

Annual Report 2017

PGNiG - Polish Oil and Gas Company

ANNUAL REPORT

2017

PGNiG
- Polish Oil and Gas Company



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


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Legend

Notes in the margins refer to information highlighted in the Report.

-  key to acronyms and abbreviations used in the Report
-  websites containing additional information
-  supplementary information, definitions and comments

(G4-1, G4-2) GRI indicator (Global Reporting Initiative)



Calendar of events in 2017



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ANNUAL REPORT 2017

PGNiG
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Business Model

Exploration & Production

The entire process of oil and gas exploration and production, from geological analyses, to geophysical surveys and drilling work, to field development and hydrocarbon production.



The transmission system operated by OGP GAZ-SYSTEM SA

Storage

The gas storage activities and services in underground facilities.



Distribution

The transmission of gas over the distribution network to retail and corporate customers.



Trade (retail sale)

Sales of natural gas to households and small & medium companies.



Trade (wholesale)

Sales of natural gas to the biggest industrial customers and PPX.



Generation

The production of heat and electricity, as well as execution of major natural gas-fired projects in the power sector.



Electricity network

Heat network

PSG's distribution network

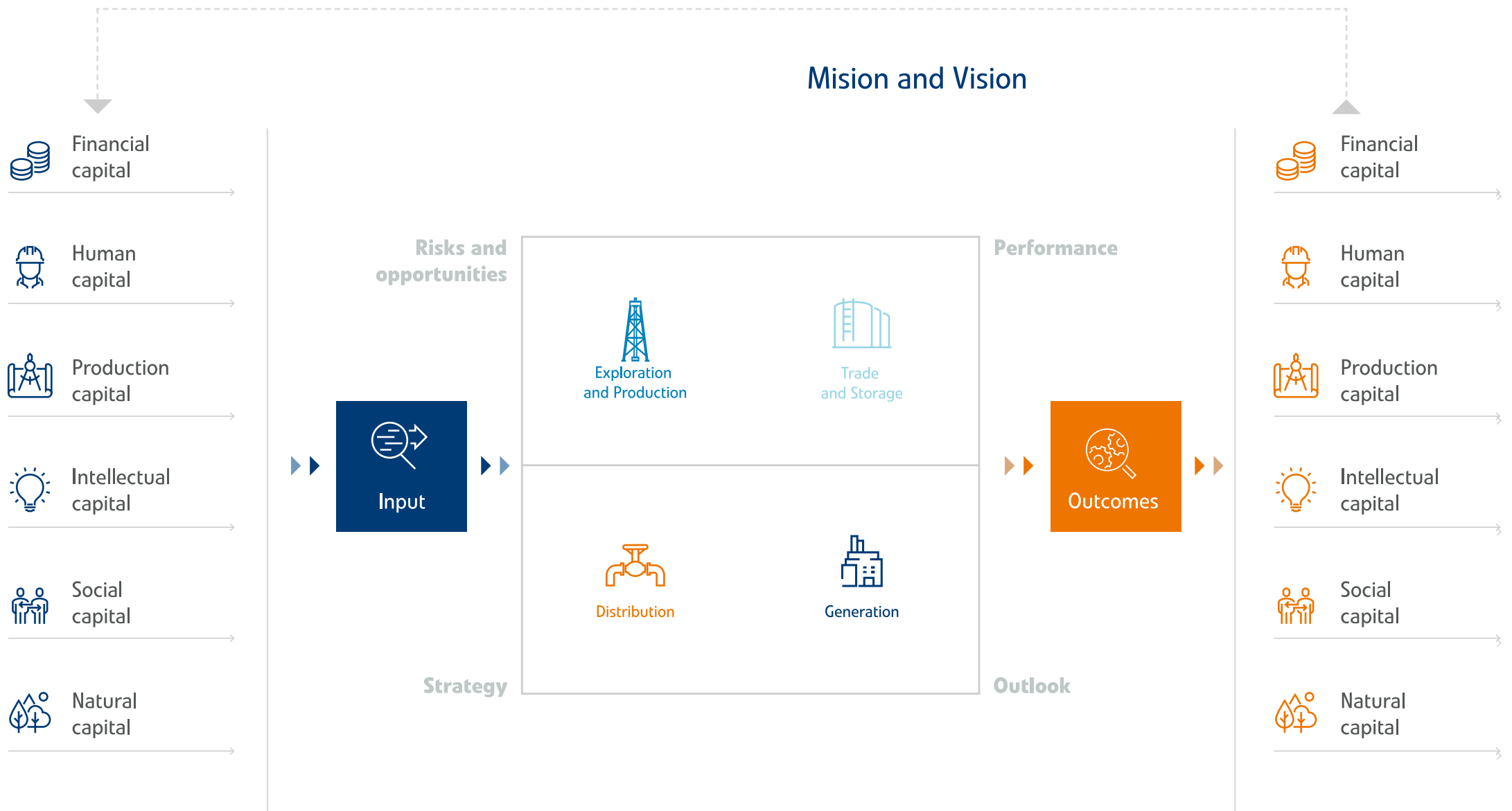
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Model of value creation

Mision and Vision



Letter from the Chairman of the Supervisory Board



Ladies and Gentlemen,

2017 was a special year for us as in March 2017 we announced the new Strategy of the PGNiG Group for 2017–2022 (with an outlook until 2026). Our last year's achievements show that the selected priority areas for investment and development were the right ones and that the Management Board successfully pursued its operational and financial objectives. The Group's performance and its leading position in the Polish industrial sector leave no doubt that the first phase of the strategy implementation process brought the expected effects. I believe the results produced by the Group in 2017 should be considered satisfactory by the Shareholders and Investors, as well as by the members of the Supervisory Board, who actively participated in the implementation of the strategy, and before that in the formulation of its assumptions.

Like every year, the Supervisory Board paid special attention to keeping the information policy at a high level and to ensuring that the corporate governance rules in place at PGNiG are strictly complied with. I am aware that because of the role PGNiG plays in ensuring Poland's energy security its stakeholders attach particular importance to the transparency of the Company's operations. In the opinion of the Supervisory Board, the Company properly fulfils its duty to ensure compliance with applicable disclosure requirements, national and international laws and the obligation to promote best practices for companies listed on the Warsaw Stock Exchange. It is worth noting that we increased the number of independent members of the PGNiG Supervisory Board who meet the criteria laid down in the Act on Statutory Auditors, Audit

Firms and Public Supervision, as well as in the Code of Best Practice for WSE Listed Companies. The Transparent Company of the Year award given to PGNiG for the second consecutive time by the Institute of Accountancy and Taxes and the Gazeta Giełdy Parkiet daily was a confirmation that the Company continued to work on its business transparency, information policy and the corporate governance rules.

In 2018, the Supervisory Board of PGNiG will further support the Management Board in its efforts to achieve the objectives defined in the Group Strategy for 2017–2022. We welcome any initiatives aimed at increasing the value of the Group and enhancing Poland's energy security. The current activities in the areas of owner's supervision and corporate governance will be continued to help PGNiG remain one of Poland's most transparent companies.

**With best regards,
Bartłomiej Nowak
Chairman of the Supervisory Board**

Letter from the President of the Management Board



Ladies and Gentlemen,

It is my pleasure to present to you the 2017 Annual Report of the PGNiG Group.

This past year was full of developments and decisions that set the direction of growth for the PGNiG Group in the coming years. In March, we unveiled a new strategy, which outlines our targets and aspirations for 2017–2022. The plan is ambitious, but we believe it is necessary to successfully meet the challenges of the rapidly changing market and technology environment. I am pleased to say that in the first year of the new strategy we already made substantial progress towards many of its objectives.

Our primary goal is to increase the PGNiG Group's value and ensure its financial stability. 2017 was successful in this respect. Revenue increased 8% year on year, to PLN 35.86bn, and EBITDA reached an all-time high of PLN 6.58bn. PGNiG SA was the fifth largest com-

pany on the Warsaw Stock Exchange in terms of market capitalisation.

Oil and gas prices rose significantly year on year, supporting the stellar performance delivered by our upstream business. But rising oil and gas prices had a major adverse impact on cost of gas, which was reflected by a negative contribution of the trading segment to EBITDA.

The performance of the gas distribution segment remained strong, fuelled by the robust growth of Poland's economy and stronger natural gas demand. Another important fact is that the heat and power generation business delivered solid performance for another consecutive year. The segment posted a year-on-year growth in revenue and record sales volumes of heat and power from our own sources.

In 2017, we successfully implemented a plan to diversify our sources of gas imports, leveraging the opportunities offered by the expanding LNG market. We diversified supply sources and contract types. For instance, we signed a supplementary agreement to the long-term contract with Qatargas increasing gas supplies from Qatar, as well as a medium-term contract for the supply of LNG from the US. We also imported gas from Norway and the US under spot contracts.

An important element of our diversification efforts is to increase our own production on the Norwegian Continental Shelf. After 2022 we want to produce 2.5 bcm of natural gas a year from our Norwegian assets, hence the decision to reserve capacity in the planned gas link between Poland and Denmark. The pipeline will be connected to the North Sea transmission system, enabling us to bring gas extracted in Norway to Poland.

Last year, retail gas sales recorded solid performance, with a series of contracts signed with new and existing strategic customers. We prepared attractive new deals for households.

Our strategy puts a strong focus on the heat and power generation business. A project to build a CCGT unit at the Żerań CHP plant in Warsaw with an electrical capacity of 497 MW and a maximum thermal capacity of 326 MW will help us to deliver on our plans. The unit will replace the old coal-fired plant, not only increasing the output, but also reducing air pollution in Warsaw. In 2018, we also plan to complete the construction of a 70 MWe and 120 MWt cogeneration unit at the Zofiówka CHP plant that will help to consolidate our position in the heat and power market in the Upper Silesia region.

In April 2017, we adopted the new PGNiG Group's Sustainable Development Strategy for 2017–2022, which supports and complements our business objectives. The awareness of the impact on the environment and the

responsibility for energy security are the foundations of this document. The CSR strategy obliges us to meet the highest standards in terms of transparent organizational culture, relations with employees and customers, pro-social attitude, as well as environmental protection activities.

In 2017, we moved forward on our research and development projects. The initial results of our coal bed methane production programme are very promising and have prompted a decision to expand and step up methane extraction.

I am confident that in 2018 we will continue to deliver on our commitment to strengthening our position in Poland and internationally and to building the PGNiG Group's value. We would like to thank our Shareholders, Customers and Contractors for the trust they place in us.

**Kind regards,
Piotr Woźniak
President of the PGNiG Management Board**



Environment and shareholders

Market and regulatory environment

Gas market

Polish gas market

The PGNiG Group plays a key role on the Polish gas market, being responsible for preserving Poland's energy security. To this end, it takes measures necessary to satisfy the steadily growing demand for gas fuel. The PGNiG Group ensures supply diversification by developing domestic deposits and sourcing gas from abroad, as the largest importer and supplier of natural gas in Poland. Gas is transported to Poland via an extensive transmission network, with LNG fed into the network as of 2016.

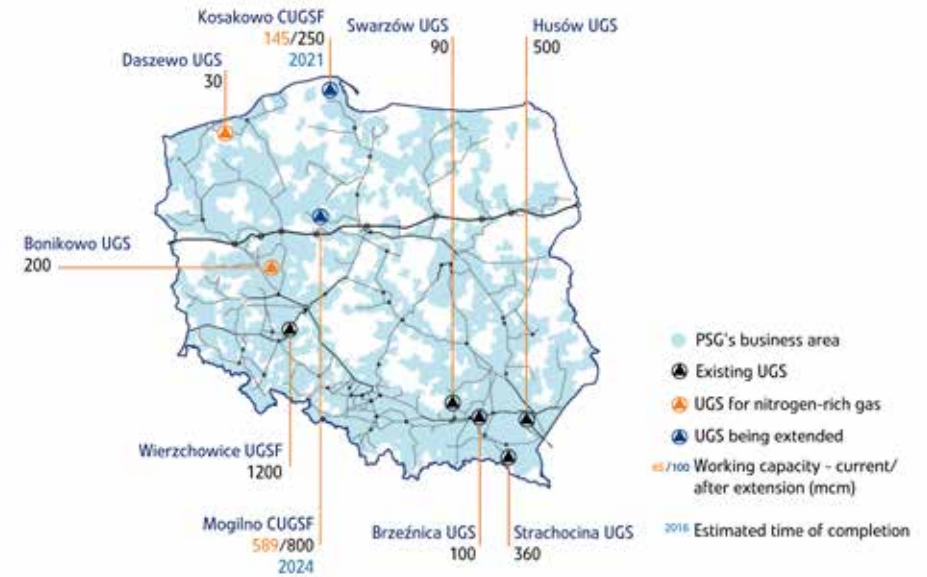
The Company delivers gas to end users through the distribution networks. The national gas system is complete with gas fuel storage facilities, used to cover seasonal and daily shortages of gas fuel. In gas fuel trading itself, the key role is played by the Polish Power Exchange where PGNiG has been the Gas Market Maker since 2013.

LNG - liquefied natural gas, natural gas condensed into liquid form.



Transmission system

Transmission system and reach of the distribution grid in Poland



Management of the transmission network and transport of natural gas via the national transmission network to deliver it to distribution grids and end users connected to the transmission system is the responsibility of GAZ-SYSTEM, a state-owned company. The existing transmission network comprises two operationally interlinked systems, the Transit Gas Pipeline System and the National Transmission System (high-methane gas [E group] and nitrogen-rich gas [Lw subgroup]). As at the end of 2017, the length of Poland's gas transmission network totalled over 11 thousand km. The volume of gas transmitted through the network amounted to 17.6 bcm in 2017 (excluding gas fuel transmitted in the OTC market and PPX).

In December 2017, the General Meeting of GAZ-SYSTEM approved the [National Ten-Year Growth Plan for 2018-2027](#). The planned infrastructure projects are primarily designed to meet the current and future demand for natural gas from domestic customers while ensuring uninterrupted gas supplies.

See also:
www.en.gaz-system.pl/strefa-klienta/do-pobrania/plan-rozwoju/

Existing and planned strategically important cross-border entry points into the transmission system



Gas flow

2017 saw growing volumes of gas fuel imported to Poland, which reached 167 TWh (up by 17 TWh, or approximately 11%), with an almost 5% decline in gas imported from east of Poland and a 58% increase in gas imports from the EU year on year. The majority of imported gas (approximately 59% of total flows) originated from countries east of Poland. According to GAZ-SYSTEM, the largest volume of natural gas was transmitted via the Drozdovitse point. As regards imports from the west, the largest flows were recorded at the Mallnow point.

In 2017, deliveries of liquefied natural gas by sea to the LNG Terminal were continued, which resulted in a 66% increase in the volume of gas regasified at the LNG Terminal compared to 2016. Gas exports to Ukraine also increased considerably (up 34% year on year).

Gas flows at Poland's gas grid entry/exit points

Entry/exit point (in TWh)	2017	2016	Change y/y
Supplies from EU	42.53	26.94	+58%
including Lasów, Gubin (GCP)	6.08	4.87	+25%
including Cieszyn	1.26	0.06	+1994%
including Mallnow	35.20	22.01	+60%
Supplies from across Poland's eastern border	106.04	112.11	-5%
including Drozdovitse	49.72	48.12	+3%
including Teterovka	0.88	0.82	+7%
including Kondratki	21.06	28.14	-25%
including Vysokoye	34.37	35.03	-2%
LNG regasification	18.47	11.14	+66%
Exports to Ukraine (mainly Hermanowice)	13.78	10.24	+35%
Total flow	180.82	160.56	+13%

Source: GAZ-SYSTEM

LNG in Poland

Since 2016, Polskie LNG SA has been operating in the area of collection and regasification of liquefied natural gas, with the company's LNG Terminal able to receive 5 bcm of gas per annum (after regasification). With growing demand for this type of gas fuel, the LNG Terminal's capacity may be increased even up to 7.5 bcm without expanding the project's site. The LNG Terminal is able to receive LNG tankers not larger than Q-Flex tankers, whose maximum capacity (depending on specific vessel) ranges from 210 to 218 thousand cubic meters of LNG (approximately 130 mcm of high-methane gas after regasification). The end product of gas regasification is fed into the national transmission grid via the Goleniów gas compression station, located over 80 km away from the LNG Terminal. LNG is also transported by tankers to regasification plants and stations located throughout Poland.

PGNiG considers LNG deliveries as a means to ensure gas supply security and diversification. The company initially reserved some 60% of the terminal's capacity to receive and regasify approximately 2.5 million tonnes (just over 3 bcm after regasification) of LNG annually. In 2017, PGNiG and Polskie LNG SA signed

an annex to the contract to increase reservation to 100% of the LNG Terminal's regasification capacity. The increase is valid until January 1st 2035. This means that as of 2018 the Company is able to import LNG by sea in the amount equal to approximately 5 bcm of natural gas per year after regasification.

In total, PGNiG imported 1.24 million tonnes of LNG via the LNG Terminal in 2017, which corresponds to approximately 18.8 TWh.

Distribution system

Distribution services are provided by one major distribution system operator Polska Spółka Gazownictwa and several dozen smaller local operators, whose networks are connected to the system operated by PSG or GAZ-SYSTEM.

Gas storage

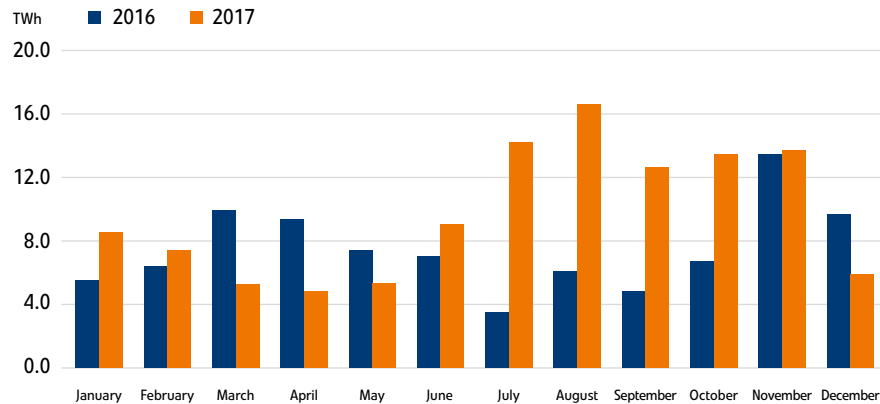
PGNiG owns 9 underground gas storage facilities in Poland. The average daily withdrawal of gas from Polish storage facilities over the withdrawal period amounted to 118.14 GWh in 2017, up 26% on the previous year. In the summer of 2017, gas was injected into storage at an average rate of 131 GWh/day, up 9.35 GWh/day on 2016.

Polish Power Exchange

PGNiG is the leader of gas trading at the PPX. According to PPX data, in 2017 the total gas trading volume was 138.7 TWh, of which 114.7 TWh was traded on the commodity forward instruments market (RTT). This means that

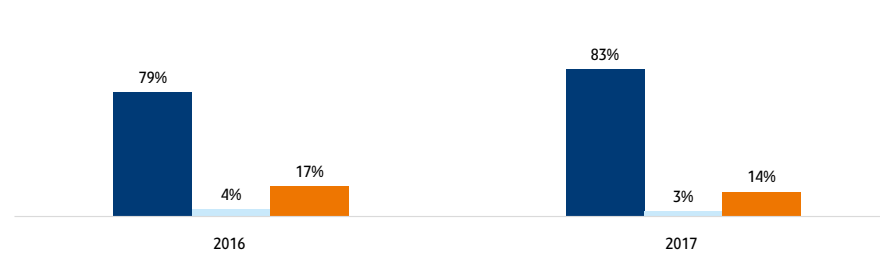
almost 83% of gas trades in 2017 were executed under contracts with maturities of a year, season (summer, winter), quarter, month, and week.

Commodity forwards (RTT) trading volume on the PPX in 2016 and 2017



Source: In-house analysis based on PPX data.

Contracts traded on the PPX in 2016 and 2017



■ Commodity Futures Instruments Market
 ■ Intraday Market
 ■ Day-Ahead Market

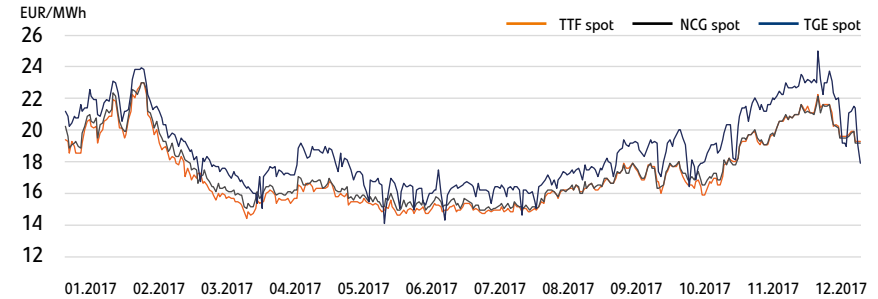
Source: In-house analysis based on PPX data.

There was an approximately 28% y-o-y increase in the volumes traded under commodity forwards. As at the end of 2017, there were 108 active participants in natural gas trading, a nearly two-fold increase on 2015, with 200 companies holding licences to trade in gas fuels, 3 more than the year before.

In 2017, the average spot price of gas in Poland was PLN 79.76/MWh, up by 18.5% year on year. PPX gas prices were strongly correlated with gas prices in Germany and other European markets. In 2017, the spread between spot prices on PPX and GASPOOL averaged EUR 1.49/MWh.

Gaspool (GPL) - German gas hub, a virtual natural gas trading in northern Germany.

Spot price of gas at PPX, TTF and NCG in 2017



Source: In-house analysis based on PPX data and EEX data.

International gas market

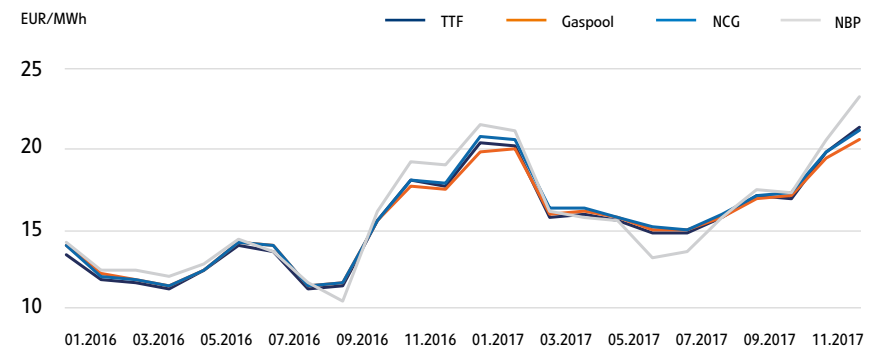
2017 saw an increase in natural gas prices on European markets. The average price of a month ahead contract on the Dutch TTF hub was by 22% higher relative to 2016.

The air temperature in winter was often lower than the seasonal standard, which

boosted the demand for gas for heating purposes. Failures occurred in the gas fields in Norway and the Netherlands, which temporarily limited gas supplies to Western European countries.

Title Transfer Facility - Dutch energy exchange, a virtual natural gas trading point in the Netherlands.

Average monthly spot prices of natural gas at selected European hubs in 2016-2017



Source: In-house analysis based on PPX data and EEX data.

Natural gas prices in 2017

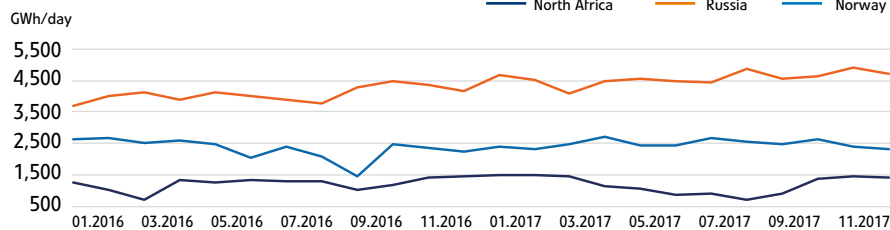
In 2017, the average price of natural gas in Europe increased by 21% compared with 2016. The highest growth rate (24%) was recorded at the German NCG hub and the Dutch TTF. The average price of gas on key European markets was EUR 17.34/MWh, compared with EUR 14.06/MWh a year before.

The first months of 2017 saw a number of disruptions in the supply of gas from the North. Reduced flows were due to unforeseen technical failures in the Kollsness and Troll fields. A failure affected also the Gronningen field in the Netherlands. The price increase at the NBP hub in October 2016 - February 2017 was caused by operational problems at the Rough storage facility, which consequently rendered it necessary to shut down the facility permanently. Reversal of the spread between the NBP and the hubs in the continental part of Europe seen in the first half of 2017 was a consequence of maintenance and repair works on the Interconnector pipeline – the only link for transmitting gas from Great Britain to the European continent. Further strengthening of prices resulted from a spike in the

price of oil, to which some of the European gas import contracts are still indexed, as well as numerous failures of Norwegian production infrastructure. A growth in gas demand in the French manufacturing sector in the face of limited energy output from nuclear power units also contributed to the increases. Demand for gas for generation purposes was also driven by the increase in prices of CO₂ emission allowances. The increase in gas prices at the end of the year resulted from lower temperatures and the explosion at the compressor station in Baumgarten, Austria.

In terms of daily average volumes of gas flow, over 1,663 TWh (152 bcm), representing 56% of last year's European imports via gas pipelines, originated from Russia. The share of Russian imports increased 2 pp year on year. Norway emerged as the second largest supplier of gas to Europe, providing 888 TWh (81 bcm), or 30% of total imports. The share of gas imports from Norwegian deposits dipped 1 pp relative to 2016. Exports from North Africa amounted to 410 TWh (37 bcm).

Sources of fuel imports to Europe



Source: Thomson Reuters

One of the main drivers of fluctuations in the volume of gas imports from the eastern direction in a given period is the price of oil. The flexible structure of purchase contracts linked to crude oil prices allowed European importers

to increase imports from the East during the slump on the crude oil market and scale back purchases from other directions (depending on the type of contract and price formula).

Gas inventory levels

At the end of 2017, volumes of gas stored in Polish gas storage facilities amounted to approximately 78% of the capacity and were 1 percentage point higher than at the end of 2016.

Progress in implementing infrastructural projects on the European gas market

The Baltic Pipe

The Baltic Pipe project is a strategic infrastructure project aimed at creating a new gas supply corridor on the European market. It is to enable the transmission of gas directly from deposits located in Norway to markets in Denmark and Poland, as well as to consumers in the neighbouring countries. In 2016, GAZ-SYSTEM and the Danish transmission system operator Energinet developed a feasibility study for establishing a new interconnector between two national markets in the form of a two-way offshore pipeline and expanding national transmission networks. Based on the positive results of the study, the annual transmission capacity of the Baltic Pipe was determined at up to 10 bcm to Poland and up to 3 bcm to Denmark and Sweden.

The progress of work on the Baltic Pipe project was as follows:

- In June 2017, the Polish and Danish prime ministers signed a memorandum concerning the gas pipeline, in which they restated their support for the implementation of this project.
- In June 2017, Phase 1 of the Open Season Procedure began. Its purpose was to examine the demand for gas pipeline transmission capacity among gas market players, and thus the advisability of the project. As part of this procedure, market players could submit requests for reservation of required capacity on a given gas pipeline.

- In July 2017, Phase 1 of the Open Season Procedure ended, confirming that the demand for the transmission of natural gas was sufficient to consider the project advisable.
- In September 2017, the operators GAZ-SYSTEM and Energinet commenced Phase 2 of the Open Season Procedure, under which the market players were expected to declare final volumes of reserved capacity and then sign transmission contracts for up to 15 gas years.
- On October 27th 2017, Phase 2 of the Open Season Procedures was completed. Under the procedure, PGNiG made a binding offer for capacity reservation in the period from October 1st 2022 to September 30th 2037. The liability was estimated at PLN 8.1bn.
- In November 2017, both operators obtained positive results of the economic viability test of the project. At the same time, the Baltic Pipe has been included in the third list of projects of joint interest of the EU, which is confirmed by the great importance of the construction of the gas pipeline for the entire community.
- In January 2018, PGNiG signed transmission agreements with GAZ-SYSTEM and Energinet. According to the project assumptions, by December 1st 2018 GAZ-SYSTEM and Energinet will have taken final investment decisions whose implementation is a precondition for launching gas transmission services via the Baltic Pipe.

Nord Stream 2

In November 2017, the European Commission submitted an amendment to the Gas Directive included in the Third Energy Package.

In this way, the Nord Stream 2 project would be subject to the provisions of EU law regarding the obligation to provide transmission capacity to not only the enterprises taking part in the project, but also the other market players. In January 2018, Nord Stream 2 announced on its website that it had obtained consent for the construction and operation of the offshore section of the Nord Stream 2 pipeline in the German territorial waters and in the municipality of Lubmin near Greifswald. According to the project's assumptions, the second line of the gas pipeline connecting Russia with Germany is to be placed in service by the end of 2019.

Turkish Stream

The Turkish Stream project, suspended at the end of 2015, was resumed on October 10th 2016 by Russia and Turkey, which signed an international agreement to construct two lines of the gas pipeline, to be brought on stream in December 2019. The pipeline's planned capacity is approximately 28–30 bcm, two times less than originally assumed. After obtaining the required consents, in May 2017, the commencement of practical implementation phase of the Turkish Stream project, i.e. commencement of construction of the offshore section of the pipeline, was announced.

Outlook for gas market

On the last trading day of 2017, natural gas exchanges recorded a drop in spot prices in all observed areas – the price of a spot instrument on GASPOOL was less than 19 EUR/MWh. The prices of all futures contracts in the Netherlands and of most contracts in Germany and the UK were also on a downward trend despite growing prices of contracts for crude oil and coal.

Many analysts are forecasting a further decline of natural gas prices in 2018, not only because of the high crude output levels in the

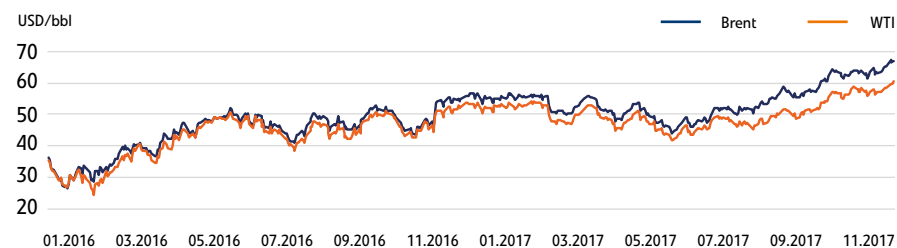
US, but also due to an impressive natural gas production growth across the Atlantic. Based on EIA data, in 2018 alone gas production volumes in the US may grow by nearly 7 bcm.

Crude oil market

In early 2017, prices of crude oil remained stable. The high oil prices seen in December 2016 continued throughout the first quarter of 2017 as the oil producers involved in a deal to reduce crude oil output (OPEC countries, Russia and other non-OPEC countries) gradually delivered on their commitments. Nevertheless, crude oil prices fell in March over growing concerns among investors that output cuts would not be fully implemented. Saudi Arabia, Kuwait and Angola fully complied with their commitments, while the United Arab Emirates and Venezuela were nowhere near their target. Eventually, crude oil output declined to 90% of the total agreed limit of 1.8m barrels per day. However, investors argued that the deal may not be a lasting one given the lack of solidarity between the countries involved. What is more, the accelerating production of shale oil in North America and a gradual increase in oil stocks in the US mitigated the effect of reduced oil supply from the OPEC countries on its price. Oil price rebounded temporarily in April when the US Department of Energy announced the first weekly decline in oil stocks since the beginning of the year. Despite this, stockpiles were still record-high and the price of oil began to fall again.

Crude oil prices in 2017

Brent and WTI oil prices in 2016 and 2017 (month ahead contract)



Source: ICE – Intercontinental Exchange

Despite the lack of solidarity between the countries declaring output limitation, the OPEC group together with partner countries agreed to extend oil production cuts for another nine months. As a result, oil prices rose sharply. However, only a few days later the increase was halted by the news of growing production levels in Libya and Nigeria, which were exempt from the programme due to the consequences of civil wars in those countries. Combined with record-high crude stocks in the US, the production growth rates in Libya and Nigeria undermined investors' confidence in positive effects of reduced supply from OPEC countries in the following nine months. As a consequence, on June 21st the price of crude fell to the year's low of USD 44.82 per barrel.

Starting from July 2017, a steady upward trend was observed, driven by information about the first in 24 weeks drop in the number of active wells in the US as well as Saudi declarations on further reduction of exports and rumors of prolonging OPEC's production curb deal. At the end of August, the US coast was hit by hurricane Harvey, as a result of which the output from US refineries declined by more than 25%. The tense situation in the Middle East due to Kurdistan's independence aspirations, Hurricane Nate, which brought to a standstill facilities accounting for 90% of oil production in the Gulf of Mexico, and further reduction of oil stocks in the US, were other factors fuelling price increases. At the OPEC summit held at the end of November in Vienna, a decision was made to extend the oil output curbs until the end of 2018.

Crude oil demand and supply worldwide

bn bbl	Demand		Supply	
	2016	2017	2016	2017
OECD	46.75	47.20	26.54	27.29
including the US	19.69	19.87	14.85	15.56
non-OECD	50.12	51.30	70.67	70.65
including China	12.81	13.26	4.87	4.78
including former USSR countries	-	-	14.22	14.33
including OPEC	-	-	39.23	39.28
Worldwide	96.87	98.50	97.21	97.94

Source: EIA - U.S. Energy Information Administration

Brent oil - a blend of crudes produced from fields in the North Sea, used as a benchmark in oil pricing.

WTI - (ang. West Texas Intermediate) - a grade of crude oil used as a benchmark in oil pricing.

1 barrel of crude oil is equal to approximately 42 US gallons or 35 UK gallons.

ICE
(Intercontinental Exchange) - a U.S. based exchange specializing in trading in energy and commodities.

NYMEX - New York Mercantile Exchange.



Outlook for crude oil market

On the last trading day in 2017, prices of crude on fuel exchanges were close to their two-year highs – Brent front month on the ICE market was quoted at above 66 USD/bbl, and WTI front month on the NYMEX exchange – at above 60 USD/bbl. Oil price forecasts for 2018 are highly divergent. Some analysts predict that the price of the commodity may rise even to 80 USD/bbl, citing geopolitical risks and the consequent reduced supply of oil to the market as the basis for their predictions. Others are forecasting a price drop on strong supply of crude from the US. The sharp rise in US shale oil production has for many years been strongly constraining global oil price growth and may result in oil prices on the global exchanges falling below 55 USD/bbl.

Regulatory environment

Regulatory environment in Poland

Energy Law



The Energy Law is the main legal act governing the operation of the energy sector. In particular, it specifies the rules of development of the national energy policy, matters concerning the supply and use of fuels, energy and heat, and lays down rules of operation applicable to energy companies. The Energy Law also defines the bodies competent for matters of fuel and energy management.


As at December 31st 2017, the PGNiG Group held the following licences granted by the President of Energy Regulatory Office under the Energy Law:

- three licences to trade in gas fuels (PGNiG, PGNiG OD, PST);

In 2017, the provisions of the Energy Law were not amended significantly. In connection with amendments to the Act on Emergency Stocks, the rules of granting licences to sell natural gas abroad were clarified.

- one licence to trade in natural gas with foreign partners (PGNiG);
- three licences to produce electricity (PGNiG, PGNiG TERMIKA, PGNiG TERMIKA EP);
- four licences to trade in electricity (PGNiG, PGNiG OD, PGNiG TERMIKA, PGNiG TERMIKA EP);
- two licences to produce heat (PGNiG TERMIKA, PGNiG TERMIKA EP);
- one licence to trade in heat (TERMIKA EP);
- two licences to transmit heat (PGNiG TERMIKA, PGNiG TERMIKA EP);
- two licences to liquefy natural gas and regasify LNG at LNG regasification plants (PGNiG, PSG);
- one licence to store gas fuel in storage facilities (GSP);
- one licence to distribute gas fuels (PSG);
- one licence to distribute electricity (PGNiG TERMIKA EP).

The Energy Law of April 10th 1997 (consolidated text: Dz. U. of 2017, item 220 as amended).

 Act on Stocks of Crude Oil, Petroleum Products and Natural Gas, and on Rules to be Followed in the Event of Threat to National Fuel Security or Disruptions on the Petroleum Market of February 16th 2017 (consolidated text: Dz.U. of 2017, item 1210, as amended).

Act on Emergency Stocks



The Act on Emergency Stocks lays down the rules of creating and maintaining emergency stocks of natural gas, and procedures for monitoring and proper enforcement of the act. The act also sets out the rules to be followed in the event of threat to Poland's energy security.

On July 7th 2017, the Act Amending the Act on Stocks was passed. The amendments remove interpretation uncertainties reported by market participants and introduce a number of administrative improvements. The main changes include clarification regarding the principles of providing the ticketing service, introduction of transparent rules for release of emergency stocks, including related settlements, and further clarifications regarding the data and information exchanged between the transmission system operator and the storage system operator. The Act Amending the Act on Emergency Stocks also confirmed that the volume of emergency stocks of gas is calculated based on net imports. All of the aforementioned amendments have a positive effect for PGNiG as they dispel uncertainties in the interpretation of certain provisions of the Act on Emergency Stocks.

Energy Efficiency Act



The Energy Efficiency Act establishes an energy efficiency obligation scheme, which implements into the Polish legal system the provisions of Directive 2012/27/EU of the European Parliament and of the Council of 25 October 2012 on energy efficiency, amending Directives 2009/125/EC and 2010/30/EU and repealing Directives 2004/8/EC and 2006/32/EC. According to these laws, entities covered by the statutory obligation are required to reach

final energy savings of 1.5% each year. The Energy Efficiency Act references two principal ways to fulfil this obligation:

- to implement a project or projects designed to improve end customers' energy efficiency;
- to obtain an energy efficiency certificates and to submit the certificates to the President of URE for redemption.

The act provides for the option to fulfil the obligation by paying a substitution fee. However, as a rule this option cannot be exercised to cover more than 30% of the obligation for 2016, 20% for 2017, and 10% for 2018. The act significantly increases the substitution fee and provides for its annual indexation. It also imposes an obligation to conduct an energy efficiency audit every four years.

Act on Special Hydrocarbon Tax



Act on Special Hydrocarbon Tax stipulates a special tax regime, where the tax base is the surplus of revenue generated from hydrocarbon extraction activities in a given year over the qualifying expense incurred in a given tax year. The date of receipt of receivables is deemed the date on which revenue from hydrocarbon production is generated. The date of making payment is deemed the date on which qualified expenditure is incurred. The obligation to pay special hydrocarbon tax will apply in respect of revenue generated after January 1st 2020.

Geological and Mining Law



The Geological and Mining Law among others, the rules, terms and conditions for performing geological work, extraction of minerals from deposits, storage of waste matter in rock mass

(including in worked-out caverns), protection of mineral deposits, underground waters and other components of the environment in connection with geological works and extraction of minerals.

Business activities consisting in exploration for and appraisal of mineral deposits, extraction of minerals from deposits, tankless storage of substances and storage of waste in rock mass, including in worked-out caverns, require a licence. Geological and mining activities are subject to supervision by competent geological and mining supervision authorities. These authorities monitor the performance of licence obligations by businesses, with particular focus on timeliness of their performance and submission of current information based on the progress of geological work documentation.

In accordance with the amended Geological and Mining Law, for two years now, a new upstream business licensing system has been in force. A single licence is granted for exploration, appraisal, and extraction of hydrocarbons. The grant of such combined licence is only possible in tender proceedings carried out ex officio. It should be pointed out that in 2017 the Minister of the Environment announced the tender procedure for combined licence grant with respect to eight out of the ten areas. The Minister plans to announce tender procedures for 17 areas in 2018.

In 2017, the Minister of the Environment continued work on drafting another amendment to the Mining and Geological Law. The purpose of the new law is to simplify the regulations applicable to administrative proceedings with regard to exploration, appraisal and extraction of hydrocarbons.

The new regulations are expected to bring about:

- higher transparency of the provisions of the Act following removal of problems with correct interpretation of the

provisions of the Act and errors preventing proper conduct of administrative proceedings with respect to exploration, appraisal and extraction of hydrocarbons, which will result in faster and more transparent proceedings;

- performance by entrepreneurs of geological work to a wider extent than before by allowing them to apply for licences for areas they consider prospective (entrepreneurs will themselves request the authority to conduct the proceedings).

Capacity Market Act




The Capacity Market Act defines the organisation of the capacity market and sets out the rules of provision of the service consisting in remaining on standby to supply electricity to the power system, including to supply electricity to the power system in emergency periods. The purpose of the act is to ensure medium-term and long-term security of electricity supply to end users in a cost-effective, non-discriminatory and sustainable manner.


Diversification Regulation





Regulation 'Diversification Regulation' prescribes the maximum share of gas that may be imported from a single country of origin in the total volume of gas imported in a given year. For 2017-2022, the maximum share is 70%, and for 2023-2026 – 33%.


The thresholds defined in the Diversification Regulation are convenient for PGNiG as they allow the Group to continue the performance of long-term import contracts concluded under the auspices of the Republic of Poland.

 The Energy Efficiency Act of May 20th 2016 (Dz.U. of 2016, item 831).

 Act on Special Hydrocarbon Tax of July 25th 2014 (consolidated text: Dz.U. of 2016, item 979).

 Capacity Market Act of 8 December 2017 (consolidated text: Journal of Laws of 2018, Item 9).

 The Council of Ministers' Regulation of October 24th 2000 on the minimum level of diversification of foreign sources of gas supplies (Dz.U. of 2000, No. 94, item 1042).

 Regulation of the Minister of Economy of July 2nd 2010 on specific conditions for the operation of the gas system (consolidated text: Dz.U. of 2014, item 1059, as amended).

System Regulation



Regulation on specific conditions for the operation of the gas system (specifies the rules of operation of the gas system set forth in the Energy Law. In particular, it lays down the rules and conditions for applying for grid connection, procedure for trading in gas fuel and ability to provide services in the gas system, including the manner of handling complaints, balancing and transmission constraints management; it also outlines the terms of cooperation between market participants.

According to the Minister of Energy's Regulation of January 10th 2017 equipment and installations used for gas fuel transmission may be only connected to gas transmission networks with a diameter of DN 1,300 or higher. The Regulation has also raised the capacity threshold for customers authorised to be connected to the transmission network from 5,000 to 45,000 cm³/h, thus expanding the operating reach of distribution companies and stabilising the transmission and distribution market.

Tariff Regulation



Tariff Regulation sets out the principles for determining tariffs for gas fuels, in particular the calculation of prices and rates, as well as the rules of settlements between market participants.

In 2017, PGNiG and PGNiG OD were held gas fuel trading tariffs.

Moreover, in 2017 GSP applied gas storage services tariffs, whereas PSG applied gas distribution services tariffs and liquefied natural gas services tariffs.

In Generation segment, their own tariffs held: PGNiG TERMIKA (for heat generated) and PGNiG TERMIKA EP (for heat generated and for electricity distribution services).

Pursuant to the transitional provisions for the Energy Efficiency Act, the current Tariff Regulation will cease to apply on or before March 31st 2018. Legislative work on a new regulation commenced in 2017. PGNiG has been actively participating in this work, presenting its positions and putting forward proposals aimed at protecting the interests of the PGNiG Group and its customers.

European regulatory environment

SoS Regulation

Following the publication of the new draft **SoS Regulation**, PGNiG informed competent public authorities of the risks related to PGNiG's activities, and presented the position of the PGNiG Group to representatives of the European Commission and the European Parliament.

SoS Regulation is aimed at preventing disruptions in the supply of natural gas to Member States, or mitigating their effects if they occur.

Regulation (EU) 2017/1938 of the European Parliament and of the Council of October 25th 2017 concerning measures to safeguard security of gas supply and repealing Regulation (EU) No 994/2010 entered into force on November 1st 2017.

Third Energy Package

In 2017, the **Third Energy Package** continued to be the all-inclusive framework governing the European energy (gas and electricity) market. The Package included five acts of law drawn up by EU institutions in 2009.

The objective of the Package is to boost competition on the European energy market and create the internal energy market based on mechanisms such as ownership unbundling, organisation of cooperation between regulators and energy companies (**ACER**, **ENTSO-E** and **ENTSO-G**), or introduction of network codes.

TAR NC Regulation

September 30th 2016 saw the adoption of Commission Regulation (EU) establishing a network code on harmonised transmission tariff structures for gas. The objective of the Regulation is to gradually reduce discrepancies between tariff models applied in individual Member States. Legislation work carried out by the European Commission, aiming to unify the tariff structures in the EU, is designed to facilitate cross-border trade conducted by participants of the European gas market.

NC CAM Regulation


Commission Regulation (EU) No 459/2017 of 16 March 2017 establishing a Network Code on Capacity Allocation Mechanisms in Gas Transmission Systems and repealing Regulation (EU) No 984/2013 is to promote the building of correctly operating interconnected transmission network systems, which would provide the foundation for further development of the EU internal energy market through harmonisation of mechanisms that ensure transparent and non-discriminatory terms of transmission capacity allocation.

Compared to the repealed Regulation 984/2013, the new law introduces a detailed framework for the Open Season procedure. It is a process supporting the development of gas transmission systems, in which transmission capacities are offered for both completely new interconnectors as well as for the expansion of gas transmission infrastructure.

EU ETS


The EU Emission Trading Scheme imposes the obligation to account for CO₂ emissions and regulates the allocation of free emission allowances for heat and electricity. Under the ETS Directive, emitters of greenhouse gases (including CO₂) are obliged to account for their emissions by surrendering their CO₂ emission allowances by April 30th each year for the preceding year. If the number of emission allowances is too small, the excess emissions penalty of EUR 100 per tonne of CO₂ is imposed, and the operator must acquire and surrender the necessary number of emission allowances.


In November 2017, an agreement was reached between the Council of the European Union and the European Parliament regarding the framework for the emission allowance trading system after 2020. The agreement assumes a linear decline in the number of emission allowances (the reduction coefficient) by 2.2% per year, with a potential for increasing this number in connection with the implementation of the Paris Agreements.

 Regulation of the Minister of Economy of June 28th 2013 on detailed rules for determining and calculating tariffs for gas fuels and on settlement of transactions in gas fuels trade (Dz. U. of 2013, item 820).

 Regulation (EU) No. 994/2010 of the European Parliament and of the Council of October 20th 2010 concerning measures to safeguard security of gas supply.

 EU ETS - the European Union's Emission Trading System.

 ACER - Agency for Cooperation of Energy Regulators, an organization that aims to coordinate and support the cooperation of national regulators.

 ENTSO-G - European Network of Transmission System Operators for Gas, organization of European transmission system operators.

Probability that the risk will materialise:

●○ low
●● moderate
●●● high

Risk materiality level:

○ low
● moderate
●● high

The risk comparison (2017 vs 2016)

↑ rise
→ stable
↘ fall

Regulatory risks

Elimination of administrative price control

●○● ●○○ ↘

In connection with the ruling by the Court of Justice of the EU of September 10th 2015 on the system of regulated gas fuel prices, changes to the regulations on administrative price control were required. PGNiG expressed its opinion that liberalisation of gas prices was the key element of gas market liberalisation. At the same time, the Company emphasised that the process must be conducted in such a manner as to guarantee billing continuity in contracts with customers, as the inability to guarantee continuity of billing is a risk to the Company's business.

Obligation to diversify gas imports

●○● ●○○ ↘

The Council of Ministers' Regulation of April 24th 2017 on the minimum level of diversification of foreign sources of gas supplies prescribes the maximum share of gas imported from a single country in total gas imports in a given year. In 2017–2022, the share may not exceed 70%.

Upholding of the decision to exempt the OPAL pipeline from the Third Energy Package regime

●●● ●○○ →

Pursuant to two decisions issued under Art. 36 of Directive 2009/73 of July 13th 2009 concerning common rules for the internal market in natural gas and repealing Directive 2003/54 /EC, Opal Gastransport GmbH, the operator of the OPAL pipeline, benefits from the exemption from the need to grant third-party access to transmission capacity. The infrastructure is used by Gazprom, which controls 50% (under a decision from 2009) and de facto 100% (under a decision from 2016) of the OPAL pipeline's capacity. As a result of the recent exemption from the third party access (TPA) rule, Gazprom is able to transmit approximately 55 bcm of natural gas annually to the European Union, bypassing the traditional supply routes (the Yamal and Bratstvo gas pipelines).

The exemption decisions adopted by the European Commission and the German regulator Bundesnetzagentur in 2016 allow the Russian gas major to implement its long-term strategy of preventing the development of supply

diversification projects in Central and Eastern Europe and thus make the region dependent on Russian gas. In view of these facts, PGNiG, PST, the Polish government and Naftohaz (a Ukrainian gas trading company) filed complaints against the decision of the European Commission to the General Court of the European Union, requesting an injunctive relief in the form of suspension of decision execution. PGNiG and PST also filed a complaint against the German regulator's decision with a German court in Dusseldorf.

Winter package (electricity) – Clean energy for all Europeans

On November 30th 2016, as part of the so-called Winter Package, the European Commission announced proposals of new electricity-related regulations. Their objective is to ensure that the European Union is capable of meeting the commitments assumed under the Paris Agreement (COP21) and, after achieving the target, that the EU economy evolves towards a low-emission economy.

Some provisions of the legislative proposals included in the Winter Package pose a significant threat to the PGNiG Group's operations. First of all, the introduction of the emission level criterion – as proposed now, at a level of 550 g of emitted CO₂ when generating 1 kWh – may be a regulatory barrier in the area of activity on the capacity market.

Draft amendment to Directive 2009/73

The proposed amendment to Directive 2009/73 (forming a part of the Third Energy Package) announced in the third quarter of 2017 is aimed at confirming the applicability of the directive to the infrastructure associated with imports to the European Union, extending as far as the limits of the European Union's jurisdiction, understood as the limit of territorial seas and exclusive economic zones of Member States. The directive addresses

the demands made by some entities operating on the internal market in natural gas, including PGNiG, according to which it is necessary to define the limits of applicability of EU laws. Under the existing legal regulations this is unclear, which disrupts the operation of the internal market in natural gas and adversely affects the integration of Member States.

Non-compliance risk

●●● ●○○ →

PGNiG has an organisationally and functionally separated Compliance unit. The functional separation was effected through the 'PGNiG Compliance Programme', adopted by the Management Board of PGNiG on June 30th 2015. In line with the non-compliance risk management model, each area at risk of non-compliance was assigned a dedicated non-compliance risk area manager (leader), who is in charge of ensuring that compliance standards are met.

The non-compliance risk (risk of breach of compliance standards) may arise in various areas, and pertain to:

- (I) the financial area, in the form of fines, damages, compensations and other liabilities that may arise for the Company,
- (II) the Company's reputation, the loss of which can also have financial ramifications,
- (III) the operational area, and
- (IV) the Company's value for stakeholders, including shareholders.



Shareholders and the capital market

Shareholders

As at December 31st 2017, the share capital of PGNiG was approximately PLN 5.78bn, and comprised 5,778,314,857 shares with a par value of PLN 1 per share. Series A shares were ordinary bearer shares and each share

conferred the right to one vote at the General Meeting. The State Treasury remains PGNiG's majority shareholder.

In 2017, there were no changes in the shareholding structure.

Shareholding structure at the end of 2017

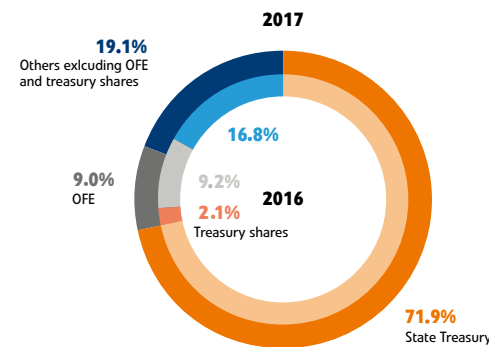
Shareholders	Number of shares/ votes attached to the shares as at Dec 31 2016	Percentage of share capital/ total voting rights at the GM as at Dec 31 2016	Change in 2017	Number of shares/ votes attached to the shares as at Dec 31 2017	Percentage of share capital/ total voting rights at the GM as at Dec 31 2017
State Treasury	4,153,706,157	71.88%	-	4,153,706,157	71.88%
Treasury shares	-	-	-	-	-
Others, including:	1,624,608,700	28.12%	-	1,624,608,700	28.12%
- OFE ¹⁾	532,390,415	9.21%	-	521,999,228	9.03%
Total	5,778,314,857	100.00%	-	5,778,314,857	100.00%

¹⁾ Data based on annual asset specifications of open-end pension funds as at December 29th 2017.

Institutional investors, primarily open-end pension funds (OFE), pension fund management companies, as well as Polish and foreign investment funds, held over one-fifth of all shares issued by PGNiG. Nearly 10% of the Company shares were in the portfolios

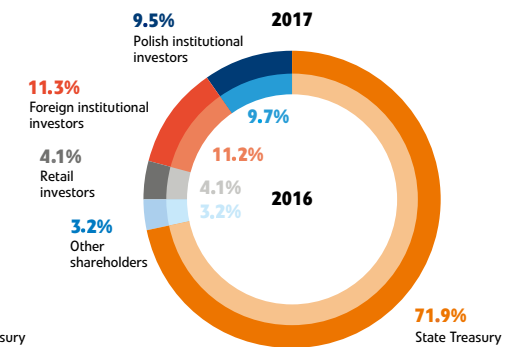
of Polish investors, and close to 10% were held by foreign institutions – mainly from the United States and Europe. As regards European investors, most PGNiG shares were held by UK entities (over 2%).

Shareholding structure comparison



Source: in-house analysis based on annual asset specifications of open-end pension funds as at December 29th 2017.

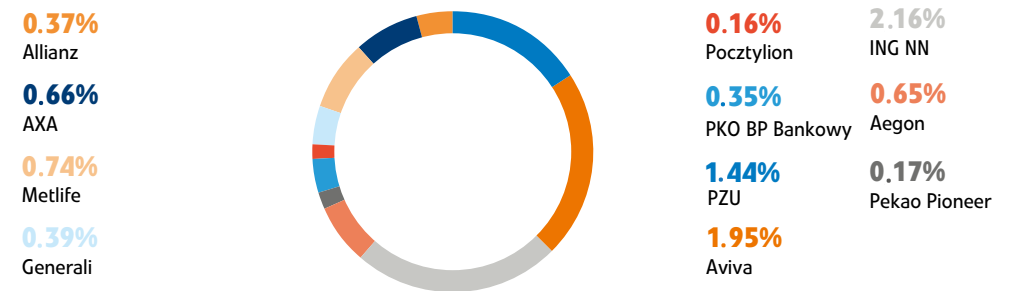
Shareholding structure by investor type



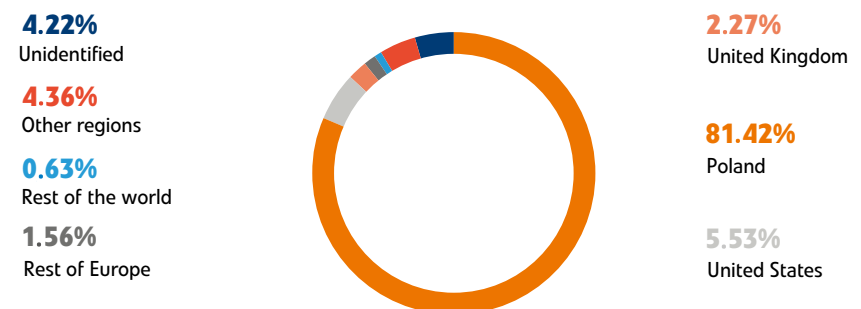
Major holdings of PGNiG shares were included in the portfolios of open-end pension funds, which at December 29th 2017 held more than 9% of PGNiG's equity, valued at just under PLN 3bn. Relative to 2016, the number of shares held by open-end pension funds dec-

lined slightly, by 0.2 pp. Based on the closing price on the last trading day in 2017, the value of PGNiG shares held by open-end pension funds rose nearly PLN 300m relative to 2016.

Percentage of PGNiG share capital held by open-end pension funds at the end of 2017



Shareholding structure by geography



Source: in-house analysis.

36.3

PLN bn market capitalization

on December 31, 2017

Share price on the Warsaw Stock Exchange

Since September 23rd 2005, the PGNiG stock has been listed in the continuous trading system of the main market on the Warsaw Stock Exchange. The issue price in the Company's public offering was PLN 2.98. In 2017, PGNiG shares were included in the following indices: WIG, WIG20, WIG30, WIG-Poland, RESPECT Index, WIGdiv, and WIG-PALIWA (sectoral index).

spot price of gas on PPX in 2017 was 9% higher than in 2016);

- Ongoing deregulation of the gas market in Poland.

In the first quarter of 2017, the PGNiG stock slid to the year's low of PLN 5.19 (on January 20th 2017). The most important day in Q1 2017 for PGNiG stock price was February 16th. After the publication of very favourable, from the perspective of market participants, operating result estimates for Q4 2016, the trading volume of PGNiG shares soared to its highest level in 2017. At the close of trade on February 16th 2017, PGNiG stock was priced at PLN 5.85, up by more than 5%. The second major event that occurred in Q1 2017 was the announcement of the PGNiG Group Strategy for 2017–2022 with an Outlook until 2026. With the second largest trading volume in 2017, PGNiG share price retreated by more than 2%. Some investors and analysts were sceptical about the Strategy's assumption regarding the estimated EBITDA to be earned in 2017–2022, given the relatively strong rise in capex. Nonetheless, in Q1 2017 PGNiG share price went up by over 6% (closing price on March 31st 2017 compared with the closing price on January 2nd 2017).

Q2 2017 saw another rally in PGNiG stock. Investors appreciated the earnings guidance published on April 20th. This event sparked an upward trend in the stock price, which reached PLN 6.57 on May 4th 2017 (the quarter's maximum). However, just two weeks later, on May 18th 2017, the closing price fell back to PLN 6.08. This change was mainly due to the general market factors – over the same period WIG20, the Polish blue-chip index, also dropped considerably (down nearly 4% from May 4th to May 18th, based on the closing prices). On June 28th 2017, the Annual General Meeting of PGNiG passed a resolution to distribute profit for 2016. The dividend amount was PLN 1.156bn (PLN 0.20 per share).

The upward trend seen for most of Q3 2017 ended with an all-year high of PLN 6.95 on August 28th 2017. On July 19th, PGNiG published estimated operating results pointing to some positive factors, such as a rise in the volume of gas sold (beneficial to the Trade and Storage and Distribution segments). On the downside, investors noted a relatively low level of hydrocarbon production in Poland. Ultimately, at the close of trade on July 20th 2017, the stock price dropped by almost 2%, to PLN 6.61. The price of PGNiG shares rose again to PLN 6.83 on August 31st, mainly as a result of a positive reaction to, among other things, the expected impact of amendments to the Act on Stocks and the possibility of a favourable resolution of the arbitration proceedings against Gazprom regarding the revision of the pricing formula (under the Yamal contract).

In Q4 2017, the PGNiG stock continued to recede and fell back to below PLN 6 (PLN 5.81 at the close of trading on December 21st 2017).

On December 29th 2017 (the last trading day in the year), the PGNiG stock price closed at PLN 6.29. The price was nearly 111% above the issue price of 2005 and 65% above the closing price on the first day of listing. Factoring in the dividends of PLN 1.66 per share paid in 2005–2017, investors who acquired PGNiG shares at the closing price on the issue date and held them until the end of 2017 saw a profit of 134%.

Performance of PGNiG shares vs WSE indices

Index / PGNiG stock price*	Value as at Dec 31 2016	Value as at Dec 31 2017	Value low in 2017	Value high in 2017	PGNiG's weight in the index as at Dec 31 2017
WIG	51,754 pts	63,746 pts	51,908 pts	65,734 pts	2.95%
WIG20	1,948 pts	2,461 pts	1,957 pts	2,552 pts	4.55%
WIG30	2,243 pts	2,825 pts	2,249 pts	2,932 pts	4.23%
WIG-Poland	52,584 pts	65,184 pts	52,741 pts	67,224 pts	3.02%
RESPECT Index	2,516 pts	3,078 pts	2,525 pts	3,297 pts	8.23%
WIGdiv	1,040 pts	1,214 pts	1,043 pts	1,278 pts	9.45%
WIG-Paliwa	5,669 pts	7,140 pts	5,432 pts	8,679 pts	21.68%
PGNiG	PLN 5.63	PLN 6.29	PLN 5.19	PLN 6.95	-

Source: WSE, www.gpw.pl

*PGNiG stock price and index values based on closing prices, excluding the ex-dividend day effect.

The PGNiG share price movements ranged between -17% (the lowest closing price of PLN 5.19 on January 20th 2017) to +12% (the highest closing price of PLN 6.95 on August 28th 2017) from the 2017 average closing price of PLN 6.23. To compare, fluctuations of the WIG20 index ranged between -16% (the lowest value of 1,956.72 points on January 2nd 2017) and +9% (the highest value of 2,551.78 points on October 11th 2017). Compared with 2016, both the PGNiG stock and WIG20 index fluctu-

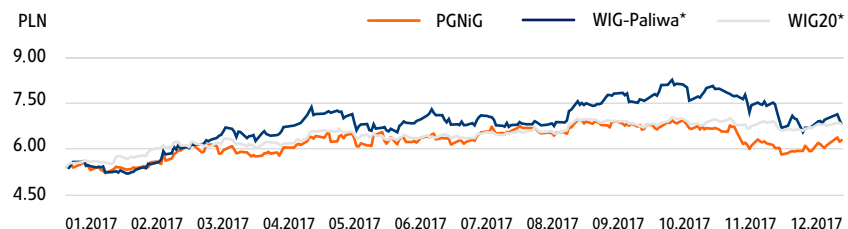
ated within a much wider range. The probable reasons behind their changes included:

- Fluctuations in Brent crude prices – low prices towards the end of Q2 2017, with the minimum at USD 44.44 per barrel, followed by a rise from mid-Q3 2017 and a maximum in December with USD 71.20 per barrel (up 17.4% from the beginning of the period);
- Drop in prices on PPX in Q2 2017 and a significant rise in Q4 2017 (the average



For more
on EBITDA,
see p. 185.

PGNiG share price vs WIG20 and WIG-Paliwa indices



Source: WSE.

*Rebased to PGNiG share price.

Rates of return on WSE indices vs PGNiG stock in 2017 and from PGNiG's IPO¹

Index	Rate of return in 2017	Rate of return from PGNiG's IPO ² to Dec 31 2017
WIG	23.17%	91.87%
WIG20	26.35%	0.19%
WIG30	25.94%	11.25% ³
WIG-Poland	23.96%	99.13%
WIG-Paliwa	25.72%	114.92%
RESPECT Index	22.34%	88.82% ⁴
PGNiG	11.72%	65.03% ⁵

Source: WSE, www.gpw.pl

¹ Rates of return do not include dividends paid in 2005–2017.

² Closing price on September 23rd 2005.

³ Data calculated in relation to the value of the WIG-30 index at the end of its first trading day (September 23rd 2013).

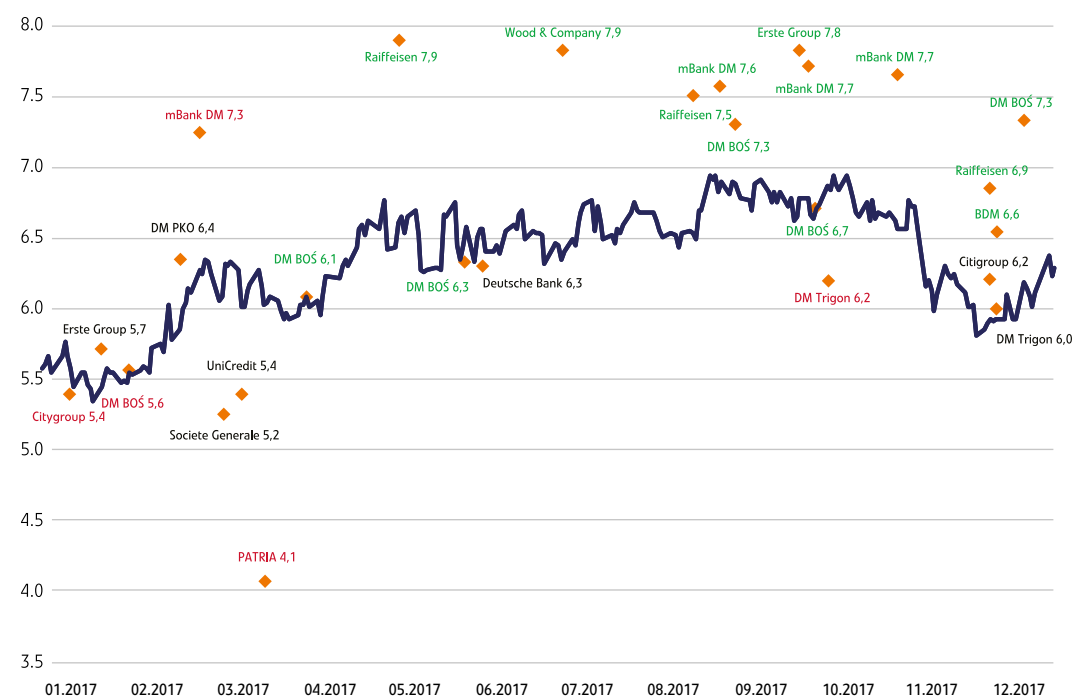
⁴ Data calculated in relation to the value of the RESPECT Index at the end of its first trading day (November 19th 2009).

⁵ Relative to the issue price of PLN 2.98, PGNiG shares yielded a rate of return of 111%.

The funds holding the largest equity interests in PGNiG were those managing the largest portfolios of future pensions, that is Nationale-Nederlanden, AVIVA and PZU Złota Jesień. The share of open-end pension funds in the PGNiG shareholder base rose significantly from the IPO in 2005, when it accounted for 3.5% of the share capital (valued at PLN 711m). Pension funds are typically long-term investors whose equity portfolios are characterised by low turnover, especially with respect to large dividend-paying companies, such as PGNiG.

They have a stabilising effect on the Company's shareholding structure, while limiting its free float, which can translate into lower trading volumes. In the case of PGNiG shares, the daily trading volume averaged PLN 21.8m in 2017, down by PLN 3.7m compared to 2016.

Analysts' recommendations along with the target price in 2017



Financial and stock market indices

Key metrics ¹	Unit	2017	2016	2015	2016/2017 change (%)
Net profit attributable to owners of the parent	PLNm	2,923	2,351	2,134	23.3%
Earnings per share ²	PLN	0.50	0.40	0.36	25%
Stock price at the close of trading on last session day in the year	PLN	6.29	5.63	5.14	11.7%
Average stock price in the year	PLN	6.23	5.16	5.94	20.7%
Number of shares outstanding	million shares	5,778	5,778	5,900	-
Capitalisation at year end	PLNm	36,346	32,532	30,326	11.7%
Average daily trading volume	million shares	3.5	4.9	4.7	-28.6%
Average daily trading value	PLNm	21.7	25.5	27.9	-14.5%
Dividend amount ³	PLNm	1,156	1,062	1,180	8.9%
Trading multiples²					
P/E at average share price	-	12.22	12.69	16.41	
P/E at year end	-	12.33	13.85	14.21	
P/BV at year end	-	1.08	1.02	0.99	
EV/EBITDA	-	5.59	5.53	5.02	
Dividend per share ³	PLN	0.20	0.18	0.2	

Source: WSE, www.gpw.pl

¹ Attributable to holders of ordinary shares in the parent (in PLN).

² Prices at close.

³ Dividend from previous year's profit.

Number of recommendations

	2017	2016
Buy	15	13
Sell	4	9
Hold	7	11

Recommendations for shares

Relative to 2016, the Company's coverage by equity analysts fell (by over 21% year on year), mainly due to a lower number of

analysts actively providing coverage on the Company. However, there was an increase in 'buy' recommendations (from 13 in 2016 to 15 in 2017), with a clear drop in 'sell' recommendations (from 9 to just 4).

Rating

Agency	Rating	Outlook	The last update
Fitch Ratings	BBB-	stable	20.04.2017
Moody's Investors Service	Baa3	stable	16.05.2017

Dividend

The decision on dividend payment by PGNiG is made by the General Meeting. The strategy provides for distribution of up to 50% of consolidated net profit as dividend. In its recommendations on dividend payment, the PGNiG

Management Board will always take into account the current financial condition of the PGNiG Group and its investment plans.

Dividend paid

	2016	2015	2014	2013	2012
Dividend for financial year (PLNbn)	1.16	1.06	1.18	0.89	0.77
Dividend per share (PLN)	0.20	0.18	0.20	0.15	0.13
Average annualised share price (PLN)	5.16	5.94	4.85	5.83	4.06
Dividend yield	3.88%	3.03%	4.12%	2.57%	3.20%

Clients

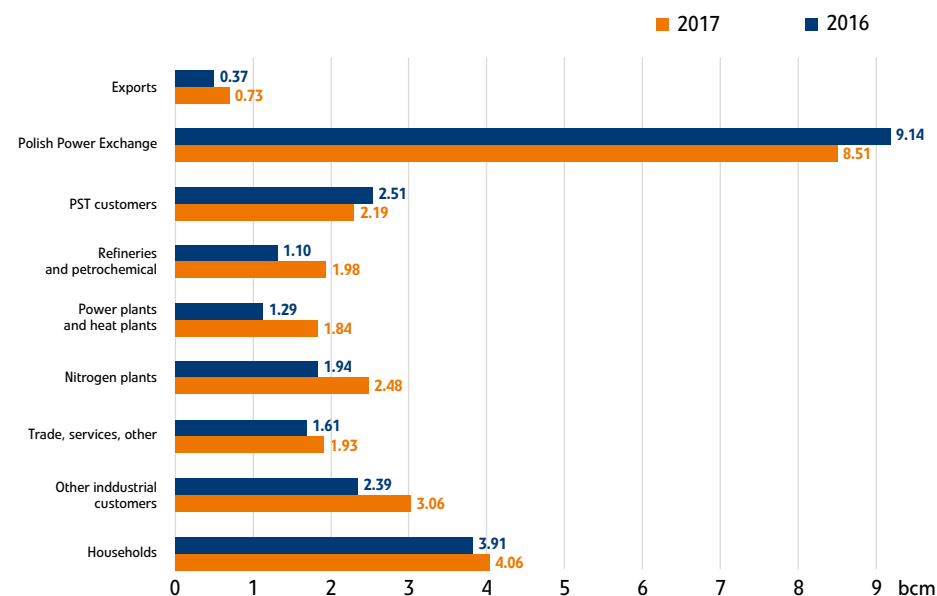
Sales and distribution of gas

PGNiG Group is the largest natural gas supplier on the growing Polish gas market (CAGR +2,7% in 2005-2017).

Polska Spółka Gazownictwa is the owner of approximately 96% of Poland's distribu-

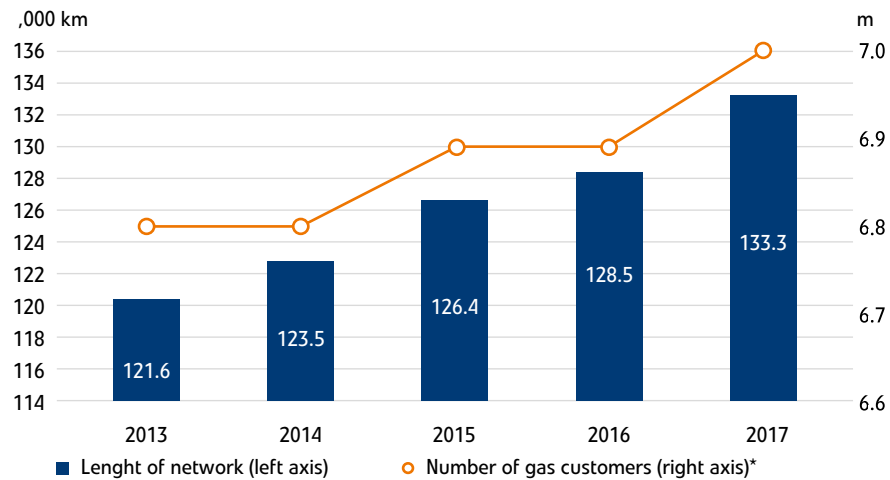
tion network and nearly 99% of the gas service lines. The company transports natural gas from gas sellers to households, industrial and wholesale customers.

PGNiG Group* – gas sales volumes by customer group



*Total volumes of gas sold by E&P and TRS segments to external customers.

Length of network, excluding service lines, and number of customers



* Customer – anyone receiving or drawing gas fuel under an agreement with a gas supplier

Wholesale turnover

In 2017, PGNiG also signed new contracts to sell gas in Poland. The measures taken in 2017 led to a year-on-year growth in the volumes of high-

-methane grid gas sold to retail and wholesale customers by ca. 55% and 65%, respectively.

Key gas supply contracts executed in 2017:

Grupa Azoty SA

On June 21st 2017, PGNiG concluded new Individual Contracts for the supply of gas fuel with Grupa Azoty SA and its subsidiaries, with deliveries scheduled from October 1st 2018 to September 30th 2020, with an option to extend the period until September 30th 2022. Assuming that the term will be four years, the estimated value of the contracts may reach approximately PLN 7bn, with up to ca. 8.5 bcm of gas to be supplied. The applied pricing formula is based on gas market price indices.

Upon the signing of the new contracts, the Individual Contracts between the Azoty Group and PGNiG SA of April 13th 2016, originally valid until September 30th 2018, were terminated.

ArcelorMittal Group

PGNiG signed a long-term gas supply contract with the ArcelorMittal Group, the largest steel manufacturer in Poland, effective from January 1st 2017 to January 1st 2020, with an option to extend the term until January 1st 2023. The total volume of gas to be supplied over the period may reach around 1.6 bcm, with the maximum value of the contract of approximately PLN 1.4bn. The contract enables ArcelorMittal Poland SA to purchase gas fuel on market terms, at prices linked to exchange indices.

KGHM Polska Miedź SA

PGNiG concluded a long-term Framework Agreement and Individual Contracts for the supply of nitrogen-rich gas to KGHM Polska Miedź SA. Under the Individual Contracts, gas supplies are to start on two different dates, i.e. July 1st 2017 and October 1st 2017, depending on KGHM Polska Miedź SA's points of delivery. The Framework Agreement and Individual Contracts guarantee gas supplies until October 1st 2033, with an option to change nitrogen-rich gas to high-methane gas. The estimated aggregate value of the agreement over its entire term is ca. PLN 4.8bn. The applied pricing formula is based on gas market price indices.

Grupa Lotos SA

On October 25th 2017, PGNiG signed a new Individual Contract for the supply of gas fuel to Grupa Lotos SA, effective until September 30th 2020, with an option to extend the term until September 30th 2022. If the option is exercised, the value of the contract is estimated at approximately PLN 3.1bn. The applied pricing formula is based on gas market price indices.

Commercial policy in the business customer segment

In the first half of 2017, subsequent editions of the 'Elastyczna Cena' (Flexible Price) scheme for PGNiG OD's largest accounts were launched and covered contracts concluded for 2017, 2018 and 2019. Further, new editions of the 'Stałe Oszczędności dla Biznesu' (Constant Savings for Business) scheme were launched for customers in the W-5 tariff group, as were the 'Pewna cena' (Certain Price) and 'Wycena Indywidualna Suwak' (Individual Pricing – Zipper Mechanism) products. The 'Pewna Cena' promotional campaign was addressed to PGNiG OD's current customers. Under the scheme, customers were offered discounts on the standard tariff price. Due to strong interest of customers from the W-5 tariff group in the aforementioned promotional campaign, in June 2017 PGNiG OD launched the second edition of the scheme.

The 'Tranche Products' were also developed, fully linked to instruments listed on the Polish Power Exchange. These products enable customers to independently define planned consumption covered by the contract in an optimal way, based on annual, seasonal, quarterly or monthly instruments available at the Polish Power Exchange.

LNG and CNG sales

In the area of LNG, PGNiG OD focuses on industrial customers whose energy demand cannot be met due to gas infrastructure constraints in terms of physical availability and capacity limits. PGNiG OD provides bunkering services as a separate business segment, supplying LNG to power marine vessels.

The key customers of the CNG segment are public transport companies (ca. 70% of all customers), which rolled out their fleets of CNG buses when excise duty was suspended and CNG transport became economically viable. The remaining share comprises custo-

mers in the utility vehicle market (ca. 15%) and retail customers (ca. 15%), but the size of this customer category is gradually decreasing due to lack of CNG incentives.

PGNiG offer for individual clients

In the first half of 2017, PGNiG OD settled the first edition of the promotional campaign 'Oszczędności dla Ciebie i Twojej firmy W4' (Savings for You and Your Company in the W4 Tariff Group). The scheme was available to both existing and new gas fuel buyers. In the first edition of the scheme, customers were offered discounts on the standard tariff price for the entire year 2016. Simultaneously, the second edition of the campaign was conducted, addressed to both existing and new gas buyers. In the second edition of the scheme, customers were offered discounts on the standard tariff price for the period from July 1st 2016 to June 30th 2017.

In the second half of 2017, PGNiG OD settled the promotional campaign 'Savings for You and Your Company in the W4 Tariff Group – The Second Edition'. Simultaneously, two discount schemes were offered to customers in the W3 and W4 tariff groups:

1. The discount campaign 'Stała Niska Cena' (Low Price All the Time) was addressed to (new and existing) customers who are not consumers in the W3 and W4 tariff groups.
2. The discount campaign 'Do roku bez abonamentu' (Up to One Year without a Subscription Fee) (GAZEK) was addressed to the existing consumers and customers who are not consumers in the W3 and W4 tariff groups.

Thanks to the scheme, around 97.7 thousand new accounts in tariff groups 1–4 were added to the retail customer base in 2017.


Customer satisfaction

The companies providing services to retail customers at the PGNiG Group, such as PGNiG OD and PSG, constantly improve the quality of service and develop online sales channels and modern tools of contact with customers via websites prepared in a mobile version and adapted to the needs of disabled and elderly people.

At the same time, efforts are being made to increase customer awareness on the energy market in the context of market liberalisation and fair competition. Handbooks explaining the matters have been prepared and 'Informed Customer' campaigns are under way.

At the beginning of 2017, PGNiG OD, in cooperation with the Millward Brown agency, carried out a satisfaction survey among business customers. It shows that in comparison with the previous survey, carried out in 2013, satisfaction rates increased in each of the analysed areas.

There was a marked increase in one of the most important indicators, the Net Promoter Score, which measures customer loyalty. The company improved the score from minus 23 points to plus 5 points, which represents one of the best results in the entire energy industry in Poland. The overall satisfaction level also rose, from 76% to 86%.


CNG - compressed natural gas, natural gas compressed to a pressure of 20-25 MPa.



Society

(G4-26, G4-27)

Social communication and investment dialogue

Managing relations with local communities

Local communities are a very special category of stakeholders. As part of our strategic approach to managing relations with this group of stakeholders, we respond to the real needs and expectations of individual communities, and we support their economic growth.

Local communities, or to be more precise „effective cooperation with social and business partners based on the principles of partnership and dialogue”, constitute one of the pillars of the CSR Strategy of the PGNiG Group. One of the objectives of the Strategy is to conduct a dialogue with the local community in accordance with the best standards developed.

PGNiG fully complies with its legal obligations when building relations with local communities. PGNiG goes beyond the statutory requirements to provide local communities with access to knowledge and education.

Good neighbor

PGNiG makes every effort to identify a given community's current needs and expectations. Before launching operations in a given location, we meet with the local authorities and residents to answer any questions regarding our business. We have a highly customized approach

to every community. The number of meetings, consultations and workshops is determined by local residents' needs. In our communication, we rely on social dialogue as a tool for articulating and exploring the needs and expectations of local community members.

PGNiG builds good neighborly relations by supporting schools, road construction projects and sponsoring important events in the local arena. Our communication efforts also involve educational activities and the provision of vital information which will enable local residents to understand our operations.

Our employees are a very important part of local communities where they play the role of PGNiG's informal ambassadors. Their direct involvement in local initiatives, membership in employee councils and trade unions significantly contributes to the community's growth.

Social activity

The PGNiG Group creates opportunities for cooperation and builds understanding for mutual relations and interdependencies with individual stakeholder groups.

Our influence on local communities is also manifest in our charitable activities for society, carried out in the PGNiG Group mainly by the PGNiG SA Ignacy Łukasiewicz Foundation.

The Foundation's activity is based on cooperation with programme partners and implementation of its own projects which allows it to be used effectively and reach the most needy throughout Poland.

In 2017, the Foundation focused on two proprietary programmes – “Być jak Ignacy” (‘To Be Like Ignacy’) and “Rozgrzewamy Polskie Serca” (‘We Warm up Polish Hearts’), and in the third quarter of the year it initiated a new educational programme, entitled “Powietrze bez Śmieci” (‘Air without Rubbish’).

The Foundation and the PGNiG Group companies also supported nearly 100 initiatives falling within the scope of activities specified above, for instance by donating funds to the Ignacy Łukasiewicz Museum of Oil and Gas Industry Foundation in Bóbrka to support the museum's activities. It also supported the Foundation for Civic Space and Social Policy by providing funding for the ‘Recovering Forgotten History’ project.

„Być jak Ignacy” (‘To Be Like Ignacy’)

The PGNiG SA Ignacy Łukasiewicz Foundation has supported initiatives promoting science, education and history for many years and since 2016 as part of the programme “Być jak Ignacy” which was implemented together with PGNiG.

It is a programme popularising science among primary school students, and at the same time introducing the youngest to the unique figure of the patron of the Foundation along with outstanding Polish scientists. Its main element is a website featuring an interactive comic strip, educational videos showing scientific experiments, and an adventure game. As part of the programme, the Foundation holds a competition called ‘Ignacy's School of Science’ to award the Ignas statuettes. Over 650 schools from all over Poland applied to enter the second edition of the competition. The competition is to select 16 schools (one

from each province) which will find the most interesting way to organise and document the work of a specially set up science club and prepare a project. To assist teachers in running such clubs, the Foundation prepared lesson scenarios for 0–3 and 4–6 forms.

The first edition of the programme was summed up by the final gala of awarding prizes to 16 schools from all over Poland.

As part of the programme, the Foundation purchased and equipped a special bus - Ignacy's mobile laboratory, which enjoyed great popularity on a tour with the radio show ‘Lato z Radiem’.

The programme “Być jak Ignacy” is run under the honorary patronage of the Ministry of National Education and the Polish Radio is its media partner.

„Rozgrzewamy Polskie Serca” (‘We Warm Up Polish Hearts’)

„Rozgrzewamy Polskie Serca” – the project run by the Foundation together with PGNiG and other PGNiG Group entities with the aim of raising historical awareness of Poles, preserving national identity and commemorating Polish heroes. As part of the programme, the Foundation supports educational and film making projects, initiatives to aid war veterans, and a variety of cultural activities. A particular focus is placed on reviving the memory and history of the so-called “Cursed Soldiers”, heroes that fell into oblivion for decades.

Under the programme, more than 50 projects were implemented and supported, which reached nearly 5 million recipients. As part of the project, we support the Warsaw Insurgents by funding their gas bills for up to PLN 900 a year.

A project Edukacyjna Pasięka – Energia z Miodu (Educational Apiary – Energy from Honey) was established on the premises of the PGNiG Head Office. It is a part of the programme and responds to the need to protect the environment and protect bees from extinc-

(G4-S01)



tion. Currently, the educational apiary has 15 hives and it is planned to double them in 2018 season. The project includes a cycle of training courses about bees and apiaries in towns and cities. At the next stage, a cycle of workshops will be prepared for children and youth from Warsaw schools.

„Powietrze bez Śmieci” (‘Air without Rubbish’)

Since 2017, the Foundation and its subsidiaries from the PGNiG Group have been conducting educational activities to combat the smog problem in Poland. An educational program “Air Without Garbage” was launched to inform Poles about the problem of smog. Within the project, advertising activities were conducted in social media and a website was created. Two competitions were also held – the first one was targeted at municipalities, where residents can win the construction of a scientific playground in their municipality, and the second one addressed to children of 1-3 primary schools, where they can win the equipment to their nature workshop.

Other CSR PGNiG activities

The CSR activities focused on implementing a new CSR Strategy in the PGNiG Group, supporting the ongoing initiatives, and creating new projects within the scope of the Strategy. Other major CSR projects completed in 2017 included:

- Pogoń dla Pogoni („Pogoń for Pogoń”) is a project combining education, sports and history. As part of the project, the Pogoń Siedlce and Pogoń Lwów football clubs and the communities of both towns worked together towards educating children and youth in history and sports.
- Górnik w przedszkolu i szkole (‘Oil Miner at School and Kindergarten’) – a voluntary project in which the employees of PGNiG Zielona Góra Branch and the Geology and Hydrocarbon Production Branch take part. The aim is to promote the profession of an oil miner and respond in a structured and organised manner to schools’ and kindergartens’ need to teach about jobs and professions, and visit these institutions on the occasion of Barbórka – the St. Barbara’s Day, the patron saint of miners, falling on December 4th.

Social capital in numbers

In 2017, over 120,000 pupils, about 10,000 students and nearly 5,000 scientists were direct recipients or beneficiaries of the social activities of the PGNiG SA Ignacy Łukasiewicz Foundation and the other PGNiG Group entities (including, in particular, PGNiG, PGNiG TERMIKA and PSG). Communications about CSR projects of the PGNiG Group reached over 800,000 users of the Foundation’s social media.

Together with the companies of the PGNiG Group, the Foundation supported over 100 initiatives in 2017, compared with nearly 80 in 2016.

Sponsoring

For many years, PGNiG has been involved in a wide range of sponsorship activities leading to the development of social capital. The PGNiG Group focuses on three main areas of standard sponsorship activities: sport, culture and education.

Sport

PGNiG provides comprehensive support to one leading professional sport, namely han-

dball. The company is also a partner of the ‘Klub’ programme and together with the Ministry of Sport and Tourism supports the activities of small and medium sports clubs. PGNiG is the founder and donor of Superliga sp. z o.o., the operator of the professional handball league.

Culture

In 2017, the cooperation with the Television Poland and the Television Theatre continued, initiated in 2016. Other key cultural events sponsored by the Company was the concert in memory of the legendary Polish composer and musician Przemysław Gintrowski, entitled „Gintrowski - a jednak coś po nas zostanie.”

Apart from supporting high culture, PGNiG is involved in a number of patriotic initiatives.

Education

The Company and the PGNiG Foundation carried on their educational programme ‘Być jak Ignacy’. As part of the programme, PGNiG participated in Science Festivals, where its interactive stand attracted thousands of young visitors and their parents.

Natural environment

Taking into consideration contemporary environmental protection challenges related to depletion of natural resources and possible pollution of particular elements of the environment, the PGNiG Group takes steps to minimise any adverse impact on the environment. To support this goal, we develop technical standards for our operations based on applicable legal requirements and best industry practices. We undertake preventive steps in explo-

ration and production, analyse environmental risks and monitor the impact of our activities on the environment. We also use technologies that reduce any adverse environmental impact and maintain management systems within which we implement environmental objectives and tasks seeking to increase environmental efficiency.

Raw materials and consumables used

Total raw materials and consumables used	2017		2016		2015	
	[mcm]	[mMg]	[mcm]	[mMg]	[mcm]	[mMg]
Natural gas	376.5	-	152.8	-	205.9	-
including PGNiG	270.2	-	56.4	-	115.7	-
Hard coal	-	2.9	-	2.9	-	2.7
Lignite	-	-	-	-	-	-

Non-renewable raw materials are the basic resource used in the production of electricity and heat at the PGNiG Group. Coal is used to produce electricity and heat mainly in PGNiG TERMIKA Group's CHP plants, while natural gas is used in the other companies for heating buildings, in heat and electricity production (including for electricity production in cogeneration and trigeneration) as well as in technological processes as fuel for oil heaters in desulphurization and desalination, fuel for boilers, gas compression engines, gas turbines, post-combustion of waste gases.

In 2017, gas consumption rose due to combustion on flares during the process of obtaining access to deposits and due to an increase in the number of branches and production facilities of PGNiG TERMIKA EP i PGNiG OD. Most of the companies try to reduce gas consumption by modernising their heating installations.

Energy consumption at the PGNiG Group in 2015–2017

(G4-EN3)

Energy consumption	2017		2016		2015	
	PGNiG Group	PGNiG	PGNiG Group	PGNiG	PGNiG Group	PGNiG
Generated internally from non-renewable sources	Electricity [MWh]	894	74	838	41	824
	Heat [kJ]	4,890,062,269	4,478,730,220	3,961,884,022	3,560,916,000	3,661,657,310
	Steam [kJ]	43,096,683	37,480,683	38,745,305	38,745,305	41,253,529
	Cooling [kJ]	2,193,088	-	2,220,960	-	1,630,496
Generated internally from renewable sources	Electricity [MWh]	27.0	-	19.2	-	1.3
	Heat [kJ]	3.5	-	2.9	-	1.0
	Steam [kJ]	-	-	-	-	-
	Cooling [kJ]	-	-	-	-	-

In 2017, the majority of the PGNiG Group's companies mainly consumed energy generated in-house on the basis of non-renewable raw materials. The other Group members have signed contracts with energy companies. The energy consumption volumes correspond with the growth of the Group. Pro-environmental

solutions include cogeneration and trigeneration plants owned and operated by some of the companies. In the case of PGNiG UN, all of the energy the company consumes comes from hydroelectric power plants, which generate no emissions.

Water withdrawal at the PGNiG Group in 2015–2017 by source

(G4-EN8)

Water (mcm)	2017		2016		2015	
	PGNiG Group	PGNiG	PGNiG Group	PGNiG	PGNiG Group	PGNiG
surface water withdrawn from own intake points	156.2	-	159.5	-	147.0	-
ground water withdrawn from own intake points	0.3	0.2	0.3	0.3	0.35	-
rainwater	-	-	-	-	-	-
purchased from the mains, surface and ground water intakes	1.6	0.1	1.7	0.2	1.0	-

A downward trend in water withdrawal can be observed in all Group Companies in relation to 2016. The main reasons include modernisation of the installations (closed cycle), investing in environmental programmes and improving

employee awareness with regard to water consumption.

(G4-EN12)

Impact on biodiversity

In 2017, the PGNiG Group implemented projects that were located near protected and valuable natural areas. All of the work involved in the projects was carried out in accordance

with obtained decisions and permits. Additionally, in the areas with extremely sensitive habitats, wildlife inventory taking was completed. In individual cases, derogatory decisions were obtained.

(G4-EN15)

Direct CO₂ emissions from the PGNiG Group installations participating in EU ETS in 2016-2017

EU ETS installation	National Allocation Plan (KPRU) No.	2017			2016		
		Emission allowances [Mg]	Emissions in 2017 [Mg]	Remaining/Lacking [Mg]	Emission allowances [Mg]	Emissions in 2016 [Mg]	Remaining/Lacking [Mg]
Mogilno CUGSF	PL-0898-08	5.1	14.0	(8.9)	5.9	15.5	(9.6)
Odolanów I (boiler house)	0562-05	18.1	30.9	(12.8)	6.0	9.2	(3.2)
Odolanów II (compressor station)	0950-08				15.1	19.4	(4.3)
Lubiatów Oil and Gas Production Facility, Central Facility	PL-1070-13	41.6	55.4	(13.85)	42.4	56.2	(13.8)
Wierzchowice UGSF	PL-1072-13	-	42.6	(42.6)	-	6.6	(6.6)
Kosakowo CUGSF	PL-1076-13	-	2.9	(2.9)	-	3.6	(3.6)
Dębno Oil and Gas Production Facility, Central Facility	PL-0563-05	25.8	29.7	(3.9)	26.3	30.6	(4.3)
Pruszków CHP Plant	PL-0026-05	37.7	133.4	(95.7)	50.8	131.4	(80.6)
Siekierki CHP Plant	PL-0027-05	1,059.3	3,047.2	(1,987.9)	1,468.3	2,969.7	(1,501.4)
Żerań CHP Plant	PL-0028-05	782.8	2,339.0	(1,556.2)	1,064.2	2,303.3	(1,239.1)
Kawęczyn CHP Plant	PL-0124-05	37.1	95.7	(58.6)	43.4	73.2	(29.8)
Wola heating plant	PL-0125-05	0.7	8.6	(7.9)	0.8	1.2	(0.4)
CM Racibórz	0297-05	17.5	50.0	(32.5)	22.8	50.8	(28.0)
CM Wodzisław Śląski	0298-05	11.7	34.7	(23.0)	15.4	34.1	(18.7)
CM Żory	0299-05	13.6	34.6	(21.0)	17.9	34.3	(16.4)
PTEP SA „Moszczenica” CHP Plant	0083-05	49.7	77.3	(27.6)	61.4	86.1	(24.7)
PTEP SA „Zofiówka” CHP Plant	0084-05	147.1	235.2	(88.1)	167.7	264.0	(96.3)
PTEP SA „Pniówek” CHP Plant	0085-05	30.5	77.4	(46.9)	35.9	74.2	(38.3)
PTEP SA „Suszec” CHP Plant	0086-05	12.4	34.7	(22.3)	14.2	45.1	(30.9)
Total		2,290.7	6,343.3	(4,052.6)	3,058.5	6,208.5	(3,150.0)

Currently, 18 installations of the PGNiG Group are included in the EU ETS. In 2017, the volume of carbon dioxide emission amounted to 6,342,330 Mg and was slightly higher than

in previous years. PGNiG TERMIKA EP recorded a drop in CO₂ emissions in its heating plants due to higher average annual temperatures during the heating season. PGNiG TERMIKA

plans to implement modernisation projects that will improve energy production efficiency and change fuel (transition from coal to gas), which should reduce greenhouse gas emissions. As free allowances of CO₂ emission rights decrease year by year, there is a need to purchase additional emission rights.

Reduction of greenhouse gas (GHG) emissions

The PGNiG Group places great emphasis on reducing gas and dust emissions to the air. This applies in particular to installations subject to integrated permits and participating in the EU ETS. In 2017, all required emission standards were met. In addition, The PGNiG Group is systematically reducing the amount of pollutants generated by transportation, combustion processes in heat sources, fuel reloading and technological processes, such as gas combustion at flares, gas venting, emissions from compressor stations and compressors. The methods of reducing emissions of pollutants into the air include on the use of gas as a low-emission fuel, monitoring of fuel consumption, reducing

the energy intensiveness of technological processes and modernising or replacing heat sources used for own needs.

NO_x, SO_x, and other significant air emissions

(G4-EN19)

(G4-EN21)

Oil and gas exploration and production activities, gas distribution, and modernisation, maintenance and repair works of the PGNiG Group generate air pollutants such as gases (SO₂, NO_x, CO, CO₂, CH₄), dust, hydrocarbons, aldehydes, alcohols, acids, heavy metals, metallic and non-metallic elements.

In 2017, air emissions of pollutants other than CO and CO₂ were on a decline as a result of using more modern coal combustion technologies.

Air pollutants emitted by the PGNiG Group in 2015-2017

Emissions of gases, particulates and substances (Mg)	2017		2016		2015
	PGNiG Group	PGNiG	PGNiG Group	PGNiG	PGNiG Group
CO ₂	6,577,924	338,122	6,411,274	270,555	6,194,063
CO ₂ biomass combustion	293,710	-	240,323	-	16,738
CH ₄	14,424	9,586	18,911	13,876	24,138
SO ₂	12,452	1,725	14,152	1,567	14,362
NO _x /NO ₂	6,377	355	6,782	290	7,038
CO	2,216	361	2,100	305	2,183
Total particulates	786	2	1,099	2	927
Total hydrocarbons	260	198	264	195	241
H ₂ S	-	-	-	-	-
Total	6,908,149	350,349	6,694,905	286,790	6,259,690

Total water discharge by quality and destination in 2015–2017

Wastewater [cm]	2017		2016		2015	
	PGNiG Group	PGNiG	PGNiG Group	PGNiG	PGNiG Group	PGNiG
Domestic	348,342	7,120	276,655	10,438	346,931	
Municipal	108,113	90,955	104,183	73,830	85,974	
Industrial	6,652,290	15,248	6,311,583	10,939	5,945,205	
Rainwater and snowmelt	1,497,638	288,197	1,209,936	280,591	1,319,110	
Other	149,839,142	-	154,527,215	22,959	148,599,919	

The wastewater generated by the PGNiG Group companies is discharged to the sewage system, surface water or soil based on the water permits obtained. Domestic and industrial wastewater is discharged into the sewage system. Rainwater from plant premises and access roads is discharged into the municipal sewage system, as well as into surface water and soil. The PGNiG TERMIKA Group companies account for a large share in the volume of generated wastewater as they use water for cooling purposes. On the other hand, the policy of economical water management is followed during drilling work and, where possible, wastewater is reused to prepare drilling muds.

In 2017, an increase was seen mainly in the amount of domestic and municipal wastewater following the establishment of new branches and generating units of PGNiG TERMIKA EP and PGNiG OD.

implementing programmes raising the awareness of the need to sort waste. PGNiG TERMIKA has put in operation an ash separation unit at the Siekierki CHP Plant, for removing ash from non-combusted coal. The project will result in a significant reduction in the volume of generated waste. The volume of drilling waste from exploration work has been on a decline, mainly due to the lower intensity of the work relative to previous years. Moreover, the weight of waste re-used within the Group increased by 30%. The other waste is recycled by specialised external companies.

Waste management

The production of hazardous and non-hazardous waste is unavoidable in activities related to the production and processing of crude oil and natural gas. In 2017, all PGNiG Group companies reported decreases in the volume of generated waste. The main reason was the introduction of new technologies and the use of environment-friendly materials and products. The companies have also been

Waste management methods used at the PGNiG Group in 2015–2017

Other waste excluding municipal waste	Landfilled [Mg]	Recovered, including recycled [Mg]	Disposed of [Mg]	Incinerated [Mg]	Transferred for collection [Mg]	Stored [Mg]	
2017							
Hazardous waste	PGNiG Group	-	3,317.4	571.7	38.9	659.9	20.9
	PGNiG	-	3,053.8	389.3	-	10.1	20.9
Non-hazardous waste	PGNiG Group	212.1	568,214.5	3,121.3	11.1	2,186.3	60.0
	PGNiG	189.0	1,159.4	2,824.5	-	4.7	60.0
2016							
Hazardous waste	PGNiG Group	-	1,646.2	584.4	2.7	690.9	49.0
	PGNiG	-	1,061.9	521.4	-	15.2	49.0
Non-hazardous waste	PGNiG Group	342.0	565,664.6	1,909.2	-	5,615.1	47.7
	PGNiG	305.7	4,998.3	1,763.6	-	7.8	47.7
2015							
Hazardous waste	PGNiG Group	-	779.8	587.9	3.5	770.0	25.0
	PGNiG	-	505.3	554.0	-	14.0	25.0
Non-hazardous waste	Grupa PGNiG	4,835.8	609,314.1	274.4	-	5,392.6	73.5
	PGNiG	4,774.8	2,264.3	92.8	-	0.6	73.5

Method of drilling waste management in 2015–2017

Drilling waste	Stored in waste disposal facilities [Mg]	Recovered [Mg]	Disposed of [Mg]	Reused [Mg]	Stored [Mg]	Stored in rock mass [Mg]	
2017							
Hazardous waste	PGNiG Group	-	1,314.1	77.2	-	-	
	PGNiG	-	1,314.1	77.2	-	-	
Non-hazardous waste	PGNiG Group	-	92,131.3	9,527.6	-	53.6	3,256.9
	PGNiG	-	47,361.4	9,511.6	-	53.6	3,256.9
2016							
Hazardous waste	PGNiG Group	-	1,459.6	98.0	-	-	
	PGNiG	-	1,459.6	-	-	-	
Non-hazardous waste	PGNiG Group	-	67,750.1	189.7	-	-	28,371.8
	PGNiG	-	58,710.9	-	-	-	28,371.8
2015							
Hazardous waste	PGNiG Group	-	2,897.3	331.6	-	-	
	PGNiG	-	2,897.3	41.3	-	-	
Non-hazardous waste	PGNiG Group	-	68,523.3	15,399.9	-	-	58,236.9
	PGNiG	-	59,413.5	7,929.2	-	-	58,236.9

(G4-EN29)

Well and extraction pit abandonment

Abandonment of wells and boreholes is performed in accordance with the Geological and Mining Law and applicable secondary legislation.

Environmental protection in drilling operations

Environmental protection initiatives connected with drilling for both conventional and unconventional hydrocarbons are carried out in accordance with the applicable Polish and EU laws, as well as internal good practice documents.

(G4-EN34)

Events with environmental impacts

In 2017, four environmental events were recorded: leaks of hydraulic oil from vibrating screens working during seismic surveys, in a total of amount of about 100 litres. These events led to minor topsoil contamination. All consequences of the events were remedied. The soil contaminated with hydraulic oil was transferred to authorised waste collectors in line with the Waste Management Plan. In order to prevent similar events in the future, hydraulic hose clamps were checked in all machines operated in the projects underway. In addition, during the work of seismic teams regular training is given to increase the knowledge of procedures to be followed in the event of leakage and in case of other environmental events. The number of inspections of the technical condition of machinery was increased as a preventive measure in order to eliminate potential events.

(G4-EN24)

Penalties for non-compliance with environmental laws

Holding valid environmental permits and decisions is a prerequisite in the operations of the

PGNiG Group companies. In 2017, a Provincial Inspectorate for Environmental Protection (WIOŚ) imposed a fine of PLN 4 thousands on one of the Group companies for exceeding the permitted sulfur dioxide concentration specified in the integrated permit. However, an appeal was filed to the Chief Environmental Protection Inspector (GIOŚ) and is expected to be examined.

Grievances

In 2017 PGNiG handled a lawsuit for payment for non-contractual use of property, consisting in waste storage and improper reclamation. In the proceedings, the court dismissed the claim and ruled that the costs of legal representation be paid by the plaintiff to PGNiG.

Residents of the village of Kokorzyn submitted three complaints about the noise emitted by the helium recovery membrane on the stream of gas produced by the Kościan-Brońsko Gas Production Facility. Moreover, the Regional Directorate for Environmental Protection in Rzeszów is gathering evidence of land surface contamination resulting from the repair work on the Rzeszów-17 borehole, reported by the owner of the plot.

Environmental management system at the PGNiG Group

The operation of the environmental management system according to the PN-EN ISO 14 001 standard is based on the identification of environmental aspects of the organisation. Streamlining this area is one of the key issues required for carrying out analyses at the PGNiG Group and selecting areas of particular interest to the oil and gas industry in terms of environmental protection.

One of the most frequent material environmental aspects is emission of air pollutants. It occurs both under normal conditions and in emergency situations, as a result of fuel

combustion by vehicle engines, industrial machinery and boilers. Emission of particulates and gases, such as nitrogen oxides, sulphur oxides and carbon oxides, have been identified as a key environmental aspect at PGNiG TERMIKA, which produces electricity and heat from coal, natural gas and biomass. Emission of natural gas, including gas containing sulfur compounds, may occur in emergency situations, such as leaking heads or pipelines, or outbursts.

Most of the technological processes involve noise emission to the environment, and in the case of Geofizyka Toruń – also vibrations.

Contaminated soil and groundwater are also frequently identified as a significant environmental aspect. Its occurrence may be explained by the presence of contaminants generated in past activities, as well as spills/leaks of petroleum or hazardous substances during drilling and other technological processes, operation of machinery and equipment, or leaks from storage tanks or pipelines.

Financial expenditures for environmental projects in the PGNiG Group in 2015-2017

(G4-EN31)

	2017	2016	2015
expenditures for environmental projects (including modernizations and repairs) (PLN million)	26.0	139.5	226.7
including PGNiG	3.9	3.5	1.3

The level of expenditures for environmental projects in the PGNiG Group decreased as compared to the previous year. Boiler plants were modernized and thermal modernization of buildings was performed, having a direct impact on the protection of air in the environment. Costs were also incurred in connection with water protection and waste management initiatives.

The PGNiG TERMIKA Group, while modernizing its generation equipment, takes part in the National Investment Plan and white certificate auctions, receiving free allowances for CO₂ emissions for generated electricity as well as financial subsidies. This results in a reduction of emissions of CO₂ and other contaminants into the atmosphere.

Member companies of the PGNiG TERMIKA Group have planned expenditures to be spent on environmental projects in 2019-2021 in connection with the entry into force of stricter environmental requirements as a result of BAT Conclusions in the amount of PLN 1,445.6 million. Most of the expenditures arise from the plans to construct new generation units (combined cycle gas turbine unit and two peak gas-fired boiler plants at the Żerań CHP Plant as well as the construction of new sources at the Pruszków CHP Plant), which will replace decapitalized sources that do not fulfill the BAT requirements. The planned investments regarding existing sources are primarily constructions of units that reduce emissions of pollution (denitrogenation, desulfurization and dust extraction) to the levels required in BAT.

Strategy



Mission and vision



See also:
www.en.pgnig.pl/pgnig/mission-and-strategy

The key objective of the 'PGNiG Group Strategy for 2017–2022 with an Outlook Until 2026' is to increase the Group's value and ensure its financial stability. To achieve that goal, the Gro-

up will need to build a strong competitive position while promoting the advancement of the Polish gas market and expanding its gas networks to unserved areas across the country.

The strategy implemented in 2017 redefines the mission and vision for the PGNiG Group.

<h3>Mission statement</h3> <p>We are a trustworthy supplier of energy for households and businesses</p>	<p>Trustworthy – the customers can depend on premium quality and reliability of our services</p> <p>Energy supplier – our customers are offered a full range of energy products (gas + electricity + heat + other services)</p> <p>Households and businesses – we care for and value all our customers: households, businesses, and institutions</p>
<h3>Vision</h3> <p>We are a responsible and effective provider of innovative energy solutions</p>	<p>Responsibly – we act transparently, in line with the principles of corporate social responsibility</p> <p>Effectively – we have implemented process and cost optimisation measures</p> <p>Innovative solutions – we are an innovation leader in the energy sector</p>
<h3>Primary objective</h3> <p>Increase the PGNiG Group's value and ensure its financial stability</p>	<p>Value growth – our primary ambition is to create added value for our shareholders and customers</p> <p>Financial stability – we seek to secure long-term financial stability and creditworthiness</p>

Challenges

The operations of the PGNiG Group largely depend on external factors which also pose challenges for the Group. Those factors include:

1. Developments in the global fuel and energy markets, including depressed oil and gas prices and rapid expansion of the LNG market

In recent years, the changes taking place in the Polish gas market have been accompanied by steep price declines elsewhere in Europe. In addition, the past few years have seen increasingly weak correlation between the market prices of natural gas and petroleum products. The falling prices of crude oil also had major implications for the Group in recent years – the unwanted concomitant of lower gas procurement costs under long-term contracts were deteriorated economics of our foreign upstream projects with a predominant share of oil in total reserves, leading to a downward valuation of the E&P segment's foreign operations.

LNG infrastructure has been expanding rapidly on global markets, with new projects built to increase both export capacities (liquefaction terminals), mainly in North America and Australia, and import capacities (regasification terminals), mainly in Europe. Capacity expansion has also created an excessive supply in global LNG markets, leading to price declines.

As an active participant of the global LNG market, PGNiG will be able to take advantage of the favourable pricing conditions and

secure additional gas supplies for Poland. With the abundant LNG supply, the importance of trading in gas under spot, short-term and medium-term contracts is growing, as destination clauses are being increasingly abandoned, the number of market participants is growing, and the global fleet of LNG vessels is becoming more available.

2. Progressing market deregulation

As the requirement to sell a specific portion of gas volumes on the exchange market has come into force, PGNiG is required to sell high-methane gas on commodity exchanges or other regulated markets. In the context of the above requirement, the deregulation process poses a risk of significant customer loss. PGNiG also faced the need to amend customer contracts in terms of contracted capacity, offtake amounts, and the procedure for switching suppliers.

3. Need to change the mix of imported gas sources

The Group's current mix of gas supply sources was structured to cover the whole of demand for natural gas in Poland. However, considering the risk of losing a part of the Group's market share and given the insufficient diversification of supplies, there was a risk of imbalance in the Group's gas portfolio. Currently, the Group's gas supply mix is largely made up of contracts priced partly by reference to prices of oil products (Yamal and Qatar contracts), and differences

in the gas sale pricing formulas applied by PGNiG and its competitors entail a risk of price pressures.

Therefore, it has become imperative that the Group explore opportunities for diversifying its gas supply sources and analyse the feasibility of related projects. With the Yamal contract nearing expiry, a need arises to build a flexible portfolio of supply sources for Poland beyond 2022.

4. Need for policy and regulatory changes

Significant changes are taking place in the PGNiG Group's regulatory environment, particularly with respect to taxation of hydrocarbon production, the exchange sale requirement, and uncertainty surrounding the support model for gas-fired cogeneration, all of which may adversely affect the profitability of the Group's segments.

PGNiG Group Strategy for 2017–2022

In response to the changing internal and external environment, the Group has developed the new PGNiG Group Strategy for 2017–2022 with an Outlook until 2026. The Strategy was approved by the PGNiG Supervisory Board on March 13th 2017. Following an analytical review, key macroeconomic assumptions underlying the strategic forecasts were updated, including those related to gas, oil and electricity prices. Also, new strategic objectives and ambitions for the PGNiG Group until 2022 were formulated.

A major internal change associated with the adoption of the Strategy is a novel approach to strategic management at the PGNiG Group. The Balanced Scorecard methodology enables the balancing of the Group's financial, operating and development goals based on four key 'perspectives': financial, customers, processes, and resources and growth. The result is a new way of defining the main strategic objectives, where targets and ambitions are set at the Group level and then cascaded down to the Group's key business areas.








The pursuit of sustainable development as the Group's priority will be driven by parallel investments in riskier business areas yielding relatively high rates of return (upstream) and in regulated areas offering considerable safety of the investments (gas distribution, power and heat generation). The PGNiG Group has embarked on an ambitious capital investment programme that is to lay the foundations for long-term and stable value growth.



Targets and ambitions for 2017–2022

Ambitions in the key business areas

The new Strategy identifies seven key business areas, with the following strategic objectives and ambitions for 2017–2022 defined for them:

	Exploration and Production Increase hydrocarbon reserves and production	increase the current base of documented hydrocarbon reserves by ca. 35%, increase hydrocarbon production by ca. 41%, significantly reduce unit costs of exploration for and appraisal of deposits, and maintain unit cost of field development and hydrocarbon production;
	Wholesale Diversified and competitive gas supply portfolio	build a diversified and competitive gas supply portfolio beyond 2022 and increase the overall volume of natural gas sales by ca. 7%;
	Retail Maintaining current market position and maximising margins	maximise retail margins, while maintaining the total volume of retail gas sales at ca. 67–69 TWh/year;
	Storage Secure access to storage capacities	secure access to storage capacities adjusted to actual demand and improve storage efficiency;
	Distribution Faster gas network roll-out	build more than 300,000 new service lines and increase gas distribution volume by ca. 16%;
	Power and Heat Generation Increase power and heat production volumes	increase power and heat sales volumes by ca. 20%;
	Corporate Centre Effective business model, development of R&D&I and CSR	increase involvement in and effective execution of R&D&I projects (target outlay of ca. PLN 680m), improve operational efficiency across the PGNiG Group and enhance the Group's image.



PGNiG Group's targets and ambitions for 2017–2022 according to strategic perspectives

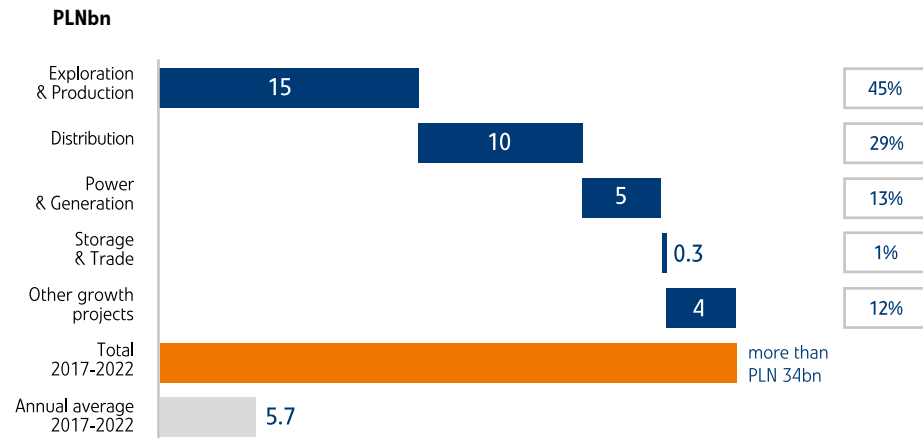
Strategic perspective	PGNiG Group's strategic objectives	Strategic ambitions for 2017–2022
Financial	Increasing the PGNiG Group's value and ensuring its financial stability	Cumulative EBITDA of PLN 33.7bn
Customers	Development of gas and electricity sales	Cumulative natural gas sales volume on wholesale markets in Poland and abroad 1,000 TWh; Cumulative gas and electricity sales volume of 410 TWh
Processes	Improve efficiency in connecting new customers	Over 300 thousand new customers connected to the PSG distribution network
Resources and growth	Increase hydrocarbon reserves Increase potential for hydrocarbon production Diversified gas supply portfolio	Increase the base of documented hydrocarbon reserves by 35% Increasing total output of hydrocarbons by 41% Diversification of gas supply sources

Investment projects in 2017–2022

The total capex has been assumed to exceed PLN 34bn in 2017–2022. Average annual capital expenditure in 2017–2022 will amount to ca. PLN 5.7bn:

- of which almost a half (45%) will be spent on hydrocarbon exploration and production;
- almost 30% of capital expenditure will be spent on developing the distribution business;
- ca. 13% – on power and heat generation projects;
- additionally, ca. 12% of capex will be allocated to other, selected growth projects offering attractive returns, including in distribution, trading, power and heat generation.

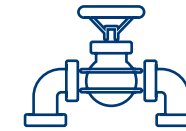
Planned capital expenditure in 2017–2022



The investment programme should deliver cumulative 2017–2022 EBITDA of ca. PLN 33.7bn, driving long-term growth of the Group's EBITDA in 2023–2026 to the annual average of ca. PLN 9.2bn. At the same time, the net debt to EBITDA ratio should stay below 2.0

over the Strategy term, with the current dividend policy providing for distribution of up to 50% of the Group's consolidated net profit upheld.

Strategy in action



Directions

In the light of little prospects of proving unconventional reserves and the limited capacity for growth in discoveries of new hydrocarbon reserves in Poland, the Group is looking for ways to increase its hydrocarbon reserves and step up production abroad. The Group is also committed to carrying out production projects which will yield equity gas on the Norwegian Continental Shelf, with physical transport of gas to Poland.

Exploration and Production

Increasing proven hydrocarbon reserves

Hydrocarbon exploration in Poland is planned to be intensified in 2017–2022, to maintain the high rate of new discoveries. The 2016 breakthrough in exploration efficiency led to a surge in newly discovered hydrocarbon reserves (increase of approximately 35m boe in 2016 vs approximately 16m boe in 2015). In 2017–2022, the gross annual growth in Polish hydrocarbon reserves (without accounting for production) is expected to continue at a rate close to the 2016 levels, ranging from approximately 27 to 34m boe annually.

Increasing annual hydrocarbon production volume

Another of the segment's strategic objectives is to increase the volume of annual hydrocarbon production from approximately 39m boe in 2017 to close to 55m boe in 2022 (+15.9m boe, CAGR 6%) by keeping up the annual output in Poland at 30–33m boe and considerably stepping up production abroad, i.e. in Pakistan and Norway, to 22m boe annually.

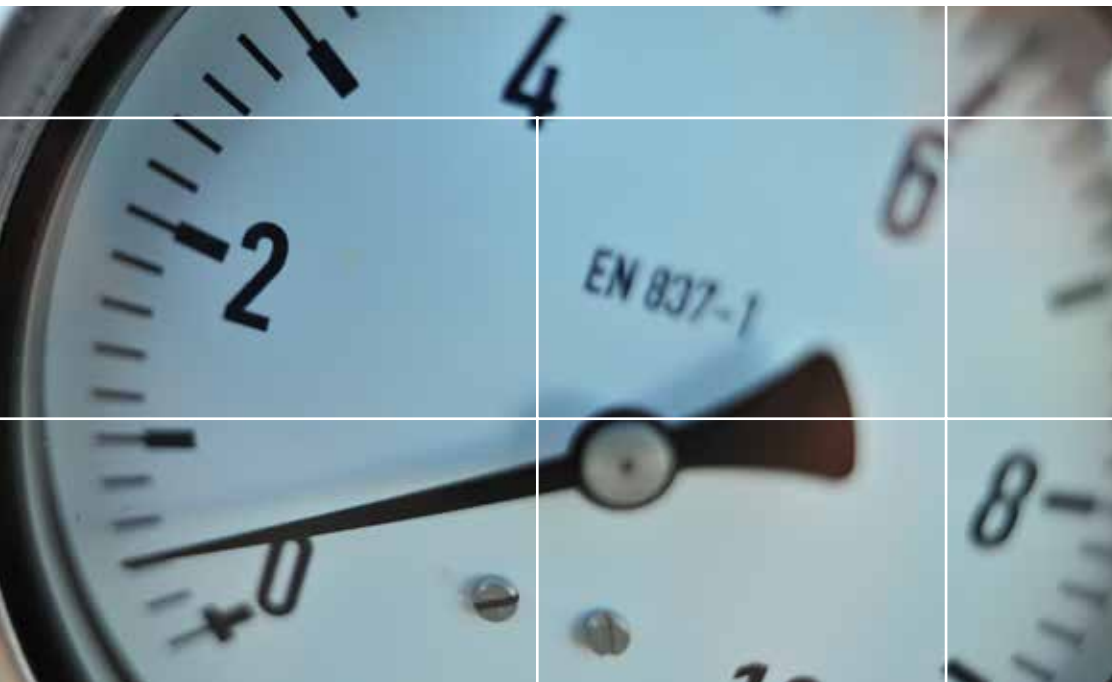
To achieve that, the following measures will be taken:

- in Poland: increasing output from producing fields;

- abroad:
 - participation in licence award proceedings in priority regions/countries;
 - execution of M&A projects in priority regions/countries,
 - implementation of an accelerated field development programme in the licence areas.

Increasing profitability of exploration and production operations

It is the segment's strategically-motivated ambition to considerably reduce unit exploration costs in Poland. Exploration efforts are to be focused on projects offering the highest potential for commercial success. In addition, the average time for appraisal and development of deposits is assumed to be shortened.



Trade and Storage

Wholesale trade: Diversification of gas supply sources

The PGNiG Group's position has been adversely affected by the long-term contract for gas supplies to Poland, concluded in the past (the Yamal contract). As the contract is nearing expiry in 2022, the Group seeks to ensure real diversification of gas supplies. To this end, the Group will focus primarily on supporting construction of the pipeline connecting Norway to Poland, developing LNG trading and logistic competencies on the global market, and expanding its portfolio of natural gas reserves.

- The Group's strategic objective is to build a mix of gas supply sources based on the planned transmission infrastructure Norway-Denmark-Poland to enable gas imports from new directions and at market prices, thus ensuring renewal of the gas supply portfolio beyond 2022.
- Once built, LNG trading and logistic competencies on the global market will help create a more flexible gas supply portfolio beyond 2022 as the Group will be able to swiftly balance its gas imports. Efforts to develop such competencies and strengthen the Company's presence on the global LNG market will be continued. The Group intends to analyse the possibility of entering into contracts for LNG imports from new directions (e.g. from North America, Australia, Africa), expand cooperation with the existing LNG suppliers, and acquire new competencies in LNG transport by sea.
- Expansion of the resource base in Poland and abroad accompanied by completion of the Norwegian Corridor project would enable transport of gas from the Group's own fields directly to Poland.

Wholesale trade: Increased gas volume in wholesale

In wholesale, the strategic objective is to expand the Group's gas trading volume to approximately 178 TWh in 2022 (in 2017, the volume was approximately 175.7 TWh). This is to be achieved by increasing the volume of gas sales in Poland, taking steps to reduce the rate of decline in sales of gas to end users due to market deregulation, and expanding the volume of gas sales on foreign markets. This objective fits in with the upward trend observed in 2017 in the volumes of natural gas sold to the largest industrial gas customers in Poland and the strong sales of gas to Ukraine.

Retail trade: Maintaining current market position and maximising retail margins

During the term of the Strategy, the overriding strategic objective of PGNiG OD is to improve the effectiveness of retail sales of gas while maintaining the total volume of retail sales at around 67–69 TWh/year.

In the near term, the key factor with a bearing on PGNiG OD's business will be the deregulation of retail gas prices. The obligation to seek approval for institutional tariffs was abolished as of October 1st 2017, which means that approximately 50% of the gas volume sold by PGNiG OD is exempt from the tariff obligation.

Storage: Increasing available storage capacities

In its storage business, the PGNiG Group focuses on two key strategic goals, i.e. securing storage capacities in keeping with actual demand, and further improving efficiency of the storage operations. It is expected that upon completion of the extension of the underground gas storage facilities, the storage capacities will be sufficient to satisfy the anticipated demand

for storage services until 2022. The key objective is to complete the current projects (Kosakowo UGSF). Once the projects are completed, Poland's total capacity to store high-methane gas will be approximately 3 bcm.

Distribution

Accelerate the rate of connecting new customers

The new Strategy provides for significant acceleration of development of the distribution system and for increasing the rate of connecting new customers to the grid. In previous years, PSG's approach to the development of the gas market was reactive and, consequently, the company failed to fully realise the market development potential. At present, one of the key strategic objectives of the distribution business is to increase the pace of connecting new customers to the distribution network from about 47 thousand new connections in 2017 to about 55 thousand new connections per year (up 8 thousand or ca. 17%).

The market's potential can be fully exploited by streamlining the connection processes (and shortening the time to approve and construct new connections), improvements in customer service, and deployment of remote channels.

Increase gas distribution volumes

The higher rate of connecting new premises to the gas network will enable PSG to increase the volume of natural gas distributed, from the 2017 target of approximately 10.6 bcm to approximately 12.3 bcm in 2022 (an increase of about +1.7 bcm, or 16%).

There is vast potential for development of Poland's distribution network. On the one hand, the share of natural gas in Poland's total fuel consumption is relatively low when

The deregulation of retail gas prices for institutional tariffs

Approximately 50% of the gas volume sold by PGNiG OD is exempt from the tariff obligation.

compared with other EU countries (such as Hungary, Italy, the Netherlands, or the UK). On the other hand, the saturation of the natural gas distribution network in Poland is also relatively lower than that observed in the case of gas distribution network operators in other EU countries, for instance Italy or Spain.



For more on Baltic Pipe, see p. 21.

Verification of the PSG strategy implemented in July 2016

PSG's strategy for 2016-2022

In 2017, PSG revised its strategy for 2016-2022 announced in 2016, based on a new concept of company value management – PSG will pursue a policy of evolutionary growth through volume-focused initiatives, while maintaining cost discipline combined with cost optimisation of the processes. PSG has been building its portfolio of growth initiatives so that the portfolio supports the values highlighted in PSG's strategy for 2016-2022: building company value, continuous operational efficiency improvement; search for and implementation of innovative solutions and technologies, and taking up new market challenges.

Generation

Increase power and heat sales volumes

The PGNiG Group's strategy for the generation business is to expand its share in the heat generation and distribution market. On April 28th 2016, PGNiG TERMIKA purchased shares in the companies that subsequently merged to form PGNiG TERMIKA EP. These acquisitions helped the PGNiG Group to expand into the prospective heat markets of Upper Silesia. Around PGNiG TERMIKA, the Group is building a strong group of companies offering significant growth potential that will create value for the entire Group.

In terms of electricity and heat generation, the Group's strategic ambition is to incre-

ase the electricity and heat sales volume from approximately 15 TWh in 2017 to around 18 TWh in 2022. This objective will be achieved mainly through strategic upgrades and growth investments in the existing generation facilities, including the construction of a new CCGT unit at the Żerań CHP plant, integration of the acquired heating assets within the PGNiG TERMIKA Group, and increasing the production of electricity and heat at PGNiG TERMIKA EP following the launch of a new generating unit at the Zofiówka CHP plant, and further acquisitions of local heating systems.

The current market and regulatory environment as well as tariffs provide favourable conditions for the growth of Poland's heating market. Available market forecasts suggest a stable growth of the total price of district heat and a moderate increase in demand for district heat in the coming years. The regulated nature of the business guarantees stable rates of return.

Other segments

Effective business model, development of R&D&I and CSR

This area will strive to build an efficient organisational and management model across the highly complex structure of the PGNiG Group. The three main aspirations of this area are to increase the PGNiG Group's growth potential in research, development and innovation, improve the operational efficiency of the PGNiG Group, and enhance the image of the PGNiG Group.

PGNiG Group Sustainable Development Strategy for 2017-2022

In April 2017, the PGNiG Management Board adopted the PGNiG Group's Sustainable Development Strategy for 2017-2022, which supports and complements the business objectives defined in the PGNiG Group Strategy for 2017-2022.

The awareness of the impact on the environment and responsibility for energy security, rooted in the Group's value system, are the foundations of the new CSR Strategy. The priorities of the CSR Strategy are presented below.

National energy security

The business activities of the PGNiG Group directly affect Poland's energy security, which in the perspective of sustainable development is reflected in the objective of providing customers with access to natural gas, electricity and heat, based on diversified sources and directions of natural gas supplies. This objective is understood as the PGNiG Group's continuing commitment to the development of natural gas and oil production, gas storage and the provision of diversified sources of supply to customers. In this context of CSR, the key business projects become increasingly important. As the leader of the natural gas market in Poland, the PGNiG Group is constantly striving to develop natural gas and crude oil

production and gas storage, as well as to provide uninterrupted access to these products to its customers.

Environmental protection

The PGNiG Group's operations affect the natural environment along the entire value chain. Considering the contemporary challenges to environmental protection, related to the depletion of natural resources and potential contamination of individual environmental components, we are taking steps to minimise any adverse impact on the environment. The challenge in this area is also close cooperation and control of compliance with the environmental requirements set for contractors, cooperation with state administration bodies, local governments and the local community. In addition, it starts activities aimed at increasing energy efficiency, such as the implementation and maintenance of an energy management system.

Local society

The nature and scale of the PGNiG Group's operations, and in particular the potential interference of its exploration, production, storage and distribution infrastructure with the lives of local communities, make the Group deeply

committed to building relationships with its social environment. We make every effort to build an equal relationship with local communities, authorities, suppliers and contractors in order to pursue common objectives. The PGNiG Group creates opportunities for cooperation and builds understanding for mutual relations and interdependencies with individual stakeholder groups.

Development of the offering and customer satisfaction

Care for the customers and their satisfaction is one of the key areas of focus for the PGNiG Group companies, including PGNiG SA, PGNiG OD, PGNiG Termika, and PSG. Retaining the existing customers and acquiring new ones is possible thanks to the implementation of projects designed to ensure professional and friendly customer service and tailoring the offering to the diverse needs of our customers. Building long-term relationships with customers is also among the commitments made in the PGNiG Group's QHSE Policy and among the requirements for a quality management system.

Care for employee safety and development

Building mutual relations and conducting open dialogue with trading partners in order to continuously enhance the safety of employees, persons staying on the PGNiG Group's premises and the local communities as well as successful efforts to constantly and permanently improve occupational health and safety are among PGNiG's principal commitments set out in the QHSE Policy, implemented through the Group's health and safety management system.

Innovation for development

Investment in innovation and modern solutions increase the efficiency of operations, contribute to the growth of the PGNiG Group's business potential and help minimise the adverse impact of the Group's operations on the environment. Innovation based on a solid foundation, laid on knowledge, education and R&D activities, can trigger the growth of an organisation. That is why one of our priorities is to develop cooperation with the world of science, as well as to support and initiate the development of start-ups as well as small and medium-sized enterprises.

The value system as a basis for action

The objective of ethics programme is to ensure compliance with ethics principles and strengthen PGNiG's corporate culture by identifying behaviors that are desirable within the company, as well as those that will not be accepted. The rules of ethics are defined in the PGNiG Code of Ethics and in the Principles of Good Practice of the PGNiG Group Manager.

The PGNiG Code of Ethics describes standards in four categories: responsibility, partnership, credibility and quality. These are also the values which PGNiG employees indicated as the most important ones in the satisfaction survey. The system of values at the PGNiG Group is supported by the Ethics Officer employed at PGNiG, who explains ethics matters to the entities that do not have an ethics officer and recommends steps to be taken by the management of those entities.

The Ethics Programme Management System and the Ethics Committee have also been in place for several years. The Committee consists of directors and managers of key areas who are responsible for implementing ethical standards. Meetings of the Ethics Committee are held at least twice a year. The PGNiG Group

companies also have their own codes of ethics and ethics officers.

The Ethics Officer is responsible for promoting PGNiG's ethical behaviour, and monitors compliance with the Code of Ethics by receiving and evaluating reports of ethics violations and liaising with the Ethics Committee and the Ethics Officers of the PGNiG Group. The PGNiG Group has 10 persons to perform this function.

The PGNiG Group ethics officers supervised ethics training covering over 3,000 Group employees, with particular focus on workplace harassment and ethical awareness. The need was also stressed to involve managers in transferring ethics knowledge to their subordinates.

The PGNiG Code of Ethics describes standards in four categories: responsibility, partnership, credibility and quality. These are also the values which PGNiG employees indicated as the most important ones in the satisfaction survey. The system of values at the PGNiG Group is supported by the Ethics Officer employed at PGNiG, who explains ethics matters to the entities that do not have an ethics officer and recommends steps to be taken by the management of those entities.

Human rights and ethics

Human rights aspects are taken into account in the Codes of Ethics and the Group's procedures for preventing workplace harassment and discrimination, which are founded, in particular, on the principles of the Constitution of the Republic of Poland:

- the principle of legal equality and prohibition of discrimination (Art. 32 of the Constitution of the Republic of Poland);
- the principle of gender equality (Art. 33);
- freedom of religion and belief (Art. 53–54);
- the right to privacy (Art. 47); and
- the right to protection of personal data (Art. 51).



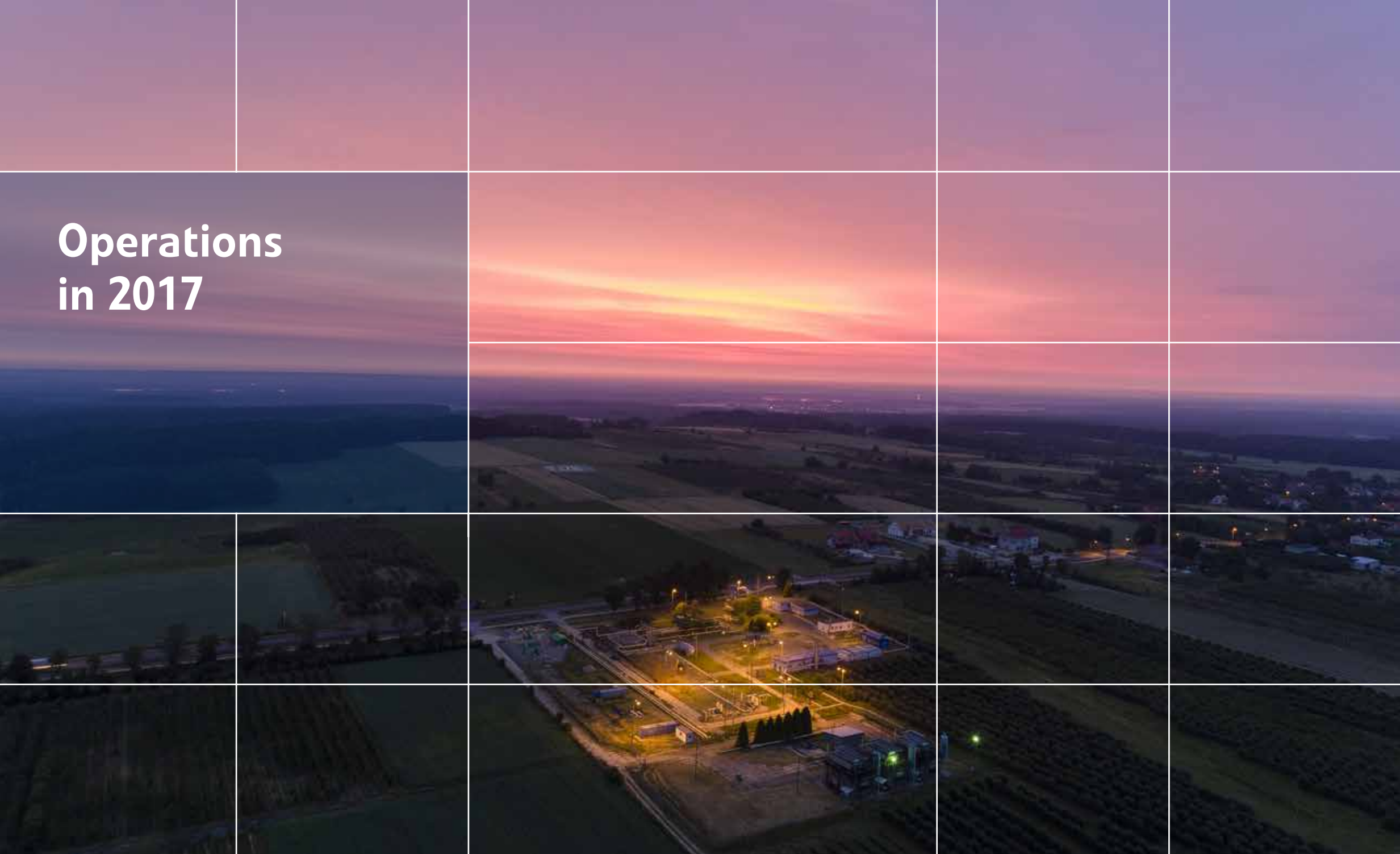
Strategic objectives

Area	Subject	Strategic objective
Market	National energy security	Providing customers with access to natural gas, electricity and heat, based on diversified sources and directions of natural gas supplies.
	Environmental protection	Effective care for environmental issues in all business areas. Improving energy efficiency throughout the PGNiG Group's value chain.
Environment	Social capital	Commitment to the development of social and intellectual capital in Poland by opening up to new initiatives and supporting pro bono projects.
	Social communication and dialogue when carrying out investment projects	Dialogue with local communities in accordance with the best standards developed at the PGNiG Group.
Customers	Customer satisfaction	Increasing customer satisfaction by improving service quality and investing in advanced digital communications solutions and tools that meet the needs of various customer groups.
	Development of the offer	Striving to increase the availability of products and services, including through the development of infrastructure in areas not connected to the gas distribution network and tailoring the offering to the highest standards and customer needs.
Employees	Reliable employer	Promoting and implementing good hiring standards by pursuing a professional HR policy and building a friendly workplace.
	Employee development	Development of mentoring and proactive initiatives to ensure the availability of qualified staff.
	Occupational health and safety	Implementation of uniform OHS management standards in order to constantly increase the safety of PGNiG employees, any other persons on PGNiG premises, and the local community.
Innovations	Innovation for development	Active support of the development of cooperation with scientific and research institutions and start-ups or SMEs in order to constantly improve the efficiency of company's operations.
Ethics	System of values	Broadening the employees' knowledge of the ethical values and principles applicable in the work environment.
		Responsible management of the entire value chain based on transparent cooperation principles taking into account social and environmental criteria as well as human rights.

Risks identified in key strategic areas

Area	Risk	Risk management measures taken by the PGNiG Group
National energy security	Delay in exploration and production operations	<ul style="list-style-type: none"> Ongoing monitoring of project progress Taking necessary corrective action by the licence operator
	Disruptions to gas supplies	<ul style="list-style-type: none"> Constant monitoring of gas supplies Efforts aimed at ensuring real diversification of gas supplies in terms of suppliers and countries
Environment	Negative impact of operations on the natural environment	<ul style="list-style-type: none"> Implementation of the QHSE Policy and environmental management systems Environmental education of employees Implementation of energy management system Submitting reports to competent authorities and institutions responsible for environmental management
	Risks related to relations with local communities	<ul style="list-style-type: none"> Ongoing communication and education on executed projects Cooperation with non-governmental organisations Addressing real problems of local communities (programmes, projects, support for local initiatives) Cooperation with local authorities
Customers	Risks related to relations with customers	<ul style="list-style-type: none"> Review of agreements in terms of legal compliance Provision of customer service training to employees Compliance with the Code of Ethics Rules and regulations applicable to customer relations Development of modern channels of communication with customers
	Departures of highly qualified staff	<ul style="list-style-type: none"> Clear rules of employee remuneration Regular employee training to improve qualifications Periodic employee assessment by superiors Employee surveys / opinion polls System of social and other benefits for employees
Employees	Occupational health and safety risk	<ul style="list-style-type: none"> QHS and first aid training for employees Compliance with the requirement of pre-employment and periodic medical examinations of employees Compliance with internal OHS procedures reflecting external regulations Compliance with the QHSE Policy Ongoing proactive and reactive monitoring
	Risk related to social dialogue – relations with trade unions	<ul style="list-style-type: none"> Periodic meetings of management staff with representatives of trade unions Ethics programme management system Rules of meeting employee benefit obligations Social agreements, Company Collective Bargaining Agreements
Ethics	Risk of misconduct (bullying, harassment)	<ul style="list-style-type: none"> Training for employees and management staff Ethics programme management system Code of Ethics with examples of ethical behaviour Ethics officers in the PGNiG Group, including at PGNiG
	Risk of corruption	<ul style="list-style-type: none"> Compliance with the Code of Ethics Implementation of the Anti-Corruption and Gift Policy Relevant staff training Ongoing monitoring and analysis of external regulations and their incorporation in internal rules
Ethics	Risk of irregularities in public procurement processes	<ul style="list-style-type: none"> Staff training on procurement procedures and liability of employees involved in procurement process Internal rules, including the Anti-Corruption and Gift Policy Supervision of procurement documentation by qualified personnel
	Risk related to relations with suppliers and counterparties	<ul style="list-style-type: none"> Compliance with the Code of Ethics and the QHSE Policy Employment of qualified staff Requiring contractors and suppliers to comply with the PGNiG Group's internal regulations

Operations in 2017



Summary of 2017

PGNIG ON WSE

5.6 EV/EBITDA	12.4 P/E	1.1 P/BV	21.8 PLN m average daily trading value	5 largest company listed on the WSE*	36.3 PLN bn market capitalisation
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* In terms of market capitalisation as at December 31st 2017.

PGNIG GROUP IN 2017

35.9 PLN bn revenue	6.6 PLN bn EBITDA
2.9 PLN bn net profit	24.7 thousand number of employees
3.9 PLN bn EBIT	48.2 PLN bn total assets
8.6% ROE	6.0% ROA



EXPLORATION & PRODUCTION

1.3 m tonnes
production of crude oil,
condensate, and NGL

54
number of oil and
gas production
facilities in Poland

over 2 thousand
number
of producing wells

795 m boe
oil and gas reserves

4.5 bcm
production
of natural gas

213
number of production
licences

48
number of hydrocarbon
exploration and appraisal
licences



TRADE & STORAGE

26.8 bcm
volume of gas sold

8.5 bcm
volume of gas sold
on PPX

13.7 bcm
volume of imported gas

3.0 bcm
gas storage capacities



DISTRIBUTION

7 m
number of customers

1,479
number of municipalities/
communes connected
to the gas grid

11.6 bcm
volume of distributed gas

183 thousand km
Length of distribution
network with service line



GENERATION

42.1 PJ
heat output

1.2 GW
electric power

5.5 GW
thermal power

3.9 TWh
electricity output

Capital expenditure in 2017

In 2017, the PGNiG Group's capital expenditure on property, plant and equipment and intangible assets was PLN 3.2bn, having gone up by

ca. 7% year on year. The tables below present the Company's and the Group's expenditure in each segment.

Capital expenditure ¹ on property, plant and equipment made by the PGNiG Group in 2017	2017	2016 ²	Performance vs CAPEX plan 2017 ³
I. Exploration and Production, including:	1,214	1,254	57%
1 Norway	275	343	
2 Pakistan	100	98	
3 Libya	4	6	
II. Trade and Storage	60	82	55%
III. Distribution	1,265	1,109	86%
IV. Generation	526	438	58%
V. Other Segments	145	120	66%
VI. Total capital expenditure (I-V)	3,210	3,003	66%

¹ Including capitalised borrowing costs.

² The figures for 2016 take into account the transfer of the corporate centre area to the Other Segments.

³ Expenditure planned in 2017, net of expenditure on potential acquisitions in Norway.



Expected financial situation

In the coming periods, the financial standing of the PGNiG Group will be materially affected by changes in the prices of hydrocarbons on global commodity markets and fluctuations in foreign exchange rates. These factors will be of particular importance for the PGNiG Group's performance in the Exploration and Production and Trade and Storage segments.

Any changes in hydrocarbon prices affect revenues of the Group entities engaged in production, and determine the demand for seismic and exploration services offered by the Group companies. Rising gas and crude oil prices have a positive effect on performance generated by the Exploration and Production segment. Long-term forecasts of hydrocarbon prices strongly influence projected cash flows from production assets, and as a consequence entail the necessity of revaluation of property, plant and equipment.

On the other hand, in view of the fact that the prices of gas purchased by PGNiG under the Yamal and Qatar contracts are linked to prices of crude oil, the effect of rising oil prices on the performance of the Trade and Storage segment is opposite to the effect that rising oil prices have on the performance of the Exploration and Production segment. Any increase of crude oil prices translates into higher cost of gas purchased by PGNiG. This correlation may change following a ruling by the Stockholm Arbitration Tribunal regarding the price formula used in the Yamal contract.

The PGNiG Group's financial results will also be materially affected by situation on the domestic currency market. Any strengthening of the zloty against foreign currencies (primarily the US dollar) will have a positive effect on performance of the Trade and Storage segment by driving down PGNiG's gas procurement costs, although it must be noted that the effect of exchange rate fluctuations is mitigated by the PGNiG Group's hedging policy.

The PGNiG Group's financial results will also be affected by the President of URE's position regarding the level of gas fuel sale and distribution tariffs and heat sale tariffs. In addition, the progressing deregulation of the gas market in Poland will continue to put pressure on the performance of the PGNiG Group's Trade and Storage companies engaged in the provision of gas sale services. Competition for customers has prompted the launch of a number of discount schemes dedicated to customers buying gas from the Group and the change in pricing terms to reflect market prices. These factors may have an adverse effect on the profitability of the Trade and Storage segment by eroding its margins.

However, the PGNiG Group companies have put in place a number of initiatives to improve efficiency. These initiatives focus, among other things, on optimisation of the cost base and are expected to have a positive effect on the PGNiG Group's financial results.

In the Generation segment, financial results will also be considerably affected by the support programmes for electricity produced from high-efficiency cogeneration sources and renewable sources. Legislative changes in this area and fluctuations in market prices of certificates of origin (both red and green) will have a bearing on the segment's financial position. Another key factor affecting the segment's performance are prices of the fuels used to produce heat and electricity.

In the coming quarters, the Group intends to maintain a high level of capital expenditure. Spending will focus primarily on projects involving maintenance of hydrocarbon production rates, as well as projects in the exploration for and appraisal of crude oil and natural gas deposits, and development of the power generation segment.

Capital expenditure¹ on property, plant and equipment planned by the PGNiG Group in 2018

	PLNm	2018 ²
I.	Exploration and Production, including:	2,327
1	Norway	386
2	Pakistan	193
3	Libya	6
II.	Trade and Storage	160
III.	Distribution	2,159
IV.	Generation	1,068
V.	Other Segments	183
VI.	Total capital expenditure (I-V)	5,897
	including PGNiG	2,094

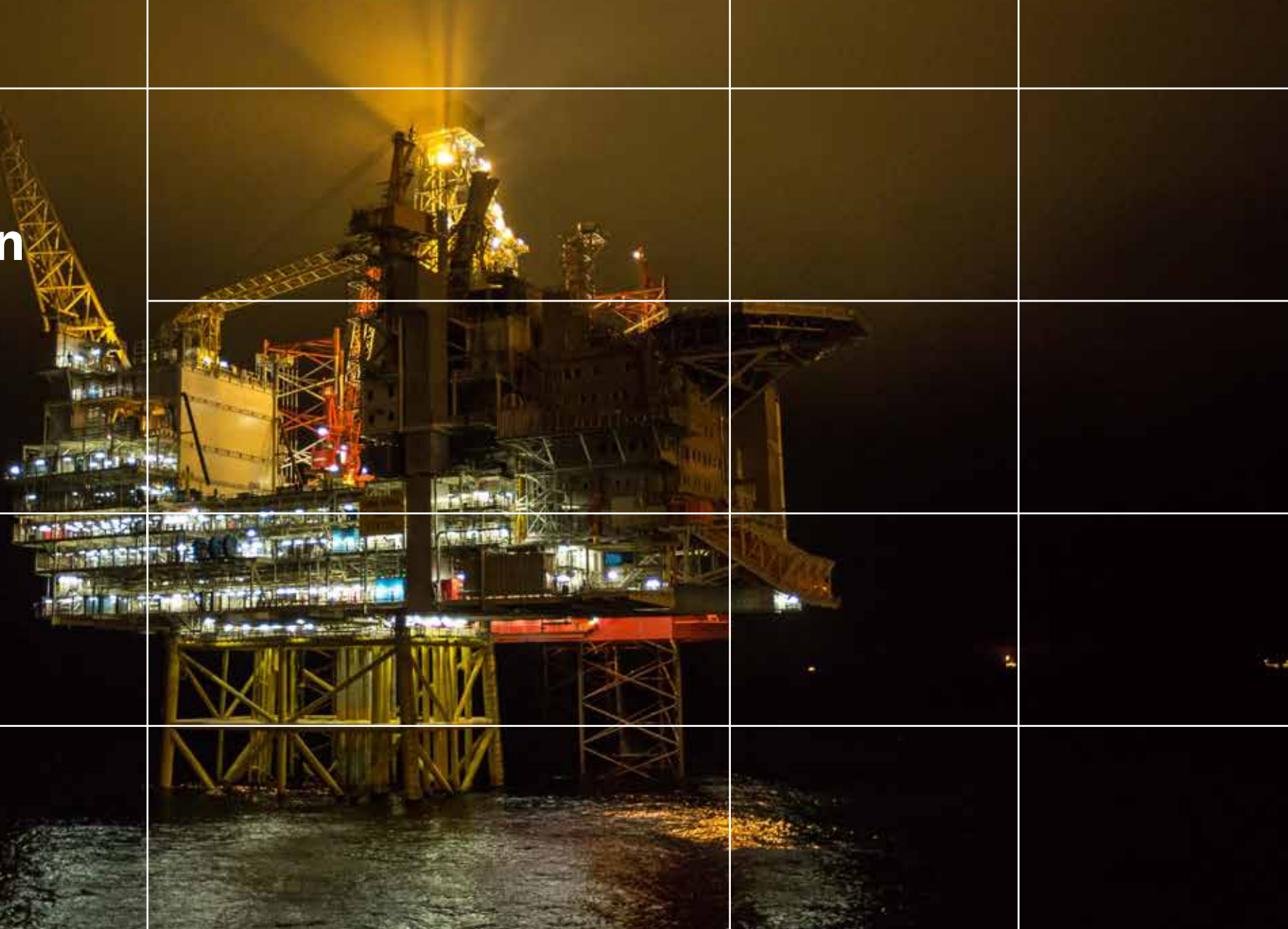
¹ Including capitalised borrowing costs.

² Planned expenditure does not include expenditure on potential acquisitions.

The above amounts do not include potential expenditure on acquisition of hydrocarbon deposits or acquisitions in the power sector. When evaluating the feasibility of its investment plans for 2017 and beyond, the PGNiG Group took into account its financial standing, including the available sources of external financing and cash generated by the Group's

day-to-day operations. It can thus be concluded that the funds available to the PGNiG Group were found sufficient to finance its investment plans.

Exploration and Production



Exploration and Production

PGNiG Upstream Norway AS - formerly PGNiG Upstream International AS.

See also: www.norway.pgnig.pl/en

See also: www.exalodrilling.com/en

See also: www.geofizyka.pl

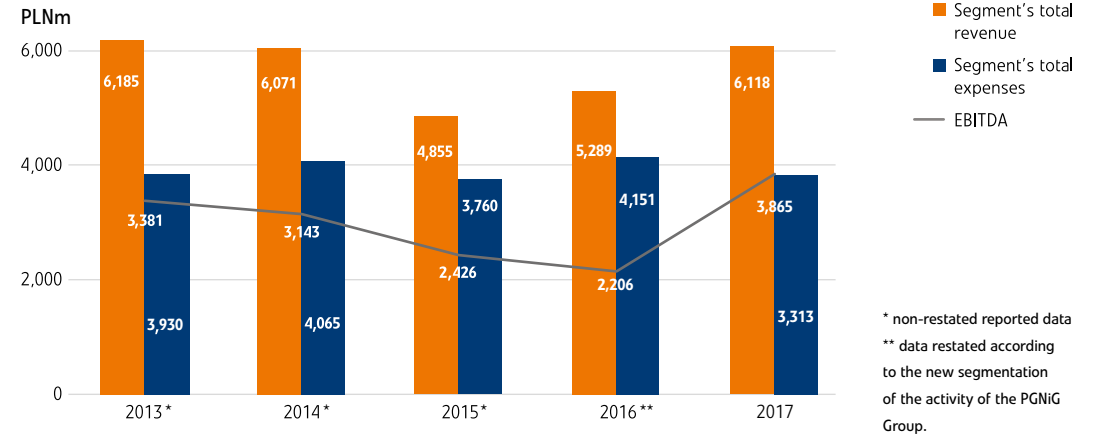
Segment's figures

The segment's business focuses on extracting hydrocarbons from deposits and preparing them for sale. It comprises the entire process of oil and gas exploration and production, from geological analyses, to geophysical surveys and drilling work, to field development and hydrocarbon production. The work is conducted

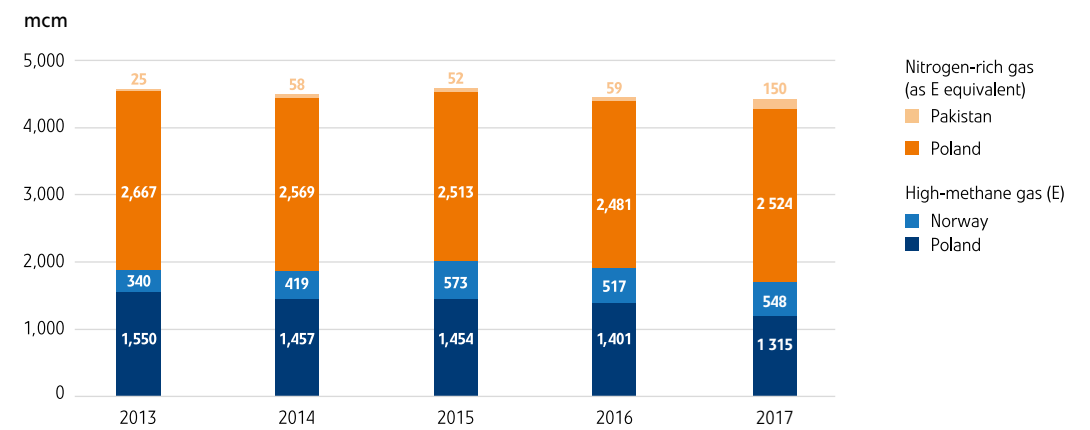
by the segment on its own or jointly with partners, under joint operations agreements.

Segment's companies: PGNiG SA, PGNiG Upstream Norway AS, PGNiG Upstream North Africa BV, EXALO Drilling SA, GEOFIZYKA Toruń sp. z o.o., GEOFIZYKA Kraków sp. z o.o. in liquidation.

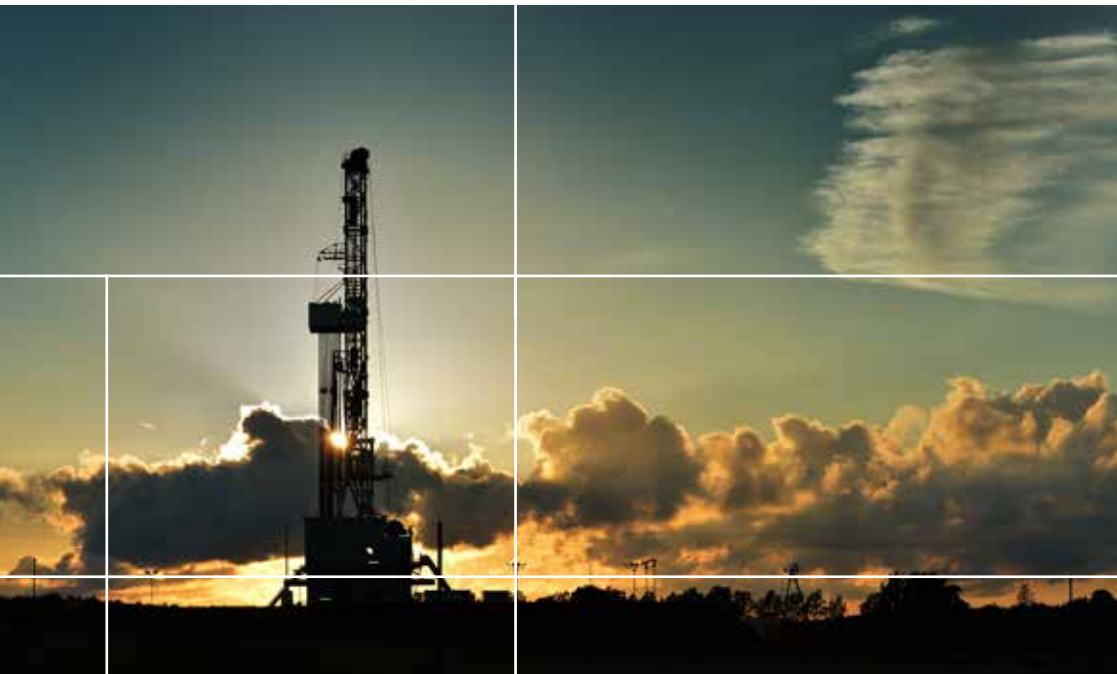
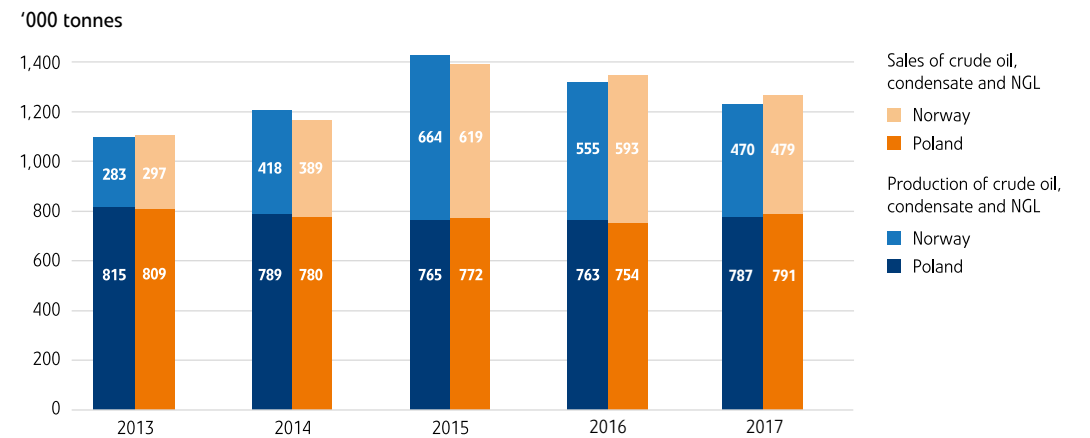
Segment's financial highlights



Natural gas production by the PGNiG Group



Crude oil, condensate and NGL, PGNiG Group



At the end of 2017, the Exploration and Production Segment recorded profit on operating activity of PLN 2,805 million.

The result was higher by PLN 1,667 million than that achieved last year. At the EBITDA level, profit was generated in the amount of PLN 3,865 million, which is a result higher than the year before by PLN 1,659 million (75%). The segment's revenues grew by PLN 829 million, to the level of PLN 6,118 million (up 16%), as compared to the revenues generated in 2016.

In 2017, a decline in the sales volume of petroleum was recorded (by 6% y/y). This was mainly caused by downtimes in Norway: the shutdown of two wells on the Skarv deposit and technological downtime on the Vale deposit. Despite this, the PGNiG Group recorded an increase in revenues in the segment from the sales of oil by PLN 256 million (16%). This resulted from an increase in oil prices on the global markets (the average quarterly Brent oil price denominated in PLN was higher by approx. 18% against the amount from the similar period of the previous year). A decrease in operating costs by PLN 837 million (20%) in the segment was an effect of significantly lower values of impairment losses on fixed assets, which in 2017 charged the segment's result with an amount of PLN 79 million, compared to PLN 771 million in 2016.

Activities in 2017

Operations in Poland

Licences in Poland

As at December 31st 2017, PGNiG held 48 licences for exploration and appraisal of crude oil and natural gas deposits, vs 53 licences as at January 1st 2017. In 2017, 33 proceedings to extend, change or convert licences were closed (with a total of 21 concessions converted). 40 proceedings to approve additional works in geological projects were also completed. As at December 31st 2017, proceedings to convert 4 licences and extend 2 licences were still pending at the Ministry of the Environment. 17 additions to geological projects also await final approval.

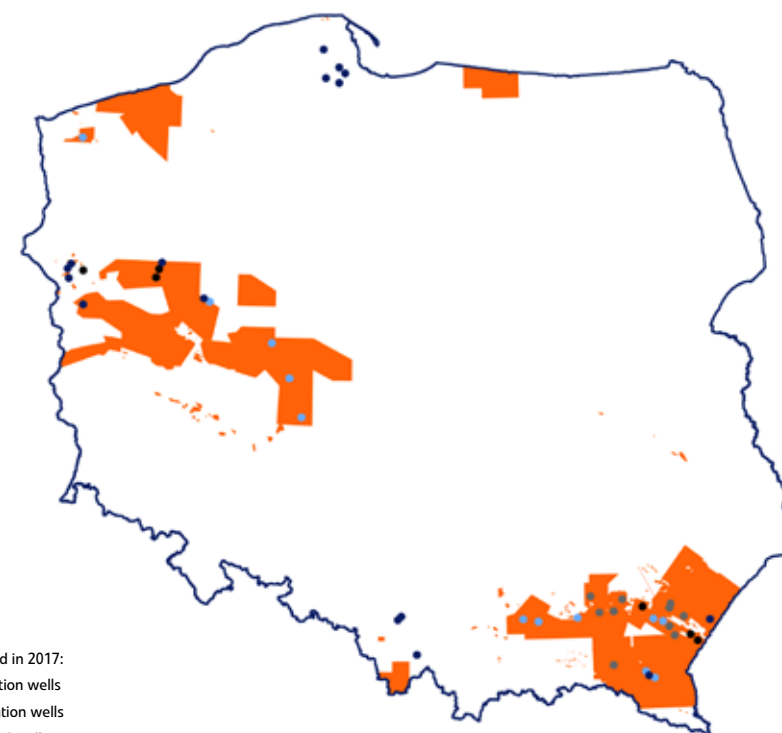
As at December 31st 2017, PGNiG held a total of 213 production licences in Poland. In 2017, no new licences were granted to PGNiG, 26 licences were changed and 12 licences expired.

Work performed

Throughout 2017, PGNiG was involved in crude oil and natural gas exploration and appraisal projects in the Carpathian Mountains, Carpathian Foothills, Sudetian Monocline, and Polish Lowlands, both on its own and jointly with partners. Drilling work in areas covered by licences awarded to PGNiG was performed on 33 boreholes, including 12 exploration wells, 10 appraisal wells and 11 production wells. In 30 of the wells the target depth was reached, including in 11 exploration wells, 10 appraisal wells, and 9 production wells.

As at the end of December 2017, formation test results were obtained from 22 boreholes (12 exploration wells and 10 appraisal wells), including 3 wells where drilling was completed in 2016.

PGNiG's licences and wells in 2017



Wells drilled in 2017:

- production wells
- exploration wells
- appraisal wells
- reconstruction, intensification, test, liquidation
- exploration and production licences

In 2017, 14 wells, including 5 exploration and 9 appraisal wells, were drilled with positive results. 8 wells failed to yield a commercial flow of hydrocarbons and were therefore abandoned. In 2017, 9 production wells were classified as positive. In 2017, workovers, enhanced recovery treatments and tests were performed

on 8 research (core) boreholes, 4 exploration wells, 2 appraisal wells, and 2 production wells.

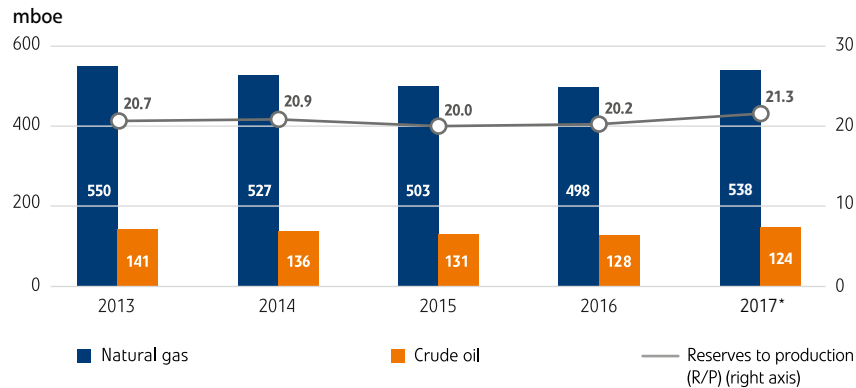
No. of production facilities

	Sanok	Zielona Góra
Gas production facilities	18	11
Oil production facilities	5	2
Oil and gas production facilities	13	5
Total	36	18

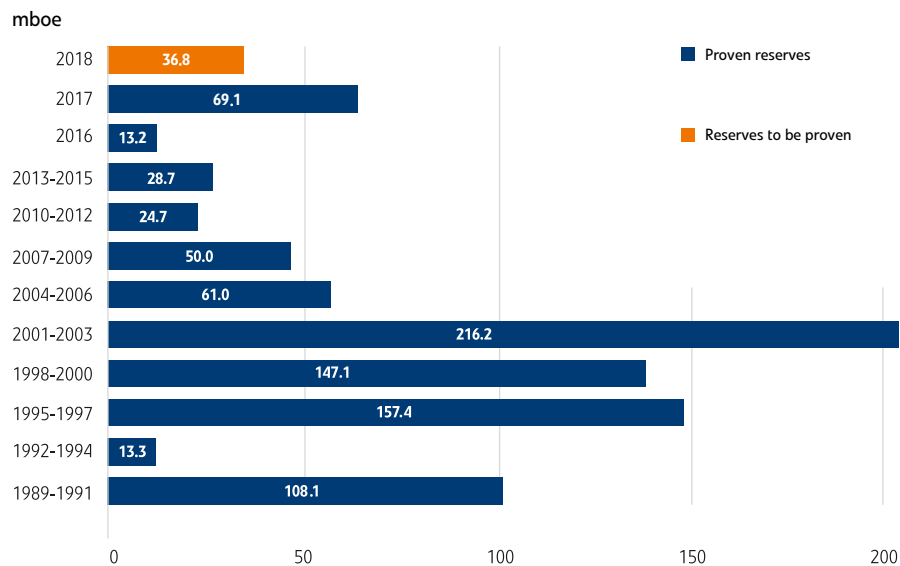
With its oil production volume in Poland close to 800,000 tonnes in 2017, PGNiG is one of Poland's leading producers of crude oil. As regards domestic gas production, PGNiG's share is approximately 90%.

In 2017, PGNiG conducted joint operations with other entities in licence areas awarded to PGNiG, FX Energy Poland sp. z o.o., LOTOS Petrobaltic SA, and ORLEN Upstream sp. z o.o. Furthermore, PGNiG was engaged in exploration work with other entities in Pakistan and Norway.

Recoverable reserves in Poland in 2013–2017 (proven by PGNiG)



Proved and unproved reserves in 1989–2018 in Poland



Sales of key products

The main products sold by the segment are crude oil, high-methane gas and nitrogen-rich gas. Other products, obtained in the process of crude refining, include crude condensate, sulfur, and propane-butane. Some of the produced nitrogen-rich gas is further treated into high-methane gas at the Odolanów and Grodzisk Wielkopolski nitrogen rejection units. Apart from high-methane gas, the cryogenic processing of nitrogen-rich gas yields such products as liquefied natural gas (LNG), gaseous and liquid helium, and liquid nitrogen. As regards trading in crude oil extracted in Poland, in 2017 PGNiG continued its trading partnership with major Polish and foreign players in the fuel sector.

Rail deliveries of crude oil (67% of sales) were made to the refinery of the LOTOS Group in Gdańsk and to Orlen Południe's Trzebinia Production Plant (the ORLEN Group). In 2017, crude oil was also delivered by road to Orlen Południe's Jedlicze Production Plant (5% of sales), and via the PERN pipeline – to TOTSA TOTAL Oil Trading SA (28% of sales). PGNiG sells crude oil at market prices.

Seismic surveys

In 2017, 335.17 km² of 2D seismic surveys and 650.74 km² of 3D seismic surveys were carried out. The largest 2D and 3D projects implemented in Poland during the year include Barycz-Paszowa 2D (288 km²) as well as Robotycze-Fredropol 3D (246 km²), Kramarzówka 3D (146 km²), Mechlin 3D (110 km²), and Taczanów 3D (56 km²).

Underground gas storage facilities

PGNiG's Exploration and Production segment's gas system includes two storage facilities for L group gas (Daszewo UGSF and Bonikowo UGSF), whose main role is to regulate the operation of the nitrogen-rich gas system and store gas from nitrogen-rich gas production facilities.

Exploration, appraisal and extraction of coal bed methane

As part of the exploration, appraisal and extraction project for methane deposits in the Geo-Metan coal bed, in 2017 work was completed in two wells (Gilowice-1 and Gilowice-2H) in the area of the Upper Silesian Coal Basin. In 2017, research and test works were performed to determine the potential of gas flow from coal beds after hydraulic fracturing in the Gilowice-2H well. Field tests yielded satisfactory production results - about 880 thousand cm³ of gas were extracted with an average gas yield in the final test stage of approximately 3.7 cm³/min, confirming the effectiveness of the reservoir stimulation works carried out. The test production from coal beds yielded promising results, and extracted gas proved to be of very good quality (97% methane). More drilling is planned in these areas in early 2018.

Foreign operations

Norway

PGNiG UN holds interests in exploration and production licences on the Norwegian Continental Shelf in the Norwegian Sea, in the North Sea, and in the Barents Sea. Jointly with partners, the company has been extracting hydrocarbons from the Skarv, Morvin, Vilje, Vale and Gina Krog fields and working on the development of the Ærfugl (formerly Snadd) and Skogul (formerly Storklakken) fields. In the other licence areas, the company is engaged in exploration projects.

The company's main asset is the Skarv field, which has been developed using a floating production, storage and offloading (FPSO) vessel. Since 2017, PGNiG UN has been extracting hydrocarbons from the new Gina Krog deposit, which was developed using a new platform in the North Sea. The other fields (Morvin, Vilje and Vale) comprise a group of wells connected to the existing production infrastructure.

Seismic 2D - reflection seismology surveys consisting in registration of seismic waves generated from a point and recorded along a designated line.

Seismic 3D - reflection seismology surveys consisting in registration of seismic waves generated from a point and recorded over a designated area.

Floating Production, Storage and Offloading Unit - a floating vessel used for offshore production of hydrocarbons, and for storage and offloading of the produced oil.

In 2017, PGNiG UN together with its partners launched two investment projects at the Ærfugl and Skogul fields. The preferred scenario provides for drilling three new production wells and launch of production in 2020.

In 2017, the company produced a total of 470 thousand tonnes of crude oil with other fractions (measured as tonnes of crude oil equivalent) and 548 mcm of natural gas from the Skarv, Morvin, Vilje, Vale, and Gina Krog fields. The extraction volume was affected by the temporary shutdown of two of the fifteen wells in the Skarv field and a downtime in the Vale field in the second half of the year. The impact of these events was partly offset by higher production from other fields and improved consistency of hydrocarbon flows from other wells in the Skarv field.

In line with the PGNiG Group's Strategy, PGNiG UN analysed other projects that may lead to further increases in production volumes. PGNiG UN acquired a 20% interest in the PL433 licence, which covers the Fogelberg condensate and gas field (the transaction is awaiting approval by the Norwegian authorities). The licence holders decided to drill an appraisal well in 2018, based on which a decision is to be made whether to proceed with field development. According to the data provided by the Norwegian Ministry of Oil and Gas, the estimated recoverable reserves in the Fogelberg field are 64 mboe.


In 2017, another APA 2016 round ([Awards in Pre-defined Areas](#)) was concluded, with PGNiG UN awarded interests in two new exploration licences.


Within two years, the licence partners are to carry out necessary geological and geophysical surveys to precisely estimate the oil production potential of the licence areas. After that period, drill-or-drop decisions will be made.

The awarded licences have significant gas potential, which fits in with plans envisaging gas imports from Norway to Poland. Both licences are located close to existing production and pipeline infrastructure, which will make project work much simpler and faster. Jointly with its partners, PGNiG UN also continued work in other exploration licence areas. Among other works, the company evaluated the potential of the PL839, PL850, and PL838 licence areas. Based on the results of geological surveys and economic analyses, the com-

pany and its partners decided to release the PL703 licence and the operator licence PL799, with no wells drilled.

In 2017, PGNiG UN continued the efforts to enable imports of Norwegian gas to Poland. To this end, negotiations were continued with the transmission system operators in Poland, Denmark and Norway to construct a new infrastructural link between Norway and Poland (the Norwegian Corridor). PGNiG UN holds a diversified portfolio of production and exploration licences in the North Sea, the Norwegian Sea, and the Barents Sea, and maintaining this diversification is perceived as an important element of project portfolio management. As at December 31st 2017, PGNiG UN held interests in 18 exploration and production licences, including as the operator of two licences.

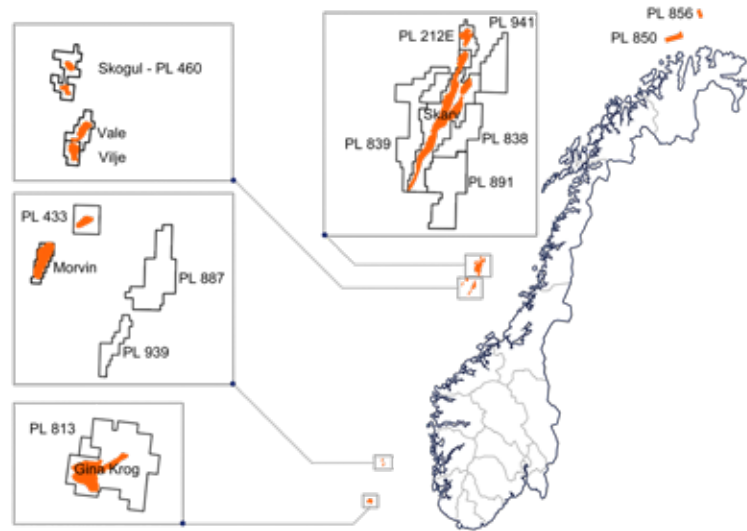
 boe - barrel of oil equivalent (1 barrel is equal to approximately 0.136 tonnes or 159 litres).

 See also: www.npd.no/en/Licensing-rounds/



In 2017, PGNiG UN recorded an increase in proven reserves in Norway, from 78 mboe at the beginning of the year to 83 mboe at the end of 2017 as a result of a positive re-evaluation of resources in the Ærfugl and Vilje fields and the acquisition of the Skogul field.

PGNiG UN's production fields in January 2017



Licence	Operator	Interest	Type	Planned activities
PL029C (Gina Krog)	Statoil	29.63% (8% in the project)	Exploration/ development	Development (production to begin in 2017)/exploration
PL036D (Vilje)	Det norske	24.243%	Production	Production
PL036 (Vale) PL249 (Vale)	Centrica	24.243%	Exploration/ Production	Production
PL134B (Morvin) PL134C (Morvin)	Statoil	6%	Production	Production
PL212 (Skarv) PL212B (Skarv) PL262 (Skarv)	BP	15% (11.9175% in the project)	Exploration/Develop- ment/Production	Production, development of the Ærfugl deposit, explora- tion, planned drilling in 2018
PL460 (Skogul)	Aker BP	35%	Development	Development (production to start in 2020)
PL212E (Snadd Outer)	BP	15%	Exploration	Possible tie-back to Snadd
PL813 (Elli)	Statoil	8%	Exploration	Expected DoD decision* February 2019
Op. PL838 (Tunfisk/ Shrek)	PGNiG	40%	Exploration	DoD decision* August 2018
PL839 (Nise/Stor- kobbe)	BP	11.9175%	Exploration	Seismic data interpretation
PL850 (Ulv)	Edison	20%	Exploration	DoD decision* February 2019
PL856 (Princesse)	Capricorn	25%	Exploration	DoD decision* July 2018
PL887 (Novus East)	PGNiG	40%	Exploration	DoD decision* February 2019
PL891 (Tunfisk South)	ConocoPhillips	30%	Exploration	DoD decision* February 2019

* Drill-or-drop decision – a decision to either commit to drilling exploration wells or relinquish the licence

The Skarv - field was brought on stream in December 2012. Currently developed with 16 wells connected with five subsea templates, which can support a further seven wells, adding much flexibility to Skarv operations going forward. The Skarv FPSO has a long useful life and can be an attractive production and transport hub for future discoveries in the region.

Ærfugl field – a gas and condensate field in the Skarv licence area. Six more wells are to be tied back to the Skarv FPSO and existing transport infrastructure. Production from the new installations is to start in 2020.

Skarv and Ærfugl reserves: 54.7 mboe, including 37.1 mboe of natural gas and 17.6 mboe of crude oil and NGL.

The Morvin field was discovered in the Norwegian Sea in 2001. Oil is produced through two subsea templates (North and South). Tied back to the Åsgard B platform, the field has a stable and predictable production profile.

Resources: 1.2 mboe, including 0.4 mboe of natural gas and 0.8 mboe of crude oil and NGL.

The Vilje field is located in the central part of the North Sea, close to the Alvheim and Heimdal facilities. The field is developed with three subsea wells linked by pipeline to the Alvheim FPSO vessel.

Oil reserves: 4.5 mboe.

Gina Krog is an oil and gas field brought on stream in June 2017 with five wells. Subsequent wells will be drilled until 2019, allowing to increase production capacity. The field was developed using a platform and a floating storage and offloading (FSO) unit for crude oil transported by tankers for transshipment. Raw natural gas is sent to the Sleipner platform. After processing, the gas is exported

to Europe via Gassled. Condensate and NGL will be transported to the Kårstø processing plant in Norway.

Resources: Reserves: 17.4 mboe, including 5.5 mboe of natural gas and 11.9 mboe of crude oil and NGL.

Vale is a gas and condensate field discovered in the North Sea in 1991. Output from the Vale field is expected to rise in the coming years as a result of recent investments made in the Heimdal platform.

Resources: 2.0 mboe, including 1.2 mboe of natural gas and 0.8 mboe of crude oil.

Skogul is on oil field situated in the North Sea near the Vilje field. The development plan assumes drilling one well connected to the subsea installation on the Vilje field, and then using the existing infrastructure, including the Alvheim FPSO platform.

Resources: 3.5 mboe, including 0.3 mboe of natural gas and 3.2 mboe of crude oil.

Crude oil is sold directly from the fields to Shell International Trading and Shipping Company Ltd (crude from the Skarv, Vilje, Vale and Gina Krog fields) and to TOTSA Total Oil Trading SA (from the Morvin field). All fields except for Vilje also produce associated gas, which is transferred via a gas pipeline mainly to Germany, where it is collected by PST. The key sales markets are Norway, Germany and the UK.

Pakistan

PGNiG is engaged in exploration work in Pakistan under an agreement for hydrocarbon exploration and production in the Kirthar licence area executed between PGNiG and the government of Pakistan on May 18th 2005. The work is conducted jointly with Pakistan Petroleum Ltd. (PPL), with production and expenses shared proportionately to the parties' interests in the licence: PGNiG (operator) – 70%,

NGL, natural gas liquids - components of natural gas that are separated from the gas state in the form of liquids.

PPL – 30%. Exploration activities within the licence area have resulted in the discovery of two gas deposits – Rehman and Rizq.

Natural gas resources: 6.96 billion cubic metres (35.7 million boe) in the Rehman field and 2.44 billion cubic metres (13.7 million boe) in the Rizq field.

Gas from the Rehman and Rizq fields is produced via facilities located in the Rehman field. PGNiG's share in the production from the Rehman and Rizq fields, carried out using five wells in 2017, amounted to 150 mcm of gas (measured as high-methane gas equivalent).

In March 2017, PGNiG completed drilling the Rehman-3 well and in October - the Rizq-2 well. Currently, drilling of the Rehman-4 borehole, which started in November, is continued and preparatory work is under way for drilling the Roshan-1 and Rehman-5 boreholes.

The Rehman-2 well was brought on stream in March 2017, while the Rehman-3 well in August. Work to hook up the Rizq-2 well is in progress, to be completed in Q1 2018. The first tests in the Rizq-2 After a hydraulic fracturing treatment performed in late November and early December 2017, the well flowed at a rate of around 128 cm/min.

Libya

Due to a rapid deterioration of the security situation in Libya in mid-2014, on August 12th 2014 PGNiG UNA gave notice of a force majeure to the National Oil Corporation (NOC) and started to scale back its operations in the country.

In 2017, in agreement with NOC, PGNiG UNA carried on with measures to mitigate the impact of force majeure on the project: analysis of seismic data and verification of the prospectivity of licence LC113. The following assets were secured: offices, downhole equipment in the warehouse, and a warehouse of core samples from two wells that returned positive results (A1 and B1) from 2013 and 2014.

Iran

In 2017, PGNiG completed the preliminary development concept for the Soumar field (Technical Proposal), which was submitted to and approved by National Iranian Oil Company (NIOC) and Iranian Central Oil Fields Company.

Seismic surveys

In 2017, the PGNiG Group carried out seismic data acquisition activities, mainly in Poland and abroad (Croatia, Myanmar [Burma]), Egypt, Tunisia, Algeria, Germany, and Austria). The PGNiG Group companies performed contracts for seismic data processing and interpretation in Poland, Pakistan and Morocco.

Capital expenditure in 2017

In 2017, PGNiG's capital expenditure in the Exploration and Production segment amounted to PLN 867m, 4% more than in 2016.

Exploration expenditure was made mainly on appraisal and exploratory wells (with the

largest amount – PLN 75m – spent on the Kra-marzówka appraisal well) and on seismic and geophysical work (with the largest amount – PLN 51m – spent on 3D seismic surveys in the Rybotyche-Fredropol area). PGNiG's total expenditure on exploration work in Poland and abroad amounted to PLN 475m.

In 2017, capital expenditure made in Pakistan totalled PLN 100m, and was 2% higher than in 2016.

In 2017, capital expenditure in Norway totalled PLN 275m. PGNiG UN and its partners continued work on the development of the Gina Krog, Ærfugl, and Skogul fields. Production is expected to reach the assumed level after completion of the drilling campaign in 2019. In December 2017, development plans for the Ærfugl and Skogul fields were submitted for approval. Drilling of production wells and installation of downhole equipment in both fields is planned for 2019/2020, while production is scheduled to start in 2020.

Risks

Resource discoveries and estimates

●●●● ●●●○ → Poland
●○○○ ●●●● → Norway

The main risk inherent in exploration activities is the risk of failure to discover hydrocarbons, i.e. exploration risk. This means that not all identified leads and prospects actually have deposits of hydrocarbons which can qualify as an accumulation.

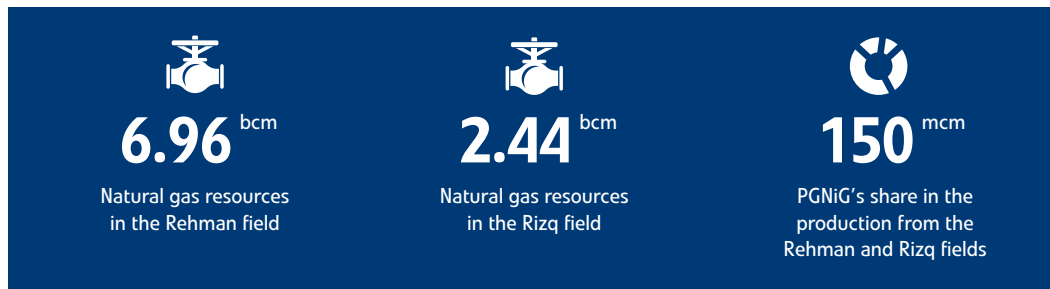
Reserves estimates and production projections may be erroneous due to imperfections inherent in the applied equipment and technology, which affect the quality of the acquired geological information. Irrespective of the methods applied, data on the volume and quality of commercial reserves of crude oil and natural gas is always an estimate. Actual production, income and expenses relating to a given deposit may significantly differ from



The most important production projects

The most important production projects included the production wells in the Lubiatów-Międzychód-Grotów area (PLN 71m) and development of the Radoszyn deposit (PLN 26m). PGNiG's total expenditure on upstream projects in Poland and abroad amounted to PLN 392m.

See also:
www.pogc.ly/libya




the estimates. The weight of this risk is further increased by the fact that in the full business cycle the period from start of exploration to the launch of production from a developed field takes six to eight years, while the production lasts from 10 to 40 years. Formation characteristics determined at the stage of preparing the relevant documentation are reviewed after production launch. Each downgrade of the size of reserves or production quantities may lead to lower revenue and adversely affect PGNiG's financial performance.

Probability that the risk will materialise:
●○○ low
●●○ moderate
●●● high

Risk materiality level:
○○○ low
○○○ moderate
○○○ high

The risk comparison (2017 vs 2016)
↑ rise
→ stable
↓ fall

 Tight gas - natural gas trapped in isolated pores of low permeability rocks such as sandstones or carbonates.

Exploration for unconventional deposits of gas

●○○ ●●● →

A risk associated with exploration for unconventional gas in Poland relates to the lack of proved reserves of **tight gas** and reserves in unconventional Miocene formations. Exploration for shale gas has now been closed, and the experience gained from such projects will allow PGNiG to minimise risks associated with exploration for tight gas. Even if the existence of in-place tight gas resources is confirmed, production may prove uneconomic due to insufficient recovery rates and high investment expenditure necessary to drill wells and construct production facilities.

Competition

●○○ ●●● ↘ Poland
●●● ●●● ↗ Norway

Both in Poland and abroad there is a risk of competition from other companies seeking licences for exploration and appraisal of hydrocarbon deposits, although it should be noted that this risk has significantly diminished in the Polish market over the past year. Certain competitors of PGNiG, especially those active globally, enjoy strong market positions and have greater financial resources than those available to the Group. Thus, it is probable that such companies would submit their bids in tender procedures and be able to acquire promising licences, offering better terms than PGNiG could offer given its financial and human resources. This competitive advantage of oil majors is particularly important on the international market.

Delayed work

●●○ ●●○ ↘ Poland
●●○ ●●○ → Norway

Under the applicable Polish laws and regulations, the process of obtaining a licence for exploration and appraisal of crude oil and natural gas reserves lasts from one to one and a half years. In foreign markets such procedures may even take up to two years from the time the winning bid is awarded until the actual contract is ratified. Prior to the commencement of field work, the Company is also required to make a number of arrangements, for instance to obtain legal permits and approvals for entering the area, and to meet the environmental protection requirements and, in some cases, requirements related to the protection of archaeological sites. It is also required to hold tenders to select a contractor. All this delays the execution of an agreement with a contractor by another few months. Frequently the waiting time for customs clearance of imported equipment is very long. All these factors create the risk of delays in the start of exploration work. Further, PGNiG's obligation to comply with the Public Procurement Law frequently protracts tender procedures. Notices of appeal and complaints submitted by bidders lead to lengthy court proceedings and, consequently, to delays in implementing an entire project. A protracting project exacerbates the risk related to estimation of capital expenditure.

Safety, environmental protection and health regulations

●○○ ●●○ ↘ Poland
●●● ●●○ → Norway

The need to ensure compliance with environmental laws in Poland and abroad may significantly increase PGNiG's operating expenses. Currently, PGNiG incurs significant capital expenditure and costs to ensure compliance of its operations with the ever more complex and stringent regulations concerning safety and health at work, and environmental protection.

The Act of May 18th 2005 Amending the Natural Environment Protection Law and Certain Other Acts (Dz.U. No. 113, item 954 of June 27th 2005) introduced more stringent regulations governing projects which might affect **Natura 2000** sites and imposed more stringent obligations with regard to operations in habitats of protected species of plants and animals. Also in countries where the PGNiG Group is engaged in exploration activities, a trend towards tightening environmental regulations is observed.

Cost of exploration

●○○ ●●○ ↘

Capital intensity of an exploration project depends on prices of energy and materials. Cost of exploratory work is especially sensitive to steel prices, which are passed onto prices of casing pipes and production tubing used in drilling. An increase in prices of energy and materials translates into higher costs of exploratory work. Profitability of foreign exploration projects also depends to a significant extent on prices of oil derivative products and on exchange rates. To reduce drilling costs, in 2011 PGNiG introduced the **daily rate** system into its procedure for selecting drilling contractors and paying for their work.

Unforeseen events

●●○ ●●○ →

Hydrocarbon deposits developed by PGNiG are usually located at great depths, which involves extremely high pressures and, in many cases, the presence of hydrogen sulfide. Consequently, the risk of hydrocarbon blowout or leakage is very high, which in turn may pose a threat to people (employees and local population), natural environment and production equipment.

Other changes in laws and regulations

●●○ ●●○ ↘

In some countries, exploration and production activities may be hindered by frequent and unexpected changes in legislation, which may create particularly serious risks in countries with authoritarian regimes.


Political and economic situation – PGNiG Group


●○○ ●●○ ↘

Some countries where the PGNiG Group is conducting exploration are threatened by armed conflicts and terrorist attacks, which may lead to limitation, suspension or even discontinuation of such activities.

The PGNiG Group's operations are also exposed to the risk of social or political unrest in some regions. Changes of governments may result in withholding issuance of petroleum licences. Those countries are also at risk of internal conflicts and civil unrest due to poverty and demographic issues. If these risks materialise, the Company's operations may be limited, suspended or withheld.

In certain countries, operations of exploration companies may be hindered by the absence of adequate infrastructure, which may be an obstacle in transporting equipment, personnel and materials to the sites.

 Natura 2000 - a network of specific types of natural habitats and wildlife species which are considered to be valuable and endangered at the European level, covering almost 20% of Poland's onshore territory.

 Daily Rate - the rates a drilling contractor receives for a drilling rig from an oil company or operator.

Development prospects

In 2018 and 2019, PGNiG plans to produce 3.8 bcm of natural gas per year (measured as high-methane gas equivalent), whereas the planned volume of crude oil and condensate production is 820,000 tonnes in 2018 and 784,000 tonnes in 2019. The plans for 2018 in Poland include development and tie-in of 12 wells, development of three fields (Solec, Gryżyna, and Krobielewko) and modernisation and extension of existing installations.

Together with the Polish Geological Institute – National Research Institute, PGNiG will continue the research project into the application of the fracturing technology to extract coal bed methane in Gilowice. Thanks to this technology, in the future PGNiG will be able to increase its domestic production capacity. On the Norwegian Continental Shelf, PGNiG UN, as a project partner, will continue to produce hydrocarbons from the Skarv, Morvin, Vilje, Vale, and Gina Krog fields and will proceed with the development of the Snadd and Gina Krog fields. The company will also work towards ensuring stable, predictable and long-term gas supplies to Poland. These efforts will include analysis of infrastructure scenarios for transmission of Norwegian gas to Poland, but also potential acquisitions of gas fields in Norway. PGNiG UN also intends to acquire new licence areas by participating in annual APA licence rounds and in regular licence rounds held every two to three years. In the future, PGNiG UN may participate, as a partner, in drilling projects in the Arctic Zone. One of the reasons is that it has interests in two licences (PL850 and PL856) in the Barents Sea.

As regards Pakistan, plans for 2018 include the completion of drilling, testing and bringing on stream the Rehman-4 production well and the start of drilling of the Rehman-5 and Rizq-3 production wells. At the same time, work will be carried out to expand the capa-

city of the production infrastructure and tie in the Rizq-2 well and the Rehman-4 well for production. It is also expected that the potential Roshan field will be brought on stream. Drilling of the Roshan-1 well will represent fulfilment of the new commitments made in 2017 in connection with the renewal of the Kirthar exploration licence.

As regards seismic surveys, acquisitions of 2D and 3D seismic data in Poland (for PGNiG and counterparties outside the Group) as well as in Germany and Ukraine are planned to be made in 2018.



Trade and Storage



Trade and Storage

Underground gas storage facilities - storage facilities located in two different types of geological structures - salt caverns (underground gas storage cavern facilities) or partly depleted oil or gas reservoirs.

See also: ipi.gasstoragepoland.pl/en/home/

■ Segment's total revenue
■ Segment's total expenses
— EBITDA

* non-restated reported data
** data restated according to the new segmentation of the activity of the PGNiG Group.

Segment's figures

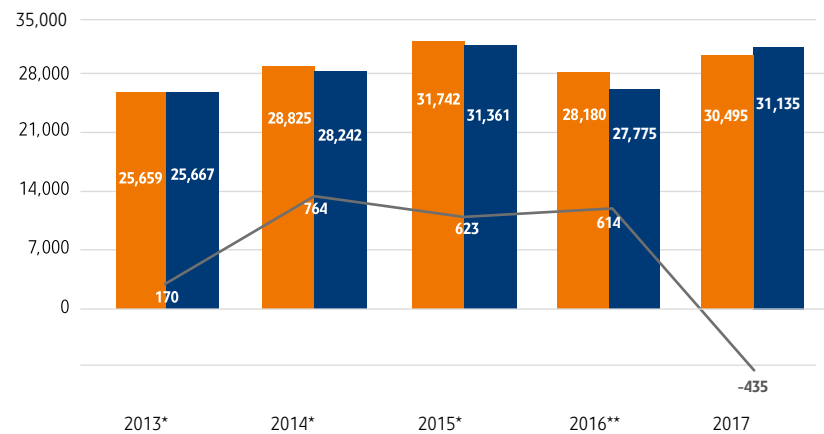
The segment's core business is natural gas trading. The segment sells in Poland gas mined from domestic deposits and imported gas. What is more, the PGNiG Group is the largest supplier of natural gas on the Polish market. Through PGNiG companies – PGNiG Supply and Trading GmbH (wholesale sales) and PST Europe Sales GmbH (retail sales), the PGNiG Group develops its activity in Germany and Austria in the areas of wholesale sales and sales to end customers. Furthermore, the segment conducts commercial activity on markets

for electricity, energy certificates of origin and CO₂ emission allowances. The segment uses seven **underground gas storage** facilities that are located in Brzeźnica, Husów, Mogilno, Strachocina, Swarzędz, Wierzchowice and Kosakowo, and provides ticketing service regarding gas storage for external customers.

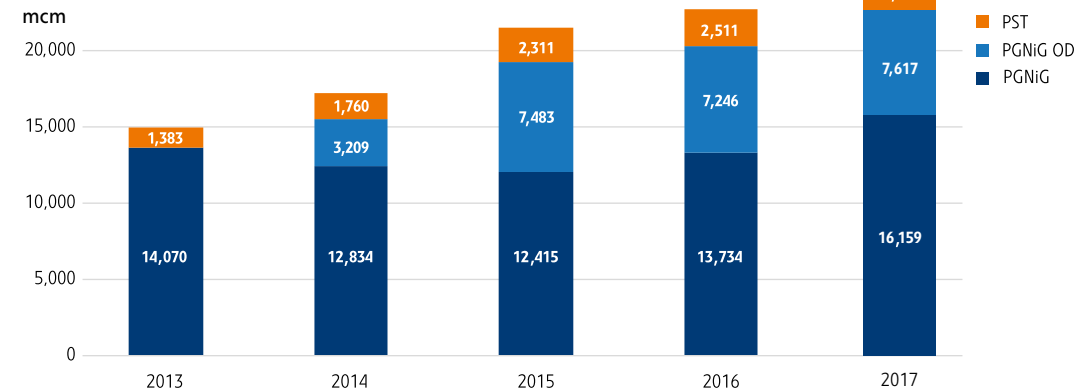
Companies in the segment: PGNiG, PGNiG Obrót Detaliczny sp. z o.o., PGNiG Sales and Trading GmbH (PST), Gas Storage Poland sp. z o.o., PST Europe Sales GmbH (PST ES).

Segment's financial highlights

PLNm



Natural gas sales in Poland outside the PGNiG Group from segment



In 2017, the Trade and Storage segment reported an operating loss of PLN -640m, down by PLN 1,045m from the PLN +405m net profit generated in 2016. At the EBITDA level, the segment recorded a loss of PLN -435m, a result lower by PLN 1,049m than in 2016 when the Group generated an EBITDA of PLN +614m. The segment's revenue reached PLN 30,495m, up by PLN 2,315m (8%) year on year.

In 2017, there was a significant increase in the segment's operating expenses, which went up by PLN 3,360m (12%). The segment's poorer performance was attributable to higher prices of crude oil driving up the cost of gas procurement, which translated into lower margins. In addition, the segment's 2017 performance deteriorated by PLN 364m following the recognition of impairment losses on property, plant and equipment (in 2016, the effect of impairment losses was PLN -12m) and by PLN 54m due to inventory write-downs (including on gas inventories in the UGSF), while in 2016 the reversal of impairment losses/write-downs improved the segment's performance by almost PLN 200m.

At the end of 2017, the stocks of gas owned by PGNiG and held in underground high-methane gas storage facilities stood at approximately 2.3 bcm and remained close to the level recorded at the end of 2016, when they amounted to 2.2 bcm.

Activities in 2017

Trade in Poland

The segment's principal activity is trade in natural gas in Poland. On August 1st 2014, the structure of the PGNiG Group changed: retail operations were separated from the wholesale gas business, the latter remaining with PGNiG. Retail customer service was transferred to PGNiG OD, a new company.

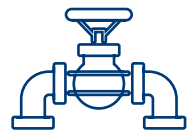
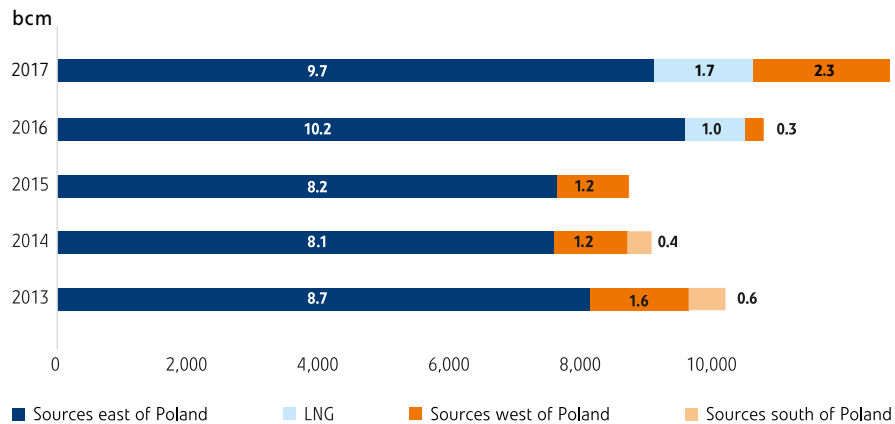
Wholesale market

Gas imports

In 2017, PGNiG purchased natural gas mainly under the long-term agreements and contracts as well as short-term gas supply agreements with European suppliers specified below:

- Contract with OOO Gazprom Export for sale of natural gas to the Republic of Poland, dated September 25th 1996, effective until 2022 (the Yamal Contract);
- Contract with Qatar Liquefied Gas Company Limited (3) for sale of liquefied natural gas, dated June 29th 2009, effective until 2034 (the Qatar Contract).

Imports of natural gas to Poland in 2013–2017



Purchases of imported gas rose to 13.7 bcm

An increase in gas supplies received from the western direction and LNG, a decrease in the purchase of gas from the eastern direction.

In 2017, purchases of imported gas rose to 13.7 bcm. Gas purchases from the Eastern direction fell by 0.5 bcm compared with 2016. Gas purchases from the Western direction increased to 2.3 bcm. LNG supplies also increased, to 1.7 bcm.

PGNiG actively supports all efforts leading to the construction of the infrastructural connection with an annual capacity of approximately 10 bcm which would give Poland

direct access to gas from North Sea fields. An annex to the Regasification Agreement with Polskie LNG SA was signed in 2017, increasing the long-term regasification capacity booking by PGNiG at the LNG Terminal to 100%. The annex runs from January 1st 2018 to January 1st 2035 and will enable gas deliveries under the supplementary agreement with Qatargas and potential purchases of additional LNG under spot and short- to medium-term contracts.

Renegotiation of price terms under the contract with OOO Gazprom Export

In 2017, PGNiG continued its efforts to revise the price terms under the Yamal Contract as part of the procedure formally launched on November 1st 2014. Since no agreement was reached with the supplier, on May 13th 2015 PGNiG initiated arbitration proceedings, in accordance with the contract. The dispute concerns bringing the contract in line with the current conditions on the European natural gas market.

Despite the failed attempt to renegotiate the price terms of the Yamal Contract, on November 1st 2017 PGNiG again requested PAO Gazprom/OOO Gazprom Eksport to renegotiate the price terms of gas supplies.

LNG supplies

On March 14th 2017, PGNiG and Qatargas signed a Supplemental Agreement to the contract for sale of liquefied natural gas of June 29th 2009. Under the agreement, expiring on June 30th 2034, the shipments of LNG from Qatar to Poland will be doubled as of 2018. The total volume of LNG supplied under the long-term contracts with Qatargas will increase to 2m tonnes in 2017 (equivalent to about 2.7bcm of gas), and in 2018–2020 to 2.17m tonnes per year (equivalent to about 2.9bcm of grid gas).

PGNiG received three spot LNG cargoes, contracted through the LNG trading office run by PST in London. The first cargo of ca. 150,000 cubic metres of LNG from the Sabine Pass terminal in the US was delivered by Cheniere Marketing International. Approximately 205,000 cubic metres of LNG was purchased from Qatar Liquefied Gas Company Limited on a spot basis. The last spot cargo of around 140,000 cubic metres of LNG received in 2017 was sourced from Norway and delivered by Statoil ASA. The PGNiG Group purchased a total of ca. 500,000 cubic metres of LNG on the spot market in 2017, equivalent to approximately 3.33 TWh or approximately 290 mcm of natural gas after regasification.

In an effort to further diversify its gas supply sources, in November 2017 the Group signed a five-year contract for a total of nine

In 2017, PGNiG collected three spot deliveries of LNG.

LNG shipments with Centrica LNG Company Limited, to be delivered from the Sabine Pass liquefaction terminal in the US. The contract will enter into force in 2018, with LNG to be delivered on a DES (Delivery Ex Ship) basis. This is the first medium-term contract concluded by PST's LNG trading office in London.

Sales of gas

Wholesale gas tariffs were partly regulated until September 30th 2017. Settlements with customers are based on pricing formulas or fixed prices linked to exchange indices. In 2017, the largest amounts of gas in Poland were sold to industrial customers. The largest Polish customers in this group include Grupa Azoty SA, PKN Orlen SA, Polska Grupa Energetyczna SA, KGHM Polska Miedź SA, Grupa Kapitałowa ArcelorMittal, and Grupa Lotos SA.

In 2017, sales on the Polish Power Exchange (PPX) accounted for the largest portion of the PGNiG Group's total gas sales.

PGNiG Group's gas sales volume on the Polish Power Exchange

Volume (TWh)	2017	2016
Total – Commodity Futures Instruments Market (natural gas)	75.2	78.7
Total – Day-Ahead and Intraday Market (natural gas)	17.2	19.1
TOTAL – Polish Power Exchange	92.4	97.8



The volume of gas sold by PGNiG SA on the PPX in 2017 decreased by approximately 5.4 TWh year on year.

To meet the obligation to sell 55% of the gas fed into the national transmission system through the exchange market, PGNiG has adopted a pricing policy covering all natural gas-linked instruments on PPX, both on the futures and day-ahead markets, allowing it to offer natural gas to other market participants at prices corresponding with those on deregulated wholesale, exchange and OTC markets in Western and Northern Europe.

Competition

In the business customer segment, PGNiG's main competitors operating directly in Poland include PGE Polska Grupa Energetyczna SA, DUON (Fortum Holdings), Hermes Energy Group SA, RWE Polska SA, TAURON Polska Energia SA, and PKN ORLEN SA. Competitors step up gas sales by strengthening their sales force, increasing the flexibility of their offering and price hedging mechanisms, as well as by bundling gas and electricity.

In the reporting period, PGNiG's sales of high-methane grid gas in Poland were

165.2 TWh, up 15.1% on 2016 (143.5 TWh). On the one hand, the higher sales volume resulted from stronger market demand, but on the other, the increase was driven by competitors' declining share in gas imports. In 2017, competitors' net gas imports fell by 8.2 TWh, or 42.6%, year on year.

Gas exports

In 2017, as part of its cooperation with the ERU Group, PGNiG sold 728 mcm of gas on the Ukrainian market, with the total volume of gas sold to Ukraine from August 2016 having reached 1.1 bcm. In April 2017, the two companies were jointly awarded a contract for the supply of natural gas to the Ukrainian transmission and storage operator Ukrtransgaz, for its own needs.

In October 2017, PGNiG concluded an agreement with Ukrtransgaz for the transmission of natural gas in the territory of Ukraine, which will enable the Company to use Ukrainian gas networks and storage facilities. The agreement is a next step towards expanding PGNiG's business in Ukraine.

Sale of electricity

On the electricity market, PGNiG is engaged primarily in wholesale trading. Total sales of electricity to trading companies and on the Polish Power Exchange accounted for more than 90% of total electricity sales in 2017. Total trading volume in 2017 was more than 6.8 TWh.

In 2017, PGNiG was engaged in wholesale trading in electricity and related products in Poland and Germany. In Poland, the Company traded on the OTC market and on the PPX. In Germany, the Company traded in spot contracts on the European Power Exchange as part of cross-border electricity trading, and in futures contracts on the European Energy Exchange. PGNiG also provided services under a commercial balancing agreement to PGNiG OD, PGNiG TERMIKA, and new companies in the PGNiG TERMIKA Group: Energetyka Przemysłowa and Energetyka Rozproszona. PST traded electricity on the German market as part of exchange (EEX) and OTC transactions.

Retail market

The focus of PGNiG OD's business is sale of natural gas (high-methane and nitrogen-rich gas), electricity, compressed natural gas (CNG), and liquefied natural gas (LNG).

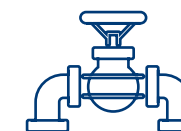
Sources of gas

LNG is purchased under a bilateral FCA framework agreement with PGNiG and under a bilateral agreement with PGNiG. Nitrogen-rich Lw-type and Ls-type natural gas, produced from Polish assets, is purchased under an agreement with PGNiG.

- PGNiG OD purchases high-methane gas on the PPX;
- under a bilateral contract with PGNiG for delivery of gas to a virtual trading point in the transmission network operated by GAZ-SYSTEM;
- under a bilateral contract with PGNiG for delivery of gas to a physical trading point in Słubice.

Gas supply contracts with PGNiG OD are governed by the Contracts Policy, which defines the rules on contracts with the individual customer groups, the division of responsibilities and the method of reporting wholesale trading activities.

Given changes on the retail gas fuel market and the MIFID II requirements, in December, work was commenced on separating a portfolio of customers to whom PGNiG OD does not present tariffs for approval. The remaining gas volumes covered by special price offers are hedged according to the level of utilisation of the price offers.



TGE - Polish Power Exchange

The greatest share in the volume of purchase of high-methane gas from PGNiG OD falls to transactions performed at TGE.

Sales of gas

PGNiG OD's customer base includes consumers and customers who are not consumers. Group 1-4 retail customers purchase gas used mainly for cooking and for water and space heating or in production process. Business customers buy gas both for technological purposes as well as for heating. An analysis of gas fuel customers showed that in 2017 small and medium enterprises represented the largest proportion of all customers. The opposite is true for sales volumes, with the largest customers purchasing the largest volumes of gas. The largest group of customers by number are businesses operating in the retail and services segment, whereas industrial customers lead in terms of gas volumes received.

Competition

Based on PGNiG OD estimates, in 2017 there were over 60 gas suppliers on the market who actively competed for domestic and business customers, mainly by offering competitive gas prices and gas and electricity bundles as well as by cross selling products and services. The trend to win back B2B customers that began in 2016 continued into 2017, and the company reported a strong order book for the gas year 2018.

Sales of CNG and LNG

The pricing policy for both LNG supplies and regasified LNG supplies uses prices obtained at the Świnoujście LNG terminal, based on the natural gas prices quoted on the Polish Power Exchange. In 2017 new approach regarding pricing of CNG was introduced.

The volume of LNG supplies to business customers was about 5 thousand tonnes in 2017. The volume of CNG sold in 2017 totalled approximately 16 mcm.

Sale of electricity

PGNiG OD's customer base includes consumers and customers who are not consumers who have concluded comprehensive service contracts for the supply of electricity or contracts for the sale of electricity. As at the end of 2017, PGNiG OD's base of retail customers on dual fuel (electricity and gas) plans comprised consumer accounts (91%) and non-consumer accounts (9%).

Trade abroad

Through PST (wholesale) and PST ES (retail sale), the PGNiG Group is also developing its natural gas business (both wholesale and sales to end users) in Germany and Austria.

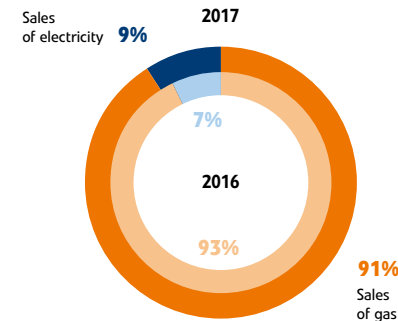
Exchange and OTC wholesale trading

PST is an active player on organised markets (exchanges) and in OTC trading. It trades with over 100 counterparties under EFET or similar standardised contracts. The company operates in Germany and its neighbouring countries, Austria and the Netherlands. PST registered for trading on the UK gas market (NBP) and launched its operations there. PST has also registered its activity in the Czech Republic and Poland. PST is also a registered supplier on the Danish and Slovak markets. PST is a market maker on the PEGAS exchange for the GASPOOL gas hub market area.

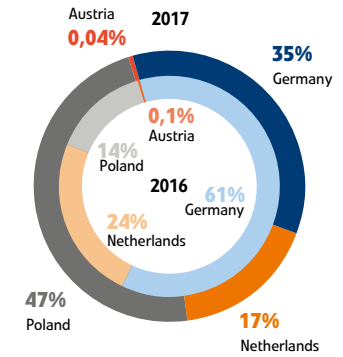
PST commenced commercial activities on the global LNG market through its branch in London, opened in February 2017. The branch contracted its first delivery with Cheniere Energy. It was the first LNG delivery from the US to Northwestern Europe.

In 2017, PST and PST ES sold a total of 49.9 TWh of gas and 5.1 TWh of electricity in exchange and OTC transactions.

PST's sales structure by product and volume



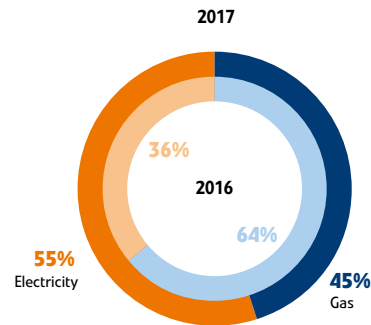
PST's sales structure by country and volume



Retail sales

Over 2017, PST and its subsidiaries signed almost 36,000 new contracts, which were successfully added to the PST customer portfolio.

Structure of PST customer base by product (by number of customers)

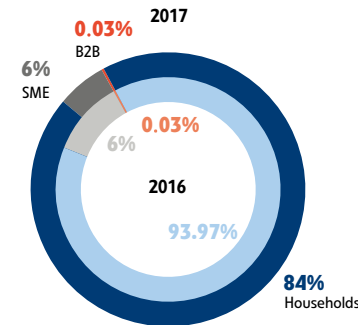


Key services provided to PGNiG Group entities

PST's key contracts effective in 2017 included contracts for the management of commercial storage capacity for own needs at gas storage facilities in the Netherlands (with a working capacity of 250 GWh) and Austria (with a working capacity of 17 GWh). The objective of storage is to optimise the trading portfolio and accommodate growing end-user demand for gas in winter. Under its current contracts, PST supplies natural gas to PGNiG on the Polish-German and Polish-Czech borders, thus securing diversification of supply sources. PST also has in place a contract with PGNiG UN for the purchase of gas produced from the Norwegian Skarv field as of 2013, from the Vale and Morvin fields as of 2015, and from the Gina Krog field as of July 2017.

At the end of 2017, the number of customers increased by 39% year on year, to over 44,000.

Profile of PST customers (by number of customers)



Storage

The Trade and Storage segment uses for its own needs the working capacities of the Wierzychowice, Husów, Strachocina, Swarzędów and Brzeźnica underground gas storage facilities, as well as the Mogilno and Kosakowo underground cavern facilities. A part of the working capacity of the Mogilno facility which was made available to GAZ-SYSTEM is not a storage facility within the meaning of the Polish Energy Law. The capacities of gas storage facilities are managed by GSP, conducting activities in the following two core areas:

- Regulated activities comprising the provision of gaseous fuel storage services at storage facilities owned by PGNiG, as well as operation of the Mogilno and Kosakowo underground gas storage caverns;
- Non-regulated activities comprising the provision of services related to design, construction and extension of underground gas storage facilities.

Under an outsourcing agreement, GSP provides storage services at underground high-methane gas storage facilities owned by PGNiG.

Short-term peak fluctuations in demand for natural gas are balanced by supplies from the Mogilno and Kosakowo facilities, where gas is stored in worked-out salt caverns. The capacities of the Wierzychowice, Husów, Strachocina, Swarzędów and Brzeźnica underground gas storage facilities are used to balance out changes in demand for natural gas in the summer and winter seasons, to meet the obligations under take-or-pay import contracts, to ensure the continuity and security of natural gas supplies, and to meet the obligations under gas supply contracts with customers.

GSP, in its capacity of the storage system operator, provides gas fuel storage services to storage facility users under standardised procedures, on a non-discriminatory manner.

GSP's services are provided using the following Storage Facilities (SF) and Groups of Storage Facilities (GSF):

- Kawerna GSF (comprising the Mogilno CUGSF and Kosakowo CUGSF, located in worked-out salt caverns);
- Sanok GSF (comprising the Husów UGSF, Strachocina UGSF, Swarzędów UGSF and Brzeźnica UGSF, located in partly depleted gas reservoirs);
- SFG (comprising Wierzychowice UGSF).

As at December 31st 2017, GSP had provided a total of 32,289 long-term storage capacity packages, including 12,677 packages of services provided on a firm basis and 19,612 packages on an interruptible basis. As at December 31st 2017, 97% of the storage capacities were reserved for PGNiG SA, 2% for external customers, with the remaining 1% of total capacities idle (408 short-term storage capacity packages on an interruptible basis at the Kawerna SFG).

Ticketing service

PGNiG has entered into agreements for the provision of the ticketing service with 11 companies. The agreements entered into force on October 1st 2017. The total volume of gas stocks maintained by PGNiG for other entities is close to 370 GWh (approximately 33 mcm). PGNiG maintains gas stocks for the above entities, on a contract basis, in GSP's storage facilities, in which PGNiG previously leased appropriate storage capacities and injected gas.

Third-party access (TPA) storage capacities

As at December 31st 2017, the PGNiG Group had a total working storage capacity of 2,985.35 mcm, of which 2,942.85 mcm was made available on a TPA basis or to the Gas Transmission System Operator GAZ-SYSTEM under a long-term contract.

In response to market expectations, in early February 2017 PGNiG added to its offering a ticketing service which allows gas importers and traders to meet their gas-stocking obligations in accordance with the applicable Polish regulations.



Capital expenditure in 2017

In 2017, at Kosakowo UGSF, work to construct five Cluster B chambers together with the necessary technical infrastructure and land development was under way. However, in the course of the monitoring of the cavern leaching process, favourable geological conditions were identified, allowing to obtain a larger geometric volume, which will translate into an increase in useful capacity for storing high-methane gas and to complete work on the K-6, K-8 and K-9 chambers by January 15th 2019, and on the K-7 and K-10 chambers by September 15th 2021.

As regards the implementation of the contract to construct the Kosakowo UGSF, an application to amend the licence held by the Kosakowo UGSF was prepared and submitted to the Ministry of the Environment. The amendment to the licence covers the construction of ten storage chambers grouped in two C and D clusters of five chambers each, along with gas pipelines and process pipelines.

Risks

Administrative regulation of natural gas prices and deregulation of Polish gas market

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Gas trading on the exchange market has been excluded from the tariff regime. Prices of gas paid by end users have also been gradually liberalised as the process of gas market deregulation advances. The first to have been included in the process are wholesale customers and the largest business customers. As regards gas trading on the Polish Power Exchange or direct sales to customers at prices similar to those quoted on the exchange, there is a risk that revenues from such sales will be lower than gas procurement costs due to the growing disconnect between the market prices of gas and of petroleum products, to which gas prices under the long-term import contracts continue to be linked. As a consequence, revenue is subject to forecasting risk. Inaccurate estimates of costs

(particularly the cost of gas purchase) may result in a risk of miscalculation of selling prices and charges, which may adversely affect financial results. Dependence of PGNiG OD's revenue on tariffs approved by the President of URE is the key factor affecting the company's regulated business. Tariffs are crucial to the Company's ability to generate revenue that would cover its reasonable costs and deliver a return on the capital employed. Currently, a significant portion of that revenue depends on the selling prices of gas fuel and is regulated.

Disruptions to gas supplies from countries east of Poland

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On June 20th 2017, the dew point of natural gas supplied to and through the territory of Poland over the Yamal gas pipeline changed, which adversely affected the quality of the fuel. As a result, GAZ-SYSTEM stopped supplying gas to the Polish transmission system through the Interconnection Point. During that period PGNiG drew gas from the under-

ground storage facilities to secure continuity of supplies to the PGNiG Group customers.

Given the continuing political instability in Ukraine, there is a risk of limitation in gas supply, as was the case in the period from September 2014 to March 2015.

Take-or-pay gas supply contracts

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PGNiG SA is a party to two long-term take-or-pay contracts for gas supply to Poland – the Yamal Contract and the Qatar Contract. Assuming that PGNiG's customer portfolio remains unchanged, the volume of gas imports specified in the take-or-pay contracts will limit its purchases of spot gas. If PGNiG loses its market share, there is a risk that it would be forced to look for new ways to utilise the surplus volumes of gas in its portfolio.

Probability that the risk will materialise:

●●● low
●●● moderate
●●● high

Risk materiality level:

●●● low
●●● moderate
●●● high

The risk comparison (2017 vs 2016)

↗ rise
→ stable
↘ fall

Competition



Competitors seek to increase gas fuel sales by offering competitive prices of the fuel or dual fuel (gas and electricity) deals. Considering the above, in coming years, the gas prices for consumers will be fully liberated, which will undoubtedly affect the situation of the PGNiG Group, in particular that of PGNiG OD. It is to be expected that the liberalisation will in particular result in a reduction of PGNiG's share in the gas market, as has been observed in all countries where consumer gas prices have been deregulated. To mitigate the adverse effects of liberalisation, the PGNiG Group primarily intends to prepare an attractive and competitive offering for customers.

Development prospects in Poland

Trade and Storage

Import strategy

In the long term, PGNiG will focus on meeting its obligations under the long-term contracts with Gazprom Export and Qatargas with respect to the minimum offtake volumes. If an unforeseen increase in demand occurs, the Company will purchase natural gas under short-term contracts from the neighbouring countries or on the LNG market, wherever more favourable prices are available.

Given the positive results of the Economic Test of the Baltic Pipe project and the transmission contracts signed with GAZ-SYSTEM and Energinet operators in January 2018, PGNiG will seek to obtain contracts for gas supplies to Poland via the Baltic Pipe.

Retail sales

In 2018, PGNiG OD intends to further enhance its product offering and improve customer satisfaction by focusing on continuous improvement and streamlining of customer service, and by building new and developing the

existing customer access channels. In addition, to fight off growing competition, PGNiG OD will continue efforts which are aimed at keeping up the natural gas sales volumes by offering customers dedicated discount plans, including tailor-made plans and purchases of natural gas within purchasing groups.

In order to meet customer expectations and in the fulfilment of the statutory obligations related to abolition of the obligation to submit for approval tariffs for all non-household customers, since October 1st 2017 certain steps following from the new regulatory and legal conditions have been undertaken, including development of a new product offering (for customers who are not consumers) tailored to the current needs reported by customers and taking into account all options for offer building that are provided by the abolition.

Business development in the CNG and LNG segments

New offers have been prepared for customers, with prices based on a flexible market-linked formula, and work commenced to investigate the possibilities of linking the offered LNG/CNG price to prices of petroleum fuels.

- Small LNG Regasification Facilities for businesses – construction of LNG stations to serve business customers (based on a one customer – one station model) if the expected consumption volume and profile guarantees economic viability of the project;
- LNG bunkering – activity in the market of LNG supply for use by ships, including submission of an application for EU co-financing under the Connecting Europe Facility;
- CNG stations for municipal transport – selective approach to customers, maintaining the existing stations, and new projects subject to economic viability.

Storage

PGNiG will strive to develop the ticketing service. With respect to the Kosakowo CUSGF expansion, GSP will continue the work to construct five Cluster B chambers. Leaching of the K-6, K-8, K-9 and K-10 caverns is planned for 2018. At Mogilno CUGSF, a gas turbine overhaul is planned to secure the turbine and ensure the operability of compressing equipment before the injection season.

Development prospects abroad

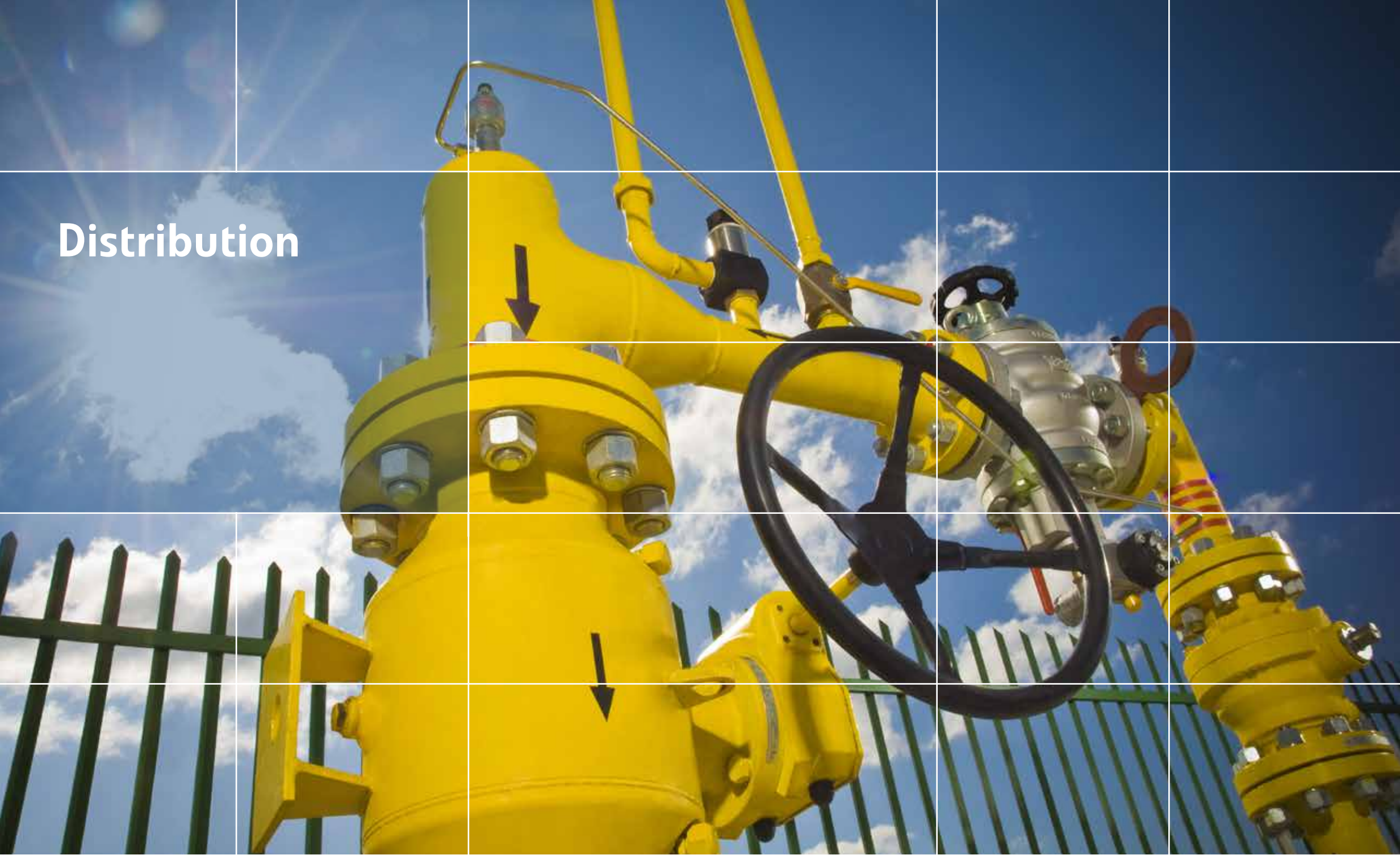
In 2018, PGNiG will continue to sell gas on the Ukrainian market in cooperation with its Ukrainian partner ERU Trading. The Company is also keeping a close eye on the negotiations between GAZ-SYSTEM and Ukrtransgaz concerning extension of the interconnector capacity between Poland and Ukraine.

PST intends to further expand its business focused on selling electricity and gas to end customers and in wholesale. In addition, the company has been developing modern customer access channels with a view to improving the quality of its retail customer base. As part of its trading activity, besides being an active player in OTC and exchange markets, PST intends to develop a business model based on cooperation with municipal entities as well as trading companies, by offering them standard and structured trading and balancing products.

The PGNiG Group will also continue to work on building its competencies and strengthening its presence in the global LNG market. The Group plans to examine the possibilities of contracting LNG from new directions and to expand its cooperation with LNG suppliers.



Distribution



Distribution

Segment's figures

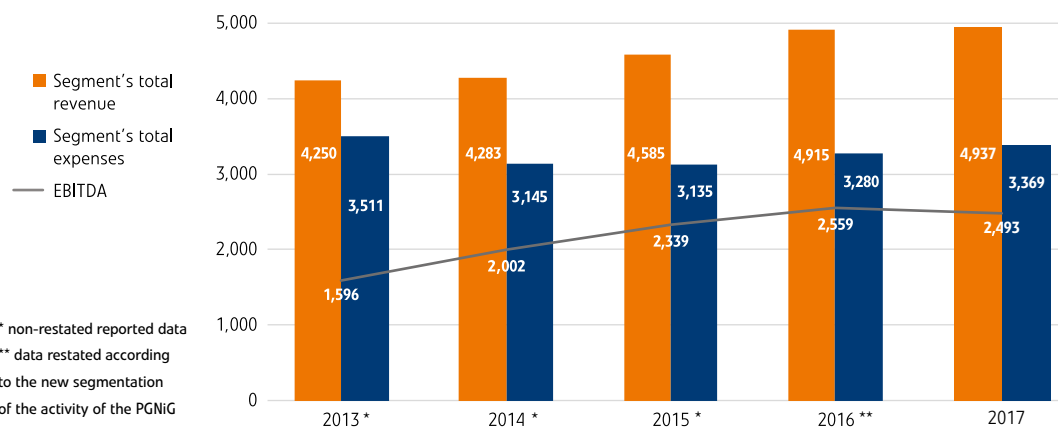
See also:
www.psgaz.pl

The segment's principal business activity consists in the transmission of high-methane and nitrogen-rich gas, as well as of small amounts of coke-oven gas, over the distribution network to retail and corporate customers. The segment is also engaged in extending and upgrading the gas network and connecting new customers.

Polska Spółka Gazownictwa Sp. z o.o. is responsible for natural gas distribution. As the Distribution System Operator, the company operates in all regions of Poland. Being the owner of the majority of Poland's gas distribution network and gas service lines, PSG enjoys a dominant market share.

Segment's financial highlights

PLNm



* non-restated reported data
** data restated according to the new segmentation of the activity of the PGNiG Group.

In 2017, the Distribution segment's operating profit fell by 4% year on year to PLN 1,568m, while EBITDA came in at PLN 2,493m, down by PLN 66m year on year. In 2017, the segment's revenue went up PLN 22m, while revenue from sale of distribution services rose by PLN 209m, or 5% year on year, with the distribution volume higher by 11.7 bcm (7%) year on year. The expenses incurred in 2017 rose slightly (by PLN 89m, or 3%) year on year, primarily due to higher labour costs (PLN 1,149m in 2017 vs PLN 995m in 2016).

Geographical coverage based on the number of communes/municipalities connected to gas mains: 59.7%. Number of communes/municipalities in Poland in 2017 according to Central Statistics Office data: 2,478, including 1,479 connected to gas mains.

Activities in 2017

Work performed

In 2017, as part of customer connection services, PSG issued more than 150.7 thousand grid connection terms and conditions (up by about

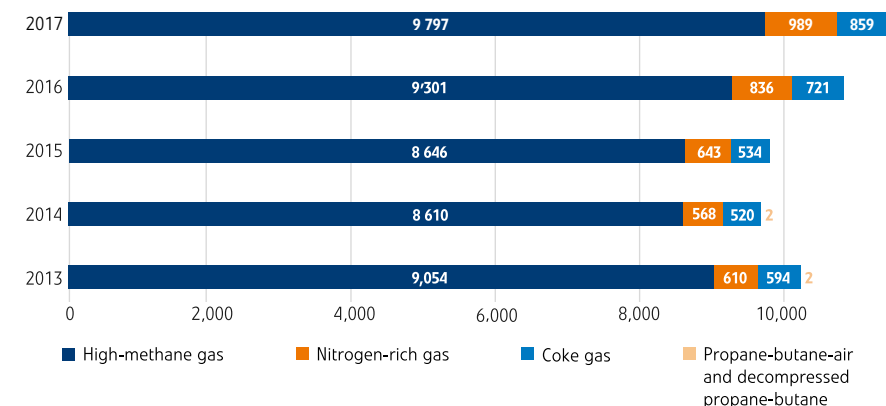
18% on 2016) and executed more than 69.6 thousand grid connection agreements with customers providing for the construction of more than 77.8 thousand new gas service lines (up by about 21% on 2016). 486 letters of intent concerning the construction of gas networks in further municipalities and communes in Poland were signed. Throughout 2017, 54,922 gas service lines were built with a total length of 544.6 km.

Starting from January 1st 2017, a new three-tier organisational structure was introduced, comprising the Head Office and 17 Gas Distribution Branches. Ultimately, there will be 172 local gas utilities and 59 service points operating within the Branches, making up a total 231 organizational units of PSG.

In 2017, all settlements between PSG and its customers were based on Tariff No. 3 for Gas Fuel Distribution Services and LNG Regasification Services, as well as on amendments to that tariff which entered into force on January 1st 2016 and July 1st 2016, respectively. In 2017, there was no change in the level of tariff rates relative to 2016.

Volume of gas transmitted via the distribution system

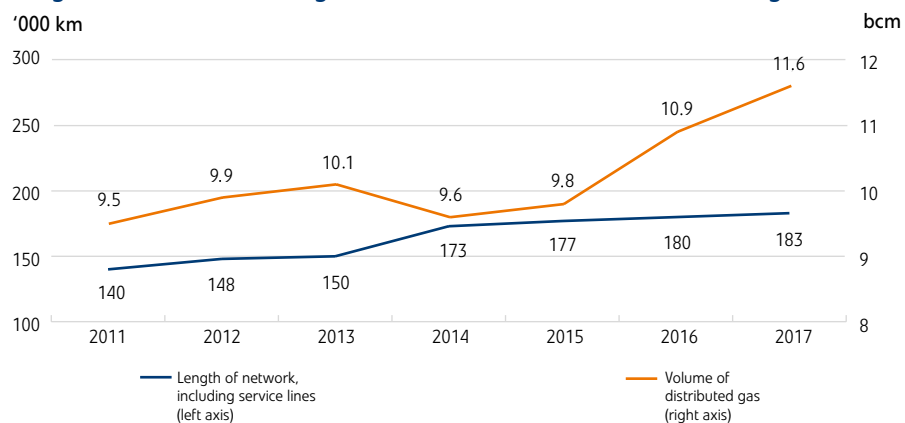
mcm



The mission of PSG as the distribution system operator is to provide gas fuel distribution services to all gas fuel consumers and traders (while ensuring that all of them receive equal treatment) on the basis of distribution agreements. In 2017, PSG executed 13

distribution agreements with Distribution Service Ordering Parties and 2 Interoperator Distribution Agreements. Moreover, throughout the year PSG carried out approximately 260 thousand Single Distribution Orders of all types.

Length of network, including service lines, and volume of distributed gas



In 2017, PSG spent more than PLN 643m on network expansion and connection of new customers.

Capital expenditure in 2017

In 2017, PSG spent more than PLN 643m on network expansion and connection of new customers. In order to ensure the improvement and maintenance of the technical condition of gas pipelines and to guarantee their operational safety, PSG is constantly investing

in the modernisation of its network assets: in 2017 the company spent more than PLN 290m on gas network alterations and upgrades. Key investments are pursued on a project basis as part of the Strategic Investment Programme. Strategic investment projects include 52 projects which are, or are planned to be, partially financed with EU funds, as well as other investment projects of strategic importance to PSG.

As part of Measure – improvement of energy security, PSG entered into seven agreements with the Oil and Gas Institute – National Research Institute, providing for co-financing of investment projects with an overall value of more than PLN 357m (the amount of subsidies will be in excess of PLN 171m). The total length of the distribution pipelines which to be built or modernised as part of the projects is 371 km.

In 2017, PSG continued efforts aimed at intensifying its research and development work with a view to enhancing its innovativeness. As part of cooperation within the PGNiG Group, work was continued to prepare various R&D areas for the needs of a competition to be held as part a joint venture organised by the National Centre for Research and Development (NCBiR), PGNiG and GAZ-SYSTEM. PSG is interested in 12 research topics that will be investigated as part of the INGA (Innovative Gas) Joint Venture.

Negotiations are under way to agree the terms and scope of cooperation between PSG and major liquid fuel distributors operating in the Polish market. This cooperation relates to the possibility of extending (building) distribution infrastructure to enable the supply of gas fuels (CNG and LNG).

The investment projects implemented in 2017 increased the number of new customers (metering points) by more than 90 thousand. The length of the company's own gas network in 2017 was 133.3 thousand kilometers (183 thousand kilometers including service lines), nearly 5 thousand kilometers more than in 2016.

Risks

Limited market development in terms of supplying the distribution network

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Limitations at the entry points to the distribution system result from the limitations of the supply network and insufficient capacity of gas stations. This may have an adverse effect on new customer connections and gas network roll-out.

Risk associated with direct competition

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The activity of companies building and/or operating distribution networks and regasification

plants limits the PGNiG Group's growth opportunities and reduces the profitability of constructed networks.

Risk associated with lack of long-term regulatory policy

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The risk is related to the lack of the Energy Regulatory Office's approval for freezing the tariff prices. If the risk materialises, it may bring about reductions in tariff rates and difficulties in having each subsequent tariff approved. A protection against materialisation of this risk is the development of a regulatory and econometric model, subsequently agreed with the Energy Regulatory Office.

Claims raised by property owners

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The risk arises from failure to secure a permanent legal title to property at the stage of project execution and property owners' higher awareness of the related legal aspects. The consequences of materialisation of the risk include excessive (above market prices) claims made by property owners, increase in litigation, litigation costs, claims for removal or alteration of infrastructure, and claims related to extra-contractual use of property.

Sources of gas supply for the distribution system

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The limited throughput capacity of the transmission network operated by GAZ-SYSTEM results in a significant delay in the extension of distribution infrastructure by PSG. The risk may affect the pace at which new customers are connected to the PSG network and the volume of distributed gas.

Probability that the risk will materialise:
 ●●●○ low
 ●●●○ moderate
 ●●●○ high

Risk materiality level:
 ●●●○ low
 ●●●○ moderate
 ●●●○ high

The risk comparison (2017 vs 2016)
 ↗ rise
 → stable
 ↘ fall



Legislation



This risk may arise in connection with legislative processes aimed at amending the existing or introducing new laws. If materialised, the risk may hinder the preparation and implementation of projects related to amendment of applicable laws and their inconsistency.

Substitution



The substitution risk is associated with a potential lower cost of using alternative fuels and with unavailability and insufficient capacity of the gas network. These circumstances may ultimately result in limited gas network roll-out to new areas, underperformance in terms of revenue and sales volume growth, and reduced efficiency of constructed gas networks.

Lower amount of EU funds allocated for financing gas distribution projects



This risk may result from fund allocation priorities set by the institutions responsible for distribution of EU funding. Unfavourable fund allocation may result in unavailability of financing for submitted projects or in low efficiency of investment projects.

Development prospects

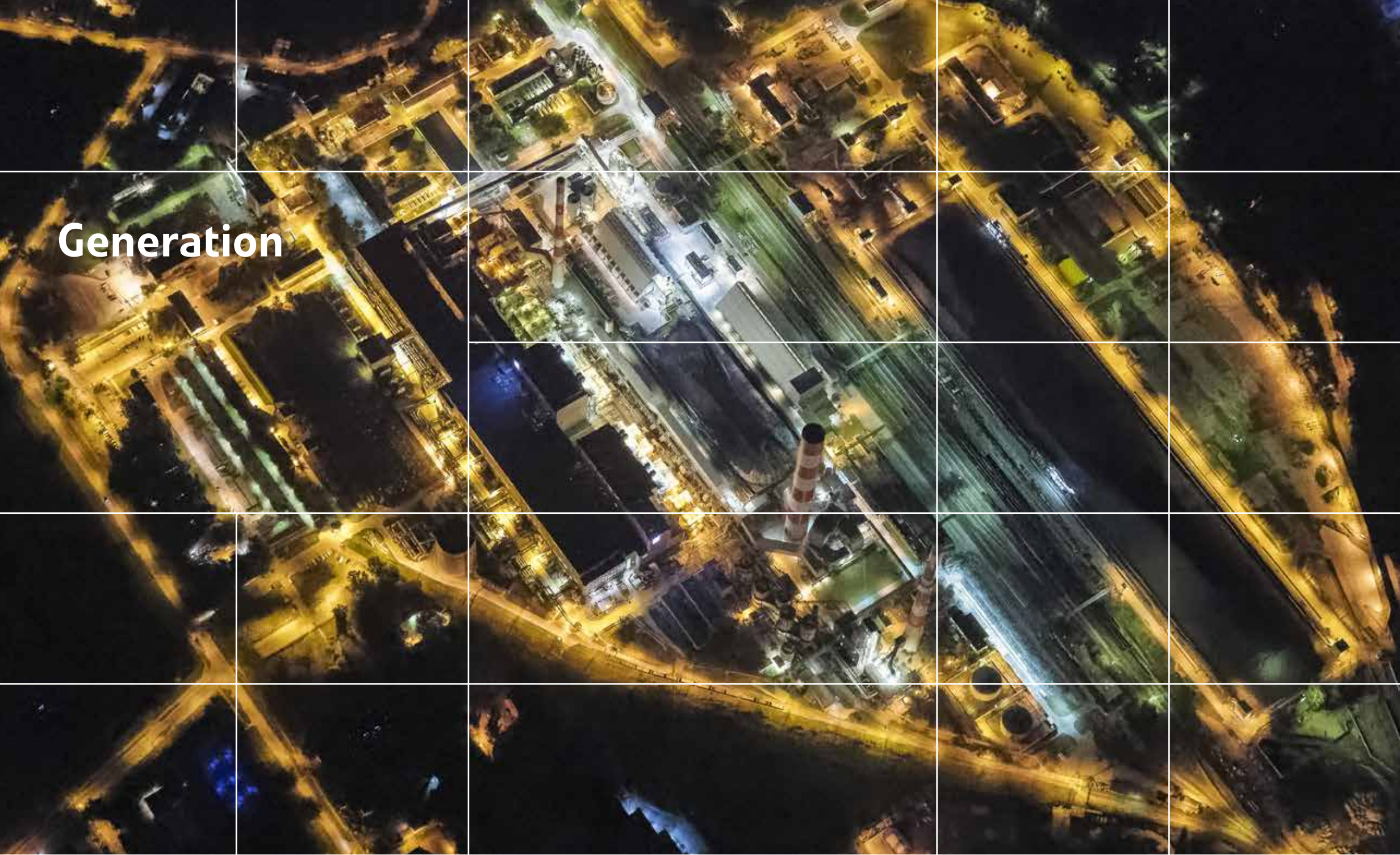
In 2018, PSG will continue nearly 80 projects in various areas of its business, and will also launch new projects to support the implementation of its strategy for 2016-2022. From the

point of view of development of gas fuel distribution, of key importance will be the projects focused on the roll-out of gas networks to be fed using the LNG-based technology, projects to acquire distribution networks, and projects aimed at ensuring compliance of the company's operations with the current legal framework.

As part of the 2018-2020 Investment Plan, tasks have been defined in the 'New gas network roll-outs and related alterations' sub-category, concerning large-scale extension of the gas distribution network. In addition, tasks involving the installation of LNG regasification stations for the purpose of gas supply to island distribution zones have been identified. Based on the 2018-2020 Investment Plan, the total value of investment expenditure in the above sub-category amounts to PLN 318m (until 2020), and the overall number of tasks selected for implementation is 259, 30 of which involve the feeding of distribution networks with natural gas from LNG regasification stations. The highest number of new LNG regasification stations are planned to be built in the Province of Białystok (11), Province of Wrocław (6), Province of Łódź (5), and Province of Szczecin (5).

Project category	Expenditure in 2018 (PLNm)
Gas mains and service line extensions	1,079
Network upgrades	535
Other	546
Total	2,160

Generation



Generation

See also:
www.termika.pgnig.pl/en/

High-efficiency cogeneration - concurrent generation of heat and electric energy, delivering primary energy savings of more than 10%.

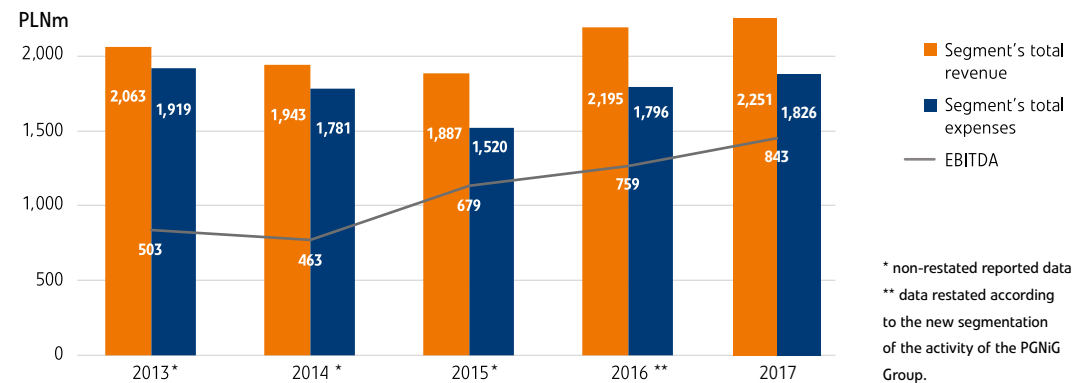
Segment's figures

The segment's principal business consists in the production of heat and electricity, distribution of heat, and execution of large natural gas-fired projects in the power sector.

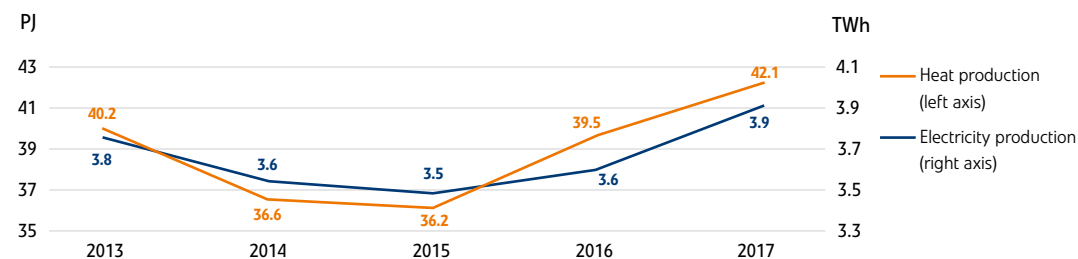
PGNiG TERMIKA is the Group's competence centre for heat and electricity generation as well as execution of heat and power projects. The PGNiG TERMIKA Group includes PGNiG TERMIKA EP, established following the merger of Przedsiębiorstwo Energetyki Ciepłej SA of Jastrzębie Zdrój and Spółka Energetyczna Jastrzębie SA, whose main activity is the production and distribution of electricity, compressed air, cooling, as well as heat generation, distribution and trading. PGNiG TERMIKA EP is the competence center for commercial power generation and extraction of coal mine methane.

The installed capacity of PGNiG TERMIKA's generating assets is 4.6 GW of achieved thermal power and 1 GW of achieved electrical power, which satisfies approximately 70% of the heat demand on the Warsaw metropolitan market. The company is a producer and supplier of heat and the owner of heat sources and heat networks in Pruszków, Komorów and Piastów. The company is also the second largest producer of electricity and heat from high-efficiency cogeneration and the ninth largest electricity producer in Poland. PGNiG TERMIKA EP operates generation assets with a total capacity of approximately 835 MWt and 130 MWe, and approximately 311 km of heat networks.

Segment's financial highlights



Heat and electricity sales volumes from own generation sources



Achievable capacity as per licence/plant/branch

Generating unit	Heat [MW]	Electricity [MW]	Cooling [MW]	Compressed air capacity [thousand cm ³ /h]
PGNiG TERMIKA	4,625	1,015	-	-
Siekierki CHP Plant	2,068	620	-	-
Żerań CHP Plant	1,580	386	-	-
Pruszków CHP Plant	163	9	-	-
Kawęczyn Heating Plant	465	-	-	-
Wola heating plant	349	-	-	-
PGNiG TERMIKA EP	864	170	17	398
Zofiówka Branch*	313	102	-	163
Moszczenica Branch	156	38	-	-
Pniówek Branch	86	14	17	123
Suszec Branch (Suszec site)	46	11	-	112
Suszec Branch (Częstochowa site)	3	3	-	-
Żory Heating Plant	102	-	-	-
Wodzisław Śląski Heating Plant	60	2	-	-
Racibórz Heating Plant	96	-	-	-
Distribution Office	2	-	-	-

* Including the 70 MWe and 120 MWt CFB unit, planned for commissioning in 2018.

The segment's operating profit in 2017 was PLN 425m, up PLN 26m in 2016. EBITDA came in at PLN 843m, up PLN 84m, or 11%, year on year. The segment's revenue stood at PLN 2,251m, an increase of PLN 56m compared with 2016. In 2017, the contribution of PGNiG TERMIKA EP (comprising Przedsiębiorstwo Energetyki Ciepłej SA and Spółka Energetyczna Jastrzębie SA) to the segment's performance was larger than in 2016 – PGNiG TERMIKA EP's contribution to the segment's EBITDA was PLN 96m (2016: PLN 28m). The segment's performance was driven by higher heat sales volumes (up by more than 6% year on year) and an increase in the volume of electricity (own generation) sold (up by 8% year on year) coupled with a simultaneous rise in the average electricity price during the period by 0.71 PLN/MWh. The growing number of segment companies drove up operating expenses.

Activities in 2017

In 2017, PGNiG TERMIKA supplied heat to two municipal networks: the Warsaw heating network, owned by Veolia Energia Warszawa SA, and its own heating network, covering Pruszków, Piastów, and Michałowice. The company also used Veolia's network to supply heat to its own end customers, based on a transmission contract (these customers are billed on different terms as they are classified in PGNiG TERMIKA's separate tariff group – 'OKW').

PGNiG TERMIKA maintains the competitiveness of district heating in Warsaw, ensuring that district heating is the cheapest way to heat buildings in the city. The thermal power generated by the company in 2017 met the requirements set out in the annual schedule agreed with Veolia Energia Warszawa SA, guaranteeing security of heat supply to the residents of Warsaw.

During the year the concept of connecting the Pruszków CHP plant to the Warsaw district heating network was abandoned and a decision was made to start the work on selecting a technical modernisation concept for the Pruszków CHP plant.

PGNiG TERMIKA actively participated in the consultation processes preceding the adoption of new regulations: it took part in the development of a regulatory framework for implementing 'capacity market' mechanisms in Poland (applicable also to co-generation units) and in regulatory consultations concerning renewable energy sources. The company also advocated for maintaining favourable regulations on determination of heat tariffs.

PGNiG TERMIKA is actively seeking potential acquisition targets among district heating systems. At present, the total length of the Generation segment's heating networks is 391.6 km. The total number of customers supplied by PGNiG TERMIKA (including OKW customers) is 571, while PGNiG TERMIKA EP has approximately 2.7 thousand customers.

On September 1st 2017, the merger of PGNiG TERMIKA EP and Przedsiębiorstwo Energetyki Ciepłej SA was completed. Its key objectives included optimisation of operating costs and business integration of the new entity with PGNiG TERMIKA to enhance business management efficiency and improve the quality of business supervision, and also to exploit the synergies between all the entities involved.

Capital expenditure in 2017

In order to meet the more stringent emission requirements the generating assets are being gradually modernised. In 2017, capital expenditure of PGNiG TERMIKA amounted to PLN 258m, of which approximately PLN 20m was spent on environmental protection projects.

In 2017, major investment projects included:

- Construction of a ca. 450 MW CCGT unit at the Żerań CHP plant (Żerań CCGT) - a contract for unit supply and assembly as part of the project was signed in 2017. The consortium of Mitsubishi Hitachi Power Systems Europe GmbH/Mitsubishi Hitachi Power Systems Ltd/Mitsubishi Hitachi Power System Europe Ltd/Polimex-Mostostal SA was selected to perform the contract. Additionally, three of the four stages of the cooling water system alteration were completed and the discharge pipeline assembly began. The construction site was handed over to the contractor and construction works began.
- Construction of a ca. 450 MW CCGT unit at the Stalowa Wola CHP plant (ECSW) - in June 2017 a contract was signed with IDS-BUD SA for the construction of a cooling water pipeline. In September, the project as-built survey was completed, and in October an agreement was signed with the winner of the public procurement procedure held to select a company to provide EPCM services, i.e. the consortium of Zakłady Pomiarowo – Badawcze Energetyki ENERGOPOMIAR sp. o.o. and Biuro Projektów i Realizacji ENERGOPROJEKT - KATOWICE SA.
- Construction of a ca. 70 MWe FBC unit at the Zofiówka CHP plant – due to a delay on the part of the contractor (Energoinstal SA) negotiations concerning continuation of contract performance are underway.
- Completion of conversion of the K1 boiler in the Siekierki CHP plant into a biomass boiler.
- Construction of a peak-load boiler house at the Żerań CHP plant – in November 2017, the contract was signed.
- Completion of adaptation of the K2 steam generator at the Siekierki CHP plant to BAT (Best Available Technique) requirements.

- Work on updating the concept of adaptation of the Pruszków CHP plant to operate after 2020 in connection with change of fuel from pea coals to fine coal.

Work continued on the preparation a pilot investment project to build a gas-fired co-generation unit to which gas produced by PGNiG at the Kościan-Brońsko Gas Production Facility would be supplied. In addition, PGNiG TERMIKA participates in the start-up programmes of the PGNiG Group and MIT EF, as well as in the assessment of projects from InnVento ideas incubator. In 2017, the project of remote meter reading with PSG was commenced.

Risks

Coal procurement and supply

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Coal is purchased mostly under contracts executed in advance to ensure that strategic coal stocks are maintained above the level required by the Regulation of the Minister of Economy. In addition, coal transport services are purchased in accordance with the Public Procurement Law and in good time before the delivery is due. Counterparties' performance of contracts with the PGNiG Group deteriorated significantly in the third and fourth quarter of 2017, giving rise to a major risk of breach of the required level of emergency stocks of coal at the end of 2017 and in subsequent months of 2018.

Support for cogeneration

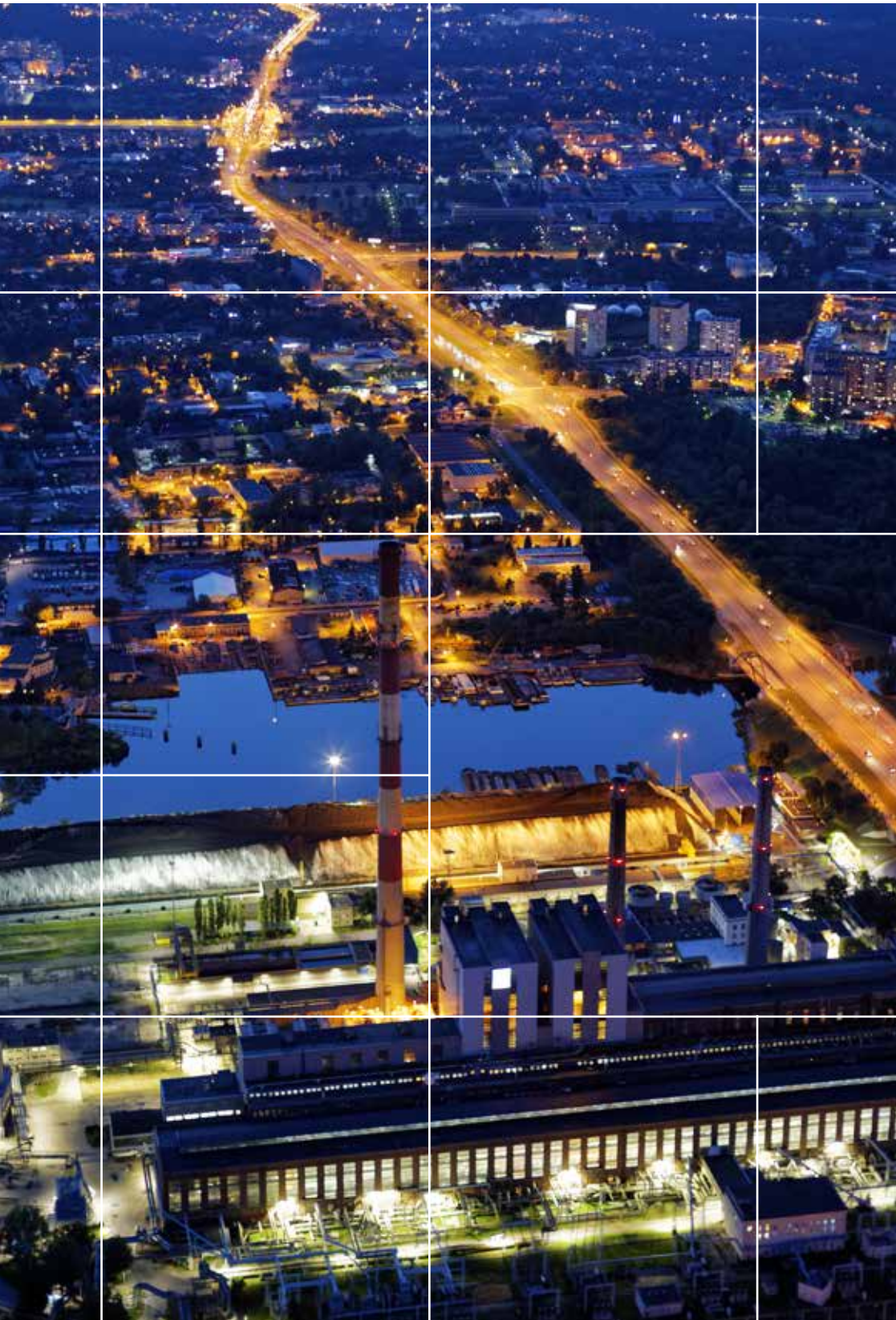
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The system of cogeneration support in the form of certificates of origin will continue only until the end of 2018. In December 2017, after carrying out analyses in consultation with industry organisations, the Ministry of Energy announced that it adopted the key assumptions for the new support system.

Probability that the risk will materialise:
 ●○ low
 ●●○ moderate
 ●●● high

Risk materiality level:
 ●○ low
 ●●○ moderate
 ●●● high

The risk comparison (2017 vs 2016)
 ↗ rise
 → stable
 ↘ fall



If the announced regulations are adopted, after 2018 the support for the existing cogeneration units will be reduced or withdrawn in the case of cogeneration units with a capacity of more than 300 MWe (gross), meeting the criteria for support will be additionally reviewed by the European Commission, as part of the individual notification procedure. What may partially offset the potential lack of revenue from the support system for high-efficiency cogeneration units is that cogeneration units will be eligible to participate in the capacity market. However, the launch of the capacity market in Poland is subject to approval by the European Commission.

More stringent gas and dust emission standards



In order to meet the emission requirements under the directive on industrial emissions (IED), the generating units of the PGNiG TERMIKA Group have been upgraded in recent years or are currently relying on flexibilities until they are altered or new units are built. However, following the issue of BAT Conclusions for large combustion plants, the PGNiG Group companies are obliged to upgrade their existing generating units to meet the stricter emission requirements that will become applicable to them as of August 17th 2021.

Development prospects

In 2018, PGNiG TERMIKA and its subsidiaries will continue projects related to modernisation of existing and construction of new power generation units, including:

- continued construction of the CCGT unit at the Żerań CHP plant – contract value with the maintenance contract is PLN 1.6bn (VAT inclusive), and completion is planned in 2020;
- continued construction of the peak-load boiler house at the Żerań CHP plant –

the project will contribute to the delivery of strategic objectives to preserve leadership in the heat generation market in the Warsaw area and to diversify the fuel mix (coal, natural gas, biomass, alternative refuse-derived fuels);

- continued construction of a CFB cogeneration unit with an installed capacity of approximately 70 MWe at the Zofiówka CHP plant – construction of the CFB cogeneration unit will enable a gradual withdrawal of obsolete and ineffective generating units (OP-140 boilers) at the Zofiówka plant.

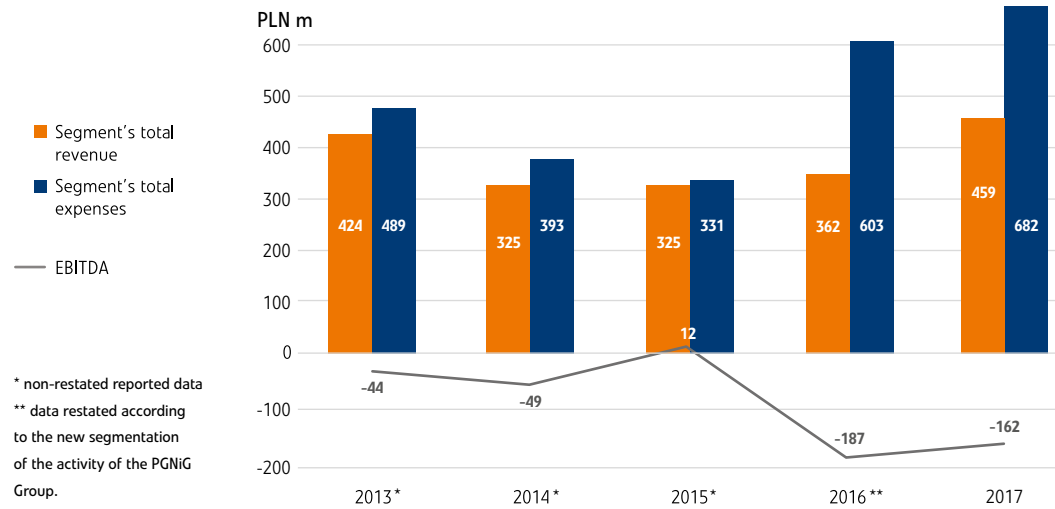
The PGNiG TERMIKA Group will strive to improve return on assets and to diversify the fuel portfolio (coal, gas, biomass, RDF), while ensuring that generation assets comply with environmental requirements. Furthermore, PGNiG TERMIKA will take steps to evaluate potential acquisitions of heating systems throughout the country.



Other
segments

Other segments

Segment's financial highlights



* non-restated reported data
 ** data restated according to the new segmentation of the activity of the PGNiG Group.

Activities in 2017

Corporate Centre

As part of the efforts to enhance the Group's image, in April 2017 PGNiG adopted the „PGNiG Group Sustainable Development Strategy 2017–2022”. In 2017, the PGNiG Group also increased its engagement in R&D and innovation projects. Examples include the launch of INGA – Innovative Gas – the largest research programme at the PGNiG Group, and the InnVento initiative – the first business incubator in the oil and gas sector.

PGNiG Branch – Central Measurement and Testing Laboratory (CLPB)

The CLPB provides services such as tests of accuracy and reliability of measurements of the quality and quantity of natural gas, testing of measuring devices and systems as well as technical analyses, opinions and technical expert reports. In 2017, it provided services related to the supervision of the cargo

settlement system at the Świnoujście terminal, validation of gas chromatographs for the purposes of natural gas settlements, calibration of measurement systems at facilities on the Yamal pipeline and at the LNG terminal in Świnoujście, etc. The largest customers of the branch include members of the PGNiG Group, GAZ-SYSTEM and EuroPolGaz SA.

PGNiG Technologie

PGNiG Technologie implements comprehensive projects to construct crude oil and natural gas production facilities and natural gas transmission facilities. In 2017, it provided services mainly to members of the PGNiG Group, relating to development of fields and wells as well as supply of well surface equipment. Exports in 2017 comprised finished products, the main markets being Norway, Pakistan and Ukraine. In 2017, shares in Polimex-Mostostal SA were purchased.

PGNiG Serwis

The principal business of PGNiG Serwis is the provision of comprehensive finance and accounting services, HR and payroll services, ICT services, project management support, property management, vehicle fleet management, porter and reception services, and direct physical security services for the PGNiG Group companies. PGNiG Serwis acts as a Shared Services Centre for 15 companies of the PGNiG Group.

Gazoprojekt

Gazoprojekt provides consultancy and design services at all stages of administrative procedures: development of technical and economic project assumptions, and drafting of documentation and project execution plans. It performs feasibility and environmental studies, drafts documents required under relevant regulations, produces design and as-built documentation, and prepares 3D visualisations. In 2017, there was a significant increase in the number of requests for proposal concerning large infrastructure projects in the industry on the Polish market: gas transmission and distribution pipelines and gas compression stations.

Geovita

Geovita's business involves leisure-related activities, spa treatment services, health protection, medical rehabilitation, and provision of conference and training services. Geovita's facilities are located in Dąbki, Mrzeżyno, Dźwirzyno, Jadwisin near Serock, Płotki near Piła, Jugowice, Łądek-Zdrój, Zakopane, Wisła, Złoczkie near Muszyna, and Krynica-Zdrój. Geovita also leases and manages three hotels: the Orient in Kraków, Bukowy Dworek in Gronowo near Łagów, and Perła Bieszczadów near Ustrzyki Dolne. In 2017, changes were made in Geovita's operations, in order to reduce operating expenses and use resources more efficiently.

Polski Gaz Towarzystwo Ubezpieczeń Wzajemnych (Polski Gaz TUW, mutual insurance company)

In 2017, cooperation with Polski Gaz TUW was continued with respect to insurance contracts for both PGNiG and PGNiG Group members. The company provides insurance mainly to PGNiG Group companies on the basis of members' mutuality within the company, which allows it to tailor the insurance services to policyholders' needs through their actual contribution to the Company's operation and the ability to directly report their insurance needs. Mutual insurance company Polski Gaz TUW was established within the PGNiG Group in order to improve the quality of insurance services used by the PGNiG Group entities, as well as to increase the cost efficiency. The first insurance policies issued by Polski Gaz TUW for the PGNiG Group companies were effective from January 1st 2017.

In H1 2017 steps were taken as a result of which from July 1st 2017 property, civil liability, and fleet insurance protection was renewed for the PGNiG Group companies. At the beginning of 2018, protection provided under the upstream business insurance for PGNiG was renewed. Steps are also planned to again renew property, civil liability, and fleet insurance protection for the PGNiG Group companies.

For more on research and development, see p. 138.

Innovation, research and development



Innovation, research and development

In 2017, more than 24 research institutions submitted 96 new R&D offers. R&D agreements were performed for 24 of those offers, for a total value of PLN 18.2m. In addition, 17 new agreements for research projects were signed. The most important achievements in the R&D area in 2017 are as follows:

- Conclusion of an agreement with the National Centre for Research and Development (NCBiR) and GAZ-SYSTEM for the execution of the INGA (Innovative Gas Industry) programme, the largest research programme in the history of the PGNiG Group, for a total amount of PLN 400m, half of which will be financed with NCBiR's funds. The programme covers the majority of the PGNiG Group's business segments and focuses on research issues that may bring the best economic benefit to the PGNiG Group. PGNiG's financial contribution to the INGA programme may reach PLN 133m in 2018-2022;
- Appointment of the Scientific Advisory Group of the second term. The Scientific Advisory Group is an interdisciplinary consulting and advisory team supporting the PGNiG Group and the Research and Development Department in their R&D operations;
- Closing of the third edition of the 'Young Innovators for PGNiG' competition – the awarded projects concerned gas purification with ashes from coal com-

bustion, the use of a rocket engine for methane extraction and obtaining ^3He (helium) isotope;

- 16 patent applications, prepared as projects under the First Edition of the Blue Gas Programme (with the participation of PGNiG) are under review.

The R&D activities planned for 2018 include:

- Formal launch of the INGA programme, selection of the most effective R&D projects entered for the competition, signing implementation contracts and supervision over the implementation of projects selected under the programme;
- Launch of a new research and development project co-financed by the National Centre for Research and Development, concerning innovative technologies of exploration for and extraction of coal bed methane, with a budget of approximately PLN 140m;
- Completion of development and implementation of a model for the protection of intellectual property rights at the PGNiG Group;
- Gradual completion of the launched R&D projects and, if favourably assessed, approving them for commercialisation;
- Completion of four projects under the Second Edition of the Blue Gas Programme and processing of patent applications, if any.



Most of the research and development (R&D) activities related to the Exploration and Production segment.

Financial results



Financial results

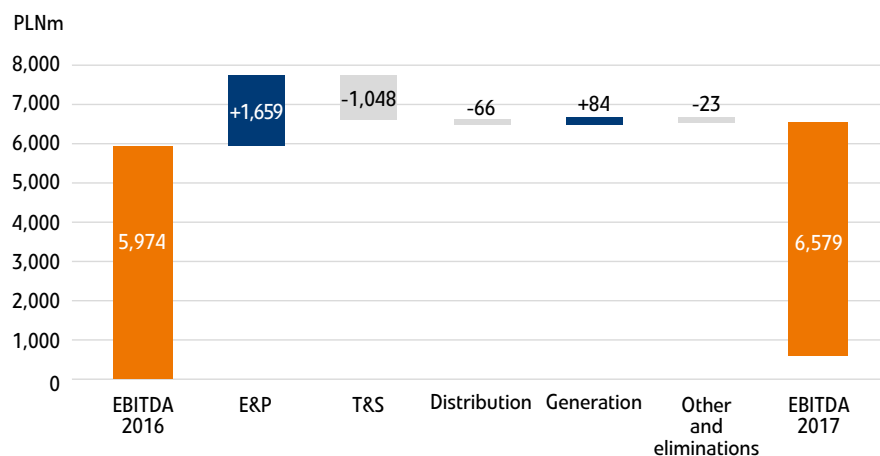
For more on EBITDA, see p. 185.

Consolidated financial report

In 2017, the PGNiG Group's revenue was PLN 35,857m, up PLN 2,661m (8%) from PLN 33,196m posted a year earlier. Despite a 7% yoy growth in operating expenses, which amounted to PLN 31,947m, the Group earned consolidated operating profit (EBIT) of PLN 3,910m, up 16% yoy. Operating profit before depreciation and amortisation (EBITDA) came in at PLN 6,579m, which represents an increase of PLN 605m (10%) on the previous year.

The Group generated this performance in an environment characterised by higher prices of crude oil and natural gas on the global markets and progressing deregulation of the Polish gas market. The combination of sales promotions and slightly lower temperatures compared with the previous year (down by 0.2°C) drove the gas volumes sold by the PGNiG Group up from 24.3 bcm in 2016 to 26.8 bcm in 2017.

Change in EBITDA: 2016 vs 2017



Data restated according to the new segmentation of the PGNiG Group's operations.

As at December 31st 2017, total assets recognised in the consolidated statement of financial position were PLN 48,203m, down PLN 1,469m (3%) on the end of 2016.

Equity is the main source of financing of the PGNiG Group's assets. At the end of 2017, the Group's equity stood at PLN 33,627m, up by PLN 1,611m (5%) relative to 2016. The change in equity was primarily attributable to the net profit earned in the reporting period, of PLN 2,921m, and the PLN 1,156m dividend paid for the previous year.

In connection with the increase in equity and decrease in current liabilities, the Group saw an improvement in its debt ratio and debt

to equity ratio, which fell from 35.5% to 30.2% and from 55.1% to 43.3%, respectively.

As a result of significantly lower liabilities compared with the previous year, the Group reported an increase in its liquidity ratios: the current ratio rose to 1.8, from 1.5 at the end of December 2016, while the quick ratio was 1.4 in the reporting period, compared with 1.2 at the end of the previous year.

The PGNiG Group's financial position was reflected in its key financial ratios. ROE, ROA and net margin increase from 7.3% to 8.7%, from 4.7% to 6.1%, and from 7.1% to 8.2%, respectively.

For more on ROE see p. 185.

For more on ROA see p. 185.

Financial highlights of the PGNiG Group

as at December 31st 2017

PLNm	2017	2016	Change y/y
Revenue	35,857	33,196	2,661
Total operating expenses, including	(31,947)	(29,836)	(2,111)
Amortisation	(2,669)	(2,614)	(55)
Operating profit (EBIT)	3,910	3,360	550
Profit before tax	3,922	3,210	712
Net profit	2,921	2,349	572
Net cash from operating activities	4,816	5,922	(1,106)
Net cash flows from investing activities	(3,863)	(3,842)	(21)
Net cash from financing activities	(4,204)	(2,269)	(1,935)
Net increase/(decrease) in cash and cash equivalents	(3,251)	(189)	(3,062)

PLNm	2017	2016	Change y/y
Total assets	48,203	49,672	(1,469)
Non-current assets	36,364	36,236	128
Current assets, including	11,839	13,436	(1,597)
Inventories	2,748	2,510	238
Total equity and liabilities	48,203	49,672	(1,469)
Total equity	33,627	32,016	1,611
Total non-current liabilities	7,004	7,303	(299)
Total current liabilities	7,572	10,353	(2,781)
Total liabilities	14,576	17,656	(3,080)

Consolidated statement of profit or loss

as at December 31st 2017.

PLNm	2017	2016
Revenue from sales of gas	28,613	26,429
Other revenue	7,244	6,767
Revenue	35,857	33,196
Cost of gas sold	(20,127)	(18,320)
Other raw materials and consumables	(2,586)	(2,427)
Employee benefits expense	(2,696)	(2,573)
Transmission services	(1,144)	(1,106)
Other services	(1,749)	(1,412)
Taxes and charges	(793)	(765)
Other income and expenses	(342)	(332)
Work performed by the entity and capitalised	992	868
Recognition and reversal of impairment losses on property, plant and equipment and intangible assets	(833)	(1,155)
Operating profit before depreciation and amortisation (EBITDA)	6,579	5,974
Depreciation and amortisation	(2,669)	(2,614)
Operating profit (EBIT)	3,910	3,360
Net finance costs	(16)	(76)
Profit/(loss) from equity-accounted investees	28	(74)
Profit before tax	3,922	3,210
Income tax	(1 001)	(861)
Net profit	2,921	2,349
Net profit attributable to:		
owners of the parent	2,923	2,351
non-controlling interests	(2)	(2)
Weighted average number of ordinary shares (million)	5,778	5,867
Basic and diluted earnings per share (PLN)	0.51	0.40

Profitability

as at December 31st 2017

PLNm	2017	2016
EBIT operating profit	3,910	3,360
EBITDA operating profit + depreciation/amortisation	6,579	5,974
Adjusted EBITDA operating profit + depreciation/amortisation + impairment losses on property, plant and equipment	7,012	6,811
ROE net profit to equity at end of period	8.7%	7.3%
Net profit margin net profit to revenue	8.2%	7.1%
ROA net profit to assets at end of period	6.1%	4.7%

Liquidity

as at December 31st 2017

	2017	2016
Current ratio current assets to current liabilities (net of employee benefit obligations, provisions and deferred revenue)	1.8	1.5
Quick ratio current assets less inventories to current liabilities (net of employee benefit obligations, provisions and deferred revenue)	1.4	1.2

Debt

as at December 31st 2017

	2017	2016
Debt ratio total liabilities to total equity and liabilities	30.2%	35.5%
Debt to equity ratio total liabilities to equity	43.3%	55.1%

Consolidated statement of comprehensive income

as at December 31st 2017

PLNm	2017	2016
Net profit	2,921	2,349
Exchange differences on translating foreign operations	(65)	23
Hedge accounting	(76)	783
Revaluation of financial assets available for sale	(6)	2
Deferred tax	15	(149)
Share of other comprehensive income of equity-accounted investees	(4)	–
Other comprehensive income subject to reclassification to profit or loss	(136)	659
Actuarial losses on employee benefits	(23)	(29)
Deferred tax	4	5
Share of other comprehensive income of equity-accounted investees	1	(2)
Other comprehensive income not subject to reclassification to profit or loss	(18)	(26)
Other comprehensive income, net	(154)	633
Total comprehensive income	2,767	2,982
Total comprehensive income attributable to:		
owners of the parent	2,769	2,984
non-controlling interests	(2)	(2)

Consolidated statement of cash flows

as at December 31st 2017

PLNm	2017	2016
Cash flows from operating activities		
Net profit	2,921	2,349
Depreciation and amortisation	2,669	2,614
Current tax expense	1,001	861
Net gain/(loss) on investing activities	452	884
Other non-cash adjustments	304	368
Income tax paid	(755)	(611)
Movements in working capital	(1,776)	(543)
Net cash from operating activities	4,816	5,922
Cash flows from investing activities		
Payments for acquisition of tangible exploration and evaluation assets under construction	(740)	(713)
Payments for other items of property, plant and equipment and intangible asset	(2,422)	(2,255)
Payments for shares in related entities	(347)	(1,027)
Other items, net	(354)	153
Net cash from investing activities	(3,863)	(3,842)
Cash flows from financing activities		
Payment for treasury shares	–	(645)
Increase in debt	2,218	451
Proceeds from derivative financial instruments	165	89
Decrease in debt	(5,407)	(1,021)
Dividends paid	(1,156)	(1,062)
Payments for derivative financial instruments	(20)	(78)
Other items, net	(4)	(3)
Net cash from financing activities	(4,204)	(2,269)
Net cash flows	(3,251)	(189)
Cash and cash equivalents at beginning of period	5,832	6,021
Foreign exchange differences on cash and cash equivalents	–	(4)
Cash and cash equivalents at end of period	2,581	5,832

Consolidated statement of financial position

as at December 31st 2017

PLNm	2017	2016
ASSETS		
Property, plant and equipment	32,452	33,149
Intangible assets	1,115	1,079
Deferred tax assets	141	100
Equity-accounted investees	1,601	1,229
Other assets	1,055	679
Non-current assets	36,364	36,236
Inventories	2,748	2,510
Receivables	5,781	4,288
Derivative financial instruments	450	623
Other assets	216	129
Cash and cash equivalents	2,578	5,829
Assets held for sale	66	57
Current assets	11,839	13,436
TOTAL ASSETS	48,203	49,672
EQUITY AND LIABILITIES		
Share capital and share premium	7,518	7,518
Accumulated other comprehensive income	(158)	(4)
Retained earnings	26,266	24,499
Equity attributable to owners of the parent	33,626	32,013
Equity attributable to non-controlling interests	1	3
TOTAL EQUITY	33,627	32,016
Financing liabilities	951	1,346
Employee benefit obligations	725	702
Provision for well decommissioning costs	1,717	1,641
Other provisions	181	198
Grants	767	815
Deferred tax liabilities	2,019	1,932
Other liabilities	644	669
Non-current liabilities	7,004	7,303
Financing liabilities	2,055	5,006
Derivative financial instruments	322	346
Trade and tax payables*	3,249	3,179
Employee benefit obligations	371	334
Provision for well decommissioning costs	53	20
Other provisions	621	560
Other liabilities	901	908
Current liabilities	7,572	10,353
TOTAL LIABILITIES	14,576	17,656
TOTAL EQUITY AND LIABILITIES	48,203	49,672

* Including income tax of PLN 217m (2016: PLN 180m)

Consolidated statement of changes in equity

PLNm, for the year ended December 31st 2017

	Equity attributable to owners of the parent										Equity attributable to non-controlling interests	Total equity
	Share capital and share premium, including:			Accumulated other comprehensive income:								
	Share capital	Share premium	Treasury shares	Exchange differences on translating foreign operations	Hedging reserve	Revaluation of financial assets available for sale	Actuarial gains/(losses) on employee benefits	Share of other comprehensive income of equity accounted investees	Retained earnings	Total		
At Jan 1 2016	5,900	1,740	–	(51)	(565)	–	(21)	–	23,733	30,736	5	30,741
Net profit	–	–	–	–	–	–	–	–	2,351	2,351	(2)	2,349
Other comprehensive income, net	–	–	–	23	634	2	(24)	(2)	–	633	–	633
Total comprehensive income	–	–	–	23	634	2	(24)	(2)	2,351	2,984	(2)	2,982
Dividend	–	–	–	–	–	–	–	–	(1,062)	(1,062)	–	(1,062)
Purchase of treasury shares	–	–	(645)	–	–	–	–	–	–	(645)	–	(645)
Cancellation of treasury shares	(122)	–	645	–	–	–	–	–	(523)	–	–	–
At Dec 31 2016	5,778	1,740	–	(28)	69	2	(45)	(2)	24,499	32,013	3	32,016
Net profit	–	–	–	–	–	–	–	–	2,923	2,923	(2)	2,921
Other comprehensive income, net	–	–	–	(65)	(62)	(5)	(19)	(3)	–	(154)	–	(154)
Total comprehensive income	–	–	–	(65)	(62)	(5)	(19)	(3)	2,923	2,769	(2)	2,767
Dividend	–	–	–	–	–	–	–	–	(1,156)	(1,156)	–	(1,156)
As at Dec 31 2017	5,778	1,740	–	(93)	7	(3)	(64)	(5)	26,266	33,626	1	33,627

Segments

PLNm, for the year ended December 31st 2017

2017	Sales to external customers	Intersegment sales	Total revenue	EBITDA	Depreciation and amortisation	EBIT (operating profit)	Recognition and reversal of impairment losses on property, plant and equipment and intangible assets	Profit/(loss) from equity-accounted investees	Expenditure on acquisition of property, plant and equipment and intangible assets	Property, plant and equipment	Workforce*
Exploration and Production	3,092	3,026	6,118	3,865	(1,060)	2,805	(479)	18	(1,142)	12,244	6,998
Trade and Storage	30,000	495	30,495	(435)	(205)	(640)	(364)	-	(89)	3,337	2,961
Distribution	969	3,968	4,937	2,493	(925)	1,568	3	-	(1,190)	13,142	11,114
Generation	1,655	596	2,251	843	(418)	425	3	-	(603)	3,485	1,785
Other segments	141	318	459	(162)	(61)	(223)	4	10	(93)	440	1,836
Total	35,857	8,403	44,260	6,604	(2,669)	3,935	(833)	28	(3,117)	32,648	24,694
Reconciliation with consolidated data			(8,403)	(25)	-	(25)	-	-	(45)	(196)	
Total			35,857	6,579	(2,669)	3,910	(833)	28	(3,162)	32,452	

* Excluding employees of equity-accounted investees.

Segments

PLNm, for the year ended December 31st 2016

2016	Sales to external customers	Intersegment sales	Total revenue	EBITDA	Depreciation and amortisation	EBIT (operating profit)	Recognition and reversal of impairment losses on property, plant and equipment and intangible assets	Profit/(loss) from equity-accounted investees	Expenditure on acquisition of property, plant and equipment and intangible assets	Property, plant and equipment	Workforce*
Exploration and Production	2,776	2,513	5,289	2,206	(1,068)	1 138	(1,089)	(53)	(1,314)	12,881	7,720
Trade and Storage	27,733	447	28,180	614	(209)	405	(12)	-	(37)	3,825	2,911
Distribution	1,078	3,837	4,915	2,559	(924)	1,635	(4)	-	(1,123)	12,765	10,846
Generation	1,472	723	2,195	759	(360)	399	(16)	(21)	(391)	3,378	1,870
Other segments	137	225	362	(186)	(55)	(241)	(34)	-	(93)	512	1,924
Total	33,196	7,745	40,941	5,952	(2,616)	3,336	(1,155)	(74)	(2,958)	33,361	25,271
Reconciliation with consolidated data			(7,745)	22	2	24	-	-	(10)	(212)	
Total			33,196	5,974	(2,614)	3 360	(1,155)	(74)	(2,968)	33,149	

* Excluding employees of equity-accounted investees.

Corporate Governance



Management Board



Piotr Woźniak graduated from the University of Warsaw with a degree in geology. In 1990 and 1991, he advised the Minister of Agriculture and Minister of Industry. He was the Trade Commissioner of the Republic of Poland in Canada in 1992–1996. In 1998–2000, Piotr Woźniak was an adviser on infrastructure to the Polish Prime Minister. He worked in PGNiG between 1999–2002 on various positions: as member of Supervisory Board and Vice President of the Management Board from June 2000. In the 2002–2006 term, he was a member of the Warsaw City Council. Between 2005 and 2007 he was the Minister of Economy, and from December 2011 to December 2013 – the Deputy Minister of Environment and Chief State Geologist. He is a lecturer at the Łazarski University and the Warsaw School of Economics, and a member of the Council of the Maria Grzegorzewska University

in Warsaw. Since 2009 he has served as Chairman, and since March 2014 as Deputy Chairman, of the Administrative Board of the Agency for the Cooperation of Energy Regulators (ACER).

On December 19th 2016, Piotr Woźniak was reappointed President of the Management Board of PGNiG SA for the three-year term of office beginning December 31st 2016.

President of the Management Board:

- manages the work of the Management Board and coordinates the work of Management Board members in all areas of the PGNiG Group's activity;
- supervises and coordinates the Company's operations, including with respect to:
 - internal control and audit functions;
 - HR strategies, payment schemes and working time, employment and payroll policies;
 - protection of classified information, protection of personal data, protecting and defending the Company's facilities;
 - corporate governance within the PGNiG Group and optimisation of the PGNiG Group's structure;
 - policy, objectives and programmes related to hydrocarbon exploration and production in Poland and abroad, overseeing all licensing processes related to hydrocarbon exploration, appraisal and production, as well as storage of waste matter in rock mass and non-reservoir storage of substances;

- formulation of assumptions and technical regulations, norms and standards applicable in the area of oil drilling, operation and safety of production systems and underground storage facilities, standardisation and oversight of uniform quality systems;
- acquisition of foreign upstream assets;
- planning, and IT systems development and operation, as well as IT development;
- comprehensive legal support protecting PGNiG's legal interests, uniform application of general law, issuance of official orders and circulars for the Company;
- operations of the Geology and Hydrocarbon Production Branch, the PGNiG Branches in Odolanów, Sanok and Zielona Góra, Well Mining Rescue Station in Kraków, and the Company's foreign branches – operations of the Company's representative office in Moscow.

Radosław Bartosik

Vice President, Operations



He graduated from the Faculty of Drilling, Oil and Gas of the AGH University of Science and Technology in Kraków. He also completed a number of post-graduate courses, e.g. in business management, marketing and electricity, heat and gas market. Radosław Bartosik holds an MBA degree and passed the examination for candidates for members of the supervisory boards of state-owned companies. He is a qualified technical supervisor of mining operations. Including a four-year break, he has been with the PGNiG Group since 1997. First, he worked for the PGNiG Zielona Góra Branch, in oil and gas production facilities where he gained experience and developed his career, starting as a Marketing Specialist and then head of the Contract and Tender Department. In 2006, he was appointed Economic and Commercial Director. Three years later he became Deputy Director of PGNiG's Branch Operator

Systemu Magazynowania (currently Gas Storage Poland sp. z o.o., a subsidiary of PGNiG SA) in Warsaw. He was also Chief Specialist for EU Funds at the PGNiG Head Office. Until the end of 2016, Radosław Bartosik was Deputy Economic Director at the Warsaw Branch of PSG.

On December 19th 2016, he was appointed Vice President for Operations, for the three-year term of office beginning December 31st 2016.

Vice President for Operations, supervises and coordinates the Company's operations, including with respect to:

- corporate social responsibility (CSR);
- the Company's and the PGNiG Group's procurement strategy;
- management of the Company's assets, excluding network assets, extraction assets and underground gas storage facilities;
- management of the Company's non-production assets, including property;
- creation and implementation of the sponsorship policy and the Company's image in Poland and abroad;
- cooperation with transmission and distribution system operators.

Łukasz Kroplewski

Vice President, Development



Mr Łukasz Kroplewski holds master's degrees in law and in administration. He also completed executive MBA courses. He gained professional experience by serving in public administration. At the Koszalin University of Technology, he taught intellectual property law. He has close ties with the HR industry, where he worked from 2005 holding managerial positions. He has provided legal and business consultancy support to corporations. From 2009 to 2017, he was a member of the Local Government Board of Appeals. He is one of the founders of the Mediation Centre at the Association of Merchants and Entrepreneurs in Koszalin, where he works as a mediator. Łukasz Kroplewski is a member of the UNECE Group of Experts on Coal Mine Methane. In July 2016, he was appointed Vice President of the Chamber of the Natural Gas Industry, an association of gas industry operators, and became the

Chamber's CEO in 2017. Thanks to Łukasz Kroplewski's efforts, PGNiG joined the International Centre of Excellence on Coal Mine Methane (ICE-CMM), where he chairs the Presiding Committee. In 2017, he became a member of the Scientific Council of the Aviation Institute for the term of office from 2017 to 2021. In the same year he became a legal counsel at the Polish Chamber of Commerce.

On December 19th 2016, he was appointed Vice President for Development, for the three-year term of office beginning December 31st 2016.

The Vice President for Development supervises and coordinates such areas as:

- innovation and growth projects involving PGNiG;
- analysing and monitoring opportunities to obtain EU funding for the Company's operations;
- oversight of standardisation activities at the Company;
- development of technical assumptions, rules, norms and standards for the gas area;
- oversight of the Central Measurement and Testing Laboratory and of the PGNiG foreign representative offices in Kiev and Vysokoye.

Michał Pietrzyk

Vice President, Finance



He is a graduate of Finance and Banking at the Kraków University of Economics. He also completed a post-graduate course in law for managers at the Kozminski University. He started his professional career in 1995 in the banking sector. With the PGNiG Group since 2003, he first worked as Head of the Treasury Department of PGNiG and from 2006 to 2016 as Deputy Head of the Economic Department. In February 2016, Mr Pietrzyk became the Head of PGNiG's Economic Department.

On December 19th 2016, he was appointed Vice President for Finance, for the three-year term of office beginning December 31st 2016.

The Vice President for Finance supervises and coordinates such areas of the Company's operations as:

- of the Company's strategic economic and financial objectives;
- preparation and implementation of the Company's Business Plan;
- economic and financial evaluations and analyses of growth and investment projects, planning and overseeing financial aspects of the investment policy, monitoring of the use of financial resources allocated to production, investment and repair work;
- PGNiG's internal settlement procedures and financing operations;
- cash flows of the PGNiG Group, budgeting and control of the Company's costs and revenue, its credit policy, tax policy and tax liabilities;
- financial risk management, economic and financial analyses of new capital projects;
- implementation and development of accounting procedures;
- defining the rules of and overseeing the preparation of financial statements;
- investor relations.

Maciej Woźniak

Vice President, Trade



Maciej Woźniak is a graduate of the Cracow University of Economics (Master Degree) and the National School of Public Administration. He also completed a post-graduate course in property valuation at the Warsaw University of Technology. He is a member of the Polish Civil Service Corps. In 2011, he participated in the International Visitor Leadership Programme run by the US Department of State. In 2003–2008, he worked at the Ministry of Finance and at the Ministry of Economy, as head of the Oil and Gas Department at the latter and was responsible for implementation of the act on emergency stocks of oil, gas and fuels and for securing Poland's accession to OECD's International Energy Agency based in Paris. After it joined the IEA, he represented Poland at IEA Governing Board meetings a number of times. He coordinated preparations ahead of implementation of the second

package of the EU gas market liberalisation legislation and participated in the EU's work on the third package. In 2008–2010, he was chief adviser on energy security and secretary of the Prime Minister's interdepartmental energy security policy team. He represented Poland in the V4 High-Level Group on Energy and the EC's Group for the Baltic Energy Market Interconnection Plan. He supervised the pre-construction phase of the LNG Terminal project. He was on the team negotiating the intergovernmental gas supply contract between Poland and Russia. He resigned from the position of Prime Minister's adviser after the contract was signed in November 2010. In 2011–2013, he advised the Minister of the Environment and Chief State Geologist on the geological and mining law reform. He sat on the Supervisory Boards of Operator Logistyczny Paliw Płynnych and Wielkopolska Spółka Gazownictwa and served as Chairman of the Supervisory Board of the Provincial Fund for Environmental Protection and Water Management of Warsaw.

On December 19th 2016, he was reappointed Vice President for Trade, for the three-year term of office beginning December 31st 2016.

The Vice President for Trade supervises and coordinates the functioning of the Company, including with respect to:

- developing a regulatory policy in consultation with government authorities, EU authorities and industry organisations;
- planning and implementing the Company's trade policy, particularly in respect of natural gas and electricity sales, gas, electricity and other products sales policy;
- guiding the development of the gas market, natural gas import policy, also with respect to supply diversification;
- establishing and maintaining long-term relationships with foreign companies, international organisations and foreign government authorities with respect to trade relations, monitoring and analysis of foreign markets;
- collaboration with GAZ-SYSTEM, Polskie LNG, the Maritime Office in Szczecin and the Management Board of Porty Morskie Szczecin i Świnoujście in respect of importing LNG to Poland;
- planning, executing and settling contracts for the provision of gas transmission and distribution services for PGNiG;
- preparing periodic gas fuel balance reports, periodic settlements of gas deliveries, information services, including the receipt of information on events and crises in all areas of the Company's business;
- the Company's tariff policy, liaising with the Energy Regulatory Office in respect

of preparing draft tariffs and prices of PGNiG's products and services, and licences;

- the Company's information policy and corporate communication;
- operations of the Wholesale Trading Branch and operations of the Company's foreign representative office in Brussels.



Magdalena Zegarska graduated from the University of Environmental Sciences in Radom. She completed an MBA oil and gas course and holds a certificate of completion of studies in Management of Large Enterprises from the School of Management and Marketing of the Business Initiatives Association in Warsaw. She completed numerous training programmes and courses in psychology of team management, as well as a course for supervisory board members, completed with a passed exam before the State Treasury Commission. From 2011 to 2014, she served as Secretary of the Employee Council of the second term of office, and from 2010 to 2014 as Secretary of the Coordination Committee of the NSZZ Solidarność trade union at PGNiG. In 2014–2017, she served as a Member of the PGNiG Supervisory Board, as the Board's Secretary and as Deputy Chair of the Audit Committee.

She joined PGNiG in 1998 as an employee of Mazowiecka Spółka Gazownictwa and then worked at the Mazovian Trading Division. From 2013, she held various positions at the Retail Trading Department, Infrastructure Department and Asset and Administration Department of the PGNiG Head Office. At the Asset and Administration Department she was Deputy Director. Since January 2016, she has been Representative of the PGNiG Management Board for the Quality, Health, Safety and Environment (QHSE) Management System. From April 2016 to March 2017, she served as Deputy Director of the QHSE Department, delegated to direct the work of the Department.

On March 6th 2017, Magdalena Zegarska was appointed as Vice President of the Management Board. Until March 6th 2017, the position had been held by Waldemar Wójcik.

The Vice President of the Management Board elected by Company employees supervises and coordinates the Company's operations in such areas as:

- occupational health and safety, fire safety;
- cooperation with trade unions, the Employee Council and other employee organisations where their operations relate to the Company and the PGNiG Group;
- issue of shares to eligible Company employees.

Supervisory Board

Bartłomiej Nowak

Chairman of the Supervisory Board

Bartłomiej Nowak specialises in energy law, business law, competition law, and EU law. In 2007–2009, he worked for Directorate-General for Transport and Energy of the European Commission and as an adviser to the President of the Polish Energy Regulatory Office. In 2010–2014, he was an adviser at the Kancelaria Domański Zakrzewski Palinka sp.k. law firm and member of the Supervisory Board of PTE WARTA SA. Since 2009, he has worked for the Leon Kozłowski University of Warsaw, initially as Assistant Professor and then Professor at the Law College, as well as Vice-Rector for Economic and Social Studies. Member of the Scientific Council of the National Centre for Nuclear Research.

Bartłomiej Nowak has represented that he meets the independence criteria defined in Art. 36 of the Company's Articles of Association.

Bartłomiej Nowak has served as Chairman of the Supervisory Board since July 27th 2016.

Piotr Sprzączak

Deputy Chairman of the Supervisory Board

Piotr Sprzączak is a graduate of the Maria Curie-Skłodowska University of Lublin and the National School of Public Administration

of Warsaw. He began his professional career in 2011 at the Oil and Gas Department of the Ministry of Economy, and then the Ministry of Energy. He is currently Head of the Infrastructure Department at the Ministry of Energy. His main professional focus is security of natural gas supplies to Poland. As part of his job duties, he participated in negotiations on EU legal acts with respect to ensuring security of gas supply and shaping the regulatory environment through the 'Clean energy for all Europeans' package. He coordinates activities relating to international cooperation and Poland's membership in the European Union and international energy organizations and agreements. In 2011–2014, he was involved in preparing and updating the assessment of risk related to security of gas supplies, a prevention plan and an emergency response plan.

Since June 29th 2017, Piotr Sprzączak has been Deputy Chairman of the Supervisory Board. Until June 28th 2017, this position was held by Wojciech Bieńkowski.

Sławomir Borowiec

Secretary of the Supervisory Board

Sławomir Borowiec graduated from the AGH University of Science and Technology in Kraków (Faculty of Drilling, Oil and Gas) in 1992. In the same year he joined Zielonogórski

Zakład Górnictwa Nafty i Gazu. In 2001, he graduated from The Jacob of Paradies University of Applied Sciences in Gorzów Wielkopolski – Institute of Management and Finance, where he completed studies in Management and Marketing. In 2014, he earned a degree from the Koszalin University of Technology, where his principal field of study was Accounting – Accounting of Business Entities. At present, he is Head of the Administrative Centre for Oil and Gas Production Facilities in Drezdenko. Sławomir Borowiec is also a licensed Mine Operations Manager. In 2002, he passed an examination for candidates to supervisory boards of state-owned companies and in 2010 he received a title of Grade II Mining Director.

Sławomir Borowiec has served as Secretary of the Supervisory Board since March 6th 2017.

Piotr Broda

Member of the Supervisory Board

Piotr Broda is a graduate of the Faculty of Foreign Trade of the Warsaw School of Economics and holder of an Executive MBA degree from the University of Minnesota. He gained professional experience working in leading financial institutions. In 1991, he joined Bank Austria Creditanstalt SA of Warsaw. He was Deputy Director of the Treasury Department (1995–1998), and then Director of the Treasury Department and Chairman of the Assets and Liabilities Committee (1998–2000). In November 2000, he took the position of Investment Team Manager at Allianz SA, and in 2002 was appointed Deputy Director of the Financial Investments Office at PZU SA. Piotr Broda continued his career with the PZU Group as Director of the Debt and Derivative Instruments Office and Vice President of the Management Board of PZU Asset Management SA (2008–2011) and Vice President of the Management

Board of PZU TFI SA (2009–2013). For over four years (2013–2017), he served as Member of the Management Board of TFI BGK SA. He has a long experience as a member of supervisory boards, having served in that capacity in 2002–2004 at PZU Asset Management SA and PZU NFI Management SA, in 2005–2006 at Lentex SA, and in 2006–2007 at Jago SA. He has authored a number of publications concerned with finance as an expert cooperating with the Sobieski Institute.

Mr Piotr Broda has represented that he meets the independence criteria defined in Art. 36 of the Company's Articles of Association.

Andrzej Gonet

Member of the Supervisory Board

Andrzej Gonet graduated with honours from the Faculty of Drilling, Oil and Gas of the AGH University of Science and Technology in Kraków in 1975. He was then employed at the Faculty and in 1980 he defended with honours his doctoral thesis. In 1989, he was awarded a post-doctoral degree (doctor habilitatus) in science. In 1998, he was awarded professorship and is now employed as a full professor at the AGH University of Science and Technology. He has completed several post-graduate programmes run by the AGH University of Science and Technology, Jagiellonian University and Polish Academy of Sciences, as well as a course for candidates to supervisory boards of state-owned companies. He was a member of the Supervisory Boards of ZUN sp. z o. o. of Krosno (2000–2002) and PNiG sp z o. o. of Kraków (2011–2013). Andrzej Gonet has authored or co-authored over 300 publications, 260 unpublished research papers, 29 approved and submitted patents and 8 licences. He is a certified environmental impact assessment expert of the Kraków Province Governor, expert of the Polish Association of Oil and Gas Industry

Engineers and Technicians, and has extensive professional experience gained in Poland and abroad. He has been a consultant and reviewer of many scientific papers and research projects. He is a member of the Drilling and Borehole Mining Section of the Mining Committee of the Polish Academy of Sciences. Throughout his professional career he has held various positions, including head of the Drilling Department, Deputy Director of the Institute of Drilling, Oil and Gas, two terms of office as Vice-Dean and Dean of the Faculty of Drilling, Oil and Gas of the AGH University of Science and Technology, which position he now holds for the third term. In addition, Andrzej Gonet was a co-founder of the PWSZ Krosno State College, where he has served as Vice-Rector and Rector.

Mieczysław Kawecki
Member of the Supervisory Board

Mieczysław Kawecki is a graduate of the AGH University of Science and Technology in Kraków, Master of Science in Engineering, principal field of study: well operation. He completed post-graduate studies in underground gas storage, and graduated in Environment Protection in Economy from the AGH University of Science and Technology in Kraków. Mieczysław Kawecki is a licensed mine operations manager and Grade I Mining Director. He started his professional career in 1976 at Sanocki Zakład Górnictwa Nafty i Gazu, working at the Wańkowa crude oil extraction facility. In 1984, he was appointed manager of a new crude oil and natural gas extraction facility in Lublin, and in 1986 he became manager of the Wielopole crude oil extraction facility. From 1991 to 2017, he worked as manager of the Strachocina Underground Gas Storage Facility. Since 2017, Mieczysław Kawecki has been managing the Underground Gas Storage Department of PGNiG's Sanok Branch. He is President of the Management Board of the Sanok Branch of

the Polish Association of Oil and Gas Industry Engineers and Technicians (SITPNiG). In 1990–1992, he was a member of the Works Council at Sanocki Zakład Górnictwa Nafty i Gazu and a delegate to the General Assembly of Delegates of PGNiG Warszawa. He was a member of the Works Council of PGNiG Warszawa of the 6th and 7th terms of office from 1994 until it was transformed into a company. Until 1998, he was a member of the consulting group at PGNiG. From 2003 to 2005, Mieczysław Kawecki served as Chairman of the KADRA Trade Union at the Sanok Branch, and member of the Union Coordination Committee. He was first member and then Secretary of the Supervisory Board of PGNiG in 2005–2014.

Stanisław Sieradzki
Member of the Supervisory Board

Stanisław Sieradzki completed studies in stratigraphic and exploratory geology at the University of Wrocław. He also completed post-graduate studies in oil and gas engineering at the AGH University of Science and Technology in Kraków. Stanisław Sieradzki has worked for PGNiG SA since 1986, first as independent geologist, then specialist geologist in the Operational Geology Department, and later as Head of the Deposit Appraisal and Documentation Department at PGNiG's Sanok Branch. Upon establishment of the Geology and Hydrocarbon Production Unit, he was appointed Head of the Project Design Centre in Sanok. Currently, he holds the position of Deputy Head of the Project Design Department in Jasto, Sanok office. His work to date has focused chiefly on crude oil and natural gas exploration. Stanisław Sieradzki has received a number of qualifications, including a licence from the Minister of the Environment to perform, supervise and manage category 1 geological work in: exploration for and appraisal of crude oil and natural deposits; he is also a qualified senior



technical supervisor of geological operations and mining geologist at facilities extracting mineral deposits through boreholes, licensed by the President of the State Mining Authority. He is also a certified internal management system auditor.

Grzegorz Tchorek
Member of the Supervisory Board

Grzegorz Tchorek graduated from the Faculty of Management of the University of Warsaw. In 2007, he defended his doctoral thesis, which earned him an award of the Prime Minister for the best doctoral theses. Having become a PhD holder, Grzegorz Tchorek started working as an associate professor at the Faculty of Management of the University of Warsaw and as an adviser at the National Bank of Poland (since 2009). Currently his main focus as an expert is analyzing the experiences of euro area countries, assessing the competitiveness of econo-

mies and enterprises, global supply chains and the development of electromobility in Poland. It implements research projects related to electromobility, gas-mobility and shared mobility.

Grzegorz Tchorek has represented that he meets the independence criteria defined in Art. 36 of the Company's Articles of Association.

Until June 28th 2017, the Supervisory Board was composed of Wojciech Bieńkowski, Sławomir Borowiec, Mateusz Boznański, Andrzej Gonet, Bartłomiej Nowak, Piotr Sprzączak, and Anna Wellisz. On June 28th 2017, the PGNiG Annual General Meeting removed these persons from the PGNiG Supervisory Board and appointed the following persons to the Board: Sławomir Borowiec, Piotr Broda, Andrzej Gonet, Mieczysław Kawecki, Bartłomiej Nowak, Stanisław Sieradzki, Piotr Sprzączak, and Grzegorz Tchorek.

Compliance policy

Compliance is to be understood as conformity with:

- legal, regulatory and technical requirements binding on the Company as a business entity;
- ethical standards based on codes of best practice, commitments and other forms of self-limitation adopted by the Company; jointly referred to as 'compliance standards'.

The separation of a compliance function is typical for developed organisations conducting their business in a complex legal environment. As far as compliance is concerned, it is necessary to remember of the risk of non-compliance, i.e. the risk of infringement of compliance standards and its negative consequences. Violation of applicable laws may have adverse effects on many areas:

- the financial area, in the form of fines, damages, compensations and other liabilities that may arise for the Company;
- the Company's public image, the loss of which can be reflected in financial losses (e.g. in the case of environmental pollution);
- the Company's operations;
- the Company's value to stakeholders and shareholders (onerous sanctions imposed by the regulator or certain abusive practices may lead to a fall of the share price).

Non-compliance risk management system - Compliance at PGNiG

The formal basis for introduction of the compliance function at the Company is its compliance programme. From among the various available solutions, the Company has adopted the one assuming that:

- Compliance is an special element of PGNiG's risk management, which is clearly demonstrated by implementation of the compliance function as part of the non-compliance risk management system;
- The Management Board appoints a Compliance Officer, responsible for coordination and information;
- Taking into consideration the wide scope of the Company's activities, each area at risk of non-compliance was assigned a non-compliance risk area manager (leader);
- Ultimately, responsibility for non-compliance risk management and performance of duties arising from the compliance programme lies with the risk owner (acting with the relevant non-compliance risk area manager, as applicable).

The compliance programme provides for certain regular obligations, such as periodic reporting on compliance standards, noncompliance risks (with their assessment as to materia-

lity and probability of occurrence), and risk response (risk management method and cost of response).

Every employee, partner or stakeholder can report suspected misconduct or abuse through the 'compliance line' established under the programme.

Competition law

The Company has in place an antitrust and regulatory procedure, which every employee is obliged to follow.

A violation of antitrust law may result in serious consequences for the Company, and in some cases may involve liability on the part of persons managing the Company (particularly in the case of entering into cartel agreements or other antitrust agreements, failure to perform the antitrust authority's decisions, or absence of an obligatory notice of intended concentration, i.e. merger or acquisition).

Sector regulations - REMIT

Regulation on Energy Market Integrity and Transparency (REMIT) entered into force on December 28th 2011. The regulation is binding in its entirety and directly applicable in all Member States, i.e. it does not require implementation into a Member State's legislation, and applies not only to Member States, but to all entities concerned.

REMIT provides for an obligation of public disclosure of inside information. Additional requirements coming into force upon adoption by the European Commission of the so-called implementing acts include an obligation to register as a market participant in a register maintained by the national regulatory authority, an obligation to disclose information on transactions and orders to trade (transaction reporting), as well as disclosure of fundamental data.

Investor relations and financial markets regulations

As a share issuer listed on the stock exchange, PGNiG is obliged to comply with the disclosure obligations under Polish laws: the Commercial Companies Code, the Public Offering Act, the Act on Trading in Financial Instruments, the Accountancy Act and the Regulation on current and periodic information, as well as EU laws: the Market Abuse Regulation and the Transparency Directive.

The Company and the PGNiG Group have adopted a procedure for complying with the disclosure obligations of a public company, which every employee is required to follow.

Adopted corporate governance standards

See also:
www.en.pgnig.pl/pgnig/corporate-governance/

See also:
www.en.pgnig.pl/pgnig/corporate-governance/general-meeting

The PGNiG Group takes care to comply with corporate governance standards. We are honest and fair to our shareholders, treat them all on equal terms and make every effort to establish and maintain the best possible relations between our investors and governing bodies.

General Meeting

The General Meeting is PGNiG's supreme governing body, through which shareholders exercise their corporate rights, including examination and approval of the Directors' Report and the adoption of decisions on the amount, form and payment date of dividends. The General Meeting grants its vote of approval to members of the other governing bodies of PGNiG, appoints members of the Supervisory Board and makes decisions concerning the Company's assets.

Supervisory Board

The Supervisory Board exercises continuous supervision over all areas of the Company's activities, in accordance with the Rules of Procedure for the Supervisory Board. It is composed of five to nine members (including one independent member) appointed by the General Meeting of PGNiG for a joint three-year term. The State Treasury is entitled to appoint and remove one member of the Supervisory Board, as long as it remains a shareholder of PGNiG. On a Supervisory Board composed of up to six members, two of them are elected by PGNiG employees. Where the Supervisory Board comprises seven to nine members, there are three members elected in this manner.

Management Board

The Management Board is an executive body managing the affairs of PGNiG and representing it in all matters in and out of court. The Management Board is composed of between two to seven members, with the number defined by the Supervisory Board. Members of the Management Board are appointed for a joint three-year term. Powers of the Management Board include all matters connected with the management of the affairs of PGNiG, where such matters are not explicitly reserved for other governing bodies by applicable laws or provisions of the [Articles of Association](#). The Management Board operates in accordance with applicable laws and regulations, in particular the Commercial Companies Code, as well as the provisions of the Company's Articles of Association and the Rules of Procedure for the Management Board.

Audit Committee

The [Audit Committee](#) has operated as a standing body of the Supervisory Board since November 27th, 2008. It is composed of at least three members of the Supervisory Board, including at least one member independent from PGNiG or any entity significantly affiliated with PGNiG and appointed by the General Meeting pursuant to PGNiG's Articles of Association.

Such a person must be competent in accounting and finance matters. Members of the Audit Committee are appointed by the Supervisory Board.

Appointment and removal of Management Board members

Pursuant to the Articles of Association, individual members of the Management Board or the entire Management Board are appointed and removed by the Supervisory Board. A member of the Management Board is appointed following a recruitment and selection procedure carried out pursuant to the Regulation of the Polish Council of Ministers of March 18th, 2003 concerning recruitment procedures for members of management boards of certain commercial-law companies (Journal of Laws No. 55, item 476, as amended). This procedure does not apply to Management Board members elected by employees.

As long as the State Treasury holds Company shares and the Company's annual average headcount exceeds 500, the Supervisory Board appoints to the Management Board one person elected by the employees, to serve for the Management Board's term of office. A person is considered to be a Management Board candidate elected by the employees if, during the election, 50% of valid votes plus one were cast in favour of that person, with the reservation that the election results are binding on the Supervisory Board if at least 50% of the Company's employees participated in the election.

Management Board members are appointed for a joint term of three years. A member of the Management Board may resign from his or her position by delivering a notice to that effect to the Supervisory Board, with a copy to the State Treasury (represented by the minister competent for matters pertaining to the State Treasury). To be valid, the resignation must be submitted in written form, or otherwise will be ineffective towards the Company.

See also:
www.en.pgnig.pl/pgnig/corporate-governance/articles-of-association

See also:
www.en.pgnig.pl/pgnig/corporate-governance/audit-committee



The Management Board member elected by the employees may also be removed upon a written request submitted by at least 15% of the Company's employees. The Supervisory Board orders the voting and its results are binding on the Supervisory Board if at least 50% of the Issuer's employees participate in the ballot and if the percentage of votes cast in favour of the removal is not lower than the majority required for the election of a member of the Management Board by the employees.

Information for shareholders concerning General Meetings

A shareholder or shareholders representing at least five percent of the share capital may request that certain matters be placed on the agenda of the General Meeting. Any such request should be sent to the Company in the Polish language, in writing, or in electronic form to the following email address: wz@pgnig.pl. The request should contain grounds or a draft resolution concerning the proposed agenda item and should be submitted to the Company's Management Board not later than 21 days before the scheduled date of the General Meeting. The shareholder or shareholders should prove that they are entitled to exercise this right by submitting relevant documents in writing.

Any shareholder or shareholders representing at least five percent of the Company's share capital may, before the date of the General Meeting, submit to the Company draft resolutions concerning items which have been or are to be placed on the General Meeting's agenda, in a written or electronic form to the email address: wz@pgnig.pl. Any such draft resolutions should be in the Polish language, in the form of a Word file. The shareholders should prove eligibility to exercise this right by submitting relevant documents in writing.

During the Company's General Meeting, each shareholder may submit draft resolutions for the items on the agenda. Such draft resolutions should be in the Polish language.

Shareholders may participate in the General Meeting in person or by proxy. Pursuant to Art. 4121.2 of the Commercial Companies Code, powers of proxy for participation in a General Meeting of a public company and exercise of voting rights must be granted in writing. Powers of proxy should be granted in writing or in electronic form and should be in the Polish language. They may be sent to the Company prior to the General Meeting in electronic form as a PDF file (scanned document) to the email address: wz@pgnig.pl. While at the General Meeting, all shareholders and proxies should carry valid identity documents.

Given that the Company does not provide for the possibility of participating in the General Meeting by electronic means (including taking the floor at the General Meeting using means of electronic communication) or exercising voting rights by postal ballot or by electronic means, no proxy ballot forms will be published.

Representatives of legal persons should have on them the original or a copy (certified by a notary public) of an excerpt from the relevant register (issued within the last three months), and if their right to represent the legal person does not follow from the relevant register entry – they should have on them written powers of proxy (the original or a copy certified by a notary public) along with the original or a copy (certified by a notary public) of the excerpt from the relevant register which must be valid as at the date of granting the powers of proxy.

The General Meeting may be attended only by persons who are Company shareholders on the record date, i.e. 16 days prior to the General Meeting.

Persons entitled to participate in the General Meeting may obtain the full text of documents to be submitted to the General Meeting, along with draft resolutions and comments of the Management and Supervisory Boards, from the Company's registered office. Such persons may obtain copies of the Directors' Report on the Company's operations and of the Company's financial statements as well as a copy of the Supervisory Board's report and the auditor's opinion, no later than 15 days prior to the General Meeting, while copies of recommendations and proposals concerning other items of the agenda begin to be distributed a week before the General Meeting.

In accordance with Art. 407.1 of the Commercial Companies Code, the list of shareholders entitled to participate in the General Meeting is available for inspection at the Company's registered office in Warsaw, 25 M. Kasprzaka, for three weekdays prior to the date of the General Meeting.

Best practices

The Best Practice for GPW Listed Companies 2016 was developed by experts representing different groups of capital market participants grouped in the GPW Corporate Governance Consultation Committee. The rules and regulations ought to apply to the issuers of shares admitted to trading on GPW's regulated market.

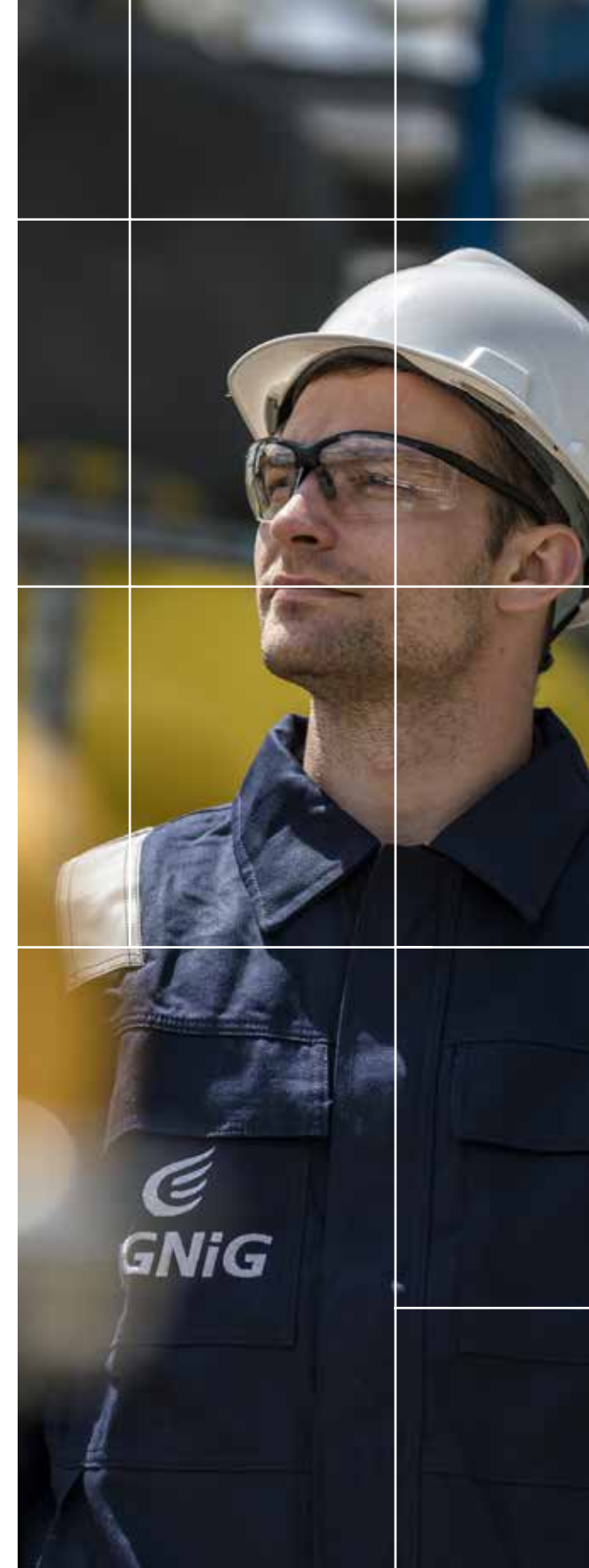
As a listed company, PGNiG abides by the Best Practices principles, whereby PGNiG is required to publish, on an annual basis, A Statement on Compliance with the Corporate Governance Principles. The Statement is available on the Company's website at: www.pgnig.pl in the 'Corporate Governance – Best Practices' section.



See also:
www.gpw.pl/best-practice



See also:
www.en.pgnig.pl/pgnig/corporate-governance/best-practices



Human capital management

Employees are an essential asset determining the Group's value and the effectiveness of its development. Key aspects of care for employees include issues related to intergenerational management, management of employee relations, improvement of intra-Group communi-

cation and strengthening the competencies of the management staff.

The PGNiG Group is one of the largest employers in Poland. It employs people with great experience and high qualifications. At the same time, it is often the first place of work for many young people.

(G4-10, G4-LA1)

Employment structure in the PGNiG Group

Employment at the PGNiG Group by segment

PGNiG Group	2017	2016*	2015	2014	2013
Exploration and Production	6,998	7,720	8,903	10,221	10,754
Trade and Storage	2,961	3,520	3,462	3,929	4,070
Distribution	11,114	10,846	10,678	12,173	13,050
Generation	1,785	1,870	1,071	1,068	1,066
Other activities	1,836	1,315	1,305	1,605	1,990
Total	24,694	25,271	25,419	28,996	30,930

* Data for 2016, after changes in the reclassification of the PGNiG Group's operations in 2017, was moved from the Trading and Storage segment to the Other activities segment.

As at December 31st 2017, PGNiG Group employed 24 694 staff, 577 (or 2%) fewer than as at December 31st 2016.

In the Exploration and Production segment, a significant drop in employment was recorded. Relative to December 31st 2016, the number of employees fell by 722 (or 9%), owing mainly to the following processes:

- Ongoing liquidation of Geofizyka Kraków, as a result, employment was reduced

by 609 persons (out of which 143 were terminated and the remaining employees were not renewed in short-term contracts);

- in Exalo Drilling, the employment restructuring process started in 2016 was continued and a further 195 employees (8%) were made redundant.

Compared to the situation as at December 31st 2016, employment in the Distribution segment increased by 268 persons (2%). The increase in employment is a consequence of the definition of new business needs and investment processes in PSG, as well as the implementation of the age management policy, which ensures optimal age of employees and an appropriately high level of qualifications.

Compared with the situation as at December 31st 2016, in the Generation segment there was a decline in employment by 85 persons (5%), which was influenced by fundamental structural changes. In September 2017, PGNiG TERMIKA EP and PEC were merged (the remaining name was PGNiG TERMIKA EP). This has enabled both companies to optimise their employment and free up 93 FTEs. In order to minimize the social costs of the restructuring process, the company has launched two programs addressed to its employees: a Retirement Leave (UTE Bis - Urlop Terminowy do Emerytury) and a Voluntary Leave Program (PDO - Program Dobrowolnych Odejsć).

In the Other activities segment, in relation to the situation as at December 31st 2016, there was a decrease in employment

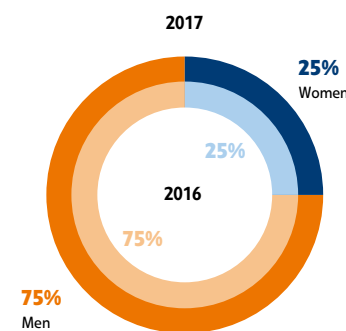
by 88 persons (5%), which resulted in a number of changes in particular companies in the segment. The most significant factors affecting the employment status of the segment Other activities should include:

- reduction of employment in PGNiG Technologie by 99 persons (16%) as a result of the market downturn and a decrease in demand for services provided;
- restructuring of employment in Geovita, as a result of which 90 employees were made redundant (28%). The reduction in employment was achieved mainly through the termination of fixed-term contracts;
- increase in employment at PGNiG Serwis by 48 persons, mainly as a result of centralization of shared services within the PGNiG Group;
- establishing a new entity Towarzystwo Ubezpieczeń Wzajemnych - Polski Gaz TUW, whose business will be related to property insurance of the PGNiG Group. As at December 31st 2017, employment in the new company was 29 persons.

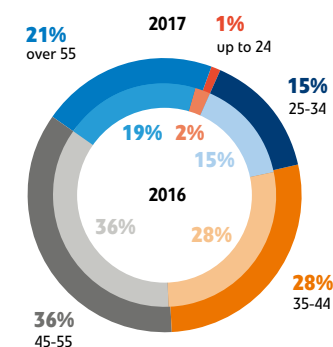
Workforce structure at the PGNiG Group

(in persons, as at the end of 2017)

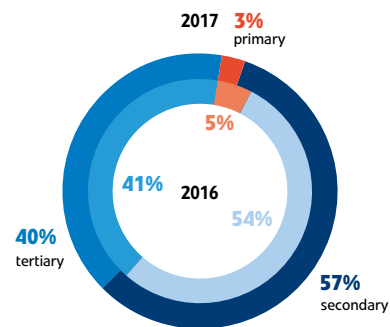
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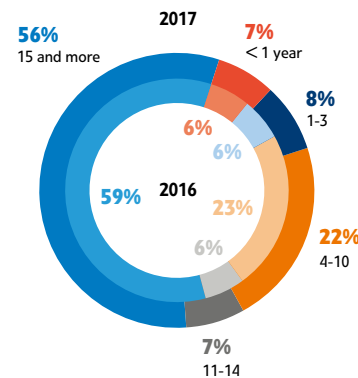
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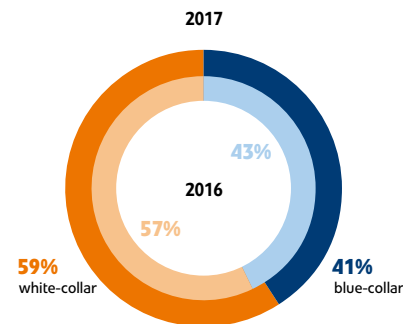
education



years of service



job type



Workforce turnover – new hires/departures (by age and sex, as at the end of 2017)

Age (years)	Number of new hires		Number of departures	
	Women	Men	Women	Men
up to 24	35	140	17	217
25-34	291	491	50	355
35-44	207	342	203	423
45-55	116	337	154	528
over 55	45	181	205	524
Total	694	1,491	729	2,047

Employee turnover at the PGNiG Group in 2017

Organisational unit	New employees in 2017 as percentage of total workforce	Employees who left in 2017 as percentage of total workforce
PGNiG	4.02%	3.21%
PGNiG Group	6.91%	6.13%

Recruitment

PGNiG's recruitment policy is focused on employing top-class specialists whose expertise and competence, combined with the experience and professionalism of the Company's other staff, will ensure continuity and high standard of business processes. Priority in filling vacancies at the PGNiG Group is given to internal recruitment, to best use the potential of the current employees.

Student internships and work placement programmes

PGNiG offers a number of work placement opportunities and competitions to select candidates to be offered internships and traineeships with the Company. Its work placement programmes are an attractive opportunity to gain professional experience, develop new skills, and learn more about working in the oil and gas industry. In 2017, PGNiG had in place the following internship and education programmes:

GeoTalent

It is PGNiG's proprietary internship and education programme for students of the AGH University of Science and Technology in Kraków, the Faculty of Geographical and Geological Sciences of the Adam Mickiewicz University of Poznań and the Faculty of Geology of the Warsaw University. It seeks to identify and attract the best students and graduates who want to pursue their professional careers in the oil and gas industry.

25 ambassadors and 21 mentors were involved in the Programme.

Energia dla Przyszłości ('Energy for the Future')

Energia dla Przyszłości is an internship programme run by the Company jointly with two other groups under the Ministry of Energy's

Under the GeoTalent Summer Internship Programme, 47 students and recent graduates had the opportunity to gain experience in the exploration and production industry.

patronage. It aims to find the most talented students and graduates of faculties relevant to the Polish energy sector. Each participating student will have a chance to gain hands-on experience and skills in the areas of interest. Currently, the number of interns enrolled is 21.

Złóża Kariery ('Deposits of Career')

The Złóża Kariery programme offers students and graduates of all faculties (except oil and gas engineering, covered by GeoTalent) an opportunity to gain professional experience at a large, stable company with a long tradition, included in the WIG 20 stock-exchange index listing the largest Polish companies. Its participants can complete an internship and take part in educational events to support career building.

Internships are also offered by PGNiG outside the programmes discussed above. In 2017, a total of 116 persons took advantage of internship and work placement opportunities.

Internship with TERMIKA

Eleven students took part in the 'Internship with TERMIKA' programme in 2016 and ten in 2017. From July to September, these students completed internships in seven (2016) and eight (2017) organisational units. The 'Internship



with TERMIKA' programme is addressed mainly to students and graduates of technology universities, and its main goal is to provide the participants with specialist knowledge and

test their existing knowledge in practice, show them how a large organisation functions, and improve their teamwork skills.

Number of internship and work placement participants in the PGNiG Group in 2016–2017

Organisational unit	Number of internship and work placement participants in 2017		Number of internship and work placement participants in 2016	
	Secondary school students	University students	Secondary school students	University students
PGNiG Group	225	258	208	312
PGNiG	7	109	10	117

(G4-LA12)

Diversity in the workplace

The company has implemented the prohibition of discrimination in the workplace and works to create and promote diversity. The human resources policy and the ethics programme management system and other internal regulations ensure that there is no discrimination. The company does not have a separate

diversity policy, however, since 2013 it has been a signatory of the Diversity Charter. During the recruitment process standards of non-discrimination, including those based on sex or disability, are maintained.

Parental leaves

(G4-LA3)

PGNiG Group employees on parenting-related leaves (maternity/paternity and parental leave) in 2017

Organisational unit	Total	Women	Men
PGNiG	147	143	4
PGNiG Group	823	595	228

PGNiG Group employees who returned to work after parenting-related leave in 2017

Organisational unit	Total	Women	Men
PGNiG	103	101	2
PGNiG Group	624	403	221

In 2017, the rate of return to work at the PGNiG Group was 91,5%.

In 2017, the rate of return to work at the PGNiG was 89,6%.

Parenting-related leave is any leave to which an employee may be entitled after child birth/adoption, including maternal, additional maternal, paternal, parental and childcare leave.

- Awards and bonuses under an incentive scheme;
- St. Barbara's Day awards, paid, as a rule, in the amount of a monthly base pay;
- Jubilee benefits and one-off retirement benefits, in amounts depending on the length of service with the company, and;
- Annual bonuses, in amounts depending on the Company's performance, negotiated every year with employees.

Remuneration policy

The key internal document governing the remuneration policy at PGNiG is the Collective Bargaining Agreement concluded with the trade unions on July 15th 2009. The remuneration system is additionally governed by internal rules implemented at individual organisational units and agreements with trade unions.

In line with the adopted remuneration policy, base pay rates are based on job grading. The rate depends on the qualifications required for a given job, type of work performed and professional experience.

The policy also provides for additional components of remuneration, the most important of them being:

Employee development

Employee potential management – training and development programmes

As the PGNiG Group's subsidiaries are engaged in a wide range of business activities, it is up to each of them to determine the type and extent of their staff training. The training management system in place is a vital tool in developing human resources. Our employees are given opportunities to improve their professional qualifications through a range of training programmes, postgraduate studies, industry conferences, seminars and symposia, and also through occupational training. Depending on their respective responsibilities and individual needs, employees can

(G4-11)

(G4-LA9, G4-LA10, G4-LA11)

participate in a variety of training courses covering all aspects of a modern business.

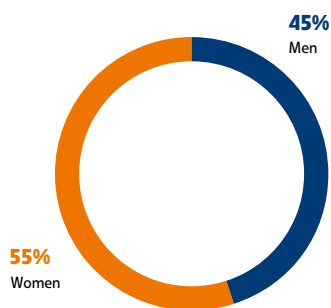
In June 2016, the Organization's Talent Identification System (SITO – System Identyfikacji Talentów Organizacji) was launched, initiating the Academy of Future Leaders (ALP – Akademia Liderów Przyszłości). The aim of the SITO Programme is to select employees with a high potential (talent) who can then be covered

by the Academy of Future Leaders (ALP) development programme, preparing them to perform further functions in the organization, including managerial functions.

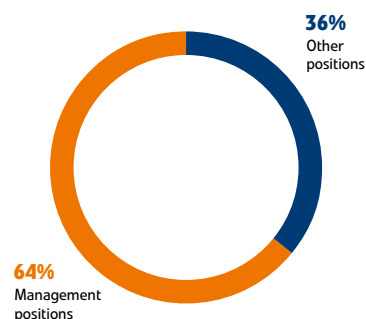
The number of training hours per PGNiG employee in 2017 was 32.

The number of training hours per PGNiG Group employee in 2017 was 24.

Number of training hours, by sex



Number of training hours, by type of job



Cooperation with trade unions

There are a number of trade unions active at PGNiG. Considerable importance is attached by the Company to maintaining constructive links with the trade unions, making sure that social dialogue is based on the independence of all parties, legal compliance, as well as trust, willingness to compromise, and adherence to rules.

Main activities in 2017 according to the cooperation with trade unions:

- In March 2017, an agreement was reached to agree on the remuneration growth rate, the principles for its distribution and the

amount of commodity bonds at PGNiG in 2017. The remuneration growth rate, set at 4%, was applied to all employees employed as on March 1st 2017, excluding the senior management. The salary increase was granted from January 1st 2017.

- In April 2017, an agreement was concluded to set the annual bonus ratio for 2016 and 2017 at 8% of the annual bonus base per employee each year, with PLN 1,000 being paid to eligible employees as a fixed amount and the remainder as a percentage of the annual bonus base.

There were no collective redundancies or disputes at PGNiG in 2017.

Occupational health and safety

The companies of the PGNiG Group manage the following areas: quality, environmental protection and health and safety at work based on a single and unified QHSE (Quality Management, Occupational Safety, Health and Environmental Protection) Policy defined and adopted by the Company's Management Board. The policy defines the objectives and directions of activities of the PGNiG Group companies in the above scope and is an obligation of the Group companies to meet the quality requirements for products and services, build positive customer relations, operate in accordance with legal requirements, continuously improve the effectiveness of the Quality Management System, environmental protection and occupational safety. It is also a commitment to proactive measures to prevent injuries and occupational diseases of workers and pollution and environmental damage.

The PGNiG Group performs its tasks on a systematic basis, in accordance with the best standards laid down in the international norms ISO 9001:2015, 14001:2015 and OHSAS 18001:2007, taking into account the best industry practice.

Main OHS tasks performed in 2017:

- Selection of an IT tool to identify the Law Requirements for, among others, OSH related to the activities of the PGNiG Group, which will provide access to updated legal requirements and thus contribute to the facilitation of work and broaden knowledge about the current legislative requirements;
- Implementation of tasks of the OHS service at the Company's Head Office, Geology and Hydrocarbon Production Branch, Wholesale Branch, Central Measurement and Testing Laboratory and Borehole Mining Rescue Station;
- participation in the assessment of assumptions and documentation of new

investments, preparation of modernization plans and handing over for use of newly constructed or reconstructed building structures in the scope of taking into account OHS requirements at the Company's Head Office, Geology and Hydrocarbon Production Branch, Wholesale Branch, Central Measurement and Testing Laboratory and Borehole Mining Rescue Station;

- supervising compliance with regulations and rules in the field of OHS at the Head Office and Branches of the Company;
- analysis of OHS at work and monitoring the basic activities aimed at preventing life and health risks and improving working conditions at the PGNiG Group;
- joint prophylactic activities under the Policy, which improve safety in the working environment in the PGNiG Group;
- cooperation with services and inspections monitoring compliance with OHS and fire protection regulations;
- implementation, maintenance and improvement of the unified integrated QHSE Management System at PGNiG's Head Office and supervision over the system at PGNiG Branches in terms of OHS.

Accident reporting facilitates analysis of the causes of injuries and diseases arising from accidents at work, helping to work out and adopt preventative measures. As a result, it helps raise the staff's awareness and foster a work safety culture.

All employees have access to OHS training and extensive medical care. Each employee has been instructed about the occupational risk level at their workplace. The training courses are conducted regularly, and their frequency depends on the job and related risks. Increasing the level of safety is also the subject of annual meetings organised by the Company's Head Office, devoted to OHS conditions and experience sharing, and attended by representatives of external bodies, such as the National Labour Inspectorate.

The Company builds a safe work culture among employees, which translates into their safe behaviour, attitudes and actions. We undertake measures aimed at continuous improvement of safety of all persons staying in our premises, including visitors.

Work safety metrics

Safety-related activities are monitored continuously by way of:

- proactive monitoring - consists in monitoring the effectiveness of implementation of procedures and measures designed to eliminate or minimise risk, defined at the planning phase. Its purpose is to assess the effectiveness of preventive measures.

- reactive monitoring - provides information on loss events (accidents, failures and occupational diseases) and facilitates drawing appropriate conclusions and improving OHS management. It is a post-event preventive measure, designed to eliminate similar loss events in the future.

All accidents, events and conditions which are related to the Group's operations and which result in a loss or could potentially result in a loss are required to be reported. This applies to the operations of both the PGNiG branches and the PGNiG Group companies, as well as contractors and suppliers carrying out work for the Group.

The table below presents selected work safety metrics

Metric	PGNiG	PGNiG Group
Number of near misses	25	350
Number of employee reports aimed at improving safety or promoting positive behaviours (e.g. as part of the Awareness and Behaviour Improvement Programme, STOP® System or other)	151	142,632
Number of test alarms, including evacuation drills	59	856
Number of other safety events: occurring naturally or as a result of work processes, technical failures that may create a significant risk to employee or public safety	49	137
Number of work safety inspections at contractors working for the Company	61	6,002

Number of accidents at work at the PGNiG Group

In the PGNiG Group, the number of accidents at work fell by 2.5% in relation to 2016. The number of persons who were injured in accidents at work decreased by 1.9%. The following tables

present detailed information on the accidents that occurred at the PGNiG Group and other OHS issues.

Total number of accidents at the PGNiG Group in 2017

Organisational unit	Total accidents	including persons injured:			Number of group accidents in total			Indicators		
		in accidents at work	in accidents treated as accidents at work	number of accidents	number of persons	death	severe bodily injury	minor bodily injury	Days lost	incidence rate per 1,000 employees
Head quarter PGNiG	3	3	-	-	-	-	3	9	4.9	3.0
Geology and Hydrocarbon Production Branch	1	-	1	-	-	-	1	14	1.9	14.0
Sanok Branch	4	4	-	-	-	-	4	241	2.7	60.3
Zielona Góra Branch	7	7	-	-	-	-	7	345	3.9	49.3
Odolanów Branch	-	-	-	-	-	-	-	-	-	-
Central Measurement and Testing Laboratory	1	1	-	-	-	-	1	7	23.3	7.0
Borehole Mining Rescue Station	-	-	-	-	-	-	-	-	-	-
Wholesale Branch	-	-	-	-	-	-	-	-	-	-
Total PGNiG	16	15	1	-	-	-	16	616	3.4	39
GEOFIZYKA Toruń	7	7	-	-	-	-	7	585	7	84
EXALO	27	27	-	-	-	-	27	2,136	14	79
PGNiG Technologie	9	9	-	-	-	-	9	449	16	50
PSG	124	128	2	6	12	1	127	6,647	11	54
PGNiG Serwis	1	-	1	-	-	-	1	22	5	22
GEOVITA	6	6	-	-	-	-	6	404	26	67
PGNiG TERMIKA	5	4	1	-	-	-	5	454	5	91
PGNiG OD	9	8	1	-	-	-	9	305	3.6	33.9
GSP	-	-	-	-	-	-	-	-	-	-
Total PGNiG Group	204	210	6	6	12	1	207	11,618	9.0	57

F, SR, LDR, IR for the PGNiG Group in 2017

Organisational unit	Accident frequency (F)			Severity rate (SR)			Lost day rate (LDR)			Injury rate (IR)		
	W	M	total	W	M	total	W	M	total	W	M	total
PGNiG	3	4	3	7.0	45.8	38.5	3	20	16	0	0	0
GEOFIZYKA Toruń	-	7.9	7.0	-	83.6	83.6	-	81.6	73.0	-	0.98	0.9
Exalo Drilling	-	16.4	14.5	-	79.1	79.1	-	146.7	131.8	-	1.86	1.7
PGNiG Technologie	13.9	15.8	16.4	-	56.1	49.9	-	107.3	95.04	1.9	1.9	1.9
PSG	3.1	15.0	11.8	45.8	51.6	51.1	22.7	82.8	70.0	0.50	1.61	1.4
PGNiG Serwis	-	8.3	4.3	-	22.0	22.0	-	23.0	11.7	-	1.04	0.5
GEOVITA	32.6	0.0	25.9	67.3	-	67.3	200.7	-	143.6	3.0	-	2.1
PGNiG TERMIKA	-	5.7	4.7	-	90.8	90.8	-	63.8	53.2	-	0.7	0.6
PGNiG OD	3.2	4.4	3.6	40.8	25.3	33.9	16.1	13.7	15.2	0.4	0.5	0.4
GSP	-	-	-	-	-	-	-	-	-	-	-	-
PGNiG Group	1.1	11.2	9.0	43.5	56.9	55.3	22.6	71.2	59.3	0.5	1.2	1.1

W - women, M - men

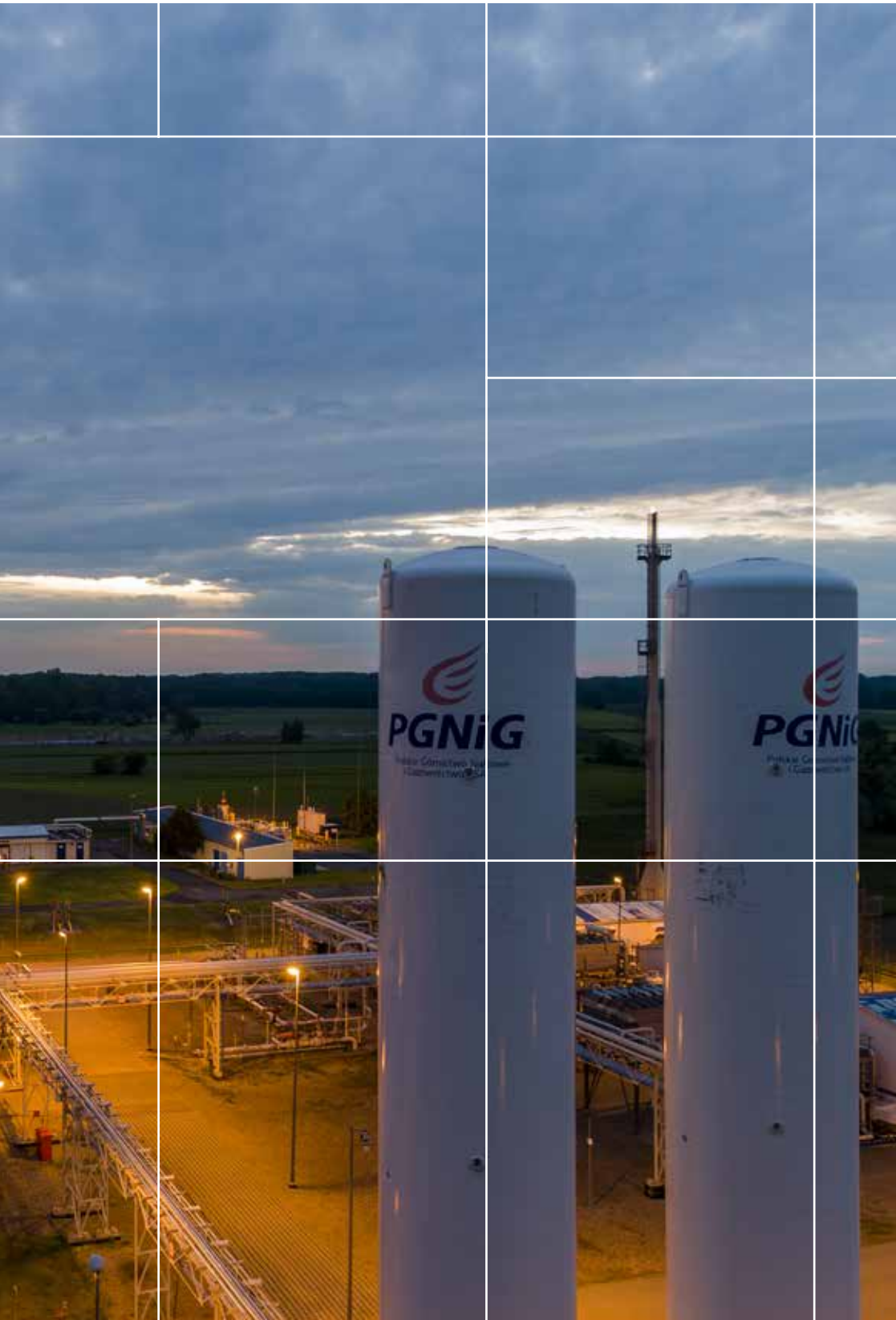
Diagnosed occupational diseases at the PGNiG Group in 2017

Organisational unit	Total number of diseases	Occupational disease certificates issued by the National Sanitary Inspectorate			
		Occupational loss of hearing	Vibration syndrome	Pneumococcosis	Other
PGNiG	1	-	-	-	-
GEOFIZYKA Toruń	-	-	-	-	-
EXALO	-	-	-	-	-
PGNiG Technologie	-	-	-	-	-
PSG	2	-	-	1	1
PGNiG Serwis	-	-	-	-	-
GEOVITA	-	-	-	-	-
PGNiG TERMIKA	-	-	-	-	-
PGNiG OD	-	-	-	-	-
GSP	-	-	-	-	-
Total PGNiG Group	3	-	-	1	1



OHS-related initiatives (e.g. number of employees who received OHS training) in 2017

Organisational unit	OHS training					Number of OHS meetings with technical and operational staff
	Induction training for new employees	Periodic	First aid training	Other	Total	
PGNiG	226	1,716	531	264	2,737	72
GEOFIZYKA Toruń	217	508	725	301	1,751	ad hoc
EXALO	87	1,159	108	58	1,412	12
PGNiG Technologie	21	218	-	-	239	7
PSG	-	6,948	227	44	7,219	173
PGNiG Serwis	77	89	7	-	173	-
GEOVITA	107	36	11	7	59	1
PGNiG TERMIKA	88	635	15	-	738	34
PGNiG OD	308	516	-	-	824	-
GSP	13	35	-	-	-	-
Total PGNiG Group	1,144	11,860	1,624	674	15,152	299



Converters and dictionary

Converters	1 bcm of natural gas	1m tonnes of crude oil	1m tonnes of LNG	1 PJ	1m boe	1 TWh
1 bcm of natural gas	1	0.90	0.73	38	6.45	10.97
1m tonnes of crude oil	1.113	1	0.81	41.86	7.5 – 7.8*	11.65
1m tonnes of LNG	1.38	1.23	1	55	8.68	14.34
1 PJ	0.026	0.023	0.019	1	0.1635	0.28
1m boe	0.16	0.128 – 0.133*	0.12	6.118	1	1.70
1 TWh	0.091	0.086	0.07	3.6	0.59	1

* The converter is different for crude oil produced in Poland and Norway.

Dictionary of selected financial and stock terms

EBITDA - earnings before interest, taxes, depreciation and amortization.

EBIT - earnings before interest and taxes.

ROE - return on equity, net profit to equity at end of period.

ROA - return on assets, net profit to assets at end of period.

P/E - price/earnings ratio, share price / net earnings per share attributable to owners of the parent.

P/BV - price/book value ratio, share price / book value per share.

EV/EBITDA - enterprises value/ EBITDA, market capitalisation at close of trading on last session day in financial year + net debt at end of financial year / earnings before interests and taxes in financial year + total depreciation and amortisation in financial year.

Dividend per share – dividend for previous financial year / number of shares outstanding.

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