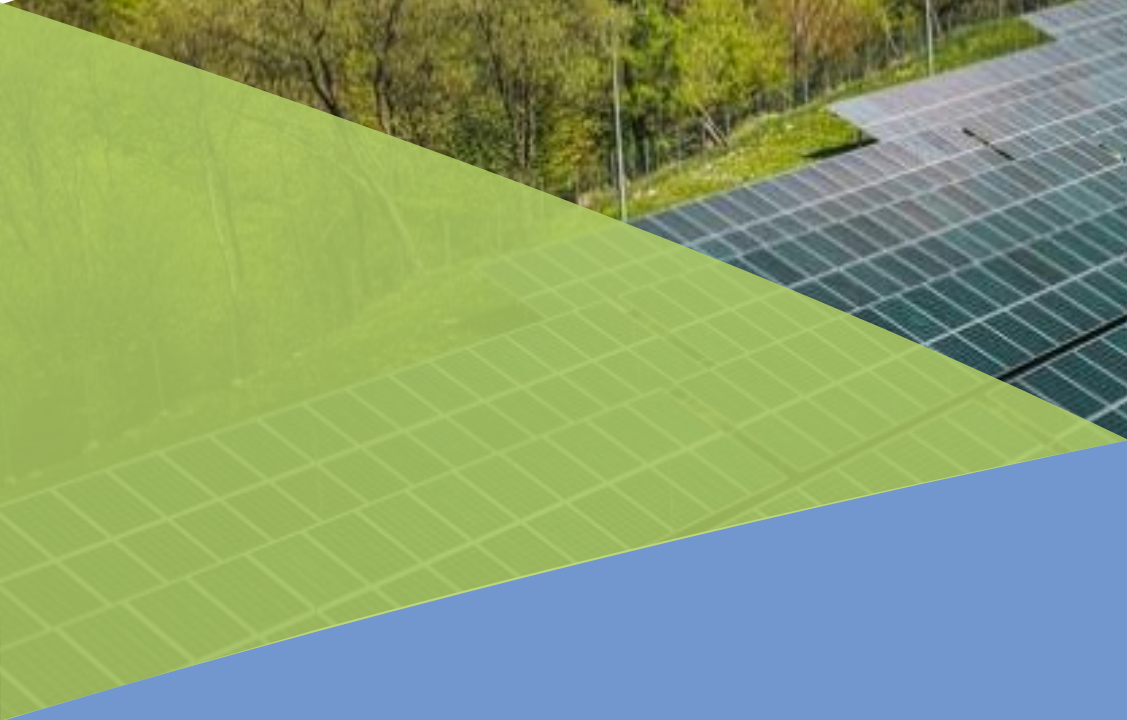


New Issue overview



Leading in the green transition

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This presentation was made in connection with the Extraordinary General Meeting of the Company and the proposed resolution regarding the reduction of the share capital by way of reducing the nominal value of the Company's shares and simultaneously increasing the Company's share capital through the issuance of series E shares (the "**New Issue**"). The New Issue will be exempt from the obligation to publish a prospectus within the meaning of applicable law or another information or offering document for the purposes of the Offering in accordance with Article 3(1) in conjunction with Article 1(4)(a), Article 1(4)(b), Article 1(4)(d) and Article 1(5)(a) of Regulation (EU) 2017/1129 of the European Parliament and of the Council of 14 June 2017 on a prospectus to be published when securities are offered to the public or admitted to trading on a regulated market, and repealing Directive 2003/71/EC (the "**Prospectus Regulation**"). Conducting the New Issue and admitting and introducing the Company's shares to trading on the Warsaw Stock Exchange will not require the preparation of a prospectus within the meaning of the Act of 29 July 2005 on Public Offering, Conditions Governing the Introduction of Financial Instruments to Organised Trading, and on Public Companies, and of the Prospectus Regulation.

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Summary of the issue resolution project

Issuer	<ul style="list-style-type: none"> PGE Polska Grupa Energetyczna S.A.
Subject of the resolution	<ul style="list-style-type: none"> Simultaneous: <ul style="list-style-type: none"> capital decrease by the amount of PLN 3,178,593,409.30 through decreasing the nominal value of each share from the amount of PLN 10.25 to the amount of PLN 8.55 capital increase by the amount of PLN 3,197,291,010.75
Offering structure	<ul style="list-style-type: none"> Offering without a prospectus in the nature of a private placement to a select group of investors who have received an invitation to participate in the Offering and who meet the conditions: <ul style="list-style-type: none"> are qualified investors within the meaning of the Prospectus Regulation acquire securities for a total consideration of at least EUR 100,000 per investor („Eligible Investors”) Offering without pre-emptive rights Offering with priority of allotment/allocation to Eligible Investors holding more than 0.10% of shares in the share capital at the end of the day of registration of participation in the Extraordinary General Meeting of the Company
Number of new shares	<ul style="list-style-type: none"> 373,952,165 Series E shares with a nominal value of PLN 8.55 per share
Nominal capital increase	<ul style="list-style-type: none"> 3,197,291,010.75 PLN
Use of proceeds	<ul style="list-style-type: none"> Investments in three areas: distribution, RES and decarbonisation (low-emission sources) as detailed later in this presentation
Main dates	<ul style="list-style-type: none"> 18 January 2022 - Resolution of the Management Board regarding commencement of the Company's recapitalization process and convening of an Extraordinary General Meeting 7 March 2022 - Extraordinary General Meeting to adopt a resolution to simultaneously reduce and increase the share capital

PGE Group Strategy 2030 - summary



PGE Group at glance

Assumed spin-off of PGE Group coal assets to NABE



Distribution



Renewables



District heating



Supply



Conventional generation

Key segment assets

296 481 km of distribution lines

17 wind farms
5 photovoltaic power plants
29 run-on-the-river hydro power plants
4 pumped storage hydro plants including **2** with natural flow
+3 offshore wind farm concessions in the Baltic Sea (**3.5 GW**)

16 CHP plants

-

5 conventional power plants
2 lignite mines

Installed capacity

Electricity
Heat

-

2 331 MWe

2 608 MWe
6 842 MWt**

-

13 312 MWe
843 MWt**

Electricity volumes*

Electricity distribution volume
LTM Q3 2021 – 37.3 TWh

Net electricity generation
LTM Q3 2021 – 2.6 TWh

Net electricity generation**
LTM Q3 2021 – 8.6 TWh

Sales to final off-takers
LTM Q3 2021 – 38.3 TWh

Net electricity generation**
LTM Q3 2021 – 54.6 TWh

Heat volumes*

-

-

Net heat production**
LTM Q3 2021 – 48.9 PJ

-

Net heat production**
LTM Q3 2021 – 6.0 PJ

Market position

Second domestic electricity distributor with regard to number of customers (**5.6m**)

PGE Group is the largest electricity producer from RES with market share of approx. **9%** (excluding cocombustion of biomass and bio-gas)

Leading producer of heat (**25%**) from cogeneration in Poland

Leader in wholesale and retail sales in Poland

PGE Group is the leader of lignite mining (**91%**) and electricity generation in Poland

*LTM Q3 2021 – from 1 October 2020 to 30 September 2021

**In Q3 2021 the District heating segment includes 2 CHP plants (EC Pomorzany and EC Szczecin), which until the end of Q2 2021 were included in the Conventional generation segment

Source: PGE Group Q3 2021 report

PGE Group Strategy 2030 responds to ongoing trends in the energy sector

Since October 2020 - PGE Group Strategy 2030 with a 2050 perspective publication, **social expectations, the need for energy transformation and the Strategy are still relevant**

PGE Group Strategy 2030

Society's expectations define a vision for the energy industry

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 energy networks operating conditions
- 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

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

Vision of PGE Group translates into three strategic priorities

Group vision



Leader of **sustainable energy transition** in Poland

Leading in the green transition



Clean energy

85% zero and low-emission sources in the portfolio by 2030*

50% share of RES energy in the portfolio by 2030

100% RES energy and **0** net CO₂ emissions in 2050

Modern energy services



Providing customers the opportunity to participate in the energy transition

~85pts** maintaining the highest level of customer satisfaction on the energy market

Reducing the duration of interruptions in energy supplies and increasing efficiency of connection processes

Efficient and effective organisation



Increasing the **productivity and efficiency** of the organisation

25% PGE Group fixed costs reduction by 2030***

Business **evolution** towards less labour intensive and cost-efficient operations

*Assuming the separation of the coal portfolio from the PGE

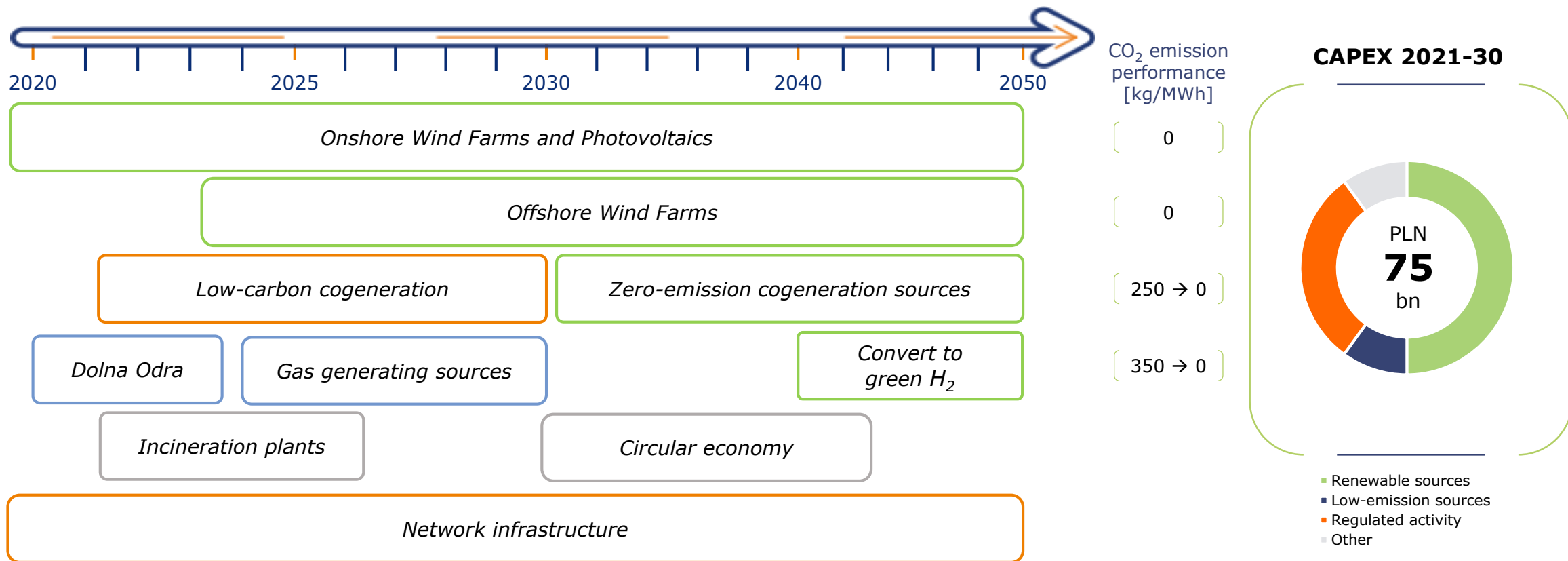
**CSI – Customer Satisfaction Index

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

Source: PGE Group Strategy 2030

Strategy realisation requires a number of ambitious investments

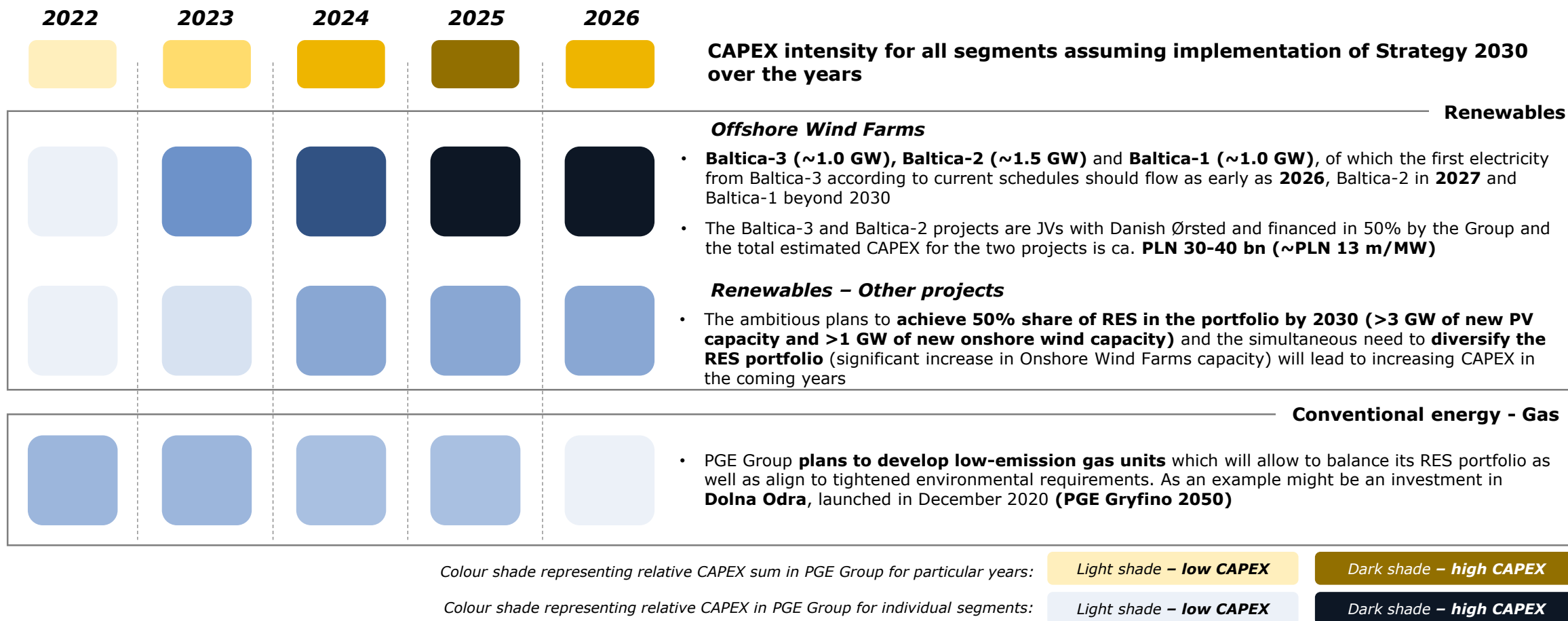
PGE Group Strategy 2030 investment plan framework*



*Mapping technology to dates on the timeline corresponds to the development CAPEX
Source: PGE Group Strategy 2030

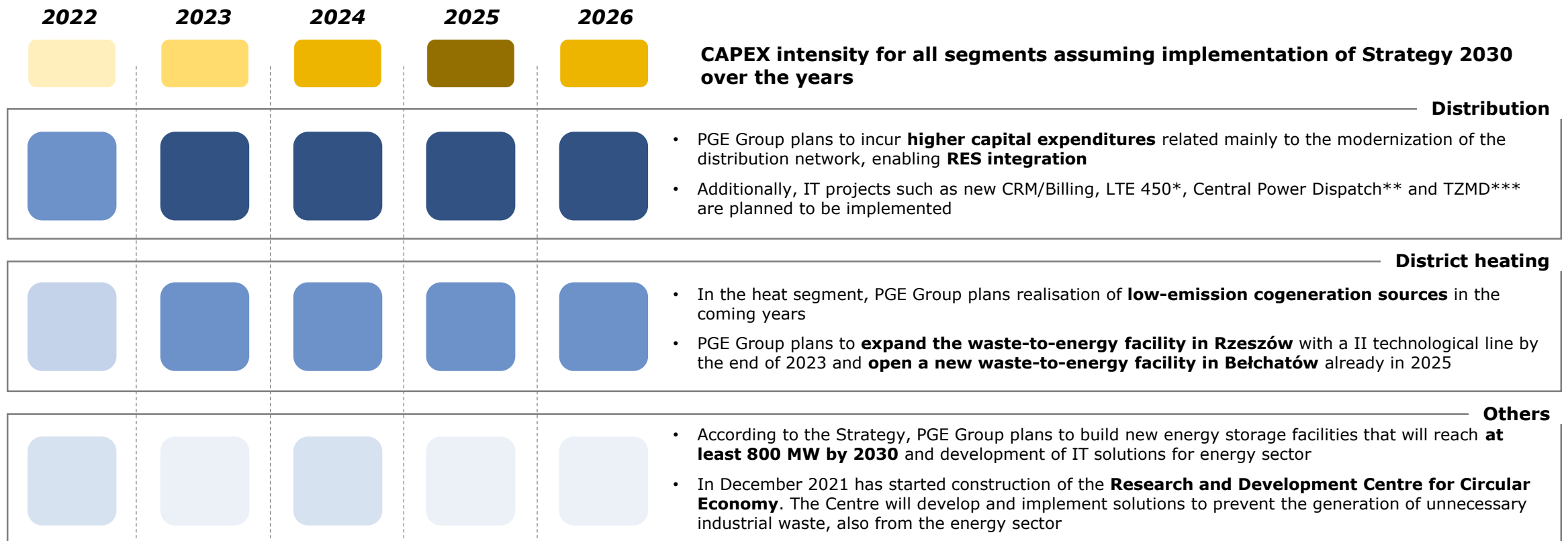
CAPEX overview assumed in Strategy by PGE Group till 2026 (1/2)

- PGE Group Strategy 2030 assumes significant capital expenditures related to the development of renewable energy incl. **Offshore Wind Farms** project, other **RES assets** (PV projects together with onshore wind farms), as well as construction of modern gas power plants with low CO₂ emissions



CAPEX overview assumed in Strategy by PGE Group till 2026 (2/2)

- In the coming years, Strategy also assumes increased capital expenditures on the modernisation of the distribution and district heating segments and the implementation of projects classified in the Other segment



Colour shade representing relative CAPEX sum in PGE Group for particular years:

Light shade – **low CAPEX**

Dark shade – **high CAPEX**

Colour shade representing relative CAPEX in PGE Group for individual segments:

Light shade – **low CAPEX**

Dark shade – **high CAPEX**

*LTE 450 project - creating LTE network dedicated to the energy sector in the 450 MHz band

**Central Power Dispatch project - optimising and unifying the principles and structures of the management of high voltage lines (110 kV)

***TZMD project - implementing a system which unify the handling of business processes in the technical management of distribution assets

Source: PGE Group

Objectives of the New Issue



Recent changes in the sector at a glance

Newly introduced regulations impose further requirements on energy groups, which entails new CAPEX...

14 July 2021

Fit for 55

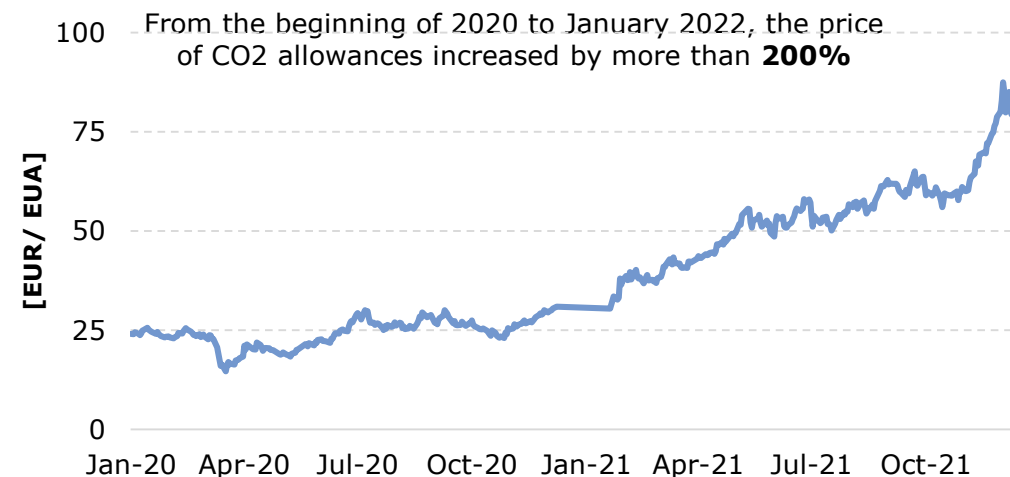
Adoption by the European Commission of a package of amendments to the European Green Deal. The proposed regulatory framework concerns, i.a. **the reduction of a larger number of free CO2 allowances and significant increase in the share of RES in heating systems**

2 July 2021

The Meters Act

Entry into force of legislation **requiring distributors** to install smart meters on **at least 80% of end-users**, including at least 80% of households

...in addition, the dynamically changing market environment puts extra pressure on conservative capital management



- Recently, the prices of CO2 allowances and gas prices on European markets increased unprecedentedly
- Due to fast growth of new RES installations in the recent years, possibilities of connecting new capacities are more and more limited
- Given effects of changes in market and regulatory conditions may overlap with higher CAPEX expenditures in PGE Group

New Issue will enable to carry out projects from three groups



The additional capital will allow the Group to **maximise the potential** hidden in its aspirational investment plans

I

Distribution of the future

1

Increasing the share of cable lines in the PGE Group

2

Development of smart meters

3

Increasing the efficiency of the grid connection process (new customers and sources)

II

Boost of RES development

1

Organic growth of RES portfolio - PV program

2

Growth of RES portfolio through acquisitions

III

Decarbonisation through development of low-emission sources

1

Financing of CCGT plant in Rybnik

2

Decarbonisation of CHP plants in Zgierz, Kielce and Bydgoszcz

14 Distribution segment overview

I

Distribution of the future



296.5 k km (Q3 2021)
distribution lines

5.6 m (Q3 2021)
customers

37.3 TWh (LTM Q3 2021)
distributed energy

PLN **18.9** bn (2021)
RAB

PLN **6.5** bn (LTM Q3 2021)
revenue

PLN **2.6** bn (LTM Q3 2021)
EBITDA

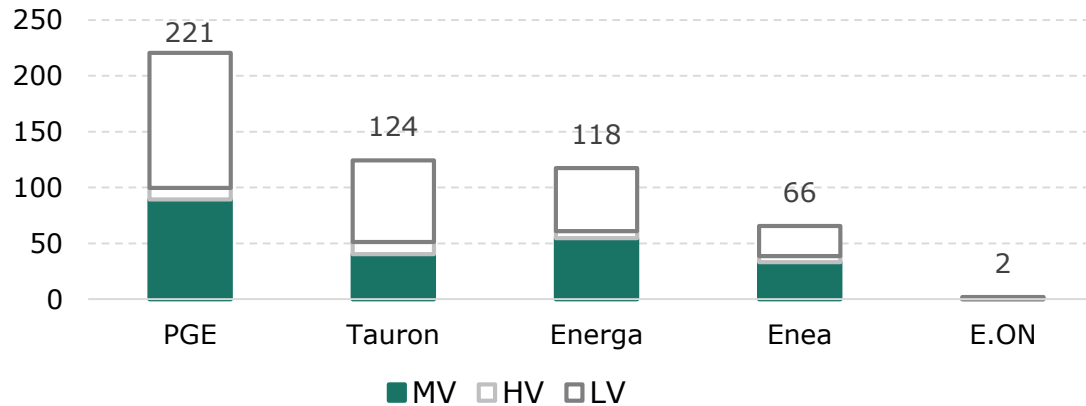
5.5% (2021)
actual return on RAB*

PLN **1.4** bn (LTM Q3 2021)
CAPEX

*Including regulatory indicator (WR)
Source: PGE Group

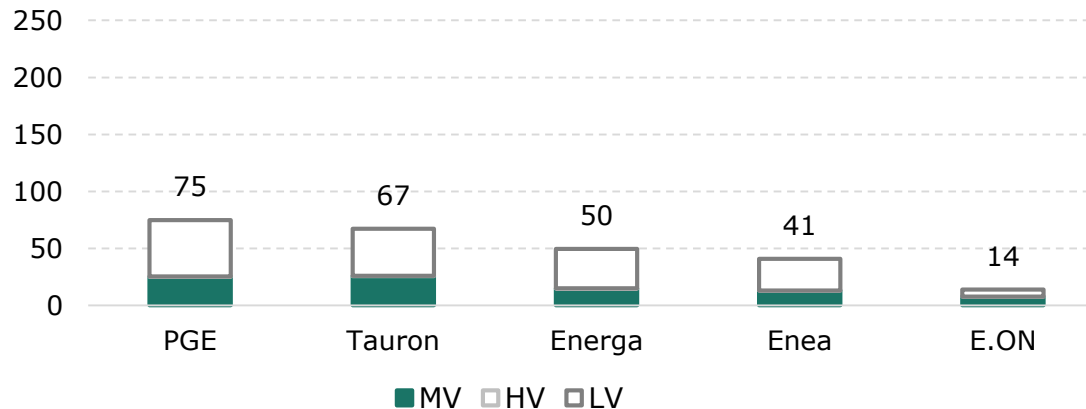
PGE Group has the longest overhead and cable line network in the country

Length of DSO overhead lines [2020, k km]



~776 k km total
length of power lines
of the five largest
DSOs in 2020

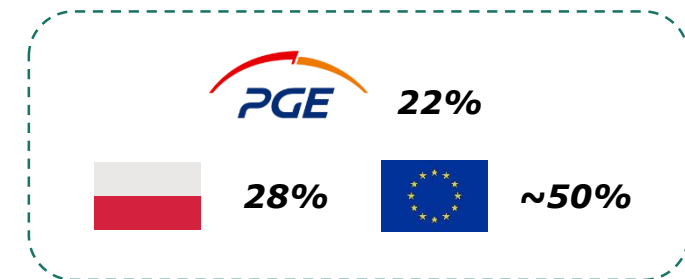
Length of DSO cable lines [2020, k km]



Characteristics of PGE Group network infrastructure

- Among all the DSOs operating in Poland, PGE Group distributes electricity in the largest area
- PGE Group has also the largest number of cable and overhead lines among the largest DSOs
- In 2018-2020, PGE Group increased its share of MV cable lines by 2.5 p.p.
- Due to the size and low density of the area, the share of MV lines in the Group's portfolio is lower than the country average
- Increasing the share of cable lines within the network complies with European trends

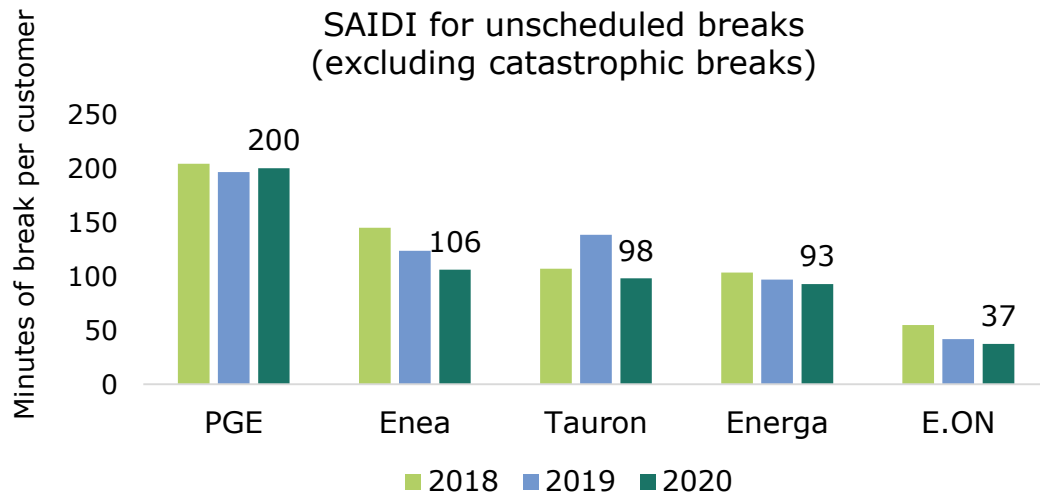
Average share of cable lines in MV lines



Abbreviations: HV - high voltage lines, MV - medium voltage lines, LV - low voltage lines

Source: PGE Group, Ministry of Climate and Environment – „Report of the results of monitoring the security of electricity supply 18/20”, PTPIREE report

Increasing cable lines share will have a positive impact on reducing network failure



PGE Group (end of 2020)

22% - share of MV
cable lines in 2020

200 min - SAIDI in 2020

~25 k km* - total MV
cable lines in 2020

New Issue (expected realization 2022-2023)

~25% - share of MV
cable lines in 2023

12 min - SAIDI
decline vs 2021

~3.0 k km - additional cable
lines vs 2021

Further development of cable lines will have a **positive impact on network continuity**

Advantages of cable lines over overhead lines

- ✓ Greater resistance to weather anomalies
- ✓ Shorter electricity blackout times



Process of progressively increasing share of cable lines in the MV network structure **will allow to reduce the SAIDI**, thus improving **the quality of distributed energy**

*Estimated values

Source: PGE Group, Ministry of Climate and Environment – „Report of the results of monitoring the security of electricity supply 18/20”

Objectives of increasing cable lines share project

Program
assumptions

Basic Investment Plan (excluding New Issue)

~**23%** share of MV
cable lines in 2023

~**1 050 km** new MV
cable lines by 2023

Investment Plan with New Issue

~**25%** share of MV
cable lines in 2023

~**3 000 km** new MV
cable lines by 2023

Assumed additional
CAPEX by 2023:
PLN 1.22 bn*

including funds from the
New Issue (equity):
PLN 0.61 bn**

Project profitability
(IRR) is the return
on investment
**regulatory WACC
+ reinvestment
premium**

Financial
perspective

Reducing operating costs and optimising business

Minimising the loss
of profits from
undelivered energy

Decrease in costs incurred
for network exploitation

Reduction of network
loss costs

Customer
perspective

Increasing security of customer energy supply

Double in SAIDI***
reduction compared to
the Basic Investment Plan

Ability to fulfil **increasingly
stringent requirements**
of the Quality Regulation
imposed by the ERO

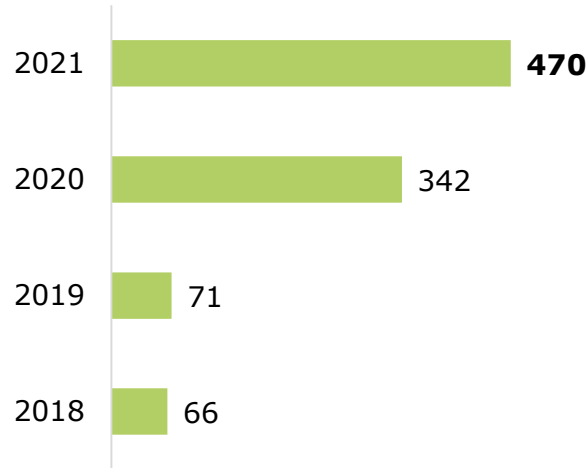
*Represents the total additional capital expenditure over the period 2022-2023

**The 2022-2023 period financed with New Issue proceeds assuming 50% equity

***SAIDI for unplanned outages excluding catastrophic outages

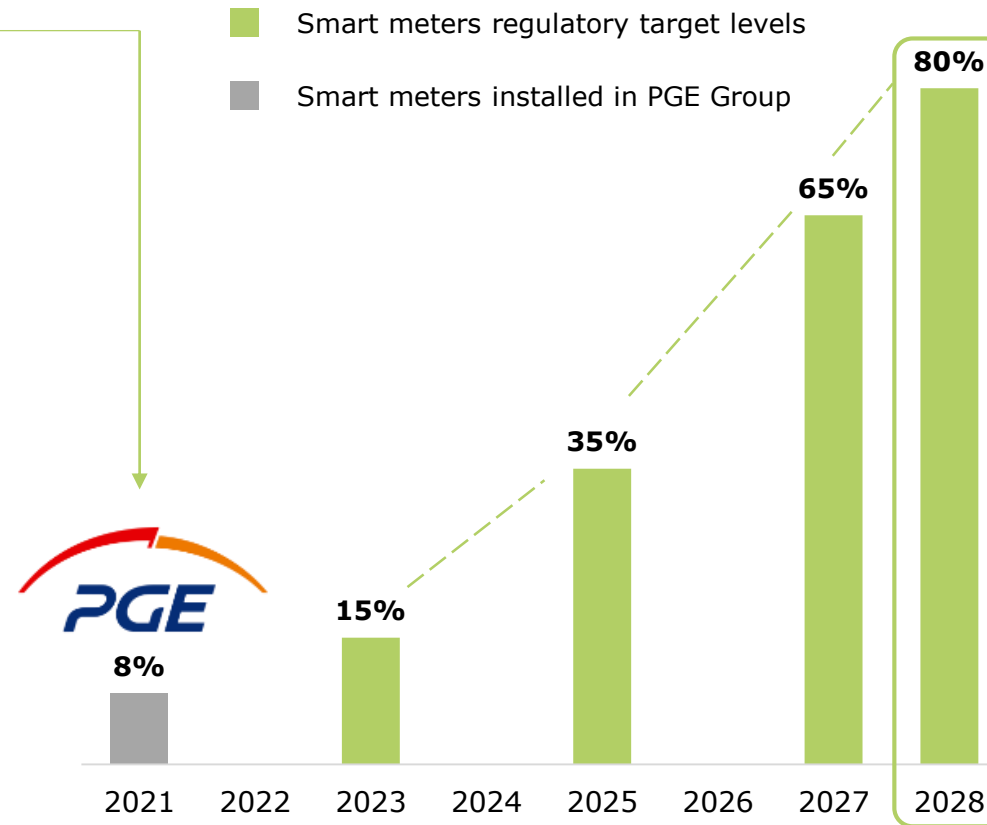
Smart meters are an integral part of the national energy transition

Number of installed smart meters in PGE Group [k]

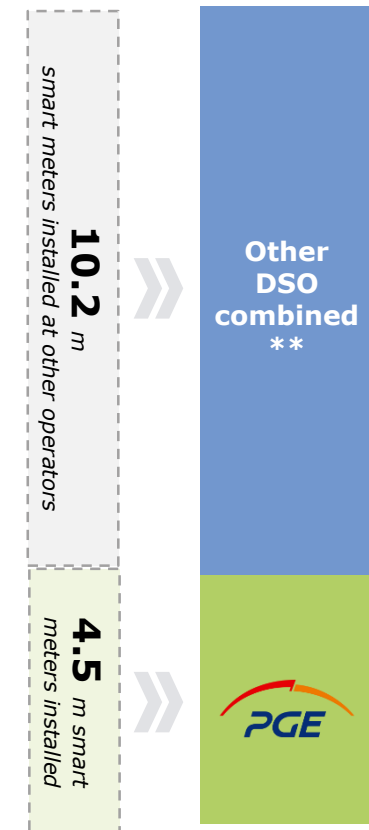


Before the smart meters legislation was amended, installations were a result of the initiative of individual DSOs, which had installed a total of approximately **1.5 m smart meters** to date*.

Regulatory pathway for increasing the share of smart meters of end users



For PGE Group, achieving the regulatory target level will require installation of **min. 4.5 m smart meters by 2028*****.



*PTPIREE estimates as of 21.04.2021

**Total number of smart meters for the DSO group - Tauron, Energa, Enea, E.ON

***Smart meters amount estimated on the basis of the number of customers served as at the end of Q3 2021

Source: PGE Group, National Report ERO 2021, Ministry of Climate and Environment – „Report of the results of monitoring the security of electricity supply 18/20”

Smart meters development program will accelerate the achievement of the statutory targets

Smart meters development program objectives

ca. 8% of customers*

Phase I:

ca. 49% of customers by 2025

Phase II:

100% of customers by 2030

- ✓ The program assumes faster smart meters implementation than regulatory requirements
- ✓ Accelerating the schedule allows to achieve benefits faster for both the Group and the customers

PGE Group benefits from smart meters development

- ✓ The program assumes replacement of meters for end customers and reconstruction of MV/LV substations in this area
- ✓ Reduction of OPEX
- ✓ Adoption of a more ambitious implementation schedule will allow to take into account the expiry of legalization deadlines and stabilize meter replacement levels in the long term
- ✓ Reinvestment premium**
- ✓ Ensuring a better standard of services will have a positive impact on customer perception

Customer benefits from smart meters development



Automatic information on energy consumption for a given period



Faster signal of power grid failure



Pro-environmental approach to energy consumption management

*expressed as the ratio between the number of customers at the end of Q3 2021 and the number of installed smart meters at the end of 2021

**additional bonus for investment intensity in transmission and distribution

Source: PGE Group, Ministry of Climate and Environment

Program assumptions

Smart meters implementation:

2.25 m customers by 2025*

60 k substations by 2025

Assumed CAPEX
for Phase I (2025)

PLN 1.49 bn**

including funds from the
New Issue (equity):

PLN 0.74 bn***

Project profitability (IRR)
is the return on investment
**regulatory WACC +
reinvestment premium**

Financial perspective

OPEX reduction

**Decrease costs associated
with** readings by external and
own collectors by **up to
PLN 6.5 m/year - Phase I**

**Reduction in number of
visitation** due to complaints,
change of tariff group, energy
switch-off / switch-on

Trade losses reduced by **up
to PLN 27 m/year in 2025**

Customer perspective

Conscious customer

Faster and more reliable
information on current
energy consumption

Billing for **actual
energy usage**

*The New Issue will allow to achieve 49% of metering PGE Group customers

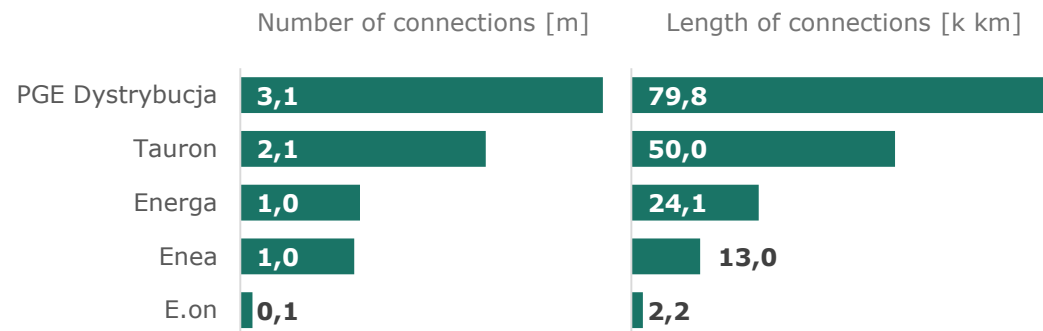
**Contains the total capital expenditures in the period 2022-2025

***The 2022-2025 period financed with New Issue proceeds assuming 50% equity

Source: PGE Group

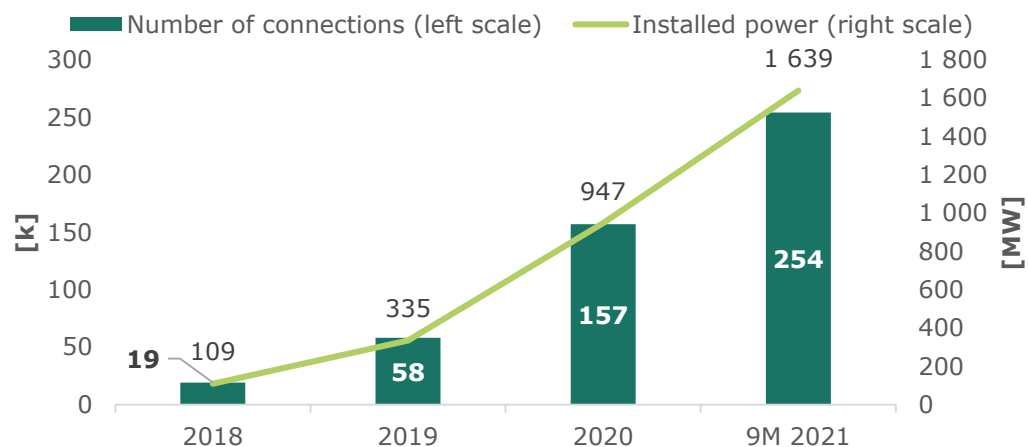
Energy transformation requires new connection capacities

PGE Group operates the most connections in terms of the **number and length**



Data at the end of 2020

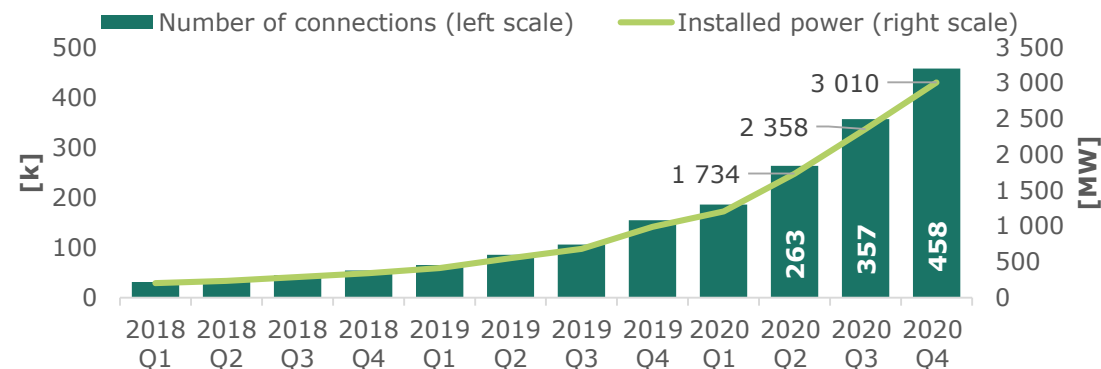
Increase in number of connected RES micro-installations (and capacity) **was visible** in the 2018-2021 period **also in PGE distribution network**



*133.5 k in total

Source: PGE Group, PTPIREE report

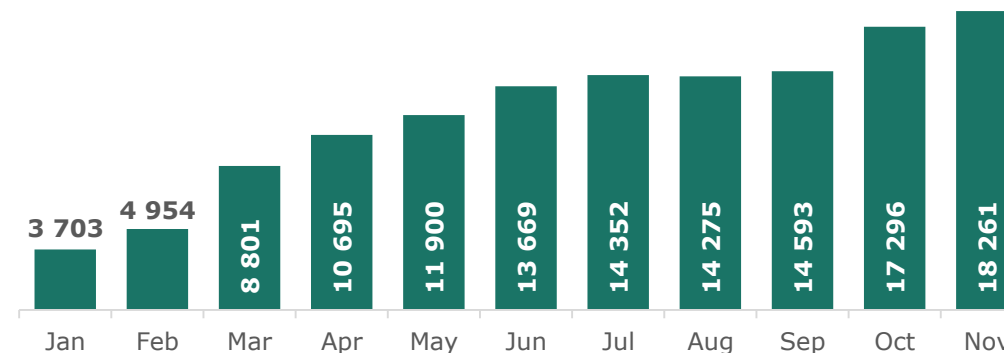
In recent years, apart from the normal connection activity, number of micro-installations and power connected to DSOs network **have significantly increased**



The number of connected installations increased from around 3-4 k installations connected per quarter in 2018 to as many as 90-100 k in H2 2020

High demand for new micro-installation connections among PGE customers indicates **the continuation of this trend**

Number of issued confirmations to provide a distribution service as part of micro-installation connection process in 2021*



Objectives of increasing connection process efficiency project

Program assumptions

The program assumes modernisation of the network in order to **reduce** bottlenecks, **increase** connection capacities and **speed up** connection processes

Assumed additional CAPEX for investment realisation:
PLN 0.52 bn*

including funds from the New Issue (equity):
PLN 0.26 bn**

Project profitability (IRR) is the return on investment
regulatory WACC + reinvestment premium

Financial perspective

Basic Investment Plan (excluding New Issue)

2.9 k km of new connections built by 2023

2 800 MW of additional connection capacity for RES by 2023

Investment Plan with New Issue

4.0 k km of new connections built by 2023

3 600 MW of additional connection capacity for RES by 2023

Customer perspective

Basic Investment Plan (excluding New Issue)

~80 k new customer connections by 2023

Reduction of the average time to connect a new customer to **257 days** in 2023

Investment Plan with New Issue

~98 k new customer connections by 2023

Reduction of the average time to connect a new customer to **<200 days** in 2023

*Represents total additional capital expenditure over the period 2022-2023

**The 2022-2023 period financed with New Issue proceeds assuming 50% equity

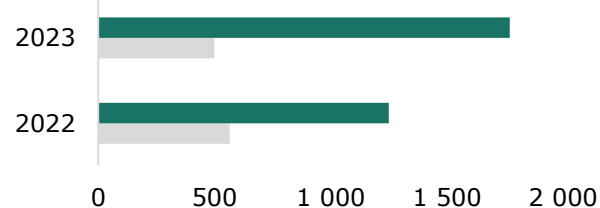
Source: PGE Group

Conversion of New Issue funds to Distribution of the future projects

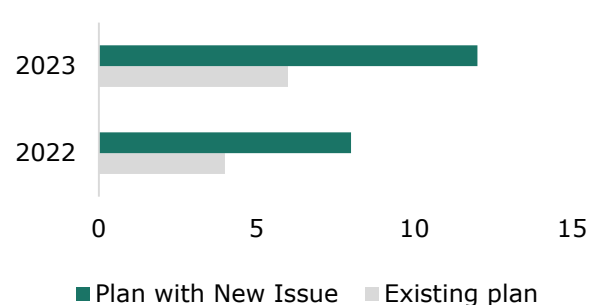
Program	Cable lines	Smart meters	Connections
CAPEX	PLN 1.22 bn	PLN 1.49 bn	PLN 0.52 bn
incl. New Issue funds	PLN 0.61 bn	PLN 0.74 bn	PLN 0.26 bn

Cable lines program realisation comparison

Number of new MV cable lines [km]



SAIDI reduction [minutes of interruption per customer]

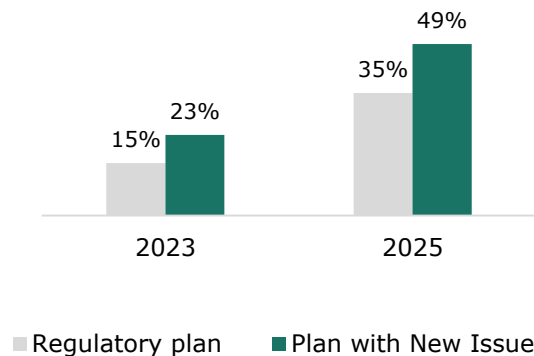


Smart meters program comparison

Implementation of the smart meters program

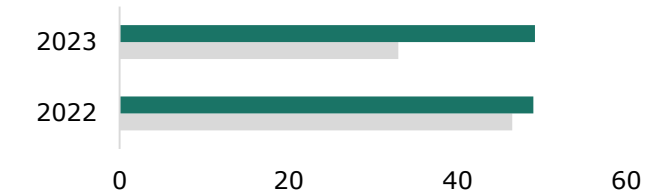
- ✓ With the New Issue funds, it will be possible to spread smart meters installation process over time and avoid a situation where a distributor will have to perform installations in a short period of time to meet legal requirements

Smart meters installations against obligatory regulation plan

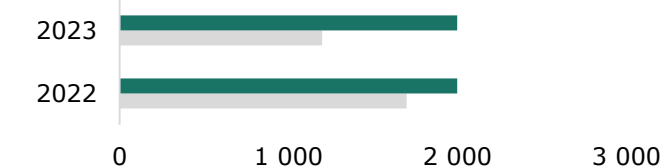


Connections program comparison

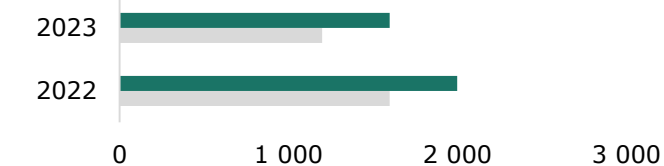
Number of new customer connections [k]



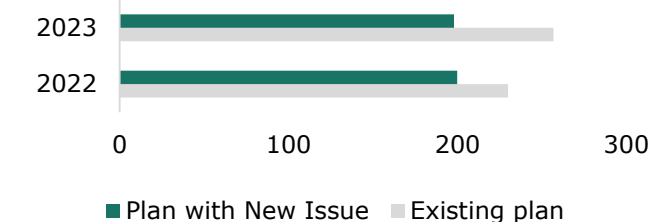
Length of newbuilt connections [km]



Additional connection capacity for RES [MW]



Average time to connect a new customer [days]

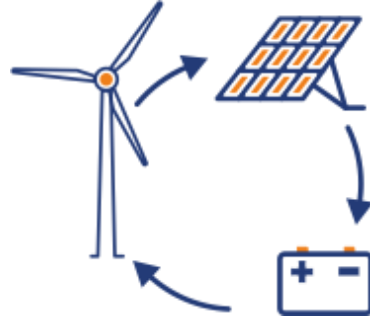


Development of RES assets as an integral part of the national energy transition

Factors impacting the national energy strategy



National strategy requires new RES



PV and Onshore Wind Farms are an attractive solution

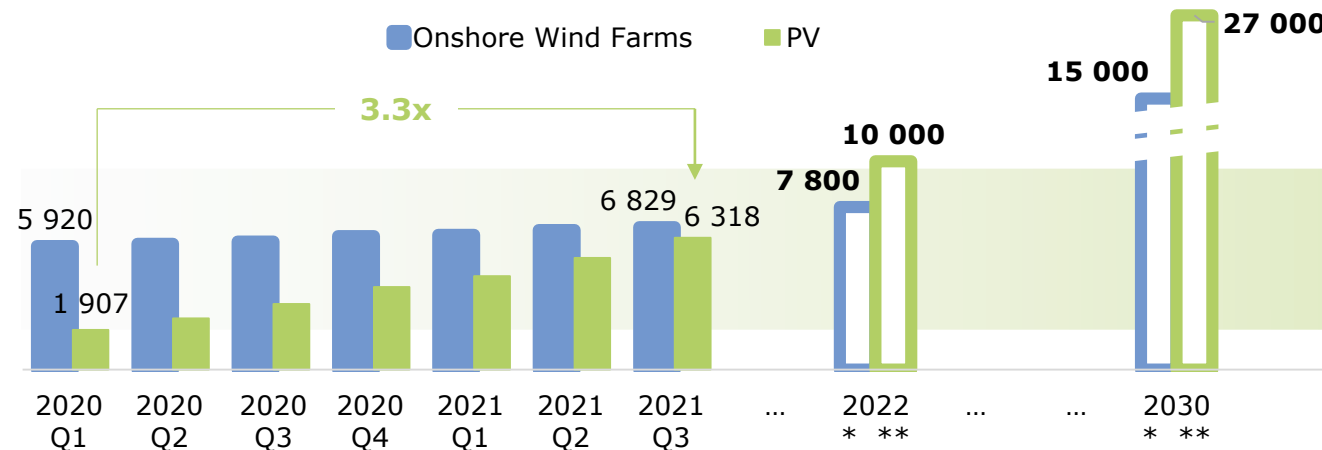
PV Farms

- ✓ Lowering costs of PV installations
- ✓ Low technology risk in investment life cycle
- ✓ Diversification of PGE Group RES assets portfolio

Onshore Wind Farms

- ✓ Proven technology
- ✓ High productivity
- ✓ High competences in maintenance services within PGE Group

Domestic installed capacity of Onshore Wind Farms and PV [MW]



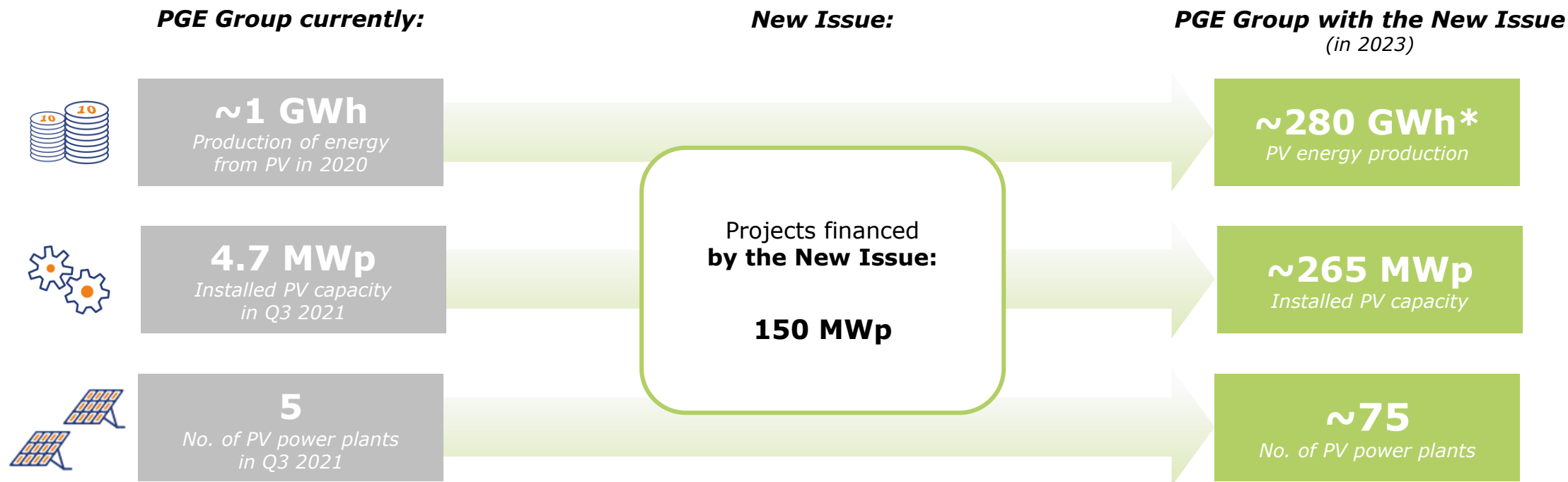
- The amount of installed PV capacity in Poland increased by more than 3.3x between Q1 2020 and Q3 2021
- IEO estimates the real potential of PV installations at 10 GW at the end of 2022 and 27 GW in 2030
- According to PWEA forecasts, Onshore Wind Farms power may double its capacity to 15 GW by 2030

*Source of PV power forecasts - Institute for Renewable Energy

**Source of onshore wind power forecasts - Polish Wind Energy Association, Report: "Onshore Wind Energy" - values for a conservative scenario

Source: ARE Quarterly Bulletin

Organic growth of RES portfolio - PV program



PGE Group currently:

- Significant advantage of wind farms in the RES asset mix
- Potential for expansion of PV asset portfolio

Required actions to implement PV asset development:

- ✓ Intensification of the PV program
- ✓ Internal development
- ✓ External development

New Issue will allow:

- ✓ Intensifying the development of PV projects
- ✓ Risk mitigation of decreasing connection capacities in the future

Objectives of PV development project

Program
assumptions

Projects financed
by the New Issue:

150 MWp

Assumed CAPEX for
investment realisation:

PLN 0.39 bn*

Funds from the
New Issue (equity):

PLN 0.12 bn**

Financial
perspective

Advantages over conventional power generation

Elimination of risk related
to the increase of prices
of CO₂ allowances

No risk of incurring new
CAPEX due to further
environmental restrictions

Secured energy sales
in RES auctions and PPAs

Energy
transformation
perspective

Realisation of public expectations, energy transformation and Strategy implementation

Meeting customer demands
for **energy supply from
RES**

**Increase the share of
RES** assets in the portfolio

Realisation of energy
sector decarbonisation

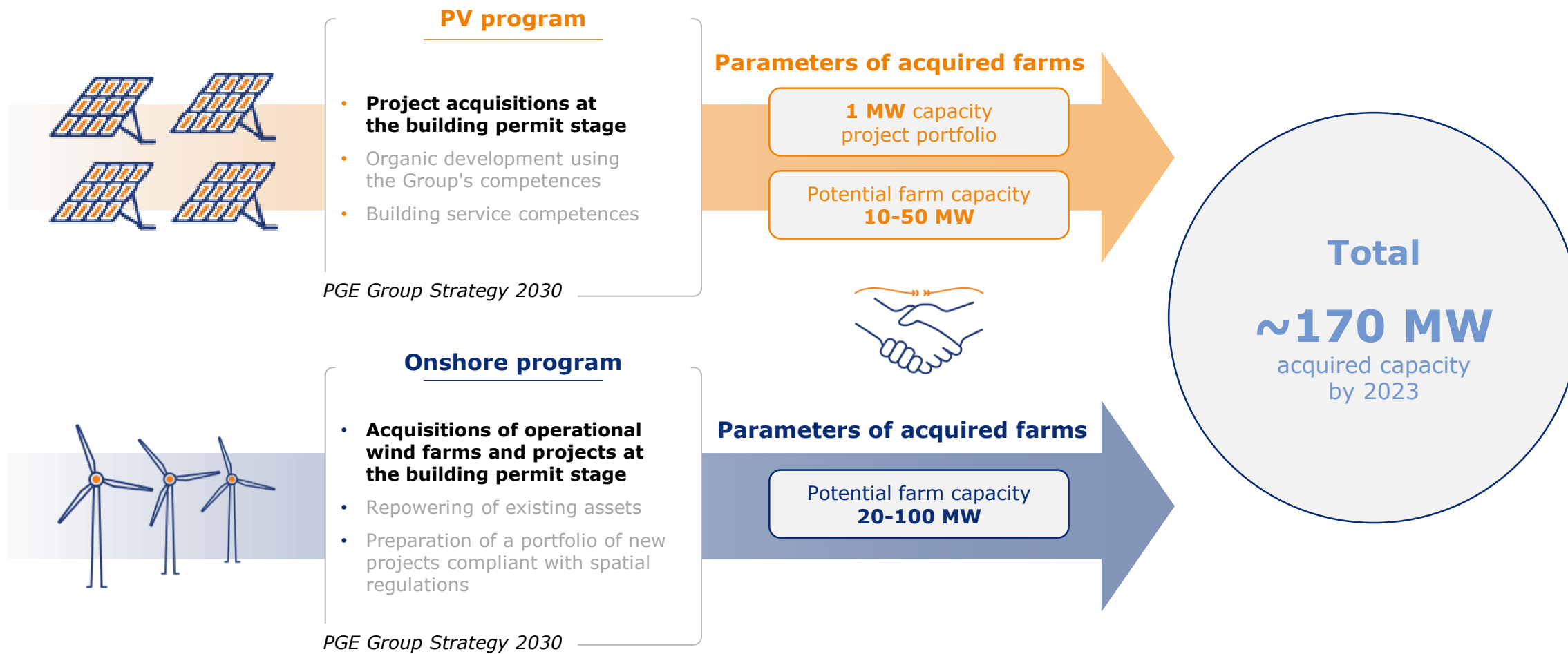
**Represents the total capital expenditure over the period 2022-2023 with a portion still to be incurred in 2024 (due to extended project realisation time)*

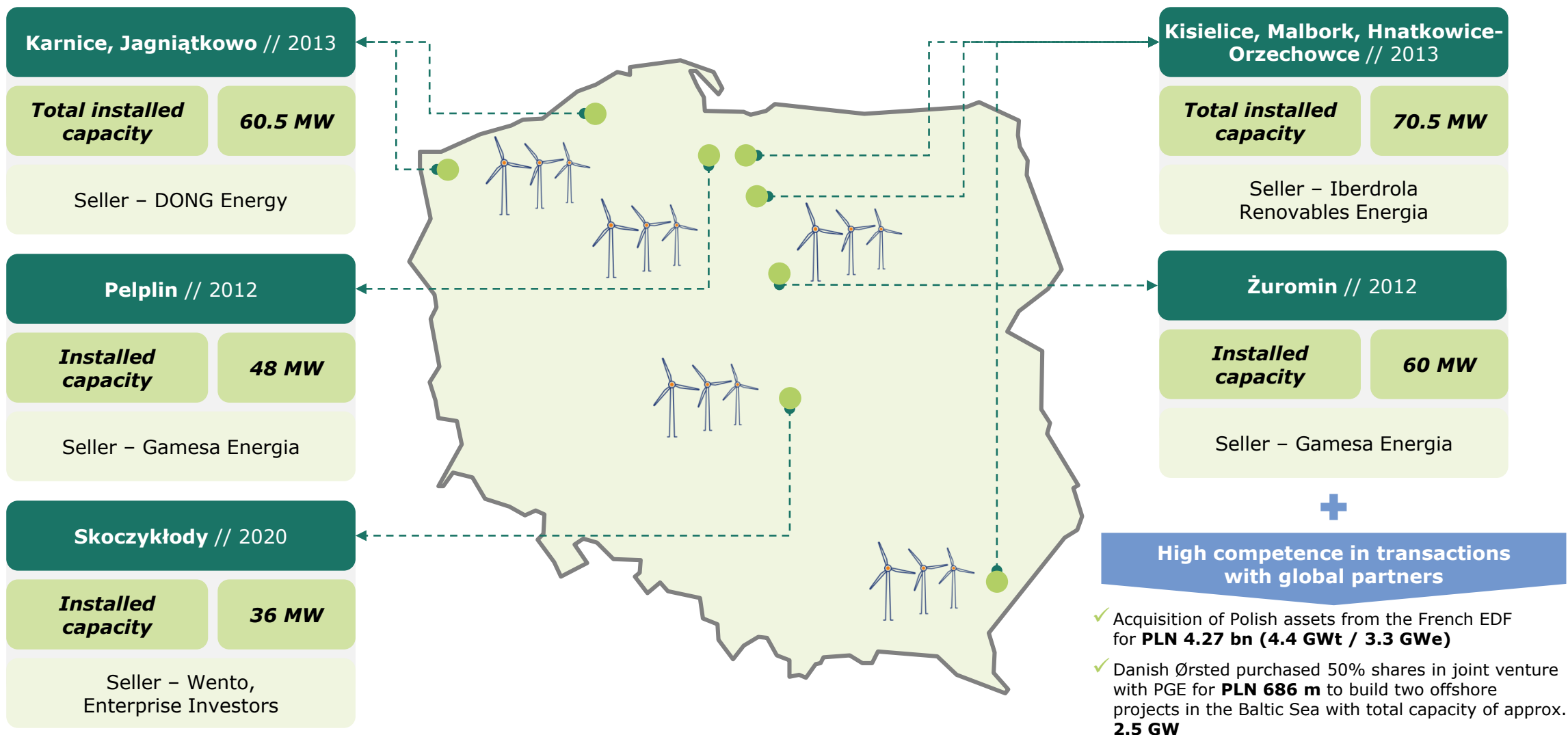
***The 2022-2023 period financed with New Issue proceeds assuming 30% equity*

Source: PGE Group

Growth of RES portfolio through acquisitions

Seeking market opportunities to accelerate business transformation





Objectives of RES acquisitions project

Program
assumptions

Acquisition of PV
and onshore capacity:

~170 MW

Assumed CAPEX for
investment realisation:

PLN 1.2 bn*

Funds from the
New Issue (equity):

PLN 0.35 bn**

Financial
perspective

Project economic profitability

Securing energy sales
in RES auctions and PPAs

Asset base growth will help to
develop a **cost-efficient**
service team

Energy
transformation
perspective

Meeting social expectations, transition and Strategy

**Providing customers
access** to green energy

**Increase of the share of
RES** assets in the portfolio

Acceleration of business
transformation

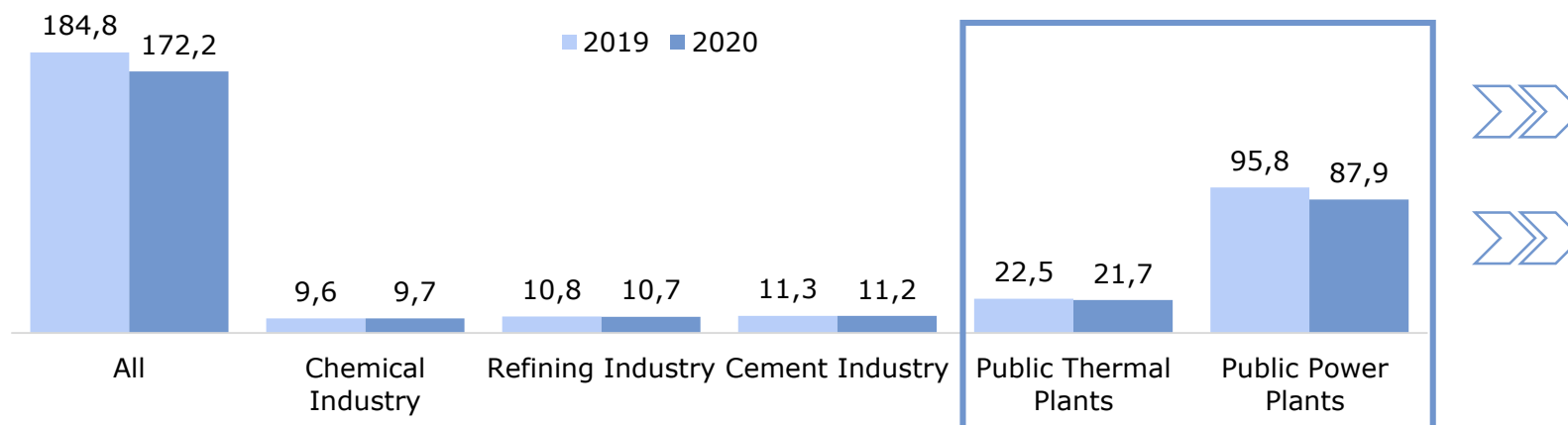
*Represents the total capital expenditure over the period 2022-2023

**The 2022-2023 period financed with New Issue proceeds assuming 30% equity

Source: PGE Group

The energy sector is going towards decarbonisation

Poland emission summary under the EU ETS [MtCO₂]



Public Thermal and Power Plants:

- are responsible for the largest share of **CO₂ emissions** and consequently are also exposed to significantly higher **variable costs** for **CO₂ allowances**

Decarbonisation of energy

BAT conclusions

Paris Agreement

PEP 2040

Growing public pressure

Just transition

The process of transition from a high to a low-carbon economy requires taking into account the well-being of those potentially vulnerable to transformation

✓ Gas solutions

- ✓ Low-carbon units **balancing RES**
- ✓ Replacement of non-complying to **BAT conclusions**, high emission units
- ✓ Gas solutions create new posts replacing these related to closing coal units

Low carbon CCGT projects are well suited to the decarbonisation of the sector



Decarbonisation through development of low-emission sources



BAT conclusions

- Compliance with the requirements of a low-carbon unit



Lower environmental risk

- A unit which can be adapted to more stringent environmental requirements in the future



Just transition

- Securing jobs by the new unit



Lower emission

- Gas units are characterized by lower CO₂ emissions compared to coal units, and thus lower exposure to changes in price of CO₂ allowances



Rebuilding power

- Rebuilding generation capacity in Rybnik



Decarbonisation

- Low-carbon unit, balancing increasing RES capacity

Specifications of the new unit

800-900 MW

net installed capacity

~62%

net electrical efficiency

~313 vs 900*

kg/MWh
CO₂ emission

17 years

of potential support from the Capacity Market

2027

potential share of the unit in the Capacity Market



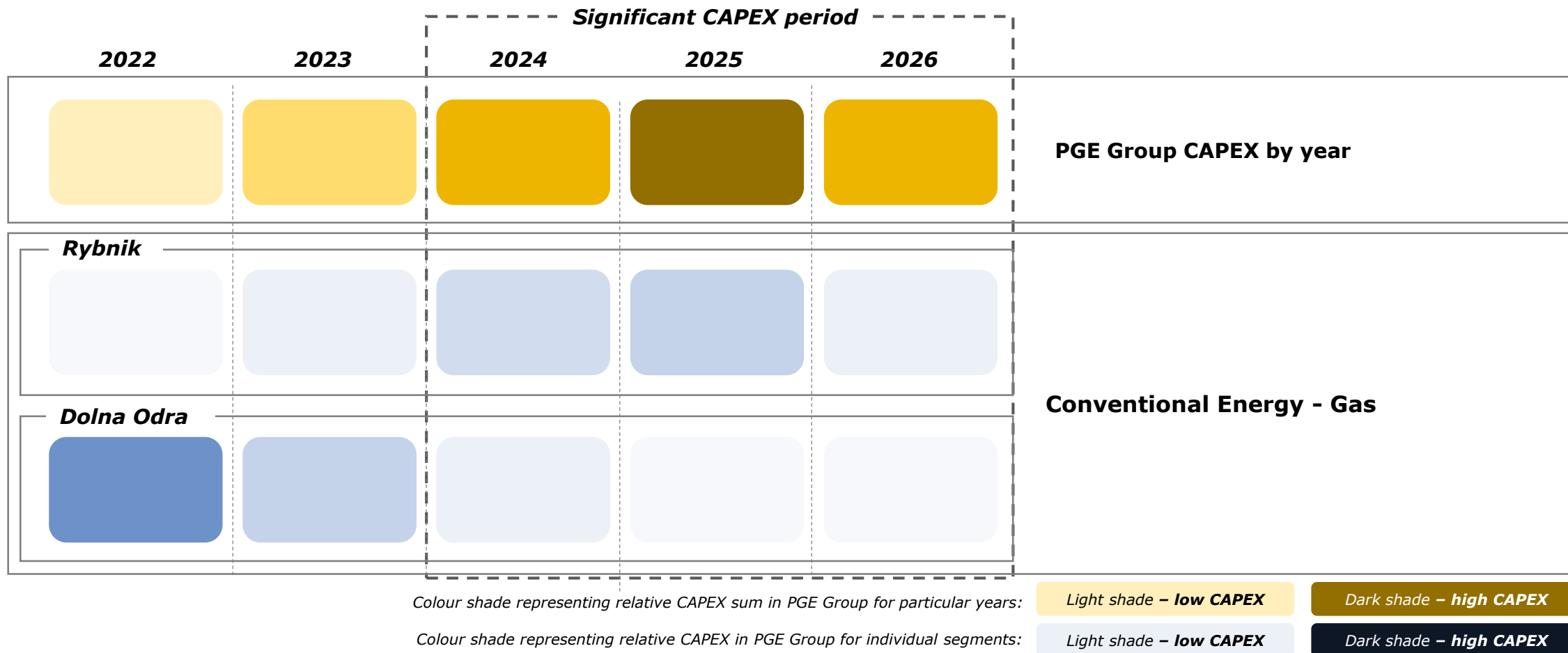
Modern high-efficiency conventional power generation

Unit capacity for energy security

Potential for co-firing of hydrogen

Capital expenditures accumulation in 2024-2026

- Capital expenditures related to the planned investment in Rybnik will coincide with PGE Group significant investments and additional expenditures on regulatory requirements
- Additional funds from the New Issue will secure financing for the investment in Rybnik, thus avoiding the risk of investment postponement and/or the need to look for a co-investor



Project schedule

2022

2023

2024

2025

2026

2027

- **Receipt of tenders for the construction of the block**
- **Participation in the Capacity Market auction for 2027 (December 2022)**
- **Final investment decision depending on the result of Capacity Market auction**

Entry to the site and CCGT project execution

**Commissioning
of the unit**

**Participation
in the Capacity
Market**

Objectives of CCGT Rybnik project

Program
assumptions

800 - 900 MW

Installation of a new low-emission gas unit potentially participating **in the Capacity Market in 2027**

Security of project funding

Assumed CAPEX for the entire project:

~ PLN 2.95 bn*

Funds from the New Issue (equity):

~ PLN 0.88 bn**

Financial
perspective

OPEX reduction

Reducing exposure to the risk of increasing CO₂ allowances

Lower risk of incurring additional OPEX due to further environmental requirements

Customer
perspective

Conscious customer

Addressing customer requirements for energy supply from **low-emission sources**

Adaptation to the **BAT conclusions**

Decarbonisation of the energy sector

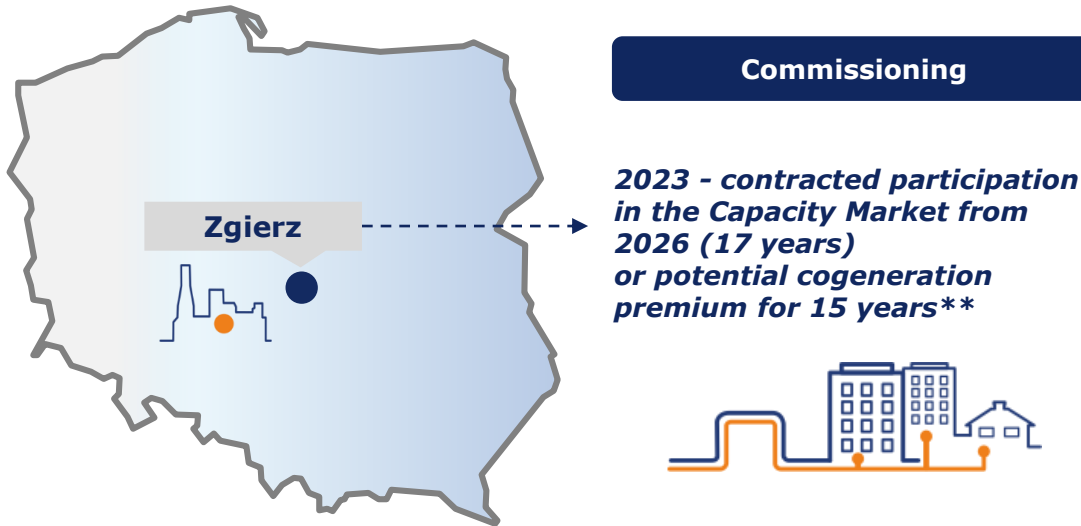
*Represents the total investment expenditure incurred

**Financed with New Issue proceeds assuming 30% equity

Source: PGE Group

A shift to gas is the next step in the transformation of district heating (1/3)

EC Zgierz decarbonisation project under the New Issue



Strategic rationale

Adaptation to the BAT conclusions

ECZ

- Investment execution will allow **to cover heat demand** in Zgierz after the old coal-fired boiler OF-100 is decommissioned
- Reducing the carbon intensity** of the generating units within the city of Zgierz

Key KPIs for the investment in Zgierz

Zgierz decarbonisation	New gas engines will cover heat demand resulting from the decommissioning of old coal-fired units		
Unit	Gas engines	Electrical efficiency	~43%
Thermal capacity	~13 MWt	Production of thermal energy*	341 TJ
Electrical capacity	~15 MWe	Electricity production*	83 GWh
Total CO₂ emissions	220*** kg/MWh	Emission NOx before****/after	261/<95 mg/m³

*Average annual energy production

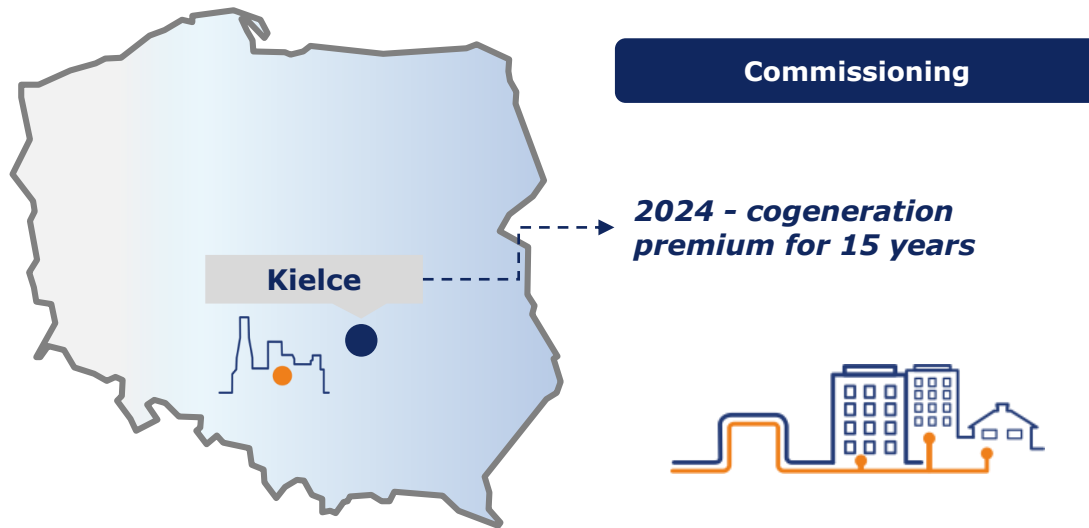
Participation in the cogeneration auction in March 2022; *The average emission for coal-fired CHP plants is 450 kg/MWh

****NOx min-max monthly average concentration range (I-XI 2021)

Source: PGE Group

A shift to gas is the next step in the transformation of district heating (2/3)

EC Kielce new OCGT construction project under the New Issue



Strategic rationale

Adaptation to the
BAT conclusions

ECK

- **Filling capacity deficit** after shutting down of the WP120 coal fired boiler and two WR-25 boilers
- Construction of a **new low-emission cogeneration system** with a gas turbine
- Investment execution will **cover heat demand** in Kielce

Key KPIs for the investment in Kielce

Kielce decarbonisation	Construction of a new OCGT system will cover capacity deficit caused by the shutdown of old coal units		
Unit	OCGT	Electrical efficiency	~30%
Thermal capacity	~14 MWt	Production of thermal energy*	298 TJ
Electrical capacity	~8 MWe	Electricity production*	46 GWh
Total CO₂ emissions	236** kg/MWh	Emission NO_x before**/after	344-367 / <35 mg/m ³

*Average annual energy production

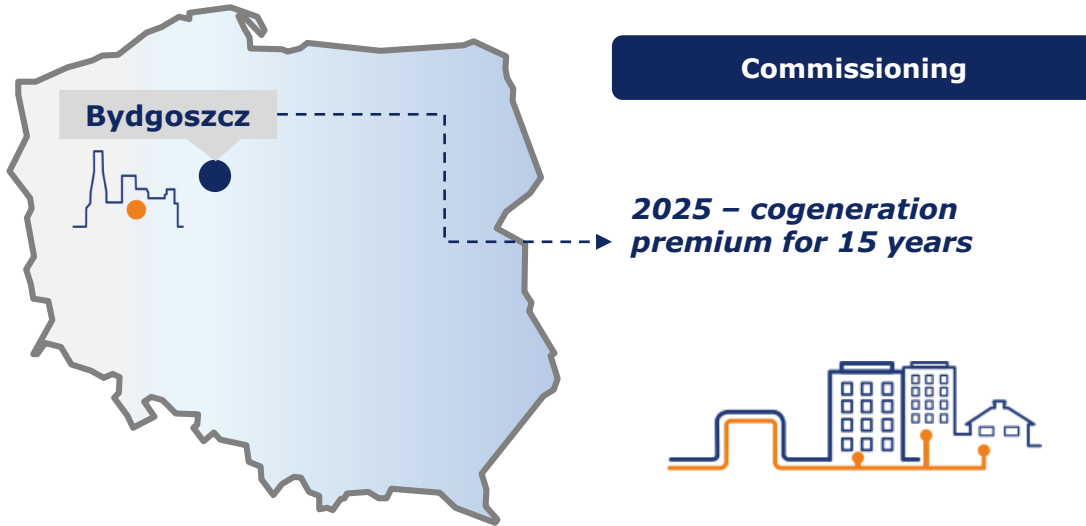
**The average emission for coal-fired CHP plants is 450 kg/MWh

***NO_x min-max monthly average concentration range (I-XI 2021)

Source: PGE Group

A shift to gas is the next step in the transformation of district heating (3/3)

EC Bydgoszcz decarbonisation project under the New Issue



Strategic rationale

Adaptation to the BAT conclusions

ECB

- **Covering capacity deficit** after decommissioning of older coal-fired boilers K1 and K2 in Bydgoszcz
- **Reducing the carbon intensity** of the generating units within the city of Bydgoszcz

Key KPIs for the investment in Bydgoszcz

Bydgoszcz decarbonisation	New gas engines will cover heat demand resulting from the decommissioning of old coal-fired units		
Unit	Gas engines	Electrical efficiency	~46%
Thermal capacity	~41 MWt	Production of thermal energy*	1.2 PJ
Electrical capacity	~54 MWe	Electricity production*	418 GWh
Total CO₂ emissions	253** kg/MWh	Emission NO_x before***/after	575-596 <75 mg/m³

*Average annual energy production

**The average emission for coal-fired CHP plants is 450 kg/MWh

***NO_x min-max monthly average concentration range (I-XI 2021)

Source: PGE Group

Project schedule

2022

2023

2024

2025

*Selection of the General
Investment Contractor*

EC Zgierz

Unit under construction

Commissioning of the new gas unit

EC Kielce

Unit under construction

Commissioning of the new gas unit

EC Bydgoszcz

Unit under construction

*Commissioning
of the new gas unit*

Program assumptions

Electrical / thermal power

ECZ: 15 MWe / 13 MWt

ECK: 8 MWe / 14 MWt

ECB: 54 MWe / 41 MWt

Year of commissioning

ECZ: 2023

ECK: 2024

ECB: 2025

Total CAPEX* / New Issue**

ECZ: PLN ~90 / 45 m

ECK: PLN ~70 / 35 m

ECB: PLN ~300 / 150 m

Financial perspective

OPEX reduction

Reducing sensitivity to **CO2 allowances** growth

Lower generation sources **maintenance expenditures** in the following years

Customer perspective

Meeting environmental and social expectations

More efficient and **environmentally friendly** heat producing

Improved air quality for surrounding urban areas in relation to coal-fired CHPs











Need for a **reliable and responsible** heat and electricity supplier

*Represents the total investment expenditure incurred

**Financed with New Issue proceeds assuming 50% equity

Source: PGE Group

New Issue projects make the Strategy realisation more effective

Three project groups financed by the New Issue		Distribution of the future I	Boost of RES development II	Decarbonisation through development of low-emission sources III
PGE Group Strategy	 Clean energy		✓	✓
	 Modern energy services	✓	✓	
	 Efficient and effective organisation	✓	✓	✓
Energy sector vision	 Decarbonisation		✓	✓
	 Decentralisation	✓	✓	
	 Competition	✓	✓	
Trends in energy industry	 Economic development	✓	✓	✓
	 Just transition			✓
	 Independence		✓	
	 New challenges	✓	✓	✓

Source: PGE Group

Effects of the New Issue proceeds

I

Distribution of the future

1

Increasing the share of MV cable lines in the PGE Group network

Funds from the
New Issue

PLN ~**0.61** bn

Effect

cable lines share SAIDI decrease
25% vs 23% **6 min**
MV in 2023 by 2023

2

Development of smart meters

Funds from the
New Issue

PLN ~**0.74** bn

Effect

meters installed no. of substations
2.25 m **60 k**
by 2025

3

Increasing the efficiency of the connection process

Funds from the
New Issue

PLN ~**0.26** bn

Effect

new customers avg. connection time
~**19 k** <**200** days
by 2023 in 2023

II

Boost of RES development

1

PV development program

Funds from the
New Issue

PLN ~**0.12** bn

Effect

installed PV capacity
150 MW
by 2023

2

Acquisitions of onshore wind and PV projects program

Funds from the
New Issue

PLN ~**0.35** bn

Effect

PV and Onshore acquisitions
170 MW
by 2023

III

Decarbonisation through development of low-emission sources

1

Financing of CCGT plant in Rybnik

Funds from the
New Issue

PLN ~**0.88** bn

Effect

net installed capacity
800-900 MW

2

Decarbonisation of CHP plants in Zgierz, Kielce and Bydgoszcz

Funds from the
New Issue

PLN ~**0.23** bn

Effect

thermal capacity electrical capacity
68 MW **77 MW**



Total funds of the New Issue

PLN ~**3.2** bn