TO:		
shareholders of the parent	3 328	3 972
non-controlling interests	62	-27
COMPREHENSIVE INCOME ATTRIBUTABLE TO:		
shareholders of the parent	2 836	4 929
non-controlling interests	61	-25
NET PROFIT PER SHARE ATTRIBUTABLE TO EQUITY HOLDERS OF THE PARENT COMPANY (IN PLN)	1.56	1.56
DILUTED NET PROFIT PER SHARE ATTRIBUTABLE TO EQUITY HOLDERS OF THE PARENT COMPANY (IN PLN)	1.56	1.56

Non-recurring events in 2022 had a positive impact on the reported result (similarly to last year). The balance of events amounted to PLN 1 537 million and consisted mainly of the release of a reclamation provision totalling PLN 1 721 million.

One off and temporary items affecting EBITDA	2022	2021
(PLN million)		
Change of reclamation provision	1 721	1 463
Provision for prosumers	74	-74
LTC compensations	2	-58
Liability due to one-time benefit – carve-out of NABE	-187	0
Change of actuarial provision	-73	64
Voluntary Leave Programme	0	11
Temporary item – rolling over of transaction hedging the price of CO ₂ allowances	0	0
Total	1 537	1 406

In 2022, there was a decline in reported EBITDA. In the Conventional Generation and District Heating segment, the results were negatively affected by a sudden increase in the prices of CO₂ emission allowances and production fuels.

In the Distribution segment, the results were supported by higher revenues from the distribution tariff and connection fees. In the Trade segment, there was an increase in the result on the sale of energy to end users and revenues from activities within the PGE Group.

In the Renewables segment, EBITDA increased due to significantly higher energy prices on the spot market.

Key segment data	2022	2021	y/y
EBITDA [PLN m], including:	8 657	9 535	-9%
Conventional Generation	2 065	4 078	-49%
District Heating	39	805	-95%
Renewables	1795	1016	77%
Distribution	2 850	2 779	3%
Supply	2043	827	147%
Circular Economy	37	45	-18%

Key segment data	2022	2021	y/y
EBITDA [PLN m], including:	4 229	5 123	-16%
Conventional Generation	127	1 998	-
District Heating	-713	104	-786%
Renewables	1440	686	110%
Distribution	1 616	1 559	4%
Supply	2010	794	153%
Circular Economy	28	36	-22%

Consolidated balance sheet (key categories)

The increase in the balance sheet total is mainly the result of an increase in the cash balance, also resulting from the issue of shares carried out in 2022, which brought approximately PLN 3.2 billion. Additionally, as a result of investments made, the value of fixed assets also increased.

Debt level

At the end of 2022, the PGE Group had net cash of approximately PLN 2.7 billion compared to net debt of PLN 4.2 billion at the end of 2021.

However, the estimated level of net economic financial debt (taking into account future payments for CO2 emission allowances) amounted to PLN 14.4 billion. The company's operations were mainly financed by earned funds from operations of PLN 11.6 billion.

[PLN m]	As at December 31,2022	As at December 31,2021
Property, plant and equipment	64 388	61 125
Investment property	32	39
Intangible assets	726	682
Right-of-use assets	1 311	1 257
Financial receivables	223	204
Derivatives and other assets measured at fair value through profit or loss	608	364
Shares and other equity instruments	117	117
Shares accounted for using the equity method	180	156
Other non-current assets	850	873

[PLN m]	As at December 31,2022	As at December 31,2021
CO ₂ emission allowances for captive use	114	797
Deferred income tax assets	3 183	933
NON-CURRENT ASSETS	71 732	66 547
Inventories	4 918	2 189
CO ₂ emission allowances for captive use	4 754	4 106
Income tax receivables	239	144
Derivatives and other assets measured at fair value through profit or loss	927	575
Trade and other financial receivables	9 083	7 727
Other current assets	2 219	1 240
Cash and cash equivalents	11 887	6 733
CURRENT ASSETS	34 027	22 714
ASSETS CLASSIFIED AS HELD FOR SALE	19	13
TOTAL ASSETS	105 778	89 274
Share capital	19 184	19 165
Reserve capital	25 049	20 154
Hedging reserve	-32	609
Foreign exchange differences from translation	4	2
Retained earnings	9 333	7 564
EQUITY ATTRIBUTABLE TO EQUITY HOLDERS OF THE PARENT	53 538	47 494
Equity attributable to non-controlling interests	845	797
TOTAL EQUITY	54 383	48 291

[PLN m]	As at December 31,2022	As at December 31,2021
Non-current provisions	6 363	8 559
Loans, borrowings, bonds and lease	6 799	8 666
Derivatives	305	1
Deferred income tax liabilities	1 002	402
Deferred income and government grants	1 011	881
Other financial liabilities	478	517
Other non-financial liabilities	141	133
NON-CURRENT LIABILITIES	16 099	19 159
Current provisions	21 223	12 600
Loans, borrowings, bonds and leases	2 137	2 160
Derivatives	1 629	82
Trade and other financial liabilities	6 707	4 601
Income tax liabilities	198	20
Deferred income and government grants	97	103
Other non-financial liabilities	3 305	2 258
CURRENT LIABILITIES	35 296	21 824
TOTAL LIABILITIES	51 395	40 983
TOTAL EQUITY AND LIABILITIES	105 778	89 274

Operating results

Total production in PGE Group entities decreased by 4% y/y in 2022, which resulted from lower demand of the National Energy System as a result of decreased energy consumption and lower energy exports.

The dynamic increase in market prices of hard coal and gas and the lower availability of hard coal contributed to a change in the production structure in the PGE Group's generating units. There was a decline in hard coal production by 16% and natural gas production by 34%, and at the same time an increase in brown coal production by 6%.

TWh	2022	2021	y/y
Total production, including:	66.13	68.95	-4%
Lignite	39.60	37.37	6%
Hard coal	20.55	24.34	-16%
Natural gas	2.79	4.22	-34%
Pumped-storage	0.95	0.69	38%
Hydro	0.39	0.45	-13%
Wind	1.57	1.45	8%
Biomass	0.25	0.39	-36%
Municipal waste	0.03	0.04	-25%

Last year, our grids supplied 37.07 TWh of electricity to more than 5.7 million consumption points. In the PGE distribution area, there was a decrease in energy demand of -2% y/y, which largely concerned the G tariff (households) due to the reversal of the effects of the Covid-19 pandemic and reduced time of work and remote learning. Long-term demand growth and stricter quality targets in electricity distribution require systematic investment in the grid to meet the needs of consumers and the growing economy.

TWh	2022	2021	y/y
Distribution of electricity	37.07	37.74	-2%

In 2022, output was 51.1 million tonnes (an increase of 8% year-on-year). The volume of lignite extraction is closely linked to the volume of electricity production in power plants, for which the mines are a natural supplier.

Tonnes m	2022	2021	y/y
Extraction of lignite. including:	51.08	47.18	8%
Bełchatów – field Bełchatów	3.31	2.78	19%
Bełchatów – field Bełchatów	37.89	35.60	6%
Turów	9.88	8.80	12%

The 9% year-on-year decrease in the volume of energy sales to end customers was mainly due to a decrease in sales to large business customers. The increase in sales occurred in the G tariff (households).

TWh	2022	2021	y/y
Sale of energy to final customers. including:	34.28	37.48	-9%
Households (Tariff G)	9.18	10.04	-9%
Business customers (Tariffs A. B. C+R)	25.10	27.44	-9%

In 2022, the volume of PGE Group's heat sales was significantly lower in relation to 2021. The decrease in heat sales by 3.8 petajoules, or 7%, was mainly the result of higher average outdoor temperatures during the heating season.

Key figures	2022	2021	y/y
Sale of heat [PJ]	51.28	55.07	-7%



<https://raportzintegrowany2022.gkpge.pl/en>