

STRATEGY 2030



PGE Group currently



Society's expectations define a vision for the energy industry

Evolution of social expectations

Environmentally friendly energy

Solutions tailored to the needs of customers providing a feeling of **independence**

Mobile, simple and always available service channels

Transparency of communication and corporate social responsibility



Decarbonisation

Climate neutrality goals Electrification of heating and transport

Decentralisation



Development of distributed power generation New roles and participants in the power market Change in the conditions of operation of energy networks Automation and digitisation

Competition

Growing value of the climate neutral brands

New players from outside the energy sector

Simple and attractive product offers, supported by new technologies

Energy transition is part of the economic model

Linking fiscal and investment policies to environmental goals

Directing funds to **investments in zero-emission generation sources** and network infrastructure

Limiting the availability of financing for energy generation based on fossil fuels

The pursuit of companies and cities to **sustainable** development



Economic development

An investment impulse thanks to the modernisation of the energy infrastructure



Just transition

Creating an opportunity for post-industrial regions to develop new specialisations



Independence

The use of distributed renewable energy resources and energy storage



New challenges

Adjusting the organisation to compete in the new environment

New direction is inevitable. Polish energy sector needs a leader of the change

Energy transition will proceed.

Without decisive action by the Polish energy sector, we will face many **threats**:



Investments in the development of renewable sources will be stunted

rial assistance and customer

Financial assistance and customer funds will not be used for the overall transition

Lower value added for the domestic economy



Customers will leave companies with an unfavourable image, unattractive product offer and not very friendly service model



Energy sector will lose years of building social trust Conventional energy generation will be subject to increasing pressure from the environment



The levels of margins and production volume will not allow for **covering expenses** of maintenance

Problems with (re)financing will increase together with loss of liquidity

PGE wants to play a key role in the modernisation of the sector





We provide energy for a safe future.



Leader in **sustainable energy transition** in Poland.



PAGE | 7

Vision of the PGE translates into three strategic priorities







Clean energy

As a leader of transition, we declare to reduce our impact on the natural environment.

We plan to reduce the greenhouse gas emissions by changing the technology, expanding the renewable energy portfolio and enabling our clients to participate in the transition.

We want to promote a circular economy and achieve climate neutrality by 2050 at the latest.



PGE will contribute to climate protection

Global challenges PGE's aspirations Emissions reduction 85% at least 55% zero- and low-emission sources in the portfolio* compared to 1990 2030 120 million tons of avoided CO₂ emissions Increase in renewable energy generation 50% at least share of renewable energy in the portfolio 32% >90 TWh of accumulated generation share of consumption of renewable energy The Green Deal 2050 Europe's climate neutrality by 2050 net CO₂ emissions of renewable energy SUSTAINABLE CITIES AFFORDABLE AN Clean Energy 12 RESPONSIBLE CONSUMPTION 13 CLIMATE

* assuming the separation of the coal portfolio from the PGE

Achieving climate neutrality will be a long, complex process



The road to climate neutrality

Evolution of the generation portfolio towards renewable Energy sources

No investments in new mining or coal generation and coal asset spinoff**

Conversion of CHP plants to gas fuel and biomass

Shut-down of production based on natural gas in the electrical power industry by 2042

The use of new, zero-emission mature technologies (e.g. green H_2 , SMR)

Systematic reduction of emission intensity of PGE Group assets^{*}



* assuming the separation of the coal portfolio from the PGE Capital Group, the emission efficiency of Poland and the European Union for 2018 ** investment in new deposits (Złoczew, Gubin) is the decision of the new entity

2050

Balanced process flow requires a division of roles and deepened cooperation

The PGE Group is ready to fulfill its role in the transition of the sector: preparing the conventional power generation to operane in a new ownership structure



New Strategy prepares the PGE for deep changes in the sector



Today PGE is in the best position to accelerate changes in the energy sector. The strategy based on the Group's strengths will allow us to move to the next stages of transition.

The integration of key areas for the energy transition will enable the implementation of the PGE Group's vision.

* excluding biomass and biogas production, ** 2019 data

By 2050 all energy provided to PGE customers will come from renewable sources

Long-term strategic aspiration

100% of energy from renewable sources for PGE clients balancing retail sales with RES production by 2050 at the latest



Large-scale programs:

Construction of offshore wind farms, large photovoltaic farms and new onshore wind farms



Acquisitions

Searching for market opportunities to accelerate the transition of the business profile



Using the engineering and sales competences of the PGE Group will enable our clients to participate in the energy transition of Poland

International expansion

Searching for development opportunities on European markets

The PGE will be a pioneer in development and operation of offshore wind energy sector

2030 Development of two offshore wind farm projects -Baltica 2 and 3 - as part of a strategic partnership with a global industry leader

Development of subsequent projects in the auction support system:

- Baltica 1: 0.9 GW
- New locations: 3.1 GW

Ability to independently operate and maintain (O&M) offshore wind farms

Specialisation in the operation and servicing of OWF

2.5 GW

>6.5 GW

in 2040

Development impulse thanks to offshore wind farms





New capacity in onshore wind farms and photovoltaics and development in the segment of distributed generation

The energy transition has many dimensions. The PGE Group will complement the development of its own generation capacity by providing its clients with broad access to green energy.

Building a share in the RES market thanks to the implementation of large-scale investments

PV program

- Organic development using the Group's competences
- Project acquisitions at the building permit stage
- Building service competences

Onshore wind farm program

- Preparation of a portfolio of new projects compliant with spatial regulations
- Acquisitions of operational wind farms and projects at the building permit stage

>1.0 GW new power by 2030

• Repowering of existing assets

Providing access to green energy for PGE customers by implementing longterm cooperation offers

Installation program for clients

- Preparation of an offer to build renewable energy installations for customers (on-site)
- Installations for local governments and energy communities
- Development of the off-site PPA model
- Balancing and storage services



>3.0 GW new power



Transition of the heating sector must include activities in the district and individual segments



Circular economy as an important process in the PGE

The implementation of the principles of circular economy in all areas

- Processes and assets in line with the circular economy
- Sustainable supply chain of raw materials and materials
- Reduction of energy losses and material waste
- Reclamation and restoration of investment values to post-industrial areas

Reduction of greenhouse gas

- Development of renewable energy sources
- Transition of heating towards lowemission
- Reduction of NOx and SO₂, dust emissions
- Energetic efficiency



Minimizing the impact on the environment

Generation of energy from waste

- New installations for thermal waste treatment
- New plant in Wrocław, expansion of installations in Rzeszów and Bełchatów

Increasing the waste recirculation rate and reducing the volume of landfilled waste

>65%

Recycling target till 2035 10%

Waste storage target till 2035





Modern energy services

The decentralisation of the energy sector is an opportunity to be closer to our customers and provide them with the opportunity to participate in the energy transition.

Thanks to friendly, multi-channel service, the portfolio of our new services will become even more accessible.



The highest in the market customer satisfaction level resulting from the quality of energy services

As roles in energy markets evolve, interactions with customers change. Their satisfaction with energy services is a priority for the PGE Group. Strategic goals address the components influencing its level.

Building value by enabling customers to actively participate in the energy transition

PGE Group will provide clients with energy comfort and contribute to the achievement of their environmental goals by implementing offers based on engineering and commercial competences.

Reliable network infrastructure and partnership with customers are the foundation of the energy transition

Electricity infrastructure solutions must be adapted to the changing energy market: multi-dimensional electrification and active support for distributed generation.

Deepening DSO relations with customers and improving the quality of services

The company's financial stability thanks to the reliable implementation of the new roles of the DSO

Support in developing a regulatory model that guarantees meeting the challenges of transition

Maximizing the use of available aid funds

A new model of grid modernisation and development planning for the full use of infrastructure

1 compared to the average for 2016/17; the exact distribution of CTP objectives results from the regulations of the ERA 2 in IV and V connection groups; the exact distribution of goals results from the regulations of the Energy Regulatory Authority

New energy storage units will ensure flexible operation of the electrical power system and increase the use of renewable energy sources

The PGE Group has a strong position on the market of system services thanks to hydro pumped-storage (HPS)

The market model conditions require commercialisation of new energy storage technologies

- Technical and economic limitations for the construction of new ESP
- Decentralisation of power generation location
- Increased demand for new sources of flexibility

REGULATIONS

PROJECTS

Evolution of energy supply towards the service model

Thanks to the modern infrastructure and the services based on it, the PGE Group will contribute to the customers' activation, maximizing the use of natural energy resources and responsible management of the network saturated with distributed installations.

Efficient and effective organisation

The business environment is becoming more complex, unpredictable, changeable and ambiguous.

In order to meet the challenges resulting from decarbonisation, decentralisation and competition, PGE Group must improve its operational efficiency.

The dynamics of transition requires an increase in the productivity and efficiency of the organisation

The PGE Group's business profile will evolve towards requiring less work and changing key competences. Effective cooperation of qualified staff and integrated ICT systems will allow to improve productivity and cost effectiveness.

* compared to 2019, the figures do not include the effect in the conventional energy segment

Systemic approach to asset management supporting asset value

The change in the roles of PGE Group assets resulting from the energy transition increases the need to develop systemic asset management based on human capital and the adaptation of new technologies.

Innovation focused in areas that build value and support the PGE Group vision

Onshore wind farms

Offshore wind farms

on the environment

Solutions limiting the impact

Floating PV and offshore installations

Energy of sea currents, tides and

Photovoltaics

waves

Green hydrogen

Area of concentration

Observation area

V

- Smart networks and metering
- Energy storage
- Use of sources of flexibility
- Energetic efficiency
- Dynamic tariffs and profile management
- Virtual power plants and V2G

Focus on initiatives with the greatest potential for building the value of the PGE Group

- Use of preferential sources of financing and co-financing with partners
- Cooperation with innovative scientific units and business
 partners

IRR> WACC

Achieving high implementation performance in development projects

- Develop the ability to estimate the long-term business benefits of innovation
- Building intellectual property in the PGE Group

ICT area will be a lever for improving the efficiency of the PGE's operations

Strategic ICT initiatives enable the technological transition of the PGE

Process automation and digitisation

- Streamlining and reduction of labour intensity of processes
- Modern tools supporting employee mobility

Building value based on data

- Development of tools to use the potential of data analytics
- Use of *Big Data*, machine learning and artificial intelligence methods

Security

• Providing security based on *Zero-Trust Security* architecture

Development of ICT architecture

 ICT architecture model taking into account the evolving value chain of the energy sector companies based on industry standards, including TOGAF (*The Open Group Architecture Framework*), SGAM (*Smart Grid Architecture Model*)

ICT as a development lever in strategic areas

Asset Management

Supply chain and procurement support

Data and customer relationship management

Support for energy and power markets processes

Multi-channel access for customers and business partners

Construction of a multi-faceted, **mobile interface** for clients supporting the provision of services

- Functional websites
- Digital sales platforms
- Mobile applications
- Data exchange
- Interfaces for active consumers, energy communities

Operational and Technical Communication System (LTE450)

- Ensuring safe **system** of radio communication for the infrastructure of the Group companies
- Providing services based on a dedicated LTE450 telecommunications network supporting the development of energy and the Internet of Things (IoT)
- Ensuring reliable **dispatch communication** in emergency and crisis situations
- Support of RES Integration, distributed energy, demand management (DSR), electromobility and energy storage

Demographic trends will affect the employment level in the PGE and employee career paths Demographic trends, automation and digitisation have an impact on the structure of employment

The inflow of people to the labour market is decreasing: 100 thousand fewer births (2020 vs 2050)

The percentage of people leaving the labour market is increasing - today's 55-65-year-olds are retiring

The demographic boom of today's 30-45-year-olds by 2050 will end or will be at the end of their careers

Demographic trends will force the increase in productivity, automation and digitisation

The value of skills in the area of modern services will increase.

The competences of leaders related to change management will be increasingly important.

Consequences

gap

Competency

Further staff development oriented to renewable energy and modern energy services requiring a new quality of management

Demographic change requires action appropriate for each age group of workers

Use of experience, mentoring programs, succession planning. Voluntary Leave and Retirement Plan.

Development of competences and qualifications. Rebranding and retraining

Employment planning (selection and recruitment) and new career development paths

■ <30 ■ 31-49 ■ 50>

PGE will support building a market environment favourable to energy transition

We consider shaping the environment of our operations, with the use of expert knowledge and dialogue, to be an element of organisational efficiency and the mission of the leader in energy transition. It is necessary to adapt the remuneration models and support schemes to the transition challenges

Effective use of available funding sources

Group investments will focus on renewable energy, heating transition and network infrastructure

- Focus on the development of renewable energy
- Construction of modern gas capacity with low CO2 emission
- Modernisation of the distribution network enabling the integration of RES
- Optimisation of modernisation and replacement expenses
- No new coal investments
- No new investment decisions in gas sources after 2025

 * mapping technology to dates on the timeline corresponds to the development capital expenditure

Stable EBITDA with the evolution of the structure towards green and regulated

- Building value through new investment projects
- Stable return on investment based on dedicated support mechanisms

- Limiting exposure to market changes
- Increased regulated and contracted revenues

Implementation of an ambitious transition plan while maintaining a stable level of debt

Financing the investment program

- Implementation of investments together with partners
- Maximizing the utilisation of domestic and EU aid funds for the energy transition
- Using the potential of green debt financing
- Limited leverage increase while maintaining the rating
- Investments in the project finance formula

The goal of the PGE Group is a full use of dedicated financing options for green investments and off-balance sheet financing

Net debt / EBITDA

Sustainable transition is creating value in financial, social and environmental dimensions

Our goal is to balance all aspects of the business, maximizing the added value for stakeholders

PGE Group will excercise strategic options consistent to its vision

Summary of the strategic goals

Environmentally friendly energy

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

Low-emission sources in portfolio; over 120 million tons of avoided CO₂ emissions by 2030

Renewable energy share in the portfolio; over 90 TWh of renewable energy produced by 2030

Modern energy services

Maintaining the highest level of customer satisfaction on the energy market

100% 800 MW till 2030 > 90%

Ability to remotely service clients

New energy storage facilities in Poland

Connection contracts for up to 18 months, with attention to cost effectiveness

Energy as a service - dynamic management of the consumption profile, network and market integration of RES installations, support for network flexibility

Efficient and effective organisation

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

100% of energy from renewable sources for PGE clients balancing retail sales with RES production by 2050 at the latest

* compared to 2019, the figures do not include the effect in the conventional energy segment

Summary of the installed capacity

PGE Group's installed capacity

* The capacity structure in 2025 will depend on the schedule of the process of spinning off the conventional energy segment

We provide energy for a safe future

Disclaimer

This Presentation has been prepared by the Management Board of PGE Polska Grupa Energetyczna S.A. ("Company", "GK PGE" or "PGE Group"). By attending the meeting where this presentation is made or by reading the presentation slides you agree to be bound by the following limitations.

This presentation does not constitute or form part of or should not be regarded as an offer to sell or the solicitation or invitation of any offer to buy or to subscribe for securities of the Company, any holding company or any of its subsidiaries in any jurisdiction or an inducement to enter into investment activity. No part of this presentation, nor the fact of its distribution should form the basis of or be relied on, in connection with any contract or commitment or investment decision whatsoever.

We operate in an industry for which it is difficult to obtain precise market information. Market data, certain economic and industry data, as well as forecasts used and statements made herein regarding our position in the industry were estimated or derived based on assumptions we deem reasonable and from our own research, surveys or studies conducted at our request for us by third parties or derived from publicly available sources, industry or general publications, such as newspapers.

This presentation does not constitute a recommendation regarding the securities of the Company.

This presentation and any materials distributed in connection with this presentation are not directed to or intended for distribution to or use by any private individual or legal entity that is a citizen or resident or that is located in any locality, town, state, country or other jurisdiction where such distribution, publication, availability or use would be contrary to law or regulation or which would require any registration or licensing within such jurisdiction. This presentation includes forward-looking statements. These statements contain, among others, the words "anticipate", "believe", "intend", "estimate", "expect" and other words of similar meaning. All statements other than statements of historical facts included in this Presentation, including, without limitation, those regarding the Company's financial position, business strategy, plans and objectives of management for future operations (including development plans and objectives relating to the Company's products and services) are forward-looking statements. Such forward-looking statements involve known and unknown risks, uncertainties and other important factors that could cause the Company's actual results, performance and achievements to be materially different from future results, performance or achievements expressed or implied by such forward-looking statements. Such forward-looking statements are based on numerous assumptions regarding the Company's present and future business strategies and the environment in which the Company will operate in the future. These forward-looking statements speak only as at the date of this Presentation. The Company expressly disclaims any obligation or undertaking to disseminate any updates or revisions to any forward-looking statements contained herein to reflect any change in the Company's expectations with regard thereto or any change in events, conditions or circumstances on which any such statement is based. The Company cautions you that forward-looking statements are not guarantees of future performance and that its actual financial position, business strategy, plans and objectives of management for future operations may differ materially from those made in or suggested by the forward-looking statements contained in this presentation. In addition even if the Company's financial position, business strategy, plans and objectives of management for future operations are consistent with the forward-looking statements contained in this presentation, those results or developments may not be indicative of results or developments in future periods. The Company does not undertake any obligation to review or confirm or to release publicly any revisions to any forward-looking statements to reflect events that occur or circumstances that arise after the date of this presentation.