Polskie Górnictwo Naftowe i Gazownictwo S.A.

Consolidated Full-Year Report Of The PGNiG Group

for the period January 1st 2018 – December 31st 2018

THE CONSOLIDATED FULL-YEAR REPORT OF THE PGNiG GROUP
FOR THE YEAR ENDED DECEMBER 31ST 2018 COMPRISES:

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Letter from the President of the Management Board

Dear Shareholders, Customers and Trading Partners,

We invite you to read the Report of the PGNiG Group for 2018.

It covers a period during which we worked hard to deliver on our Strategy, which defines our objectives and ambitions for 2017−2022. We take pride in the Group's accomplishments in 2018, in particular in its success in increasing hydrocarbon reserves and diversifying natural gas supplies to Poland.

In 2018, the PGNiG Group's EBITDA rose 8% year on year. We also recorded the highest revenue in our history, amounting to more than PLN 41bn. In terms of market capitalisation, at the end of 2018 PGNiG S.A. was the third largest company on the Warsaw Stock Exchange.

High oil and gas prices during most of 2018 helped us deliver strong EBITDA in the Upstream segment, while high costs of gas imports led to an EBITDA loss in the Trading segment. What is important, despite a more than 7% reduction in the Distribution Tariff rates, performance of the Distribution segment remained solid.

In the Generation segment, high electricity prices helped offset rising coal prices and slightly increased tariff rates for sales and distribution of heat.

In the second half of 2018, we signed contracts with leading US LNG suppliers, thereby securing annual natural gas deliveries of at least 10 bcm (regasified) after 2022.

As a result, we effected a long-awaited change in the Group's gas imports structure. This was a major milestone for our business – not only have we considerably improved pricing terms for gas imports, but we are also becoming a major player on the internal market for LNG, which many experts believe will predominate in global natural gas trading in the future.

In 2018, the Exploration and Production segment was particularly successful in keeping domestic output levels unchanged, largely on the back of increased production from existing fields and revitalisation of old wells, e.g. in the Przemyśl field. On the Norwegian Continental Shelf, we acquired a significant interest in the Tommeliten Alpha field from Equinor Energy AS, thus completing another M&A objective set in the Group's strategy. According to our estimates, at peak production the field will add more than 0.5 bcm to our natural gas production volumes. The newly acquired asset is of key importance, especially in the context of the Group's diversification strategy, which is largely based on the Baltic Pipe pipeline, to be completed in 2022.

A noteworthy accomplishment of the Distribution segment was the increased pace of connecting new customers. In October 2018, we announced a programme of gas network roll-out to new areas in Poland, whose target is to ensure that by 2022 approximately 90% of the country have access to the national gas grid. The project was launched in late 2018.

In 2018, we completed and handed over a new multi-fuel unit at the Zofiówka CHP plant, thus consolidating our position on the heat and electricity market in Upper Silesia. We are also continuing work to construct a new CCGT unit at the Żerań CHP plant. We are satisfied with the progress made on large infrastructure projects, which have a direct bearing on the Group's ability to attain its strategic objectives in the power sector.

As part of our CSR efforts, we are promoting natural gas as an environment-friendly fuel.

We engage in activities to combat smog – we are aware that air pollution in Poland is primarily caused by 'low emissions' or flue gas generated mainly from out-of-date coal-fired boilers, which is why we offer our customers an opportunity to replace their old systems for modern gas boilers. We also work with local governments, encouraging them to rely on gas-powered buses for public transport. Our activities in this area are prompting more and more municipalities to switch to environment-friendly and cost-effective vehicles.

In line with our Strategy, in 2019 we will focus on measures to diversify gas supply sources and increase our reserves both in Poland and abroad. We also intend to ramp up our activities in new markets, including the UAE, where in December 2018 we acquired a hydrocarbon exploration, appraisal and production licence. We do not give up on innovative R&D projects. Our goal is large-scale implementation of revolutionary projects, such as Geo-Metan, which not only improve the safety of miners and help reduce methane emissions but also contribute to growth of our gas output in Poland.

To conclude, I would like to extend my thanks to the Management Board and Supervisory Board of PGNiG S.A. as well as our entire team for their trust and hard work in 2018.

Kind regards,

Piotr Woźniak

President of the PGNiG Management Board

Financial highlights of the PGNiG Group

Consolidated financial data	PLNm		EURm	
	2018	2017	2018	2017
Revenue	41,234	35,857	9,664	8,447
Operating profit before depreciation and amortisation (EBITDA)	7,115	6,579	1,667	1,550
Operating profit (EBIT)	4,395	3,910	1,030	921
Profit before tax	4,502	3,922	1,055	924
Net profit attributable to owners of the parent	3,212	2,923	753	689
Net profit	3,209	2,921	752	688
Total comprehensive income attributable to owners of the parent	3,441	2,769	806	652
Total comprehensive income	3,438	2,767	806	652
Net cash flow from operating activities	5,814	4,816	1,363	1,135
Net cash flow from investing activities	(4,704)	(3,863)	(1,102)	(910)
Net cash flow from financing activities	237	(4,204)	56	(990)
Net cash flow	1,347	(3,251)	316	(766)
Basic and diluted earnings per share (PLN)	0.56	0.51	0.13	0.12
	2018	2017	2018	2017
Total assets	53,271	48,203	12,389	11,557
Total liabilities	16,639	14,576	3,870	3,495
Total non-current liabilities	7,255	7,004	1,687	1,679
Total current liabilities	9,384	7,572	2,183	1,816
Total equity	36,632	33,627	8,519	8,062
Share capital	5,778	5,778	1,344	1,385
Weighted average number of ordinary shares (million)	5,778	5,778	5,778	5,778
Book value per share and diluted book value per share (PLN/EUR)	6.34	5.82	1.47	1.40
Dividend per share declared or paid (PLN/EUR)	0.07	0.20	0.02	0.05

Rules followed in the preparation of the consolidated financial statements

Items of the statement of profit or loss, statement of comprehensive income, and statement of cash flows were translated at the EUR/PLN exchange rate computed as the arithmetic mean of the mid rates quoted by the National Bank of Poland (NBP) for the last day of each calendar month in the reporting period.

Items of the statement of financial position were translated at the mid EUR/PLN exchange rate quoted by the NBP for the end of the reporting period.

Average EUR/PLN exchange rates quoted by the NBP	2018	2017
Average exchange rate for period	4.2669	4.2447
Exchange rate at end of period	4.3000	4.1709

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INDEPENDENT AUDITOR'S REPORT

To the Shareholders' Meeting and the Supervisory Board of Polskie Górnictwo Naftowe i Gazownictwo S.A.

Report on the Audit of the Annual Consolidated Financial Statements

Opinion

We have audited the annual consolidated financial statements of the group (the "Group") with Polskie Górnictwo Naftowe i Gazownictwo S.A. as the parent (the "Parent"), which comprise the consolidated statement of financial position as at December 31, 2018, the consolidated profit and loss account and the consolidated statement of comprehensive income, consolidated statement of changes in equity and consolidated statement of cash flows for the year then ended, and notes to the consolidated financial statements, including a summary of significant accounting policies and other explanatory information (the "consolidated financial statements").

In our opinion, the accompanying consolidated financial statements:

- give a true and fair view of the economic and financial position of the Group as at December 31, 2018, and of its financial performance and its cash flows for the year then ended in accordance with the applicable in accordance with the applicable International Financial Reporting Standards, as endorsed by the European Union, and the adopted accounting policies;
- comply, as regards their form and content, with the applicable laws and the articles of association of the Parent.

Our opinion is consistent with the Additional Report to the Audit Committee, which we issued on 13 March 2019.

Basis for Opinion

We conducted our audit in accordance with International Standards on Auditing ("ISAs") in a version adopted by the National Council of Statutory Auditors as the Polish Standards on Auditing ("PSAs") and in compliance with the Act on Statutory Auditors, Audit Firms and Public Oversight of 11 May 2017 (the "Act on Statutory Auditors", Journal of Laws of 2017, item 1089, as amended) as well as Regulation (EU) No 537/2014 of the European Parliament and of the Council of 16 April 2014 on specific requirements regarding statutory audit of public-interest entities ("EU Regulation", Official Journal of the European Union L158). Our responsibilities under those standards are further described in the *Auditor's Responsibilities for the Audit of the Consolidated Financial Statements* section of our report.

We are independent of the Group in accordance with the International Federation of Accountants' Code of Ethics for Professional Accountants ("IFAC Code"), adopted by resolution of the National Council of Statutory Auditors, together with the ethical requirements that are relevant to the audit of the financial statements in Poland, and we have fulfilled our other ethical responsibilities in accordance with these requirements and the IFAC Code. Throughout the audit, both the key statutory auditor and the audit firm remained independent of the Group in accordance

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with the independence requirements set out in the Act on Statutory Auditors and in the EU Regulation.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Key Audit Matters

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the consolidated financial statements of the current period. They encompass the most significant assessed risks of material misstatement, including assessed risks of material misstatement due to fraud. These matters were addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our opinion thereon. We summarized our response to those risks and, where appropriate, we presented the key findings related to those risks. We do not provide a separate opinion on these matters.

Key audit matter	How we addressed the matter
Impairment of shares in related parties	

As presented in Note 2.4 to the consolidated financial statements, as at 31 December 2018 the Capital Group held shares in joint ventures and associates measured using the equity method, which totaled PLN 1,806 million net. In accordance with the accounting policies, shares in entities measured using the equity method are initially measured at cost, taking account of the Group's share in the changes in net assets which have occurred between the date when it assumed joint control and the balance sheet date, less impairment losses.
 	
An analysis of indications of impairment is conducted by the Management Board of the Parent regularly and impairment tests are performed if such indications are identified.
 	
The impairment tests relating to shares are based on the Management Board's assumptions and estimates as to future cash flows and the discount rate, in addition to taking account of strategic and financial plans for the upcoming years. Such projections involve a considerable volatility risk associated with the fact that the market conditions are difficult to forecast.
	Detailed procedures were preceded by gaining an understanding of and analyzing the design and implementation of key internal controls over the process of monitoring indications of impairment as well as the process of estimating impairment losses.
	
	In particular, our audit procedures included:
	– identification of the key indications of impairment of shares;
	– interviews with the Management Board and the key personnel about financial predictions and business plans of material related parties and associates;
	– a critical assessment of the assumptions made by the Management Board for the measurement model (including with the involvement of Deloitte's in-house experts in valuation and modelling), specifically:
	  - the financial projections;
	  - the discount rate;
	  - the growth rate;
	  - the residual value;
	– a critical assessment of the model, including the correctness of its calculations;
	– reconciliation of the recognition of impairment losses determined with the use of the model with the accounting records and the financial statements;
	– an assessment of the completeness and correctness of the disclosures of the analysis of share impairment in the financial statements.

Key audit matter	How we addressed the matter
We placed a special focus on the issue of impairment of investments in entities measured using the equity method due to their materiality and the necessity to make significant assumptions and complex estimates.	
Impairment of property, plant and equipment	
In Note 6.1 to the consolidated financial statements, as at 31 December 2018 the Capital Group provided information concerning impairment of its non-financial assets. At the end of the reporting period, impairment losses on non-financial assets totaled PLN 3,798 million. Under IAS 36, the Company is required to verify whether or not any indications exist which could form the basis for impairment tests relating to property, plant and equipment. Assets which are grouped into cash-generating units are tested for impairment. Items of property, plant and equipment account for 64% of the Capital Group's assets. Considering the materiality of their value as well as the necessity to perform tests based on numerous assumptions and estimates, we concluded that impairment of property, plant and equipment was a key audit matter.	In particular, our procedures included: – gaining an understanding of and evaluating the process of asset grouping into cash-generating units in accordance with the financial reporting standards; – a critical assessment of the measurement model based on future cash flows; – an assessment of the methodology used and assumptions made by the Management Board in relation to the model; – reconciliation of model inputs with the source documents; – verification of the mathematical correctness of calculations and reconciliation of the resulting impairment losses with the accounting records and the financial statements; – an assessment of the completeness and correctness of the disclosures in the financial statements.

Responsibilities of the Management Board and the Supervisory Board of the Parent for the Consolidated Financial Statements

The Parent's Management Board is responsible for the preparation of consolidated financial statements which give a true and fair view of the economic and financial position of the Group and of its financial performance in accordance with the applicable International Financial Reporting Standards, as endorsed by the European Union, the adopted accounting policies as well as the applicable laws and articles of association of the Parent, and for such internal control as the Parent's Management Board determines is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, the Parent's Management Board is responsible for assessing the Group's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the Parent's

Management Board either intends to liquidate the Group or to cease operations, or has no realistic alternative but to do so.

The Management Board and members of the Supervisory Board of the Parent are obliged to ensure that the consolidated financial statements meet the requirements of the Accounting Act of 29 September 1994 (the "Accounting Act", Journal of Laws of 2019, item 351). Members of the Parent's Supervisory Board are responsible for overseeing the financial reporting process.

Auditor's Responsibilities for the Audit of the Consolidated Financial Statements

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with PSAs will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements.

The scope of an audit does not include an assurance about the future profitability of the Group or the effectiveness or efficiency of the Parent's Management Board in managing the Group's affairs at present or in the future.

As part of an audit in accordance with PSAs, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- identify and assess the risks of material misstatement of the consolidated financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control;
- obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Group's internal control;
- evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the Parent's Management Board;
- conclude on the appropriateness of the Parent's Management Board's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the consolidated financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Group to cease to continue as a going concern;
- evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements represent the underlying transactions and events in a manner that achieves fair presentation;
- obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the Group audit. We remain solely responsible for our audit opinion.

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We communicate with the Parent's Supervisory Board regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide the Parent's Supervisory Board with a statement that we have complied with relevant ethical requirements regarding independence, and that we will communicate with it all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

From the matters communicated with the Parent's Supervisory Board, we determined those matters that were of most significance in the audit of the consolidated financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

Other Information, Including the Report on the Activities

Other information includes a Directors' Report on the Operations of PGNiG S.A. and the PGNiG Group in the financial year ended 31 December 2018 (the "Report on the Activities"), together with a statement of compliance with corporate governance principles and a non-financial information statement, as referred to in Article 49b. 1 of the Accounting Act, which constitute separate parts of the report (together: the "Other Information").

Responsibilities of the Management Board and the Supervisory Board

The Parent's Management Board is responsible for the preparation of the Other Information in accordance with the applicable laws.

The Management Board and members of the Supervisory Board of the Parent are obliged to ensure that the Report on the Activities, along with the separate parts, meet the requirements of the Accounting Act.

Auditor's Responsibilities

Our opinion on the consolidated financial statements does not cover the Other Information. In connection with our audit of the consolidated financial statements, our responsibility is to read the Other Information and, in doing so, consider whether the Other Information is materially inconsistent with the consolidated financial statements or our knowledge obtained in the audit or otherwise appears to be materially misstated. If, based on the work we have performed, we conclude that there is a material misstatement of this Other Information, we are required to report that fact in our auditor's report. Additionally, under the Act on Statutory Auditors we are obliged to express an opinion on whether the Report on the Activities has been prepared in accordance with the applicable laws and whether it is consistent with the information contained in the consolidated financial statements. Furthermore, we are obliged to state whether a non-financial information statement has been prepared by the Group and to express an opinion on whether the Group has included the necessary information in the statement of compliance with corporate governance principles.

Opinion on the Report on the Activities

Based on our work performed during the audit, we are of the opinion that the Report on the Activities:

- has been prepared in accordance with Article 49 of the Accounting Act and par. 71 of the Regulation of the Minister of Finance of 29 March 2018 on current and periodic information published by issuers of securities and the rules of equal treatment of the information required by the laws of non-member states (the "Current Information Regulation", Journal of Laws of 2018, item 757);
- is consistent with the information contained in the consolidated financial statements.

Furthermore, in the light of the knowledge and understanding of the Group and its environment obtained in the course of the audit, we have not identified any material misstatements of the Report on the Activities.

Opinion on the Statement of Compliance with Corporate Governance Principles

In our opinion, the statement of compliance with corporate governance principles contains the information referred to in par. 70.6.5 of the Current Information Regulation. We are also of the opinion that the information referred to in par. 70.6.5(c)-(f), (h) and (i) of the Regulation, as contained in the statement of compliance with corporate governance principles, is in accordance with the applicable laws and consistent with the information included in the consolidated financial statements.

Information on Non-Financial Information

In accordance with the requirements of the Act on Statutory Auditors, we confirm that the Group has prepared a non-financial information statement, as referred to in Article 49b.1 of the Accounting Act, as a separate part of the Report on the Activities.

We have not performed any assurance services relating to the non-financial information statement and we do not express any form of assurance conclusion thereon.

Report on Other Legal and Regulatory Requirements

Statement Concerning Provision of Non-Audit Services

To the best of our knowledge and belief, we represent that non-audit services which we have provided to the Parent and to its subsidiaries are in accordance with the laws and regulations applicable in Poland and that we have not provided any non-audit services which are prohibited under Article 5.1 of the EU Regulation and Article 136 of the Act on Statutory Auditors. The non-audit services which we provided to the Parent and to its subsidiaries in the audited period have been listed in 11.4 in the Report on the Activities.

Appointment of the Auditor

We were appointed as the auditor of the Group's consolidated financial statements by resolution no 30/VII/2016 of Supervisory Board of 10 February 2016. Our total uninterrupted period of engagement to audit the Group's consolidated financial statements is three consecutive financial years, i.e. starting from the financial year ended 31 December 2016.

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The key statutory auditor on the audit resulting in this independent auditor's report is Piotr Sokołowski.

Acting on behalf of Deloitte Audyt Spółka z ograniczoną odpowiedzialnością Sp. k. with its registered seat in Warsaw, entered under number 73 on the list of audit firms, in the name of which the consolidated financial statements have been audited by the key statutory auditor:

Piotr Sokołowski
Registered under number 9752

Warsaw, 13 March 2019

This Report is an English version of the original Polish version. In case of any discrepancies between the Polish and English version, the Polish version shall prevail.

Polskie Górnictwo Naftowe i Gazownictwo S.A.

CONSOLIDATED FINANCIAL STATEMENTS OF THE PGNiG GROUP for 2018

prepared in accordance with International Financial Reporting Standards as endorsed by the European Union

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Financial statements

Consolidated statement of profit or loss	2018	2017	
Revenue from sale of gas	29,628	28,613	*Note 3.1.*
Other revenue	11,606	7,244	*Note 3.1.*
Revenue	**41,234**	**35,857**	
Cost of gas sold	(24,941)	(20,127)	*Note 3.2.*
Other raw materials and consumables used	(2,519)	(2,586)	*Note 3.2.*
Employee benefits expense	(2,871)	(2,696)	*Note 3.2.*
Transmission services	(1,039)	(1,144)	
Other services	(1,865)	(1,749)	*Note 3.2.*
Taxes and charges	(819)	(793)	
Other income and expenses	(722)	(342)	*Note 3.3.*
Work performed by the entity and capitalised	1,120	992	
Recognition and reversal of impairment losses on property, plant and equipment	(463)	(833)	*Note 3.2.*
Operating profit before depreciation and amortisation (EBITDA)	**7,115**	**6,579**	*Note 2.2.*
Depreciation and amortisation expense	(2,720)	(2,669)	*Note 2.2.*
Operating profit (EBIT)	**4,395**	**3,910**	*Note 2.2.*
Net finance costs	(4)	(16)	*Note 3.4*
Profit/(loss) from equity-accounted investees	111	28	*Note 2.4.*
Profit before tax	**4,502**	**3,922**	
Income tax	(1,293)	(1,001)	*Note 4.1.*
Net profit	**3,209**	**2,921**	
Net profit attributable to:			
Owners of the parent	3,212	2,923	
Non-controlling interests	(3)	(2)	
Weighted average number of ordinary shares (million)	5,778	5,778	
Basic and diluted earnings per share (PLN)	0.56	0.51	

Consolidated statement of comprehensive income	2018	2017	
Net profit	**3,209**	**2,921**	
Exchange differences on translating foreign operations	(19)	(65)	
Hedge accounting	285	(76)	*Note 7.1.3*
Revaluation of financial assets available for sale	-	(6)	
Deferred tax	(15)	15	
Share of other comprehensive income of equity-accounted investees	4	(4)	
Other comprehensive income subject to reclassification to profit or loss	**255**	**(136)**	
Actuarial losses on employee benefits	(33)	(23)	
Deferred tax	6	4	
Share of other comprehensive income of equity-accounted investees	1	1	
Other comprehensive income not subject to reclassification to profit or loss	**(26)**	**(18)**	
Other comprehensive income, net	**229**	**(154)**	
Total comprehensive income	**3,438**	**2,767**	
Total comprehensive income attributable to:			
Owners of the parent	3,441	2,769	
Non-controlling interests	(3)	(2)	

Consolidated statement of cash flows	2018	2017	
Cash flows from operating activities			
Net profit	3,209	2,921	
Depreciation and amortisation expense	2,720	2,669	
Current tax expense	1,293	1,001	
Net gain/(loss) on investing activities	(154)	452	
Other non-monetary adjustments	432	304	*Note 5.5.2.*
Income tax paid	(1,060)	(755)	
Movements in working capital	(626)	(1,776)	*Note 5.5.*
Net cash from operating activities	**5,814**	**4,816**	
Cash flows from investing activities			
Expenditure for acquisition of tangible exploration and evaluation assets under construction	(851)	(740)	*Note 2.2.*
Payments for other property, plant and equipment and intangible assets	(3,683)	(2,422)	*Note 2.2.*
Payments for shares in related entities	(90)	(347)	
Other items, net	(80)	(354)	
Net cash from investing activities	**(4,704)**	**(3,863)**	
Cash flows from financing activities			
Increase in debt	3,160	2,218	*Note 5.1.*
Proceeds from derivative financial instruments	-	165	
Decrease in debt	(2,510)	(5,407)	*Note 5.1.*
Dividends paid	(404)	(1,156)	*Note 3.5.*
Payments for derivative financial instruments	-	(20)	
Other items, net	(9)	(4)	
Net cash from financing activities	**237**	**(4,204)**	
Net cash flows	**1,347**	**(3,251)**	
Cash and cash equivalents at beginning of period	2,581	5,832	
Cash and cash equivalents at end of period	**3,928**	**2,581**	*Note 5.5.3.*

Consolidated statement of financial position	2018	2017	
ASSETS			
Property, plant and equipment	34,236	32,452	*Note 6.1.1.*
Intangible assets	1,173	1,115	*Note 6.1.2.*
Deferred tax	94	141	*Note 4.1.2.*
Equity-accounted investees	1,806	1,601	*Note 2.4.*
Derivative financial instruments	226	-	
Other assets	1,363	1,055	*Note 8.4.*
Non-current assets	**38,898**	**36,364**	
Inventories	3,364	2,748	*Note 6.2.1.*
Receivables	5,742	5,781	*Note 6.2.2.*
Derivative financial instruments	1,092	450	*Note 7.2.*
Other assets	204	216	*Note 8.4.*
Cash and cash equivalents	3,925	2,578	*Note 5.4.*
Assets held for sale	46	66	*Note 8.3.*
Current assets	**14,373**	**11,839**	
TOTAL	**53,271**	**48,203**	
EQUITY AND LIABILITIES			
Share capital	7,518	7,518	
Hedging reserve	73	7	
Accumulated other comprehensive income	(203)	(165)	
Retained earnings	29,246	26,266	
Equity attributable to owners of the parent	36,634	33,626	
Equity attributable to non-controlling interests	(2)	1	
TOTAL EQUITY	**36,632**	**33,627**	
Financing liabilities	1,178	951	*Note 5.1.*
Derivative financial instruments	105	-	
Employee benefit obligations	808	725	*Note 6.3.1.*
Provision for well decommissioning costs	1,917	1,717	*Note 6.1.1.1.*
Other provisions	197	181	*Note 6.3.2.*
Grants	720	767	*Note 6.3.3.*
Deferred tax liabilities	2,066	2,019	*Note 4.1.2.*
Other liabilities	264	644	*Note 6.3.4.*
Non-current liabilities	**7,255**	**7,004**	
Financing liabilities	2,524	2,055	*Note 5.1.*
Derivative financial instruments	1,055	322	*Note 7.2.*
Trade and tax payables*	3,748	3,249	*Note 6.2.3.*
Employee benefit obligations	347	371	*Note 6.3.1.*
Provision for well decommissioning costs	91	53	*Note 6.1.1.1.*
Other provisions	675	621	*Note 6.3.2.*
Other liabilities	944	901	*Note 6.3.4.*
Current liabilities	**9,384**	**7,572**	
TOTAL LIABILITIES	**16,639**	**14,576**	
TOTAL	**53,271**	**48,203**	

*Including income tax of PLN 418 (2017: PLN 217m)

Consolidated statement of changes in equity

	Equity attributable to owners of the parent										Equity attributable to non-controlling interests	Total equity
	Share capital and share premium, including:		Hedging reserve	Accumulated other comprehensive income:				Retained earnings	Total			
	Share capital	Share premium		Exchange differences on translating foreign operations	Revaluation of financial assets available for sale	Actuarial gains/(losses) on employee benefits	Share of other comprehensive income of equity-accounted investees					
As at Jan 1 2017	**5,778**	**1,740**	**69**	**(28)**	**2**	**(45)**	**(2)**	**24,499**	**32,013**		**3**	**32,016**
Net profit	-	-	-	-	-	-	-	2,923	**2,923**		(2)	**2,921**
Other comprehensive income, net	-	-	(62)	(65)	(5)	(19)	(3)	-	**(154)**		-	**(154)**
Total comprehensive income	**-**	**-**	**(62)**	**(65)**	**(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**	**7**	**(93)**	**(3)**	**(64)**	**(5)**	**26,266**	**33,626**		**1**	**33,627**
As at Jan 1 2018	**5,778**	**1,740**	**7**	**(93)**	**(3)**	**(64)**	**(5)**	**26,266**	**33,626**		**1**	**33,627**
Effect of amended IFRS 9	-	-	-	-	3	-	-	172	175		-	175
Net profit	-	-	-	-	-	-	-	3,212	**3,212**		(3)	**3,209**
Other comprehensive income, net	-	-	270	(19)	-	(27)	5	-	**229**		-	**229**
Total comprehensive income	**-**	**-**	**270**	**(19)**	**-**	**(27)**	**5**	**3,212**	**3,441**		**(3)**	**3,438**
Change in equity recognised in inventories	-	-	(204)	-	-	-	-	-	**(204)**		-	**(204)**
Dividend	-	-	-	-	-	-	-	(404)	**(404)**		-	**(404)**
As at Dec 31 2018	**5,778**	**1,740**	**73**	**(112)**	**-**	**(91)**	**-**	**29,246**	**36,634**		**(2)**	**36,632**

1. General information

1.1. Key information about the PGNiG Group and basis of preparation of the financial statements

1.1.1. The Group

Parent's name	Polskie Górnictwo Naftowe i Gazownictwo Spółka Akcyjna
Registered office	ul. Marcina Kasprzaka 25, 01-224 Warsaw, Poland
Court of registration	District Court for the Capital City of Warsaw, 16th Commercial Division
NATIONAL COURT REGISTER (KRS) NO.	0000059492
Industry Identification Number (REGON)	012216736
Tax Identification Number (NIP)	525-000-80-28
Description of business	The Company's principal business activity is exploration for and production of natural gas and crude oil, import, storage and sale of gas and liquid fuels, and trade in electricity.

Polskie Górnictwo Naftowe i Gazownictwo Spółka Akcyjna is the parent ("PGNiG", "Company", "Parent") of the PGNiG Group ("PGNiG Group", "Group"). PGNiG shares are listed on the Warsaw Stock Exchange ("WSE").

As at the date of issue of these consolidated financial statements for 2018, the State Treasury, represented by the Minister of Energy, was the only shareholder holding 5% or more of total voting rights at the General Meeting of PGNiG S.A.

The PGNiG Group plays a key role in the Polish gas sector. As the market leader, it is responsible for national energy security, ensuring diversification of gas supplies by developing domestic deposits and sourcing gas from abroad. PGNiG's principal business comprises exploration for and production of natural gas and crude oil, and through its key companies PGNiG is active in the area of import, storage, sale and distribution of gas and liquid fuels, as well as heat and electricity generation.

The PGNiG Group is a leader in all areas of its operations. In Poland, the Group is the largest importer of gas fuel (from Russia and Germany), the main producer of natural gas from Polish deposits, and a significant producer of heat and electricity in Poland. The Group's upstream business is one of the key factors ensuring PGNiG's competitive position on the Polish gas market.

For further information on the Group's operating segments and consolidated entities, see **Note 2**.

1.1.2. Basis of preparation

These consolidated financial statements have been prepared in accordance with the International Financial Reporting Standards (IFRS) as endorsed for application in the European Union (EU).

Rules followed in the preparation of the consolidated financial statements

These consolidated financial statements include data of the Parent, its subsidiaries and joint arrangements (joint ventures and joint operations).

The financial statements of the entities which are consolidated and accounted for with the equity method have been prepared for the same reporting period.

These consolidated financial statements have been prepared based on uniform accounting policies adopted by the entities which are consolidated or accounted for with the equity method. Where necessary, adjustments are made to separate financial statements to ensure consistency between the accounting policies applied by a given entity and those applied by the Group.

Joint arrangements are accounted for in accordance with the policies presented in Notes **2.4** and **8.6**.

Subsidiaries are consolidated with the full method from the acquisition date (the date of assuming control of the company) until the date the control is lost. Control is exercised when the parent is exposed to, or has rights to, variable returns from its involvement with the entity and has the ability to affect those returns through its power over that entity.

Acquisition of control of an entity representing a business is accounted for with the acquisition method. Identifiable acquired assets and assumed liabilities of an acquiree which is a business within the meaning of IFRS 3 are recognised as at the acquisition date and are measured at fair value. The excess of the acquisition cost (the consideration transferred (at fair value), any non-controlling interest in the acquiree measured in accordance with IFRS 3, and − in a business combination achieved in stages − the acquisition-date fair value of the acquirer's previously held equity interest in the acquiree) over the net of the acquisition-date fair value of the identifiable assets acquired and the liabilities assumed, is recognised as goodwill. If the acquisition cost is lower than the net of the acquisition-date fair value of the identifiable assets acquired and the liabilities assumed, the difference is recognised as gain in profit or loss as at the acquisition date (gain on bargain purchase). The transaction costs are recognised in profit or loss when incurred. Non-controlling interests are initially measured at the non-controlling interest's proportionate share of net assets of the acquiree or at fair value.

If the Parent loses control of a subsidiary in a reporting period, the consolidated financial statements account for the subsidiary's results for such part of the reporting year in which control was held by the Parent.

These consolidated financial statements have been prepared on the assumption that the Group companies will continue as going concerns in the foreseeable future, with the exception of two subsidiaries: Geofizyka Kraków S.A. w likwidacji and PGNiG Finance AB i likvidation, which have been placed in liquidation. As at the date of authorisation of these financial statements for issue, no circumstances were identified which would indicate any threat to the Group's continuing as a going concern.

These consolidated financial statements have been prepared in accordance with the historical cost convention, except with respect to financial assets and liabilities measured at fair value, which are discussed in **Note 7**.

The Polish zloty (PLN) is the functional currency of PGNiG S.A. and the presentation currency of these consolidated financial statements.

Accounting policies

Items denominated in foreign currencies

Transactions denominated in foreign currencies are initially disclosed at the exchange rate of the functional currency as at the transaction date.

At the end of a reporting period:

- Monetary items denominated in foreign currencies are translated at the exchange rate of the functional currency quoted by the National Bank of Poland for the reporting date.
- Non-cash items measured at historical cost in a foreign currency are translated at the exchange rate as at the date of the transaction.

Exchange differences arising on settlement of monetary items or on translating monetary items at rates different from those at which they were translated on initial recognition are taken to profit or loss. Exchange differences which are part of a gain (loss) on measurement of a hedging instrument in hedge accounting are recognised in other comprehensive income.

The financial data of all foreign operations and branches which are accounted for in consolidated financial statements must be translated into the Group's presentation currency, i.e. into PLN. For this purpose, their data from the statement of financial position is translated at the mid rate quoted for the given currency by the National Bank of Poland for the end of the reporting period, and data from the statement of profit or loss – at the rate equal to the arithmetic mean of mid rates quoted for the given currency by the National Bank of Poland for the last day of each month of the financial year.

Foreign currency differences arising on translation of assets and liabilities of foreign operations are recognised in other comprehensive income and accumulated as a separate item of equity. Upon disposal of a foreign operation, foreign exchange differences accumulated in equity are transferred to the statement of profit or loss and disclosed as part of the overall net gain/(loss) on the disposal.

To hedge against foreign currency risk, the Group enters into currency derivative contracts (for a description of the accounting policies applied by the Group to derivative financial instruments, see **Note 7.2**).

The date of publication of these financial statements is March 14th 2019.

1.2. Effect of new standards on the financial statements of the PGNiG Group

1.2.1. New and amended standards and interpretations

The following new and amended standards and interpretations effective as of January 1st 2018 had an effect on these consolidated financial statements:

Standard	Description	Effect of implementation
IFRS 9 *Financial Instruments*	The standard introduces the following categories of financial assets: • measured at fair value through profit or loss, • measured at fair value through other comprehensive income, and • measured at amortised cost. On initial recognition assets are classified depending on an entity's financial instrument management model and the characteristics of contractual cash flows from such instruments. In the case of equity instruments to be carried at fair value through profit or loss or through comprehensive income, the selection will be made individually for each instrument. As at December 31st 2018, the Company did not recognise any equity instruments measured through other comprehensive income. IFRS 9 also introduced a new impairment recognition model based on expected credit losses. The majority of the requirements under IAS 39 concerning classification and measurement of financial liabilities were incorporated into IFRS 9 unchanged. The key change is the new requirement that entities disclose in other comprehensive income the effect of changes in their own credit risk related to financial liabilities designated at fair value through profit or loss. Changes were also made to the hedge accounting model to factor in risk management.	The impact of the amendments to IFRS 9 on the consolidated financial statements is presented in **Note 1.2.1.1.**
IFRS 15 *Revenue from Contracts with Customers*	The new IFRS 15 applies to all contracts with customers. The core principle of the standard is that revenue is to be recognised upon transfer of goods or services to a customer, at the transaction price. Any goods or services that are sold in bundles and are distinct within the bundle should be recognised separately, and any discounts and rebates on the transaction price should be allocated to specific bundle items. Where a contract contains elements of variable consideration, under the new standard such variable consideration is recognised as revenue only if it is highly probable that its remeasurement will not result in a revenue reversal in the future. Furthermore, in accordance with IFRS 15, the cost of obtaining and securing a contract with a customer should be capitalised and amortised over the period in which the contract's benefits are consumed.	The impact of the amendments to IFRS 15 on the consolidated financial statements is presented in **Note 1.2.1.1.**

Amendments to the standards other than those referred to above were either not applicable or irrelevant to the Group's consolidated financial statements.

1.2.1.1. Effect of applying new standards

The Group has applied the requirements of new IFRS 9 and IFRS 15 using a modified retrospective method, with effect as of January 1st 2018 (without restating the comparative period figures).

The effect of data presentation changes resulting from the adoption of IFRS 9 and IFRS 15 on the consolidated statement of financial position is presented below.

	As at Dec 31 2017 – before restatement	Effect of IFRS 9 on the consolidated statement of financial position	Effect of IFRS 15 on the consolidated statement of financial position	As at Jan 1 2018 – after restatement
ASSETS				
Non-current assets	**36,364**	**(16)**	**(49)**	**36,299**
including:				
Deferred tax assets	141	5	(49)	97
Other assets	1,055	-21	-	1,034
Current assets	**11,839**	**(68)**	**-**	**11,771**
including:				
Receivables	5,781	-68	-	5,713
TOTAL	**48,203**	**(84)**	**(49)**	**48,070**
EQUITY AND LIABILITIES				
TOTAL EQUITY	**33,627**	**(113)**	**288**	**33,802**
including:				
Accumulated other comprehensive income	-165	3	-	-162
Retained earnings	26,266	-116	288	26,438
Non-current liabilities	**7,004**	**3**	**(323)**	**6,684**
including:				
Other liabilities	644	3	-323	324
Current liabilities	**7,572**	**26**	**(14)**	**7,584**
including:				
Other provisions	621	18	-	639
Other liabilities	901	8	-14	895
TOTAL LIABILITIES	**14,576**	**29**	**(337)**	**14,268**
TOTAL	**48,203**	**(84)**	**(49)**	**48,070**

Applying IFRS 9 *Financial Instruments*

As at the date of first application, changes introduced under new IFRS 9 Financial Instruments are changes to the rules of classification and measurement of financial assets and introduction of a new model for determining expected credit losses.

The standard introduces the following categories of financial assets:

- measured at amortised cost,
- measured at fair value through profit or loss,
- measured at fair value through other comprehensive income.

Assets are classified on initial recognition depending on the financial instrument management model applied by the entity and the characteristics of contractual cash flows from such instruments.

IFRS 9 introduces a new impairment recognition model based on expected credit losses.

If the time value of money is modified, a Group company carries out a qualitative or quantitative assessment (benchmark test). If the benchmark test identifies no significant difference (i.e. a difference over 10% in cash flows for a single reporting period or cumulatively over the life of the instrument) for the model instrument, such instrument continues to be measured at amortised cost.

For description of the accounting policies applied by the Group to financial instruments, see **Note 7.**

The effect of implementation of IFRS 9 on change in the classification and measurement of the Group's financial assets as at January 1st 2018 is presented below.

January 1st 2018		Classification under IAS 39	New classification under IFRS 9	Carrying amount under IAS 39	New carrying amount under IFRS 9
Financial assets	**Item**				
Other non-current assets	Loans advanced	loans and receivables	at amortised cost	215	215
	Loans advanced	Loans and receivables	at fair value through profit or loss	28	7
	Non-current restricted cash	Loans and receivables	at amortised cost	180	180
	Financial receivables (deposits, guarantees, and other)	Loans and receivables	at amortised cost	99	99
Receivables		Loans and receivables	at amortised cost	5,781	5,713
Derivative instruments	Derivative instruments covered by hedge accounting	Financial instruments used as hedges	Financial instruments used as hedges	25	25
	Derivative instruments not covered by hedge accounting	at fair value through profit or loss	at fair value through profit or loss	425	425
Cash and cash equivalents		loans and receivables	at amortised cost	2,578	2,578
Total financial assets				**9,331**	**9,242**

Reconciliation of items of statement of financial position as shown under IFRS 39 and under IFRS 9, as at January 1st 2018:

Financial assets		Carrying amount under IAS 39 as at Dec 31 2017	Reclassifications	Valuation change	Carrying amount under IAS 39 as at January 1st 2018	Effect of accounting policy change on undistributed profit/(loss) as at Jan 1 2018
Loans advanced	at amortised cost	243	(28)		215	
	at fair value through profit or loss		28	(21)	7	(21)
Receivables	at amortised cost	5,781		(68)	5,713	(68)
Total change in financial assets		**-**	**-**	**(89)**		**(89)**

Based on the business model assessment and the SPPI test, the Parent identified loans granted by PGNiG S.A. to Elektrociepłownia Stalowa Wola S.A. which did not meet the criteria of solely payments of principal and interest on the principal amount as laid down in IFRS 9. Therefore, these assets were reclassified from loans and receivables to financial assets at fair value through profit or loss. As at December 31st 2017, the carrying amount of loans not meeting the SPPI test was PLN 28m. Following the fair value measurement performed as at January 1st 2018 in accordance with IFRS 9, the loans were adjusted by PLN 21m to PLN 7m.

Applying IFRS 15 *Revenue from Contracts with Customers*

IFRS 15 applies to all contracts giving rise to revenue. The core principle of the new standard is that revenue is to be recognised upon transfer of goods or services to a customer, at the transaction price. Any goods or services that are sold in bundles or in series and that are separately identifiable as part of a contract should be recognised separately, and any discounts and rebates on the transaction price should be allocated to the specific bundle items.

Where a contract contains elements of variable consideration, under the new standard such variable consideration is recognised as revenue only if it is highly probable that its remeasurement will not result in a revenue reversal in the future. Furthermore, in accordance with IFRS 15, the cost of obtaining and securing a contract with a customer should be capitalised and amortised over the period in which the contract's benefits are consumed.

The Group determined its role with respect to gas transmission and electricity distribution services to be that of an agent.

The Group does not bear the main responsibility for the performance of transmission and distribution services, has no control over the main features of such services, and cannot freely determine their prices, which leads to the conclusion that the Company acts as an agent with respect to their sale. Revenue from sale to customers is presented at net amounts, i.e. after deducting the respective costs to purchase these services from the transmission and distribution system operators.

With respect to the presentation of revenue from distribution services provided by PSG, there was a presentation change and the portion of revenue corresponding to the cost of gas distribution services recharged to customers was reclassified from revenue from sale of gas to revenue from sale of distribution services. The Group presents revenue from sale of gas distribution services in the amount equal to the total sales of the services to customers, irrespective of the actual parties to agreements for the provision of distribution services concluded between the system operator and the gaseous fuel supplier.

As at the first application date, the Group identified and recognised adjustments due to the implementation of IFRS 15 with respect to revenue from connection charges which had thus far been deferred (for projects completed by June 30th 2009) in relation to retained earnings.

For description of the accounting policies applied by the Group to revenue, see **Note 3.**

The effect of application of IFRS 15 on the consolidated financial statements of the Group for the reporting period is presented in the tables below.

The data presents changes in presentation of revenue from sale of distribution and transmission services, transferred to customers at net amounts, i.e. after deducting the respective costs to purchase these services from the transmission and distribution system operators.

In connection with implementation of the standard using the modified retrospective method, no such restatement was made with respect to the comparative data for 2017.

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Consolidated statement of profit or loss	Period ended Dec 31 2018, in accordance with IAS 18 and IAS 11	Impact of transition from IAS 18 and IAS 11 to IFRS 15	Period ended Dec 31 2018 in accordance with IFRS 15
Revenue including:	**41,422**	**(188)**	**41,234**
Revenue from sale of gas	33,415	(3,787)	29,628
Other revenue	8,007	3,599	11,606
Operating expenses (excl. D&A) including:	**(34,307)**	**188**	**(34,119)**
Transmission services	(1,195)	156	(1,039)
Other services	(1,897)	32	(1,865)
Operating profit before depreciation and amortisation (EBITDA)	**7,115**	**-**	**7,115**
Operating profit (EBIT)	**4,395**	**-**	**4,395**
Profit before tax	**4,502**	**-**	**4,502**
Net profit	**3,209**	**-**	**3,209**

The table below presents the effect of implementation of IFRS 15 on the Group's consolidated financial statements by business segment.

2018	Sales to external customers	Inter-segment sales	Total revenue	EBITDA	Depreciation and amortisation	EBIT (operating profit)	Recognition and reversal of impairment losses on property, plant and equipment and intangible assets	Expenditure on acquisition of property, plant and equipment and intangible assets	Property, plant and equipment	Workforce
Trade and storage in accordance with IAS 18 and IAS 11	**34,851**	**666**	**35,517**	**(848)**	**(189)**	**(1,037)**	**-**	**(54)**	**3,196**	**3,051**
Impact of transition from IAS 18 and IAS 11 to IFRS 15	(3,813)	-	(3,813)	-	-	-	-	-	-	-
Trade and storage in accordance with IFRS 15	**31,038**	**666**	**31,704**	**(848)**	**(189)**	**(1,037)**	**-**	**(54)**	**3,196**	**3,051**
Distribution in accordance with IAS 18 and IAS 11	**979**	**3,948**	**4,927**	**2,385**	**(927)**	**1,458**	**(2)**	**(1,713)**	**14,018**	**11,542**
Impact of transition from IAS 18 and IAS 11 to IFRS 15	3,625	(3,625)	-	-	-	-	-	-	-	-
Distribution in accordance with IFRS 15	**4,604**	**323**	**4,927**	**2,385**	**(927)**	**1,458**	**(2)**	**(1,713)**	**14,018**	**11,542**
Reconciliation with consolidated data in accordance with IAS 18 and IAS 11			**(9,583)**	**(15)**	**1**	**(14)**	**-**	**(18)**	**(226)**	**-**
Impact of transition from IAS 18 and IAS 11 to IFRS 15			3,625	-	-	-	-	-	-	-
Reconciliation with consolidated data in accordance with IFRS 15			**(5,958)**	**(15)**	**1**	**(14)**	**-**	**(18)**	**(226)**	**-**

1.2.2. Issued standards and interpretations which are not yet effective and have not been adopted by the Group early

In these consolidated financial statements, the Group did not opt for early application of the following standards, interpretations or amendments to existing standards which have been issued and are relevant to the Group's business:

Standard	Description	Expected impact of implementation
IFRS 16 *Leases* **Effective date** **Effective from January 1st 2019**	The new standard establishes principles for the recognition, measurement, presentation and disclosure of leases. All lease transactions result in the lessee acquiring a right-of-use asset and incurring a lease liability. Thus, IFRS 16 abolishes the operating and finance lease classification under IFRS 17 and provides a single lessee accounting model. The lessee will be required to recognise: • assets and liabilities for all leases unless the lease term is 12 months or less or the underlying asset has a low value; • amortisation of the leased asset separately from interest on lease liability in the statement of profit or loss. IFRS 16's approach to lessor accounting is substantially unchanged from its predecessor, IAS 17. Lessors continue to classify leases as operating or finance leases, with each of them subject to different accounting treatment.	In 2018, the Group analysed the effect of IFRS 16 on its financial statements. Following a review of the contracts, the following groups of contracts containing a lease have been identified: • - lease/rental contracts for plots/land used for the purpose of operation of equipment/installations located on those plots, production of natural gas, etc.; • - lease/rental contracts for office, warehouse and parking space used in the Group's operations; • - perpetual usufruct rights to land, acquired for consideration or received free of charge from third parties; • - vehicle rental contracts; • contracts for the use of IT infrastructure – ISDN devices, routers, optical fibre lines used to provide Internet access, telecommunications connections, and data transmission services; • contracts for the lease of equipment and devices. The Group has applied IFRS 16 since January 1st 2019, retrospectively, with the cumulative effect of the first application recognised as an adjustment to the opening balance of retained earnings as at the date of its first application. The estimated effect of IFRS 16 on the consolidated financial statements is presented in **Note 1.2.3.**

The other standards and interpretations that have been issued, but are not yet effective are not relevant or do not apply to the Group's business.

1.2.3. Effect of new standards and interpretations on the Group's financial statements

Following the entry into force of IFRS 16 on January 1st 2019, in 2018 the Group companies identified their lease contracts and analysed the impact of the new standard.

Starting from 2019, the Group companies will recognise their respective right-of-use assets in the case of leases previously classified as operating leases under IAS 17, in an amount equal to the present value of their lease liabilities, by measuring the asset at an amount equal to the lease liability, adjusted by the amount of any prepaid or accrued lease payments recognised in the statement of financial position immediately before the date of initial application. The lease liability was measured at the present value of the remaining lease payments, discounted using the lessee's incremental borrowing rate at the date of initial application. The incremental borrowing rate is the interest rate at inception of the lease which the lessee (the companies) would have to pay to borrow funds necessary to purchase a given asset over a similar term and with a similar security.

In the case of leases previously classified as finance leases under IAS 17, the carrying amount of the right-of-use asset and the lease liability at the date of initial application will be the carrying amount of the lease asset and lease liability immediately before that date measured applying IAS 17. In accordance with IFRS 16, the Group companies will not make any changes to the existing and recognised operating and finance leases in which they were lessors as at January 1st 2019.

The companies will apply the following exemptions and will not apply IFRS 16 to the measurement of a lease liability and a right-of-use asset with respect to:

- leases of intangible assets;
- short-term leases (with a term below 12 months);
- leases where the underlying asset has a low value and is not sub-leased.

With respect to leases previously classified as operating leases under IAS 17, as at January 1st 2019 the Group companies will apply the practical expedients provided for in IFRS 16:

- they will apply a single discount rate to a portfolio of leases with similar characteristics (property, vehicles, equipment) and lease term;
- they will rely on their own assessment of whether leases are onerous contracts under IAS 37 *Provisions, Contingent Liabilities and Contingent Assets* immediately before the date of initial application, as an alternative to performing an impairment review. When choosing this practical expedient, the lessee adjusts the right-of-use asset at the date of initial application by the amount of any previously recognised onerous lease provision recognised in the statement of financial position immediately before the date of initial application;
- they will not apply lease recognition requirements to contracts where the lease term ends within 12 months from the first application, i.e. January 1st 2019, treating such contracts as short-term leases, and will recognise lease payments as costs on a straight-line basis over the remaining lease term;
- they will exclude initial direct costs in the measurement of the right-of-use asset on the date of initial application;
- they will use hindsight in determining the lease term for contracts containing options to extend or terminate the lease.

IFRS 16 will also affect the register of land property and perpetual usufruct rights to land. As of January 1st 2019, at the date of initial recognition, the Group will recognise rights of use for perpetual usufruct rights acquired free of charge at the present value of lease payments outstanding at the date of initial application of IFRS 16. At the date of initial recognition of perpetual usufruct rights acquired against consideration, such rights will be recognised at the present value of lease payments outstanding at the date of initial application of IFRS 16, increased by:

- the excess of the first payment over the annual perpetual usufruct charge in the case of perpetual usufruct agreements made with the State Treasury or a local government unit;
- the acquisition cost of perpetual usufruct rights to land if an agreement was made with an entity other than the State Treasury or a local government unit.

The table below presents the estimated effect of the changes on the consolidated statement of financial position.

Consolidated statement of financial position	As at Dec 31 2018 – before restatement	Estimated effect of IFRS 16 on the consolidated statement of financial position	As at Dec 31 2018 – after amendment
ASSETS			
Non-current assets	**38,898**	**1,226**	**40,124**
including:			
Property, plant and equipment	34,236	1,878	36,114
Intangible assets	1,173	(656)	517
Deferred tax	94	-	94
Other assets	1,363	4	1,367
Current assets	**14,373**	**1**	**14,374**
including:			
Assets held for sale	46	1	47
TOTAL	**53,271**	**1,227**	**54,498**
EQUITY AND LIABILITIES			
TOTAL EQUITY	**36,632**	**101**	**36,733**
including:			
Retained earnings	29,246	80	29,326
Other comprehensive income	(203)	21	(182)
Non-current liabilities	**7,255**	**1,117**	**8,372**
including:			
Financing liabilities	1,178	1,115	2,293
Other provisions	197	(17)	180
Deferred tax liabilities	2,066	19	2,085
Current liabilities	**9,384**	**9**	**9,393**
including:			
Financing liabilities	2,524	11	2,535
Other provisions	675	(2)	673
TOTAL LIABILITIES	**16,639**	**1,126**	**17,765**
TOTAL	**53,271**	**1,227**	**54,498**

As a result of implementation of IFRS 16, in 2019 the Group expects to see in its consolidated statement of comprehensive income an increase in depreciation and amortisation, an increase in interest expense, and a decline in other expenses. As regards the statement of cash flows, the Group expects a drop in cash flows from financing activities and an increase in cash flows from operating activities.

Furthermore, as a result of a growth in financing liabilities, the net debt to EBITDA ratio, which is the key covenant that must be maintained under the financing programmes to which PGNiG S.A. is a party, is set to increase.

2. Description of the Group and its reporting segments

2.1. Key information on the Group and its reporting segments.

These consolidated financial statements include financial information of the Parent and of:

- 16 direct subsidiaries of PGNiG, and
- - 8 indirect subsidiaries of PGNiG.

PGNiG S.A. holds 100% of shares in the consolidated subsidiaries, with the exception of PGNiG GAZOPROJEKT S.A., in which PGNiG holds 75% of shares.

In the case of Polski Gaz Towarzystwo Ubezpieczeń Wzajemnych, PGNiG is that company's sole equity holder holding 100% of its share capital, while the remaining members hold shares in the company's reserve capital.

The assets and liabilities of companies in which the Group holds non-controlling interests are not material.

The Group identifies five reporting segments.

Below is presented a classification of the Group's fully-consolidated entities by reporting segment. For more information on the Group structure, see the Directors' Report on the operations of PGNiG S.A. and the PGNiG Group.

[] - Country of registration (if other than Poland).

* Principal place of business (if other than country of registration)

Figure 1 ***Group structure by operating segments***

The reporting segments have been identified based on the type of business conducted by the Group companies. The individual operating segments were aggregated into reporting segments according to the aggregation criteria presented in the table below. The parent's Management Board is the chief operating decision maker (CODM).

Segment	Description	Operating segments and aggregation criteria
Exploration and Production	The segment's business focuses on extracting hydrocarbons from deposits and preparing them for sale. This involves exploring for and extracting natural gas and crude oil from deposits, and includes geological surveys, geophysical research, drilling, and development of and production of hydrocarbons from gas and oil fields. The segment sells natural gas to customers outside the Group and to other segments of the PGNiG Group. It also sells crude oil and other products in Poland and abroad.	This reporting segment comprises the operating segments of PGNiG S.A. (the exploration and production business) as well as the Group companies specified in ***Figure 1.*** The key aggregation criteria were similarity of products and services; similar characteristics of the production process and of the customer base; and economic similarities (exposure to the same market risks, as reflected in the correlation of results (margins) generated by the aggregated operating segments).
Trade and Storage	The segment's principal business activities are sale of natural gas (imported, produced or purchased on gas exchanges), operation of underground gas storage facilities for trading purposes (Mogilno, Wierzchowice, Kosakowo, Husów, Brzeźnica, Strachocina and Swarzów), and electricity trading.	This reporting segment comprises the operating segments of PGNiG S.A. related to the gas fuel and electricity trading business, as well as the Group companies specified in ***Figure 1***. The segment operates seven underground gas storage facilities to ensure Poland's energy security and to build a gas portfolio that meets the market demand, which is subject to seasonal fluctuations. The key aggregation criteria were similarity of products and services, similarity of the customer base, and similar economic characteristics.
Distribution	The segment's principal business activity consists in distribution of natural gas via distribution networks to retail, industrial and wholesale customers, as well as operation, maintenance (repairs) and expansion of gas distribution networks.	This operating segment overlaps with the reporting segment Distribution, and comprises Polska Spółka Gazownictwa Sp. z o.o. and its subsidiaries specified in ***Figure 1***.
Generation	The segment's principal business activities consist in generation and sale of electricity and heat.	This reporting segment comprises the operating segments of PGNiG TERMIKA S.A. and its subsidiary PGNiG TERMIKA Energetyka Przemysłowa S.A. The key aggregation criteria were similarity of products and services, similarity of the customer base, and similar economic characteristics.
Other segments	This segment comprises operations which cannot be classified into any of the segments listed above, i.e. the functions performed by the PGNiG Corporate Centre, engineering design and construction of structures, machinery and equipment for the extraction and energy sectors, as well as catering and hospitality and insurance services.	It includes PGNiG S.A.'s activities related to corporate support for other reporting segments, and the Group entities which do not qualify to be included in the other reporting segments, specified under Other Segments in ***Figure 1.***

2.2. Key data on the reporting segments

2018	Sales to external customers	Inter-segment sales	Total revenue	EBITDA	Depreciation and amortisation expense	EBIT (operating profit)	Recognition and reversal of impairment losses on property, plant and equipment	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	3,795	3,876	7,671	5,019	(1,063)	3,956	(484)	93	(2,216)	13,132	6,847
Trade and Storage	31,038	666	31,704	(848)	(189)	(1,037)	-	-	(54)	3,196	3,051
Distribution	4,604	323	4,927	2,385	(927)	1,458	(2)	-	(1,713)	14,018	11,542
Generation	1,617	770	2,387	788	(472)	316	16	-	(391)	3,588	1,813
Other Segments	180	323	503	(214)	(70)	(284)	7	18	(142)	528	1,510
Total	**41,234**	**5,958**	**47,192**	**7,130**	**(2,721)**	**4,409**	**(463)**	**111**	**(4,516)**	**34,462**	**24,763**
Reconciliation with consolidated data			(5,958)	(15)	1	(14)	-	-	(18)	(226)	
Total			**41,234**	**7,115**	**(2,720)**	**4,395**	**(463)**	**111**	**(4,534)**	**34,236**	

*Excluding employees of equity-accounted investees.

2017	Sales to external customers	Inter-segment sales	Total revenue	EBITDA	Depreciation and amortisation expense	EBIT (operating profit)	Recognition and reversal of impairment losses on property, plant and equipment	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.

The segment information has been prepared in accordance with the accounting policies applied in these consolidated financial statements.

The Management Board analyses the segments' results using basic performance measures, such as segment's net profit, as well as key efficiency indicators such as EBITDA, which is not a standardised measure.

The definition of EBITDA and how it is calculated by the Group are presented below.

Definition adopted by the Group:

EBITDA– *profit before tax, less net finance costs, share of profit/(loss) of equity-accounted investees, and depreciation and amortisation.*

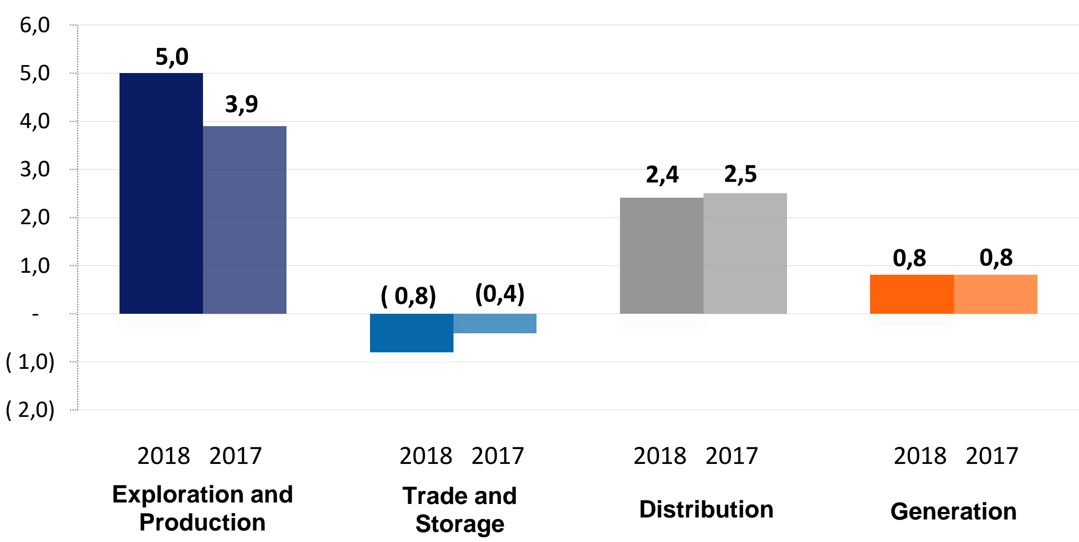

Chart 1 ***Segments' contributions to the Group's EBITDA (PLNbn)***

For more information on the operations of each segment, see the Directors' Report on the operations of PGNiG S.A. and the PGNiG Group.

2.3. Related-party transactions

The Group's related parties include entities jointly controlled by the Group, the Group's associates, the Group's subsidiaries which are not consolidated due to immateriality of their data, companies in which the State Treasury holds an equity interest (subsidiaries, jointly controlled entities and associates), as well as the Group's key management personnel (i.e. members of the Management and Supervisory Board of the Parent and its subsidiaries).

The State Treasury is the entity having control of the Group.

2.3.1. Transactions with entities in which PGNiG or its subsidiary holds equity interests

	2018			2017		
	Joint ventures	Other related parties	Total	Joint ventures	Other related parties	Total
Turnover and revenue/expenses for period						
Sale of products and services	56	10	66	66	7	73
Interest income from loans advanced	4	4	8	19	4	23
Total	**60**	**14**	**74**	**85**	**11**	**96**
Purchase of services, merchandise and materials	(21)	(11)	(32)	(23)	(7)	(30)
Purchase of tangible assets under construction	(29)	(4)	(33)	-	(12)	(12)
Other purchases	(441)	(16)	(457)	(205)	(3)	(208)
Total	**(491)**	**(31)**	**(522)**	**(228)**	**(22)**	**(250)**
Balance at end of period						
Trade receivables	9	1	10	38	1	39
Including impairment losses	-	-	-	-	-	-
Loans advanced	550	26	576	572	1	573
Including impairment losses	(9)	(55)	(64)	-	(50)	(50)
Other receivables	-	1	1	-	-	-
Including impairment losses	-	-	-	-	-	-
Total	**559**	**28**	**587**	**610**	**2**	**612**
Trade payables	71	6	77	43	6	49
Borrowings	-	-	-	-	-	-
Other liabilities	-	-	-	-	-	-
Total	**71**	**6**	**77**	**43**	**6**	**49**

In 2018, neither the Parent nor its subsidiaries entered into any material related-party transactions other than on arm's length terms.

2.3.2. Transactions with entities in which the State Treasury holds equity interests

Transactions with entities in which the State Treasury holds equity interests (and has control or joint control of, or significant influence on, such entities) are mainly transactions executed in the course of the Group's day-to-day operations, i.e. natural gas trading, sale of crude oil, and sale of electricity.

	2018	2017
Revenue	8,270	6,227
Expenses	(1,705)	(730)
Receivables	1,188	1,405
Liabilities	116	249

The data above applies to the following companies: Polski Koncern Naftowy ORLEN S.A., Grupa LOTOS S.A., Grupa Azoty Zakłady Azotowe PUŁAWY S.A., Grupa Azoty Zakłady Chemiczne POLICE S.A., ORLEN Południe S.A., PGE Górnictwo i Energetyka Konwencjonalna S.A., Grupa Azoty Zakłady Azotowe Kędzierzyn S.A., Operator Gazociągów Przesyłowych GAZ-SYSTEM S.A., KGHM Polska Miedź S.A., Zakłady Azotowe w Tarnowie - Mościcach S.A., Polskie Sieci Elektroenergetyczne S.A., Energa Obrót S.A., ORLEN Upstream Sp. z o.o.

2.3.3.Benefits paid to the Group's key personnel

	2018			2017		
	Management Board	Supervisory Board	Total	Management Board*	Supervisory Board	Total
Parent	**6.1**	**0.7**	**6.8**	**8.6**	**0.7**	**9.3**
Short-term employee benefits	6.0	0.7	6.7	8.0	0.7	8.7
Post-employment benefits	-	-	-	-	-	-
Other long-term benefits expense	-	-	-	-	-	-
Termination benefits	0.1	-	0.1	0.6	-	0.6
Share-based payments	-	-	-	-	-	-
Subsidiaries	**22.4**	**4.0**	**26.4**	**22.2**	**5.3**	**27.5**
Short-term employee benefits	20.6	4.0	24.6	20.7	5.3	26.0
Post-employment benefits	0.4	-	0.4	0.6	-	0.6
Other long-term benefits expense	0.4	-	0.4	0.4	-	0.4
Termination benefits	1.0	-	1.0	0.5	-	0.5
Share-based payments	-	-	-	-	-	-
Total	**28.5**	**4.7**	**33.2**	**30.8**	**6.0**	**36.8**

* Data adjusted to the amount of costs recognised in a given year (previously presented by maturity).

For more information on remuneration of the key management personnel and the remuneration policy applied at the Group, see the Directors' Report on the operations of PGNiG S.A. and the PGNiG Group.

2.3.4.Loans granted to the management and supervisory personnel of the Group companies

In 2018 and 2017, neither the management or supervisory personnel of the PGNiG Group companies received any loans.

2.4. Equity-accounted investees

Accounting policies

Joint arrangements

Joint arrangements include:

- Joint operations (see **Note 8.6**),
- Joint ventures.

As a partner in a **joint venture**, in the consolidated financial statements the Group recognises its interest in the joint venture as an investment and accounts for that investment with the equity method.

According to the equity method, investments are initially recognised at cost, and subsequently adjusted for the Group's share in changes of their net assets which occurred in the period from the date joint control was assumed to the reporting date, less impairment. When the Group's share of losses of a jointly controlled entity exceeds the Group's interest in that entity, the Group discontinues recognising its share of further losses. Unrealised gains and losses on transactions between the Group and a jointly controlled entity are eliminated on consolidation proportionately to the Group's interest in the jointly controlled entity.

Material estimates

Impairment of investment in joint venture SGT EUROPOL GAZ S.A.

As at the end of each reporting period, the Parent tests its investment in SGT EUROPOL GAZ S.A. (a jointly controlled entity accounted for with the equity method) for impairment and measures its value in use using the DCF method. The valuation was based on the Inter-Governmental Protocol of October 29th 2010, which specified the company's expected net profit.

The company's value estimated as at the same date with the discounted cash flow method was PLN 840m.

The calculations were based on the assumption that in each year in 2011−2021 net profit earned by SGT EUROPOL GAZ S.A. (EUROPOL GAZ) will be PLN 21m. The discounted cash flows include all cash flows generated by EUROPOL GAZ, including cash flows related to the servicing of interest-bearing borrowings (interest expense and principal repayments) and other risks known to the issuer. The cash flows were discounted using a discount rate of 7.05% (in real terms).

As at the end of 2018, the value of the Parent's interest in EUROPOL GAZ determined using the equity method was PLN 889m. Therefore, a PLN 49m impairment loss was recognised in the current reporting period to align the equity method valuation of the interest with its valuation obtained using the DCF method.

The impairment test result is sensitive to the adopted assumptions regarding future cash flows (which depend on whether the provisions of the Inter-Governmental Protocol with respect to net profit to be earned in each of the years are implemented by the company) and discount rate. Changes in those assumptions following from updates of the company's financial forecasts and changes in the discount rate due to general or company-specific factors, may have a material effect on the company's future value.

2.4.1. Material restrictions of the ability to transfer earnings from interests in joint ventures to the Group

Polska Grupa Górnicza S.A.

Under Polska Grupa Górnicza S.A.'s (PGG) note programme agreement, dividends may be paid only when all of the following conditions are met:

- A part of notes of individual tranches maturing in the period for which the dividend is to be paid are redeemed before dividend can be distributed;
- The following ratios are maintained within the permitted limits: net debt/EBITDA less replacement capital expenditure (for the last quarter), DSCR (ratio of cash available for debt servicing to mature debt – for the last year) and the Future Cash Flow Ratio (for the last quarter);
- The forecast values of the ratios will not exceed the permitted limits by the note redemption date as a result of the payment;
- The dividend will be paid to the shareholders and to the holders of participation notes in the proportion defined in the terms and conditions of participation notes.

Elektrociepłownia Stalowa Wola S.A. (ECSW)

Construction of the unit at ECSW is financed by the investment sponsors (PGNiG and Tauron PE). The ECSW construction project is under way. On March 8th 2018, Elektrociepłownia Stalowa Wola S.A. signed a loan agreement with Bank Gospodarstwa Krajowego and PGNiG, under which each of the sponsors granted the company a loan of PLN 450m intended for the refinancing of its debt and financing of further capital expenditure. The sponsors have been repaid PLN 299.1m each. The final loan repayment date is June 14th 2030.

As at December 31st 2018, the amount drawn under the loan was PLN 654.4m.

SGT EUROPOL GAZ S.A.

In the reporting period, at SGT EUROPOL GAZ there were no restrictions with respect to payment of dividend, repayment of borrowings, or payment of advances by the company.

The table below contains financial information relating to equity accounted investees.

	2018				2017			
	Joint venture				Joint venture			
	SGT EUROPOL GAZ S.A.	Polska Grupa Górnicza Sp. z o.o.	Elektrociepłownia Stalowa Wola S.A.	Polimex-Mostostal S.A. Group	SGT EUROPOL GAZ S.A.	Polska Grupa Górnicza Sp. z o.o.	Elektrociepłownia Stalowa Wola S.A.	Polimex-Mostostal S.A. Group
At beginning of period	**840**	**674**	**-**	**87**	**840**	**389**	**-**	**-**
Acquisition of shares	-	90	-	-	-	266	-	81
Changes accounted for in profit (loss) from equity-accounted investees, including:								
Share of net profit/(loss)	47	101	(21)	19	(33)	19	(3)	10
Elimination of unrealised profits between the Group and the joint venture	2	(8)	-	(1)	(2)	(1)	-	-
Reversal of negative value of shares accounted for with the equity method	-	-	21	-	-	-	3	-
Impairment losses	(49)	-	-	-	35	-	-	-
Changes accounted for in other comprehensive income from equity-accounted investees	-	1	-	3	-	1	-	(4)
At end of period	**840**	**858**	**-**	**108**	**840**	**674**	**-**	**87**

Below is presented information on significant equity-accounted investees.

	2018			2017		
	SGT EUROPOL GAZ S.A.[1]	Polska Grupa Górnicza Sp. z o.o.[2]	Polimex-Mostostal Group[3, 4]	SGT EUROPOL GAZ S.A.[1]	Polska Grupa Górnicza Sp. z o.o.[2]	Polimex-Mostostal Group[3]
PGNiG Group's ownership interest	**51.18%**	**20.43%**	**16.48%**	**51.18%**	**19.63%**	**16.48%**
Description of business	Transmission of natural gas	Production of coal	Construction	Transmission of natural gas	Production of coal	Construction
Key financial data						
Non-current assets	1,697	9,528	801	1,964	9,074	926
Current assets	2,223	2,759	1,223	1,973	1,876	1,586
including cash and cash equivalents	2,012	583	396	1,752	788	563
Non-current liabilities	13	4,435	535	19	4,167	714
including non-current financial liabilities	-	2,316	388	1	2,280	400
Current liabilities	89	3,679	828	184	3,409	954
including current financial liabilities	1	175	22	123	151	25
Net assets	**3,818**	**4,173**	**661**	**3,734**	**3,374**	**844**
Revenue	896	9,371	1,519	899	8,236	2,069
Depreciation and amortisation expense	312	1,892	24	287	1,717	26
Interest income	37	35	5	27	19	9
Interest expense	3	100	26	11	98	24
Income tax	22	(131)	16	(22)	(67)	(18)
Net profit/(loss)	85	493	(1)	(72)	86	39
Other comprehensive income	-	6	1	-	4	20
Carrying amount of the investment						
Share of net assets	**1,954**	**852**	**109**	**1,911**	**662**	**139**
Adjustment to ensure consistency of accounting policies with those of the Group	(43)	-	(17)	(47)	-	(69)
Elimination of unrealised profits between the Group and the joint venture	(182)	(7)	(1)	(184)	1	-
Goodwill	6	13	17	6	11	17
Goodwill write-off	(6)	-	-	(6)	-	-
Impairment losses	(889)	-	-	(840)	-	-
Carrying amount of the investment in the consolidated statement of financial position	**840**	**858**	**108**	**840**	**674**	**87**

[1] Resolutions are passed by a majority of three quarters of votes represented at the General Meeting. Resolutions may be passed if the General Meeting is attended by all founding shareholders, each of them holding 30% or more shares.

[2] Indirect interest held through PGNiG TERMIKA S.A., which is entitled to appoint one member of the Supervisory Board and can block material decisions.

[3] PGNiG S.A.'s interest held indirectly through PGNiG Technologie S.A. which, under the agreement relating to the investment in Polimex, assumes that the parties will reach, by voting, common positions when making key decisions on matters falling within the powers of the Polimex General Meeting and the Supervisory Board, including on the composition of the Polimex Management Board.

[4] Financial data for the Polimex-Mostostal Group for 11 months of 2018.

3. Notes to the statement of profit or loss

3.1. Revenue

Accounting policies

Revenue from contracts with customers

The Group's revenue comes primarily from trade in high-methane and nitrogen-rich natural gas, generation and sale of electricity and heat, as well as sale of produced crude oil.

The Group's business includes services, such as distribution of gas fuels, storage of gas fuels, geophysical and geological services, gas service connection, drilling and oilfield services, real estate rental and other services.

The Group companies also earn revenue from construction contracts.

The Group recognises revenue in line the five-step model:

1. Identifying the contract;
2. Identifying the performance obligations in the contract;
3. Determining the transaction price (consideration);
4. Allocating the transaction price to each performance obligation;
5. Recognising revenue when (or as) a contractual performance obligation is satisfied.

In accordance with IFRS 15, when a third party is involved in providing goods or services to the customer, the nature of the relationship with the customer should be determined: whether that entity is a principal or an agent. The main criterion for identifying the performance obligations is the assessment of the role that a Group company plays in the performance. The role (whether a principal or an agent) is assessed based e.g. on an analysis of who controls the promised goods or services before their final transfer to the customer. The Group companies assessed whether they were principals or agents with respect to particular goods or services by determining who controlled them before their transfer to the customer.

The Group companies that have identified their role with respect to specific goods or services as that of an agent present revenue in the amount of net consideration to which they will be entitled in exchange for arranging the supply of goods or services by another party.

In respect of gas transmission and electricity distribution services, the Group has no control over the main features or price of such services, acting solely as an agent. When entering into comprehensive service agreements with their customers, the Group companies do not bear the main responsibility for the performance of transmission and distribution services, have no control over the main features of such services, and cannot freely determine their prices, which means that they act as agents in their sale. The obligation to perform transmission and distribution services is satisfied at the same time when gas or electricity are delivered.

The Group recognises revenue when it satisfies the performance obligation by transferring to the customer the goods or services promised (i.e. when the customer takes control of the goods or services).

The Group recognises revenue in the amount of the transaction price (excluding estimated elements of variable consideration which are subject to limitations) which was allocated to the given performance obligation.

The transaction price is the contractually agreed amount of consideration that the entity expects to obtain in exchange for the transfer of the goods and services promised in the contract. The transaction price is adjusted for the time value of money if the contract includes a significant financing arrangement, and in the case of any consideration payable to the client. If the consideration is variable, the Group estimates the amount of consideration to which it will be entitled in exchange for the promised goods or services. The estimated amount of variable consideration will be included in the transaction price only if, and to the extent that, it is highly probable that its inclusion will not result in a significant revenue reversal in the future when the uncertainty relating to variable consideration has been subsequently resolved.

In accordance with IFRS 15, refunds due to customers are presented as contractual liabilities.

Material estimates

Estimating natural gas sales

In order to correctly recognise revenue from gas sales in appropriate reporting periods, at the end of each reporting period the Group estimates the quantity and value of gas delivered to retail customers but not invoiced.

The value of natural gas supplied to retail customers but not invoiced is estimated on the basis of the customers' historical consumption patterns in comparable reporting periods. The value of estimated gas sales is calculated as the product of quantities assigned to the individual tariff groups and the rates defined in the applicable tariff. There is a risk that the actual final volume of gas fuel sold might differ from the estimate. Accordingly, profit or loss for a given period may account for a portion of the estimated sales volume which will never be realised.

In addition, as price discounts are applied, a liability to return the consideration related to discounts is recognised. The discount amount is recognised as a decrease in revenue from sales of gas in the statement of comprehensive income.

At the end of 2018, an estimated amount of PLN 103m was added to gas sales revenue relative to the invoiced amounts, while gas sales revenue for 2017 was reduced by an estimated amount of PLN 25m as an a adjustment reducing the invoiced revenue.

Generally, goods are transferred at a specific point in time.

Revenue from sale of crude oil

With regard to sales of crude oil produced from the Norwegian Continental Shelf, where the Group holds interests in licences together with other entities, the revenue from sale of crude oil is recognised based on crude volumes produced and sold to customers. However, the volume of crude oil sold to customers may differ from the volume of crude which is attributable to the Group in a given period based on its interest in a given licence. If the production volume attributable to the Group is higher than the sales volume, an asset (underlift) is recognised in the consolidated financial statements. Conversely, if in a given reporting period the volume of crude oil sold exceeds the production volume the Group is entitled to, a liability (overlift) is recognised in the consolidated financial statements.

At the end of 2017, the volume of crude oil sold was lower than the Group's share of production. Therefore, an asset of PLN 67m was recognised under receivables in the consolidated statement of financial position for 2017. The situation in 2018 reversed and the volume of crude oil sold exceeded the Group's share in production. As a result, PLN 39m was recognised under *Other liabilities* in the consolidated statement of financial position for 2018.

Revenue from rendering of services

Revenue from rendering of services which are provided over time is recognised in proportion to the stage of contract completion as at the reporting date if the outcome of the transaction involving the provision of the service can be measured reliably.

To measure the stage of contract completion, the Group uses the method based on expenditure incurred. The stage of contract completion is determined based on contract costs incurred so far in relation to the estimated total costs of the contract (cumulatively).

Where such method of measurement fails to reflect the actual stage of completion of the service, the stage of completion is determined by measuring the work performed so far or by comparing the work actually performed with the scope of work specified in the contract.

When the outcome of a transaction involving the provision of service cannot be estimated reliably, revenue from the transaction is recognised only to the extent of costs incurred that are likely to be recovered.

	2018			2017		
	Domestic sales	Export sales*	Total	Domestic sales	Export sales*	Total
Revenue	**25,575**	**4,053**	**29,628**	**26,026**	**2,587**	**28,613**
High-methane gas	24,413	3,925	28,338	24,452	2,485	26,937
Nitrogen-rich gas	1,340	128	1,468	1,401	102	1,503
LNG	91	-	91	74	-	74
CNG	35	-	35	33	-	33
Propane-butane gas	74	-	74	66	-	66
Adjustment to gas sales due to hedging transactions	(378)	-	(378)	-	-	-
Other revenue, including:	**9,022**	**2,584**	**11,606**	**4,974**	**2,270**	**7,244**
Crude oil and natural gasoline	1,086	1,340	2,426	854	919	1,773
NGL	-	128	128	-	90	90
Sale of heat	1,323	-	1,323	1,372	-	1,372
Sale of electricity	1,211	754	1,965	1,161	863	2,024
Revenue from rendering of services:						
- drilling and oilfield services	46	114	160	34	125	159
- geophysical and geological services	70	32	102	28	171	199
- construction and assembly services	146	-	146	99	-	99
- distribution services	4,467	-	4,467	852	-	852
- connection charge	171	-	171	147	-	147
- other	274	136	410	242	27	269
Other	228	80	308	185	75	260
Total revenue	**34,597**	**6,637**	**41,234**	**31,000**	**4,857**	**35,857**

*By customer's country.

The Group sells its products to both retail and business customers. The Group does not have any single external customer accounting for 10% or more of total revenue earned by the Group. The Group companies did not identify any significant financing component in their contracts nor did they incur any additional significant cost to obtain contracts.

On foreign markets the Group sells its products and services mainly to customers in Germany (34% of export sales), the Netherlands (29%) and the UK (15%).

Revenue-generating non-current assets

	2018	2017
Value of non-current assets other than financial instruments located in Poland	30,844	29,756
Value of non-current assets other than financial instruments located abroad*	4,718	3,967
Total	**35,562**	**33,723**
% share of assets located outside of Poland in total assets	**13.27%**	**11.76%**
*Including PGNiG Upstream Norway AS (PUN).	4,083	3,305

Revenue by reporting segment

2018	Exploration and Production	Trade and Storage	Distribution	Generation	Other Segments	Reconciliation with consolidated data	Total
Revenue	**4,648**	**29,221**	**-**	**-**	**-**	**(4,241)**	**29,628**
High-methane gas	3,106	28,611	-	-	-	(3,379)	**28,338**
Nitrogen-rich gas	1,429	892	-	-	-	(854)	**1,468**
LNG	38	60	-	-	-	(7)	**91**
CNG	-	36	-	-	-	-	**35**
Propane-butane gas	74	-	-	-	-	-	**74**
Adjustment to gas sales due to hedging transactions	-	(378)	-	-	-	-	**(378)**
Other revenue, including:	**3,023**	**2,483**	**4,927**	**2,387**	**503**	**(1,717)**	**11,606**
Crude oil and natural gasoline	2,426	-	-	-	-	-	**2,426**
NGL	128	-	-	-	-	-	**128**
Sale of heat	-	-	1	1,322	-	-	**1,323**
Sale of electricity	-	2,010	-	802	-	(847)	**1,965**
Revenue from rendering of services:							
- drilling and oilfield services	172	-	-	-	-	(12)	**160**
- geophysical and geological services	103	-	-	-	-	(1)	**102**
- construction and assembly services	59	-	-	-	140	(52)	**146**
- distribution services	-	-	4,414	74	-	(21)	**4,467**
- connection charge	-	-	171	-	-	-	**171**
- other	31	269	33	33	339	(294)	**410**
Other	105	204	308	157	24	(491)	**308**
Total revenue	**7,671**	**31,704**	**4,927**	**2,387**	**503**	**(5,959)**	**41,234**

2017	Exploration and Production	Trade and Storage	Distribution	Generation	Other Segments	Reconciliation with consolidated data	Total
Revenue	**3,706**	**28,246**	**-**	**-**	**-**	**(3,339)**	**28,613**
High-methane gas	2,422	27,181	-	-	-	(2,666)	**26,937**
Nitrogen-rich gas	1,182	986	-	-	-	(666)	**1,503**
LNG	36	46	-	-	-	(8)	**74**
CNG	-	33	-	-	-	-	**33**
Propane-butane gas	66	-	-	-	-	-	**66**
Adjustment to gas sales due to hedging transactions	-	-	-	-	-	-	**-**
Other revenue, including:	**2,411**	**2,249**	**4,937**	**2,251**	**459**	**(5,063)**	**7,244**
Crude oil and natural gasoline	1,773	-	-	-	-	-	**1,773**
NGL	90	-	-	-	-	-	**90**
Sale of heat	-	-	1	1,371	-	-	**1,372**
Sale of electricity	-	2,011	-	644	-	(631)	**2,024**
Revenue from rendering of services:							
- drilling and oilfield services	169	-	-	-	-	(10)	**159**
- geophysical and geological services	199	-	-	-	-	-	**199**
- construction and assembly services	40	-	-	-	128	(69)	**99**
- distribution services	-	-	4,595	64	-	(3,807)	**852**
- connection charge	-	-	147	-	-	-	**147**
- other	43	135	33	30	299	(271)	**269**
Other	97	103	160	143	32	(274)	**260**
Total revenue	**6,118**	**30,495**	**4,937**	**2,251**	**459**	**(8,402)**	**35,857**

3.2. Operating expenses

Accounting policies

Cost of gas sold

This item comprises the cost of gas purchased on gas exchanges and from trading partners. The cost of gas purchased includes an appropriate portion of costs of system and transaction charges, costs of domestically produced gas, costs of denitrification and regasification. For details of the valuation of those items, see **Note 6.2.1.**

Raw materials and consumables used

This item comprises the costs of raw materials and consumables used in core activities, in particular fuels for electricity and heat generation. Another material item in this cost group is the cost of electricity for trading.

Employee benefits expense

Employee benefits expense includes in particular salaries, wages, social security contributions and cost of future benefits. For details of employee benefits expense, see **Note 6.3.1.**

Transmission and distribution services

In connection with its transmission and distribution services, the Group incurs costs of services it contracts from third parties (this does not apply to costs related to comprehensive agreements, in which the Group acts as an agent (described in Note 3.1)). The transmission and distribution system operators charge the Group for the cost of transmission services, i.e. the cost of transmission of gas fuel via the network of pipelines, the cost of heat transmission and the cost of electricity distribution.

Other services

This item comprises the cost of third-party services required for the core activities of the Group companies, other than transmission services. Other services include in particular:

- Regasification services, consisting in converting liquefied natural gas back to the gaseous form by heating liquefied gas;
- Repair and construction services and services related to repairs of production machinery and equipment, in particular equipment associated with heat generation;
- Mineral resources production services related to hydrocarbon production;
- Rental services (mainly rental of real estate).

Taxes and charges

This item includes in particular costs incurred by the Group to pay property taxes, charges for perpetual usufruct of land, and royalties related to hydrocarbon production.

Recognition and reversal of impairment losses on property, plant and equipment and intangible assets

For details of impairment of non-financial assets, see **Note 6.1.3**

Depreciation and amortisation expense

This item comprises costs of depreciation/amortisation charges on property, plant and equipment and intangible assets, calculated based on the adopted depreciation/amortisation rates (for details, see **Note 6.1.1.** and **Note 6.1.2.**).

Operating expenses

	2018	2017
Cost of gas sold	**(24,941)**	**(20,127)**
Gas fuel	(24,957)	(20,115)
Cost of transactions hedging gas prices	16	(12)
Other raw materials and consumables used	**(2,519)**	**(2,586)**
Fuels for electricity and heat generation	(875)	(741)
Electricity for trading purposes	(1,151)	(1,328)
Other raw materials and consumables used	(493)	(517)
Employee benefits expense	**(2,871)**	**(2,696)**
Salaries and wages	(2,178)	(2,018)
Social security contributions	(468)	(436)
Cost of long-term employee benefits	(27)	(46)
Other employee benefits expense	(198)	(196)
Transmission services	**(1,039)**	**(1,144)**
Other services	**(1,865)**	**(1,749)**
Regasification services	(366)	(352)
Repair and construction services	(271)	(217)
Mineral resources production services	(244)	(191)
Rental services	(117)	(102)
Other services	(867)	(887)
Taxes and charges	**(819)**	**(793)**

Recognition and reversal of impairment losses on property, plant and equipment and intangible assets	**(463)**	**(833)**
Cost of exploration and evaluation assets written-off	(687)	(400)
Impairment losses on property, plant and equipment	222	(430)
Impairment losses on intangible assets	2	(3)
Depreciation and amortisation	**(2,720)**	**(2,669)**
Total	**(37,237)**	**(32,597)**

3.3. Other income and expenses

	2018	2017
Compensations, penalties, and fines received	40	60
Gain from a bargain purchase	-	-
Exchange differences related to operating activities	16	(122)
Measurement and exercise of derivative financial instruments	45	137
Change in inventory write-downs	(11)	(68)
Change in impairment losses on trade and other receivables	(127)	(1)
Change in other impairment losses	(1)	-
Change in provision for well decommissioning costs	(20)	(9)
Change in provision for certificates of origin and energy efficiency certificates	(80)	(147)
Change in other provisions	(57)	(91)
Change in hydrocarbon production surplus/shortage compared with that specified in contract	(109)	65
Other income and expenses	(418)	(166)
Total other income and expenses	**(722)**	**(342)**

3.4. Net finance costs

	2018	2017
Interest on debt (including fees)	(45)	(81)
Foreign exchange differences	30	46
Measurement and exercise of derivative financial instruments not designated for hedge accounting	(13)	(44)
Fair value measurement of financial assets	20	-
Other net finance costs	4	63
Total net finance costs	**(4)**	**(16)**

3.5. Dividend paid and proposed

	2018*	2017
Dividends declared and paid in period		
Dividend per share paid (PLN)	0.07	0.20
Number of shares	5,778	5,778
Dividend paid	**404**	**1,156**
dividend paid to owners of the parent	404	1,156
dividend paid to minority shareholders	-	-

* Interim dividend from profit for 2018

4. Notes on taxation

4.1. Income tax

Accounting policies

Mandatory increases in loss/decreases in profit include current income tax (CIT) and deferred tax.

Deferred tax is determined using the balance-sheet method, based on temporary differences between the carrying amounts of assets and liabilities for accounting purposes and their tax base, except where temporary differences arise from the initial recognition of an asset or liability in a transaction which is not a business combination and, at the time of the transaction, affected neither profit before tax nor taxable income (tax loss).

Deferred tax assets and liabilities are measured at tax rates that are expected to apply to the period when the asset is realised or the liability is settled.

A deferred tax asset is recognised to the extent it is probable that taxable profit will be available against which deductible temporary differences, including tax losses and tax credit, can be utilised. For more information on tax credit, see **Note 4.1.1**.

Deferred tax liabilities are recognised for taxable temporary differences associated with investments in subsidiaries, joint ventures and associates, unless the Group company controls the timing of reversal of the temporary differences and it is probable that the temporary differences will not reverse in the foreseeable future.

Deferred tax assets and liabilities are offset if and only if the Group:

- Has a legally enforceable right to set off current tax assets against current tax liabilities; and
- The deferred tax assets and the deferred tax liabilities relate to income taxes levied by the same taxation authority on the same taxable entity.

Deferred and current tax is recognised as income or expense and included in profit or loss, except to the extent that the tax arises from a transaction or event that is credited or charged directly to other comprehensive income or to equity (deferred tax is then recognised in other comprehensive income or charged directly to equity).

Tax group

PGNiG S.A. represents the PGNiG Tax Group which, under the agreement concluded on September 19th 2016, will exist from January 1st 2017 to December 31st 2020.

The PGNiG Tax Group comprises: PGNiG S.A., PGNiG Obrót Detaliczny Sp. z o.o., Polska Spółka Gazownictwa Sp. z o.o., PGNiG Termika S.A., Gas Storage Poland Sp. z o.o., PGNiG SPV 5 Sp. z o.o., PGNiG SPV 6 Sp. z o.o., PGNiG SPV 7 Sp. z o.o., Geofizyka Toruń S.A., PGNiG Technologie S.A., and PGNiG Serwis Sp. z o.o.

In accordance with the applicable tax laws, the companies included in the PGNiG Tax Group lost their separate status as payers of corporate income tax and such status was acquired by the PGNiG Tax Group, which allows corporate income tax to be calculated jointly for all members of the PGNiG Tax Group. The PGNiG Tax Group is a separate entity only for corporate income tax purposes, and it should not be viewed as a separate legal person. Its tax status does not extend to other types of taxes; in particular, each of the companies forming the PGNiG Tax Group is a separate payer of value-added tax and of tax on civil-law transactions, and a separate remitter of personal income tax withholdings. The other companies of the PGNiG Group are separate payers of corporate income tax.

The PGNiG Tax Group is a source of certain benefits for its member companies, including:

- ability to offset losses generated by individual members of the PGNiG Tax Group against profits earned by other member companies in the period when such losses are incurred,
- CIT settlement by one entity only.

4.1.1. Income tax expense disclosed in the statement of profit or loss

Reconciliation of effective tax rate	2018	2017	
Profit before tax	4,502	3,922	
Corporate income tax at the 19% statutory rate applicable in Poland	(855)	(745)	
Differences in tax rates of the Group companies (from 34% to 78% for Norway, 33% for Germany, from 9% to 35% for other)	(384)	(237)	
Deductible temporary differences with respect to which no deferred tax was recognised	(54)	(19)	
Income tax expense disclosed in the statement of profit or loss	**(1,293)**	**(1,001)**	
Including:			
Current tax expense	(1,253)	(804)	
Deferred tax expense	(40)	(197)	*Note 4.1.2.*
Effective tax rate	29%	26%	

In the case of PGNiG Upstream Norway AS (“PUN”), the tax rate is 78%. PUN’s activities in the Norwegian Continental Shelf in 2018 were subject to taxation under two separate tax regimes:

- the corporate income tax regime (tax rate of 23%; in 2017: 24%), and
- the petroleum tax regime (additional tax rate of 55%; in 2017: 54%).

The high tax rate in Norway comes with a wide range of investment incentives and additional deductions.

- For instance, the company may apply a high depreciation/amortisation rate (the annual depreciation/amortisation rate is 16.67%) and commence depreciation/amortisation immediately after capital expenditure is incurred. In the year in which capital expenditure is incurred, the company is entitled to charge depreciation/amortisation for the full year, regardless of the date when it was actually incurred.
- The company may benefit from an investment incentive of 5.3% per annum for four years under the petroleum tax regime. The incentive relates to capital expenditure made in the Norwegian Continental Shelf (excluding exploration expenditure) and amounts to 21.2% of depreciable expenditure (5% over four years). The incentive is deducted only from income taxable with the petroleum tax (55% rate; in 2017: 54%) and does not apply to income tax. If the incentive amount exceeds income generated in a given year, it becomes deductible in subsequent years.
- Total expenditure on exploration activities may be deducted from revenue. If the company does not generate income from which expenditure on exploration could be deducted, it is entitled to the reimbursement of 78% of the exploration expenditure. The funds are returned in cash by the end of the year following the year covered by the tax return.
- Finance costs may be deducted under both taxation systems.

Under the Norwegian tax system there is no time limit within which tax losses should be used, and interest accrues on losses carried forward. The interest rate applicable to such losses is calculated as a risk-free interest rate, net of income tax (23%; in 2017: 24%). Tax losses incurred by PUN in earlier years (until 2012), increased by interest, reduced its current tax expense. Therefore, in 2013-2017, the company did not pay any income tax in Norway as it recognised a tax loss brought forward. In connection with the full settlement of the tax loss, the company started paying corporate income tax in Norway in August 2018.

Current income tax	2018	2017
At beginning of period (tax receivables and payables, net)	(179)	(142)
Income tax expense recognised in profit or loss for period	(1,253)	(804)
Tax paid in period	1,060	755
Other changes	2	12
At end of period (tax receivables and payables, net)	**(370)**	**(179)**
including:		
- receivables	48	38
- payables	(418)	(217)

4.1.2.Deferred tax expense

		CREDITED/(CHARGED)					CREDITED/(CHARGED)					
	Jan 1 2017	Net profit/(loss)	Other comprehensive income	Currency translation differences	Other changes	Dec 31 2017	Effect of amended IFRS 9	Net profit/(loss)	Other comprehensive income	Currency translation differences	Other changes	Dec 31 2018
Deferred tax												
Employee benefits expense	132	-	2	-	-	134	-	9	5	-	1	149
Provision for well decommissioning costs	137	14	-	-	-	151	-	26	-	-	-	177
Other provisions	107	19	2	3	(1)	130	-	(75)	1	(1)	(1)	54
Investment tax credit (Norway)	242	(187)	-	(19)	-	36	-	(38)	-	2	-	-
Valuation of derivatives	138	(5)	-	(7)	-	126	-	80	-	4	-	210
Impairment of property, plant and equipment	240	(49)	-	-	-	191	-	(81)	-	-	-	110
Tax loss	113	(74)	-	(7)	-	32	-	36	-	-	-	68
Other	172	27	1	-	1	201	(44)	5	-	-		162
Total	**1,281**	**(255)**	**5**	**(30)**	**-**	**1,001**	**(44)**	**(38)**	**6**	**5**	**-**	**930**
Deferred tax liabilities												
Difference between tax and accounting value of non-current assets	1,954	(91)	-	(31)	-	1,832	-	82	-	10	-	1,924
Valuation of derivative financial instruments	190	(14)	(14)	(7)	-	155	-	56	15	4	-	230
Other	969	47	-	(123)	(1)	892	-	(136)	-	17	(25)	748
Total	**3,113**	**(58)**	**(14)**	**(161)**	**(1)**	**2,879**	**-**	**2**	**15**	**31**	**(25)**	**2,902**
Set-off of assets and liabilities	**(1,181)**					**(860)**						**(836)**
After set-off												
Assets	**100**	**(255)**				**141**		**(38)**				**94**
Liabilities	**1,932**	**(58)**				**2,019**		**2**				**2,066**
Net effect of changes in the period		**(197)**	**19**	**131**	**1**		**(44)**	**(40)**	**(9)**	**(26)**	**25**	

5. Notes to the statement of cash flows and information on debt

5.1. Debt reconciliation

Accounting policies

The Group defines **net debt** as the total of existing bank borrowings (both current and non-current), debt securities, lease liabilities and liabilities under non-bank borrowings, less cash and cash equivalents and cash classified as non-current assets. The Group presents net debt to EBITDA as a measure of its debt.

Net debt	2018	2017	
Bank borrowings	1,166	945	
Debt securities	-	-	
Other	12	6	
Total liabilities under non-current debt	**1,178**	**951**	
Bank borrowings	219	140	
Debt securities	2,298	1,898	
Other	7	17	
Total liabilities under current debt	**2,524**	**2,055**	
Total debt	**3,702**	**3,006**	
Cash and cash equivalents	3,925	2,578	*Note 5.4.*
Net debt	**(223)**	**428**	
EBITDA	**7,115**	**6,579**	*Note 2.2.*
Net debt / EBITDA	**(0.03)**	**0.07**	

Change in debt	Bank borrowings	Debt securities	Other	Total
As at Jan 1 2017	**1,323**	**4,984**	**45**	**6,352**
Increase in debt	333	1,897	-	2,230
financing received	322	1,896	-	2,218
transaction costs	11	1	-	12
Interest accrued	52	33	(3)	82
Debt-related payments	(502)	(4,891)	(14)	(5,407)
principal repayments	(440)	(4,782)	(18)	(5,240)
interest paid	(52)	(109)	4	(157)
commission fees paid	(10)	-	-	(10)
Exchange differences on debt in foreign currencies	(121)	(125)	(8)	(254)
Finance lease	-	-	3	3
Changes in the Group	-	-	-	-
As at Dec 31 2017	**1,085**	**1,898**	**23**	**3,006**
Increase in debt	874	2,295	-	3,169
financing received	865	2,295	-	3,160
transaction costs	9	-	-	9
Interest accrued	27	1	1	29
Debt-related payments	(597)	(1,896)	(17)	(2,510)
principal repayments	(562)	(1,896)	(16)	(2,474)
interest paid	(25)	-	(1)	(26)
commission fees paid	(10)	-	-	(10)
Exchange differences on debt in foreign currencies	(4)	-	(1)	(5)
Finance lease	-	-	13	13
Changes in the Group	-	-	-	-
As at Dec 31 2018	**1,385**	**2,298**	**19**	**3,702**

5.2. Financing liabilities

Accounting policies

The Group's financing liabilities are classified under three main categories: bank borrowings, debt securities and other financing liabilities (including chiefly finance lease liabilities and non-bank borrowings). On initial recognition, all financing liability categories are measured at fair value less transaction costs. As at the reporting date, financing liabilities are measured at amortised cost with the use of the effective interest rate method.

2018	In functional currency – PLN	In foreign currency	
		EUR	USD
Bank borrowings	214	356	815
Debt securities	2,298	-	-
Other	16	-	3
Total, including:	**2,528**	**356**	**818**
floating-rate	219	356	818
fixed-rate	2,309	-	-

2017	In functional currency – PLN	In foreign currency	
		EUR	USD
Bank borrowings	274	539	272
Debt securities	1,898	-	-
Other	7	-	16
Total, including:	**2,179**	**539**	**288**
floating-rate	277	539	288
fixed-rate	1,902	-	-

Interest on floating-rate debt denominated in the Polish złoty is calculated based on 1M WIBOR, 3M WIBOR or 6M WIBOR rates; USD-denominated debt: 1M LIBOR and 3M LIBOR rates; EUR-denominated debt: EONIA, 1M EURIBOR and 3M EURIBOR rates. Fixed interest rate is applicable only to PLN-denominated debt securities.

The Group's debt is subject to interest rate risk, currency risk and liquidity risk. For detailed information on these risks, see **Note 7.3**.

In the reporting period, the Group operated the following debt security programmes:

Start date	End date	Programme	Participating banks as at the reporting date	Limit	Utilisation (%) as at Dec 31 2018	Outstanding debt (PLNbn) 2018	Outstanding debt (PLNbn) 2017
Authorised issuer: **PGNiG S.A**							
Jun 10 2010	Jul 31 2020	Note issuance programme for short-term discount notes and coupon-bearing notes with maturities from one to twelve months	Bank Pekao S.A., ING Bank Śląski S.A., PKO BP S.A., Bank Handlowy w Warszawie S.A., Societe Generale S.A., BNP Paribas S.A. Oddział w Polsce (Polish Branch), mBank S.A. and Bank Zachodni WBK S.A.	PLN 7bn	32.9%	2.3	1.9
Oct 2 2014	Sep 30 2024	Note issuance programme for notes with maturities of at least 12 months [1]	Bank Gospodarstwa Krajowego	PLN 1bn	-	-	-
Dec 21 2017	Dec 21 2022	Note issuance programme	Bank Pekao S.A. , ING Bank Śląski S.A., Bank Handlowy w Warszawie S.A., BGŻ BNP Paribas S.A.	PLN 5bn	-	-	-

In the current and comparative periods, the Group repaid its financing liabilities in a timely manner. In the reporting period and as at the date of authorisation of these financial statements for issue, there were no instances of default under material provisions of any credit facility, loan, or debt securities issue agreement that could trigger accelerated repayment.

5.2.1.Financing available but not drawn

	2018			2017		
	Obtained limit	Used provision	Undrawn	Obtained limit	Used provision	Undrawn
Credit facilities	1,524	(1,180)	344	1,598	(820)	778
Debt securities	13,000	(2,300)	10,700	13,000	(1,900)	11,100
Total	**14,524**	**(3,480)**	**11,044**	**14,598**	**(2,720)**	**11,878**

5.3. Equity and capital management policy

Accounting policies

Share capital is disclosed at par value, in the amount specified in the Parent's Articles of Association and the entry in the court register.

Share premium comprises the positive difference between the issue price of shares and the par value of the shares which remains after covering issue costs.

Accumulated other comprehensive income includes exchange differences on translating foreign operations, effects of the application of cash-flow hedge accounting which are taken to equity, actuarial gains and losses on employee benefits, and valuation of financial assets available for sale.

Retained earnings are the aggregate of the profit for the reporting period and accumulated profits brought forward which were not distributed as dividend but were transferred to reserve funds or remained undistributed.

PGNiG SA's largest shareholder is the State Treasury, which as at December 31st 2018 held 71.88% of the Company's shares, and is the entity having control of the Group. For detailed information on the shareholding structure, see the Directors' Report on the operations of PGNiG S.A. and the PGNiG Group.

As at the end of 2018, the Company's share capital comprised 5,778,314,857 shares with a par value of PLN 1 per share.

There were no changes in the Company's share capital relative to the previous reporting period.

On October 29th 2018, the Management Board of PGNiG S.A. decided to distribute an interim dividend of PLN 404m for 2018 towards the dividend for 2018, expected in the amount of PLN 0.07 per share. Pursuant to Art. 349 of the Commercial Companies Code, the interim dividend did not exceed half of the financial profit disclosed in the financial statements for the period ended June 30th 2018, increased by capital reserves and decreased by accumulated losses.

The interim dividend record date was set for November 26th 2018 and the interim dividend payment date for December 3rd 2018.

The resolution on the allocation of the Company's 2017 net profit was passed by the Annual General Meeting of PGNiG S.A. on July 20th 2018. PLN 867m was allocated to capital reserves to finance the extension and upgrade of the national gas distribution network, and PLN 1,167m was contributed the Company's statutory reserve funds.

For detailed information on the dividend policy, see Directors' Report on the operations of PGNiG SA and the PGNiG Group.

The key objective of the Group's capital management is to maintain the ability to continue its operations, taking into account investment plans, while increasing the Group's shareholder value. Furthermore, the PGNiG Group monitors its ability to pay liabilities based on the net debt to EBITDA ratio.

5.4. Cash and cash equivalents

Accounting policies

Cash and cash equivalents include cash at bank and in hand as well as highly liquid current financial assets with the original maturity of up to three months, which are readily convertible into specific cash amounts and subject to an insignificant risk of fluctuation in value.

In the statement of cash flows, cash and cash equivalents are presented net of outstanding current account debt.

	2018	2017
Cash in hand	-	1
Cash at banks	922	1,066
Bank deposits	2,355	907
Other cash	648	604
Total	**3,925**	**2,578**
including restricted cash	792	845

The Group classifies the following as cash equivalents: commercial bills, treasury bills, NBP bills, certificates of deposit, cash in transit, cheques and third-party notes maturing in less than three months.

Risks associated with cash and cash equivalents include the credit risk, foreign exchange risk, and interest rate risk. For detailed information on these risks, see **Note 7.3**.

Based on agency ratings	2018	2017
A+ rated banks according to Fitch	165	-
A rated banks according to Fitch	-	38
A- rated banks according to Fitch	45	802
A2 rated banks according to Moody's	956	-
A3 rated banks according to Moody's	-	7
AA- banks according to Fitch	-	-
B+ rated banks according to Fitch	-	23
BB rated banks according to Fitch	-	2
BB- rated banks according to Fitch	39	-
BBB+ rated banks according to Fitch	1,115	-
BBB rated banks according to Fitch	35	35
Total cash deposits at banks	**2,355**	**907**

5.5. Additional information on consolidated statement of cash flows

5.5.1. Reconciliation of movements in working capital with the statement of cash flows

2018	Difference resulting from the statement of financial position	Change in current tax receivable/payable	Net cash from investing activities	Net cash from financing activities	Non-cash transactions	Net cash from operating activities (movements in working capital)
Inventories	(616)	-	-	-	-	(616)
Receivables	39	10	20	-	(404)	(335)
Other assets	12	-	(4)	(5)	42	45
Trade and tax payables	499	(201)	(91)	-	(21)	186
Employee benefit obligations	(24)	-	-	-	83	59
Provision for well decommissioning costs	38	-	(232)	-	201	7
Other provisions	54	-	-	-	(1)	53
Other liabilities	43	-	11	-	(79)	(25)
Total working capital	**45**	**(191)**	**(296)**	**(5)**	**(179)**	**(626)**

2017	Difference resulting from the statement of financial position	Change in current tax receivable/payable	Net cash from investing activities	Net cash from financing activities	Non-cash transactions	Net cash flows from operating activities (movements in working capital)
Inventories	(238)	-	-	-	-	(238)
Receivables	(1,493)	-	190	-	(93)	(1,396)
Other assets	(87)	-	181	(6)	(159)	(71)
Trade and tax payables	70	(38)	(64)	-	47	15
Employee benefit obligations	37	-	-	-	24	61
Provision for well decommissioning costs	33	-	(186)	-	76	(77)
Other provisions	61	-	-	-	(17)	44
Other liabilities	(7)	-	14	-	(121)	(114)
Total working capital	**(1,624)**	**(38)**	**135**	**(6)**	**(243)**	**(1,776)**

5.5.2. Other non-cash adjustments to the statement of cash flows

	2018	2017
Net interest and dividend	16	27
Net foreign exchange gains/(losses)	(17)	(13)
Profit/(loss) from equity-accounted investees	(111)	(28)
Derivative financial instruments	67	(40)
Written-off expenditure on non-financial non-current assets	698	399
Acquired CO_2 emission allowances	(158)	(96)
Other items, net	(63)	55
Other non-cash adjustments	**432**	**304**

5.5.3. Reconciliation of cash as presented in the statement of cash flows with the statement of financial position

	2018	2017
1) Cash in the statement of financial position at beginning of period	2,578	5,829
a) Net exchange differences on cash at beginning of period	(3)	(3)
Cash and cash equivalents in the statement of cash flows at beginning of period (1-a)	**2,581**	**5,832**
2) Cash in the statement of financial position at end of period	3,925	2,578
b) Net exchange differences on cash at end of period	(3)	(3)
Cash and cash equivalents in the statement of cash flows at end of period (2-b)	**3,928**	**2,581**
I. Change in cash in the statement of financial position (2-1)	1,347	(3,251)
II. Change in net exchange differences on cash (b-a)	-	-
Change in cash in the statement of cash flows (I. - II.)	**1,347**	**(3,251)**

6. Notes to the statement of financial position

6.1. Non-current property, plant and equipment and intangible assets

6.1.1. Property, plant and equipment and related provisions

Accounting policies

Property, plant and equipment

The most material items of property, plant and equipment are buildings and structures, and plant and equipment, mostly associated with exploration for and production of natural gas and crude oil, as well as with gas trading, storage and distribution. The Group also holds vehicles and land. Tangible assets under construction include mostly capitalised expenditure on exploration for and evaluation of oil and gas deposits incurred until production commences or the assets are written off (for detailed accounting policies, see 'Exploration and evaluation assets').

Material spare parts and maintenance equipment are disclosed as property, plant and equipment if the Group expects to use such spare parts or equipment for a period longer than one year and they may be assigned to specific items of property, plant and equipment.

Property, plant and equipment are carried at cost less accumulated depreciation and impairment (for information on policies governing the recognition of impairment, see Note 6.1.3.).

The initially recognised cost of gas pipelines and gas storage facilities (classified in buildings and structures) includes the value of gas used to fill the pipelines or facilities for the first time. The amount of gas required to fill a pipeline or a storage chamber for the first time equals the amount required to obtain the minimum operating pressure in the pipeline or chamber.

The cost of property, plant and equipment includes also borrowing costs.

Costs of day-to-day maintenance and repairs of property, plant and equipment are expensed as incurred. In the event of a leak, the costs of pipeline refilling or replacing lost fuel are charged to profit or loss in the period when they were incurred.

The Group uses the following depreciation methods and periods:

Category	Depreciation method	Useful life	Average remaining useful life as at the reporting date
Buildings and structures	Straight-line method	1–50 years	32
Plant and equipment	Straight-line method	1–50 years	17
Vehicles	Straight-line method	2–35 years	12
Other property, plant and equipment	Straight-line method	1–35 years	14
Reserves in the Norwegian Continental Shelf	Units of production method*	more than 10 years	more than 10 years
Land		Not depreciated	
Tangible assets under construction		Not depreciated	

*The amounts of production and products sold are strongly correlated, and contracts on sale of hydrocarbons from the Norwegian Continental Shelf preclude major discrepancies between the production volumes and sales volumes, which justifies the applied depreciation method.

Exploration and evaluation expenditure

Natural gas and crude oil exploration and evaluation expenditure covers geological work performed to discover and document deposits and is accounted for with the successful efforts method.

Natural gas and/or crude oil (mineral) deposits can be evaluated once the Group obtains:

- A licence for appraisal of mineral deposits,
- A licence for exploration for and appraisal of mineral deposits,
- A signed agreement establishing mining rights.

The cost of a licence for appraisal of natural gas and/or crude oil deposits and the cost of its extension is equal to the fees charged for conducting the licensed operations. The Group recognises the costs of such appraisal licences as intangible assets.

Expenditure on seismic surveys is capitalised in exploration and evaluation assets.

Expenditure incurred on individual wells is initially capitalised in tangible exploration and evaluation assets under construction. If exploration activities are successful and lead to a discovery of recoverable reserves, the Group analyses the areas and structures to determine whether production would be economically viable. If following the evaluation process a decision is made to launch commercial production of hydrocarbons, the Group reclassifies the tangible exploration and evaluation assets under construction to property, plant and equipment after the production launch.

If exploration is unsuccessful or the Group entity does not file for a licence for appraisal of natural gas and/or crude oil reserves following an analysis of the areas and structures in terms of economic viability of commercial production, the full amount of capitalised expenditure incurred on the wells drilled in the exploration phase is expensed to profit or loss in the period in which the decision to discontinue exploration was made. Capitalised seismic survey expenses related to a given structure are also recognised in profit or loss.

The Group recognises provisions for costs of decommissioning of exploration, production and storage wells (for details, see **Note 6.1.1.1.**). Discounted amounts of such provisions are added to the initial cost of wells recognised in exploration and evaluation assets or in property, plant and equipment, and in the latter case are depreciated over the useful lives of the items to which they relate.

Material estimates

Useful lives of property, plant and equipment

The useful lives of the property, plant and equipment were determined on the basis of assessments made by the engineering personnel responsible for their operation. Any such assessment is connected with uncertainty as to the future business environment, technology changes and market competition, which could lead to a different assessment of the economic usefulness of the assets and their remaining useful lives, and ultimately have a material effect on the value of the property, plant and equipment and the future depreciation charges.

The Group reviews the useful lives of property, plant and equipment on an annual basis. As a result of the most recent review, made as at December 31st 2018, depreciation was reduced by about PLN 106m.

	2018			2017		
	Gross carrying amount	Accumulated depreciation and impairment	Net carrying amount	Gross carrying amount	Accumulated depreciation and impairment	Net carrying amount
Land	117	(11)	106	112	(11)	101
Buildings and structures	35,382	(16,342)	19,040	33,513	(15,211)	18,302
Plant and equipment	18,171	(9,614)	8,557	17,223	(8,611)	8,612
Vehicles and other	3,153	(1,944)	1,209	2,959	(1,832)	1,127
Total tangible assets	**56,823**	**(27,911)**	**28,912**	**53,807**	**(25,665)**	**28,142**
Tangible exploration and evaluation assets under construction	3,185	(1,177)	2,008	3,693	(1,539)	2,154
Other tangible assets under construction	3,363	(47)	3,316	2,208	(52)	2,156
Total property, plant and equipment	**63,371**	**(29,135)**	**34,236**	**59,708**	**(27,256)**	**32,452**

The Group has off-balance-sheet liabilities under executed agreements on acquisition of property, plant and equipment which have not yet been disclosed in the statement of financial position.

	2018	2017
Obligations assumed under agreements on acquisition of property, plant and equipment	7,112	4,861
Portion discharged as at the reporting date	(2,431)	(1,792)
Contractual obligations to be met after the reporting date	**4,681**	**3,069**

	Land	Buildings and structures	Plant and equipment	Vehicles and other	Total tangible assets	Tangible assets under construction		Total property plant and equipment	
						exploration and evaluation assets	Other		
Gross carrying amount as at Jan 1 2017	**93**	**32,351**	**16,188**	**2,817**	**51,449**	**3,761**	**3,099**	**58,309**	
Accumulated amortisation	-	(12,581)	(7,186)	(1,635)	**(21,402)**	-	-	**(21,402)**	
Impairment losses	(13)	(1,636)	(401)	(43)	**(2,093)**	(1,609)	(56)	**(3,758)**	
Net carrying amount as at Jan 1 2017	**80**	**18,134**	**8,601**	**1,139**	**27,954**	**2,152**	**3,043**	**33,149**	
Exchange differences on translating foreign operations	-	-	(408)	-	**(408)**	(73)	(85)	**(566)**	
Acquisition	-	-	-	-	**-**	695	2,348	**3,043**	
Disposal	(1)	(4)	(3)	(3)	**(11)**	-	(4)	**(15)**	
Provision for well decommissioning costs	-	145	-	-	**145**	46	(7)	**184**	*Note 6.1.1.1.*
Transfer from tangible assets under construction	20	1,295	1,812	238	**3,365**	(348)	(3,187)	**(170)**	
Transfers between asset groups and between items of the statement of financial position	-	(34)	35	(5)	**(4)**	(3)	(9)	**(16)**	
Depreciation and amortisation	-	(1,110)	(1,105)	(236)	**(2,451)**	-	-	**(2,451)**	
Impairment losses	2	(55)	(305)	4	**(354)**	70	4	**(280)**	
Changes in the Group	-	-	-	-	**-**	-	-	**-**	
Capitalised interest	-	-	-	-	**-**	13	34	**47**	
Retirement	-	(62)	(15)	(3)	**(80)**	-	-	**(80)**	
Tangible assets under construction written off without bringing economic effects	-	-	-	-	**-**	(398)	(2)	**(400)**	
Other changes	-	(7)	-	(7)	**(14)**	-	21	**7**	
Gross carrying amount as at Dec 31 2017	**112**	**33,513**	**17,223**	**2,959**	**53,807**	**3,693**	**2,208**	**59,708**	
Accumulated amortisation	-	(13,520)	(7,905)	(1,793)	**(23,218)**	-	-	**(23,218)**	
Impairment losses	(11)	(1,691)	(706)	(39)	**(2,447)**	(1,539)	(52)	**(4,038)**	
Net carrying amount as at Dec 31 2017	**101**	**18,302**	**8,612**	**1,127**	**28,142**	**2,154**	**2,156**	**32,452**	
Exchange differences on translating foreign operations	-	-	72	-	**72**	25	(23)	**74**	
Acquisition	-	-	-	-	**-**	821	3,812	**4,633**	
Disposal	-	(5)	(1)	(2)	**(8)**	-	(17)	**(25)**	
Provision for well decommissioning costs	-	189	-	-	**189**	46	2	**237**	*Note 6.1.1.1.*
Transfer from tangible assets under construction	9	1,831	1,000	324	**3,164**	(729)	(2,653)	**(218)**	
Transfers between asset groups and between items of the statement of financial position	(2)	(4)	(4)	2	**(8)**	5	(5)	**(8)**	
Depreciation and amortisation expense	-	(1,113)	(1,078)	(239)	**(2,430)**	-	-	**(2,430)**	
Impairment losses	-	(84)	(41)	(2)	**(127)**	362	5	**240**	
Changes in the Group	-	-	-	-	**-**	-	-	**-**	
Capitalised interest	-	-	-	-	**-**	5	13	**18**	
Retirement	-	(32)	(13)	(5)	**(50)**	-	-	**(50)**	
Tangible assets under construction written off without bringing economic effects	-	-	-	-	**-**	(687)	(11)	**(698)**	
Other changes	(2)	(44)	10	4	**(32)**	6	37	**11**	
Gross carrying amount as at Dec 31 2018	**117**	**35,382**	**18,171**	**3,153**	**56,823**	**3,185**	**3,363**	**63,371**	
Accumulated amortisation	-	(14,567)	(8,867)	(1,903)	**(25,337)**	-	-	**(25,337)**	
Impairment losses	(11)	(1,775)	(747)	(41)	**(2,574)**	(1,177)	(47)	**(3,798)**	
Net carrying amount as at Dec 31 2018	**106**	**19,040**	**8,557**	**1,209**	**28,912**	**2,008**	**3,316**	**34,236**	

6.1.1.1. Provisions related to property, plant and equipment (including the provision for well decommissioning costs)

Accounting policies

Provision for future well decommissioning costs and contributions to the Extraction Facilities Decommissioning Fund.

The Group recognises a provision for future well decommissioning costs and makes contributions to the Extraction Facilities Decommissioning Fund.

The provision for well decommissioning costs is recognised when the Group has the obligation to properly decommission and abandon wells after production is discontinued. When the provision for well decommissioning costs is recognised with respect to wells classified as tangible exploration and evaluation assets, the discounted amount of the provision is added to the amount of those assets, and after the production phase starts, it is depreciated over the expected useful life of the wells (accounting policies in **Note 6.1.1**). Any subsequent adjustments to the provision due to changes in estimates are also recognised as an adjustment to the value of the relevant item of property, plant and equipment. Adjustments to provisions resulting from changes of discount rates are taken to profit or loss. The amount of the provision for future costs of decommissioning of production and storage wells is adjusted for the amount of the Extraction Facilities Decommissioning Fund.

The Extraction Facilities Decommissioning Fund is created on the basis of the Mining and Geological Law, which requires the Group to decommission extraction facilities once their operation is discontinued. Contributions to the Extraction Facilities Decommissioning Fund are recognised in correspondence with other expenses. The assets accumulated in the Extraction Facilities Decommissioning Fund are kept in a separate bank account and may be used only to cover the costs of decommissioning of an extraction facility or its specific part, in particular the costs of:

- Abandonment of and securing production, storage, discharge, observation and monitoring wells;
- Liquidation of redundant facilities and disassembly of machinery and equipment;
- Reclamation of land and development of areas after completion of extraction activities;
- Maintenance of facilities intended for decommissioning in an order ensuring safety of extraction facility operations.

The fund's resources comprise restricted cash in accordance with IAS 7, presented – due to its long-term nature – under long-term assets.

Material estimates

Provision for well decommissioning costs

The amount of the provision for well decommissioning costs is based on the estimates of future asset decommissioning and land reclamation costs, which largely depend on the applied discount rate and the estimate of time when the outflow of cash is expected to take place.

The provision for well decommissioning costs is calculated based on the average cost of well decommissioning at the individual extraction facilities over the last three full years preceding the reporting period, adjusted for the projected consumer price index (CPI) and changes in the time value of money. The adoption of a three-year time horizon was due to the varied number of decommissioned wells and their decommissioning costs in the individual years.

Extraction Facilities Decommissioning Fund

Contributions to the Extraction Facilities Decommissioning Fund are made in the amount of 3% of the value of the annual tax depreciation of extraction property, plant and equipment (determined in accordance with the laws on corporate income tax).

Provision for well decommissioning costs	2018	2017	
At beginning of reporting period	**1,770**	**1,661**	
Recognised provision capitalised in cost of property, plant and equipment	237	184	*Note 6.1.1.*
Recognised write-downs taken to profit or loss	55	73	*Note 3.3.*
Other increases – Extraction Facilities Decommissioning Fund	2	2	
Used	(28)	(34)	
Write-down reversal taken to profit or loss	(35)	(64)	*Note 3.3.*
Exchange differences on translating foreign operations	7	(50)	
Transfer to other reserves	-	(2)	
Changes in the Group	-	-	
At end of reporting period	**2,008**	**1,770**	
- non-current	1,917	1,717	
- current	91	53	

With respect to the costs of decommissioning of wells and site infrastructure in Poland, in 2018 the discount rate applied to calculate the provision for well decommissioning was 0.2%, and resulted from a 2.7% rate of return on assets and an inflation rate assumed at the NBP's continuous inflation target of 2.5% (as at the end of 2017, the discount rate was 0.8%, and resulted from the rates of 3.3% and 2.5%, respectively).

6.1.2. Intangible assets

Accounting policies

Intangible assets

The Group identifies the following main categories of intangible assets:

- Perpetual usufruct rights to land,
- Software,
- CO_2 emission allowances,
- Licences obtained under the Polish Geological and Mining Law, mining rights and geological information ("Licences").

Perpetual usufruct rights to land

The Group uses perpetual usufruct rights to land which it has acquired in the market against consideration or obtained from the State Treasury or a local government unit.

Perpetual usufruct rights to land acquired for consideration (from other entities) are presented as intangible assets and amortised over their useful lives. The useful life of a perpetual usufruct right to land acquired for consideration from an entity other than the State Treasury or local government unit is equal to the period from the acquisition date of the perpetual usufruct right to the last day of the perpetual usufruct period set out in the perpetual usufruct agreement. Useful lives of perpetual usufruct rights acquired against consideration range from 40 to 99 years.

As at December 31st 2018, the average remaining useful life of perpetual usufruct rights held by the Group was 51 years.

In the case of perpetual usufruct rights obtained under perpetual usufruct agreements made with the State Treasury or a local government unit, the Group discloses in intangible assets the excess of the first payment over the annual perpetual usufruct charge. The useful life of the excess of the first payment over the annual perpetual usufruct charge is equal to the perpetual usufruct period specified in the perpetual usufruct agreement.

Perpetual usufruct rights to land acquired free of charge pursuant to an administrative decision issued under the Amendment to the Act on Land Management and Expropriation of Real Estate of September 20th 1990 are presented only in off-balance-sheet records.

CO_2 emission allowances

Pursuant to the Act on Trading in Greenhouse Gas Emission Allowances, the Group holds CO_2 emission allowances allocated for individual installations.

The Group classifies emission allowances as:

- Acquired for redemption – recognised as intangible assets and measured in accordance with the policies discussed below,
- Acquired for resale – recognised as inventory (**Note 6.2.1**) and measured initially at cost; at the end of each reporting period they are measured at the lower of cost or net realisable value,
- Received free of charge under the National Allocation Plan – recognised as off-balance-sheet items at nominal value (equal to zero).

Licences, mining rights and rights to geological information

In its exploration and production operations, the Group uses licences for exploration, appraisal and production of natural gas and/or crude oil granted under the Polish Geological and Mining Law. The Group also uses mining rights and rights to geological information.

Costs of licences for exploration for and production of natural gas and/or crude oil and charges for the grant of mining rights payable to the State Treasury are disclosed as capitalised expenditure.

Measurement

The Group initially recognises intangible assets at cost. In the case of granted mining rights, the initial value is equal to the charges paid to the State Treasury for the grant of the mining rights.

Subsequent to initial recognition, intangible assets are carried at cost less accumulated amortisation and impairment (for accounting policies relating to impairment, see **Note 6.1.3.**).

Intangible assets are amortised using the straight-line method based onamortisation rates that reflect the expected useful lives of the assets. Acquired CO_2 emission allowances are amortised depending on the actual emission volumes.

Material estimates

Useful lives of intangible assets

The useful lives of intangible assets were determined on the basis of assessments made by the engineering personnel responsible for their use. Any such assessment is connected with uncertainty as to the future business environment, technology changes and market competition, which could lead to a different assessment of the economic usefulness of the assets and their remaining useful lives, and ultimately have a material effect on the value of intangible assets and the future amortisation charges.

The estimated amortisation period and amortisation method are reviewed at the end of each financial year. If the forecast useful life of an asset is significantly different from previous estimates, the amortisation period is changed. Such transactions are recognised by the Group as revision of estimates and are recognised in profit or loss in the period in which such estimates are revised.

As a result of the review, annual amortisation charges were increased by about PLN 3m as at December 31st 2018.

	Perpetual usufruct rights to land	CO_2 emission allowances	Software	Licences	Other intangible assets	Total
Gross carrying amount as at Jan 1 2017	**676**	**538**	**529**	**203**	**460**	**2,406**
Accumulated amortisation	(10)	(439)	(384)	(96)	(310)	**(1,239)**
Impairment losses	(29)	-	(4)	(53)	(2)	**(88)**
Net carrying amount as at Jan 1 2017	**637**	**99**	**141**	**54**	**148**	**1,079**
Exchange differences on translating foreign operations	-	-	-	(6)	-	**(6)**
Transfer from tangible assets under construction	3	4	16	21	126	**170**
Transfers between asset groups and between items of the statement of financial position	-	-	(2)	-	2	**-**
Acquisition	-	96	-	-	-	**96**
Disposal	-	-	-	-	-	**-**
Depreciation and amortisation expense	(3)	(95)	(57)	(13)	(47)	**(215)**
Impairment losses	(1)	-	-	5	-	**4**
Changes in the Group	-	-	-	-	-	**-**
Retirement	-	-	-	(6)	-	**(6)**
Other changes	(4)	-	-	(1)	(2)	**(7)**
Gross carrying amount as at Dec 31 2017	**675**	**636**	**526**	**170**	**575**	**2,582**
Accumulated amortisation	(13)	(532)	(424)	(68)	(346)	**(1,383)**
Impairment losses	(30)	-	(4)	(48)	(2)	**(84)**
Net carrying amount as at Dec 31 2017	**632**	**104**	**98**	**54**	**227**	**1,115**
Exchange differences on translating foreign operations	-	-	-	2	-	**2**
Transfer from tangible assets under construction	27	20	46	99	26	**218**
Transfers between asset groups and between items of the statement of financial position	(23)	-	-	-	-	**(23)**
Acquisition	-	158	-	-	-	**158**
Disposal	(1)	-	-	-	-	**(1)**
Depreciation and amortisation expense	(3)	(158)	(47)	(26)	(51)	**(285)**
Impairment losses	9	-	-	(9)	-	**-**
Changes in the Group	-	-	-	-	-	**-**
Retirement	-	-	-	(1)	-	**(1)**
Other changes	(11)	-	-	-	1	**(10)**
Gross carrying amount as at Dec 31 2018	**663**	**808**	**545**	**257**	**587**	**2,860**
Accumulated amortisation	(12)	(684)	(444)	(81)	(382)	**(1,603)**
Impairment losses	(21)	-	(4)	(57)	(2)	**(84)**
Net carrying amount as at Dec 31 2018	**630**	**124**	**97**	**119**	**203**	**1,173**

6.1.3.Impairment of non-financial assets

Material estimates

Impairment of non-financial assets

Property, plant and equipment and intangible assets are tested for impairment when there are indications of impairment. Impairment tests are based on the comparison of the carrying amount of an asset (or cash-generating unit if the asset does not independently generate separate cash inflows) with its recoverable amount, equal to the higher of its fair value less cost to sell and value in use.
If the recoverable amount is lower than the carrying amount of an asset (or cash-generating unit), the carrying amount is decreased to the recoverable amount of the asset (or cash-generating unit). An impairment loss is recognised as cost of the period in which the impairment loss arose.

Impairment losses recognised in 2018 in respect of property, plant and equipment are presented in the table below:

	2018			2017		
	Upstream operations	Trade and storage	Other	Upstream operations	Trade and storage	Other
Land	(3)	-	(8)	(4)	-	(7)
Buildings and structures	(1,561)	(47)	(167)	(1,452)	(47)	(192)
Plant and equipment	(360)	(316)	(71)	(318)	(316)	(72)
Vehicles and other	(36)	(1)	(4)	(34)	(1)	(4)
Tangible assets under construction:						
Tangible exploration and evaluation assets under construction	(1,177)	-	-	(1,539)	-	-
Other	(1)	-	(46)	(1)	-	(51)
Total	**(3,138)**	**(364)**	**(296)**	**(3,348)**	**(364)**	**(326)**

In the reporting year, an impairment test was performed for the Group's main operating assets: oil and gas production assets, gas fuel storage facilities, power generating unit, leased assets (including CNG stations, transmission assets, other property), LNG regasification stations, and tangible assets under construction (wells under construction). Below is presented basic information on the performed tests, relating to those areas where the largest amounts of impairment losses were recognised.

Description of cash generating unit:	*In the case of assets classified as assets of oil and gas production units, impairment tests were performed for the individual CGUs, represented by specific production units in Poland and in Pakistan*

	2018		2017	
	impairment loss reversal	impairment loss recognition	impairment loss reversal	impairment loss recognition
Description of cash generating unit:	CGU - 159 production units		CGU - 160 production units	
Reasons for impairment / value increase	* Change in price forecasts. * Update of production forecast based on well tests and taking into account new wells brought on stream. * Decrease in transmission fee costs.	* Discount rate increase in 2018. *Update of production forecast to account for deterioration of reservoir conditions experienced by certain production units.	*Discount rate reduction in 2017. *Update of production forecast based on well tests and taking into account new wells brought on stream.	*Change in price forecasts - drop in oil prices. *Update of production forecast to account for deterioration of reservoir conditions experienced by certain production units. *Increase in transmission fee costs.
Value in use	21,718		21,827	
Nominal pre-tax discount rate	Poland 10.70% - 12.81%		Poland 11.52% - 12.02%	
	Pakistan: 19.52% - 25.35%		Pakistan: 20.75% - 22.79%	
Amount of recognised impairment loss	137	298	231	323

Description of cash generating unit:	*Impairment tests were performed for individual CGUs, represented by specific wells in Poland*

	2018		2017	
	impairment loss reversal	impairment loss recognition	impairment loss reversal	impairment loss recognition
Description of cash generating unit:	CGU - 76 wells		CGU - 124 wells	
Reasons for impairment / value increase	*Update of production forecast and reduction of planned expenditures. *Change of price forecasts - higher oil prices during production periods.	*Decision not to proceed to drilling wells following unsatisfactory results of geological work. *Update of production forecast following well tests. *Increase in WACC in 2018. *Increase in royalty costs.	*Discount rate reduction in 2017. *Update of production forecast and reduction of planned expenditures.	*Change in price forecasts - drop in oil prices. *Decision not to proceed to drilling wells following unsatisfactory results of geological work. *Update of production forecast following well tests. *Increase in transmission fee costs.
Value in use	2,030		3,708	
Nominal pre-tax discount rate	Poland 11.75%- 13.86%		Poland 12.50% - 13.00%	
Amount of recognised impairment loss	51	226	39	95

Description of cash generating unit: *LNG regasification stations in Ełk and Olecko – Head Office; impairment tests were performed for individual CGUs*

	2018		2017	
	impairment loss reversal	impairment loss recognition	impairment loss reversal	impairment loss recognition
Description of cash generating unit	CGU – two units		CGU – two units	
Reasons for impairment / value increase	*The sum of discounted cash and residual value exceeds the net value of property, plant and equipment.		*The sum of discounted cash and residual value exceeds the net value of property, plant and equipment.	
Value in use [PLN]	20		13	
Nominal pre-tax discount rate	5.48% - 5.60%		5.86% - 6.12%	
Amount of recognised impairment loss (PLN)	-	-	-	-

Description of cash generating unit: *Leased assets (transmission assets, CNG stations, non-contributed assets) - Head Office*

	2018		2017	
	impairment loss reversal	impairment loss recognition	impairment loss reversal	impairment loss recognition
Description of cash generating unit	CGU – 173 units		CGU – 212 units	
Reasons for impairment / value increase	*Higher rental income from certain properties. *Lower cost of planned repairs and property maintenance costs.	*Significant decline in revenue and increase in property maintenance costs.	*Higher rental income from certain properties. *Lower cost of planned repairs and property maintenance costs.	*Lower revenue from certain properties. *Higher costs of property maintenance and planned repairs. *Reversal of impairment loss (BC) on unused assets, assets held for rental, recognition of impairment loss following a DCF-based impairment test.
Value in use (PLN)	67		245	
Nominal pre-tax discount rate	8.03% - 9.31%		8.46% - 8.73%	
Amount of recognised impairment loss (PLN)	1	9	15	9

Description of cash generating unit: *Impairment tests were performed for individual CGU - the Wierzchowice unit*

	2018		2017	
	impairment loss reversal	impairment loss recognition	impairment loss reversal	impairment loss recognition
Description of cash generating unit	CGU - 1		CGU - 1	
Reasons for impairment / value increase	-	-	-	*Change in the business model for the Wierzchowice power generating unit, which has recently begun operating more on a commercial basis than for the purposes of the segment's own underground gas storage unit, i.e. in a mode similar to that of a pumped-storage power plant. *The analysis of the power generating unit does not take into account the potential financial effects related to the regulations on the power market being introduced.
Value in use (PLN)	-		-	
Nominal pre-tax discount rate	5.85 - 6.20%		5.88%	
Amount of recognised impairment loss (PLN)	-	-	-	364

Summary table (all cash-generating units in total)

	2018		2017	
	impairment loss reversal	impairment loss recognition	impairment loss reversal	impairment loss recognition
Value in use of assets tested for impairment	23,836		25,793	
Amount of recognised impairment loss (PLN)	189	532	285	791

6.2. Working capital

6.2.1. Inventories

Accounting policies

The Group's most material **inventory items** include:

- Gas fuel and fuels for electricity and heat generation,
- Certificates of origin for electricity obtained in connection with electricity production and certificates of origin for electricity purchased in order to be surrendered for cancellation,
- Energy efficiency certificates,
- Spare parts that do not qualify as property, plant and equipment (**Note 6.1.1.**) and are used or may be used in different facilities.

Inventories are initially measured at cost. As at the reporting date, inventories are measured at the lower of cost and net realisable value.

Gas fuel at storage facilities is measured jointly for all storage units, at the average weighted cost. Changes in the inventories of gas fuel stored in the Underground Gas Storage Facilities for sale and own consumption, as well as balance-sheet differences, are measured at the average weighted cost, which includes in particular: costs of purchase of gas fuel from all sources together with an appropriate portion of costs of system and transaction charges, actual costs of its production from domestic sources, costs of nitrogen removal and regasification.

Changes in the inventories of spare parts are measured using the weighted average method. Spare parts are recognised in profit or loss as at the date of their use.

The Group is obliged to obtain and surrender for cancellation certificates of origin for electricity and energy efficiency certificates corresponding to the volume of electricity sold to end customers. Property rights granted to the Group in connection with the production of electricity as well as energy efficiency certificates are disclosed as inventories at market value (in correspondence with revenue) when their receipt becomes probable. Purchased certificates of origin and energy efficiency certificates are recognised at cost. Changes in the certificates are measured using the weighted average method. Certificates of origin for electricity and energy efficiency certificates are accounted for at the time of their cancellation in correspondence with the relevant provision (**Note 6.3.2.**).

Material estimates

Inventory write-downs

If the cost of inventories is not recoverable, the Group recognises a write down to net realisable value.

An exception is spare parts, which are not written down to net realisable value if they are planned to be used.

Certificates of origin for electricity and energy efficiency certificates are written down based on a comparison between their carrying amounts and their net realisable values derived from an active market.

Write-downs of non-perishable inventories are determined by way of a case-by-case assessment of their usefulness, based on the following assumptions:

Inventories of purchased materials which are idle for a period of:	Write-down rate
1–5 years	Generally, a write-down of 20% is recognised; where the case-by-case assessment of usefulness, the possibility of using a category of materials, and their cycle structure, is taken into account, the Group may recognise write-downs of 5% and 10% of the value of the materials
5–10 years	20%−100%
More than 10 years	100% for materials which are useless and intended for sale or scrapping

Inventories	2018			2017		
	Initial value	Write-down	Net carrying amount	Initial value	Write-down	Net carrying amount
Materials, including:	3,282	(149)	3,133	2,715	(125)	2,590
Gas fuel	2,532	(71)	2,461	2,086	(50)	2,036
Fuels for electricity and heat generation	284	-	284	173	-	173
crude oil	15	-	15	13	-	13
spare parts	-	-	-	71	(20)	51
Other materials	451	(78)	373	372	(55)	317
Certificates of origin for electricity	216	(50)	166	213	(30)	183
CO_2 emission allowances	57	-	57	-	-	-
Spare parts	-	-	-	-	-	-
Other inventories	9	(1)	8	11	(36)	(25)
Total	**3,564**	**(200)**	**3,364**	**2,939**	**(191)**	**2,748**

Changes in write-downs	2018	2017
Write-downs at beginning of period	**(191)**	**(128)**
Taken to profit or loss, including:		
Recognised write-downs taken to profit or loss	(136)	(127)
Write-down reversal taken to profit or loss	125	59
Used	2	1
Currency translation differences	-	4
Other changes	-	-
Changes in the Group	-	-
Write-downs at end of period	**(200)**	**(191)**

6.2.2. Receivables

Accounting policies

Receivables include chiefly short-term trade receivables (mainly in connection with sale of gas fuel), taxes, customs duties and social security.

Short-term trade receivables are initially recognised at their transaction price if they do not contain a significant financing component.

Upon initial recognition, short-term trade receivables that meet the SPPI test and are held in a “hold to collect” business model are classified at amortised cost less impairment losses.

Taxes, customs duties and social security receivable by the Group are determined in accordance with applicable laws and regulations.

Material estimates

Impairment of financial assets

The amount of impairment loss on receivables equals the difference between the carrying amount of an asset and the present value of estimated future cash flows discounted at the asset’s original effective interest rate.

The Group monitors changes in credit risk relating to a given financial asset and classifies financial assets to one of three buckets for determining impairment related to future expected loss:

- **Bucket 1** - Not impaired exposures, where the risk of lifetime impairment is not significantly higher than the risk of a given exposure as at the grant date. The expected credit loss for exposures in this bucket is calculated for a term of the next 12 months or shorter, depending on the maturity date of the exposure.
  Financial assets in this bucket are characterised by low risk and high level of creditworthiness confirmed by an external rating institution.
- **Bucket 2** - Not impaired exposures, where the risk of lifetime impairment is significantly higher than the risk related to a given exposure as at the date of grant. For this bucket, the probability of an insolvency event is calculated for the lifetime of the asset.
- **Bucket 3**- Impaired exposures, recognised when the asset was held by the Group. For this bucket, the probability of an insolvency event is calculated for the lifetime of the asset. Interest on impaired assets is calculated by applying the effective interest rate against the net asset value (net of impairment loss). Consequently, net interest (net of impairment loss) is recognised in the statement of profit or loss.

Depending on the type of financial asset, impairment loss is determined using either the statistical or case-by-case approach.

According to the **statistical approach** (matrix, cluster), impairment losses on financial assets are recognised for a large number of current financial assets of relatively small values (homogeneous portfolio). Impairment losses are determined based on an analysis of historical data on payment of past due receivables in particular ageing groups and the migration matrix method. The results of the analysis are then used to calculate recovery ratios on the basis of which the amounts of impairment losses on receivables in each ageing group are determined.

In accordance with the **case-by-case approach**, the Group estimates the expected credit losses for those items that could not be classified into a homogeneous portfolio, such as:

- lease receivables,
- acquired debt issues,
- material trade receivables (all trade receivables with a total value exceeding the minimum amount defined by the Company based on historical data as at the reporting date of the financial statements),
- trade receivables with initial maturity of more than one year,
- receivables from sale of shares,
- receivables under equity contributions.

The Group also identifies impaired instruments:

- with a default on payment exceeding 90 days,
- against which bankruptcy/arrangement proceedings are pending,
- with respect to which a legal dispute is pending as to the size/legitimacy of the claim concerning the receivable.

Expected impairment of such exposures is calculated over the period until the expected end of the collection period.

Impairment losses are charged to other expenses or finance costs, as appropriate, depending on the type of the item for which an impairment loss is recognised.

Receivables	2018			2017		
	Gross carrying amount	Write-down	Net carrying amount	Gross carrying amount	Write-down	Net carrying amount
Trade receivables (mainly in connection with sale of gas fuel)	5,331	(467)	4,864	5,065	(322)	4,743
VAT receivable	572	-	572	359	(1)	358
Corporate income tax receivable	48	-	48	39	(1)	38
Other taxes, customs duties and social security receivable	17	(3)	14	71	(5)	66
Loans advanced	69	(55)	14	380	(49)	331
Other receivables	615	(385)	230	626	(381)	245
Total	**6,652**	**(910)**	**5,742**	**6,540**	**(759)**	**5,781**

Trade receivables are the source of the Group's credit and currency risk exposure. For information on credit risk management (including assessment of the credit quality of receivables and credit risk concentration), see **Note 7.3.1**. For information on currency risk related to receivables, see **Note 7.3.2.2**.

Change in impairment losses on trade receivables in the period

	Trade receivables covered by cluster analysis		Trade receivables covered by case-by-case analysis			Measured at fair value through profit or loss
	Lifetime expected loss	Impaired	12-month expected loss	Lifetime expected loss	Impaired	
As at Jan 1 2018	**6**	**221**	**8**	**-**	**85**	**2**
Effect of amended IFRS 9	6	-	2	-	(5)	-
Increase taken to profit or loss	47	16	6	-	309	-
Decrease taken to profit or loss	(45)	(15)	(10)	-	(161)	-
Used	-	(28)	-	-	-	-
Transfers	(9)	9	-	-	-	-
Other changes	-	21	-	-	2	-
As at Dec 31 2018	**5**	**224**	**6**	**-**	**230**	**2**

Change in impairment of trade receivables

	Trade receivables covered by cluster analysis		Trade receivables covered by case-by-case analysis			Measured at fair value through profit or loss
	Lifetime expected loss	Impaired	12-month expected loss	Lifetime expected loss	Impaired	
Impairment as at Jan 1 2018	**6**	**221**	**8**	**-**	**85**	**2**
Effect of amended IFRS 9	6	-	2	-	(5)	-
Transfer to group with 12-month expected loss	-	-	-	-	-	-
Transfer to group with lifetime expected loss	-	9	-	-	-	-
Transfer to impaired group	(9)	-	-	-	-	-
Impairment losses used	-	(28)	-	-	-	-
Repaid financial assets	(45)	(15)	(10)	-	(161)	-
Newly recognised financial assets	47	16	6	-	309	-
Changes due to modification of risk parameters	-	-	-	-	-	-
Effect of exchange rate movements and other	-	21	-	-	2	-
Impairment as at Dec 31 2018	**5**	**224**	**6**	**-**	**230**	**2**

Change of gross carrying amount of trade receivables

	Trade receivables covered by cluster analysis		Trade receivables covered by case-by-case analysis			Measured at fair value through profit or loss
	Lifetime expected loss	Impaired	12-month expected loss	Lifetime expected loss	Impaired	
Gross carrying amount as at Jan 1 2018	**2,520**	**447**	**1,537**	**240**	**316**	**5**
Transfer to group with 12-month expected loss	-	-	-	-	-	-
Transfer to group with lifetime expected loss	126	(126)	-	-	-	-
Transfer to impaired group	(17)	17	-	-	-	-
Repaid financial assets	(18,589)	(125)	(22,039)	(211)	(1,023)	(4)
Newly recognised financial assets	19,003	181	21,831	203	1,174	-
Write-offs	-	(33)	-	-	-	-
Changes due to modification of risk parameters	-	-	7	-	-	-
Other effect	(144)	8	3	(14)	38	-
Gross carrying amount as at Dec 31 2018	**2,899**	**369**	**1,339**	**218**	**505**	**1**

Change in impairment losses on other financial assets in the period

	Other financial assets covered by group analysis		Other financial assets covered by case-by-case analysis		
	Lifetime expected loss	Impaired	12-month expected loss	Lifetime expected loss	Impaired
As at Jan 1 2018	**13**	**285**	**1**	**-**	**93**
Increase taken to profit or loss	7	3	-	-	76
Decrease taken to profit or loss	(5)	(5)	-	-	(93)
Used	-	(2)	-	-	-
Transfers	(16)	16	-	-	-
Other changes	22	(9)	1	-	-
As at Dec 31 2018	**21**	**288**	**2**	**-**	**76**

Change in impairment of other financial assets

	Other financial assets covered by group analysis		Other financial assets covered by case-by-case analysis		
	Lifetime expected loss	Impaired	12-month expected loss	Lifetime expected loss	Impaired
Impairment as at Jan 1 2018	**13**	**285**	**1**	**-**	**93**
Transfer to group with 12-month expected loss	-	-	-	-	-
Transfer to group with lifetime expected loss	-	16	-	-	-
Transfer to impaired group	(16)	-	-	-	-
Impairment losses used	-	(2)	-	-	-
Repaid financial assets	(5)	(5)	-	-	(93)
Newly recognised financial assets	7	3	-	-	76
Changes due to modification of risk parameters	-	-	-	-	-
Effect of exchange rate movements and other	22	(9)	1	-	-
Impairment as at Dec 31 2018	**21**	**288**	**2**	**-**	**76**

Changes in gross carrying amount of other financial assets

	Other financial assets covered by group analysis		Other financial assets covered by case-by-case analysis			Measured at fair value through profit or loss	Measured at fair value through other comprehensive income
	Lifetime expected loss	Impaired	12-month expected loss	Lifetime expected loss	Impaired		
Gross carrying amount as at Jan 1 2018	**192**	**346**	**100**	**1**	**88**	**12**	**22**
Transfer to group with 12-month expected loss	-	-	-	-	-	-	-
Transfer to group with lifetime expected loss	-	70	-	-	-	-	-
Transfer to impaired group	(70)	-	-	-	-	-	-
Repaid financial assets	(286)	(124)	(101)	-	(37)	(6)	-
Newly recognised financial assets	388	9	36	-	13	24	18
Write-offs	-	(2)	-	-	-	-	-
Changes due to modification of risk parameters	-	-	-	-	-	-	-
Other effect	9	(1)	33	-	20	-	-
Gross carrying amount as at Dec 31 2018	**233**	**298**	**68**	**1**	**84**	**30**	**40**

6.2.3. Trade and tax payables

Accounting policies

Short-term trade payables and liabilities under purchase of property, plant and equipment and intangible assets are initially recognised at fair value, which is equal to their nominal value, and as at the reporting date are measured at amortised cost.

Taxes, customs duties and social security payable are determined in amounts due to Group companies in accordance with applicable laws and regulations.

Trade and tax payables	**2018**	**2017**
Trade payables	1,411	1,326
Liabilities under purchase of property, plant and equipment and intangible assets	560	439
VAT payable	985	940
Other taxes, customs duties and social security payable	374	327
Current income tax liabilities	418	217
Total	**3,748**	**3,249**

The Group is exposed to currency risk and liquidity risk in relation to trade payables and liabilities under purchase of property, plant and equipment and intangible assets. For information on those risks, see **Note 7.3.2.2** and **7.3.3**.

6.3. Provisions and liabilities

6.3.1. Employee benefit obligations

Accounting policies

Short-term employee benefits

Short-term employee benefits are benefits (other than termination benefits) which fall due wholly within twelve months after the end of the annual reporting period in which the employees render the related service. Short-term employee benefits require no actuarial assumptions. The Group recognises the anticipated undiscounted amount of short-term benefits to be paid out. Expenses on benefits paid during employment are charged to profit or loss of the current reporting period.

Short-term employee benefits paid by the Group include:

- Salaries, wages and social security contributions,
- Short-term compensated absences,
- Profit-sharing and bonuses payable within 12 months after the end of the period in which the employees acquired the related entitlements,
- Non-cash benefits for current employees.

Short-term employee benefits, including payments towards defined contribution plans, are recognised in the periods in which the employee provided the services to a Group entity, and in the case of profit-sharing and bonus payments – when the following conditions are met:

- A Group entity has a legal or constructive obligation to make such payments as a result of past events, and
- A reliable estimate of the expected cost can be made.

The Group recognises expected short-term employee benefits expense related to compensated absences in the case of accumulated compensated absences (that is absences to which the entitlement is transferred to the future periods and can be used in the future if the absences were not fully used in the current period).

Long-term employee benefits

Long-term employee benefits are all benefits which are payable after 12 months from the reporting date. They include:

- Post-employment benefits,
- Other long-term employee benefits.

Post-employment benefits include termination benefits, retirement severance payments, and benefits from the Company Social Benefits Fund.

Provision for long-term employee benefits is determined using the projected unit credit method, with the actuarial valuation made as at the end of the reporting period.

Actuarial gains and losses related to defined post-employment benefits are presented in other comprehensive income, whereas gains and losses related to other benefits paid during employment are charged to profit or loss of the current reporting period.

Employee benefit obligations	2018		2017	
	Non-current	Current	Non-current	Current
Liabilities under length-of-service awards	518	48	474	45
Liabilities under severance payments	221	4	190	3
Wages and salaries payable	-	70	-	68
Amounts payable for unused holiday entitlements	-	57	-	62
Termination benefits	-	15	-	11
Other employee benefit obligations	69	153	61	182
Total	**808**	**347**	**725**	**371**

Changes in obligations under retirement severance payments and length-of-service awards were as follows:

	Length-of-service awards		Retirement severance payments	
	2018	2017	2018	2017
Obligations at beginning of period	519	518	193	182
Interest expense	16	17	6	6
Current service cost	32	25	9	8
Past service cost	-	-	-	-
Benefits paid	(59)	(50)	(9)	(12)
Actuarial gain/(loss) − changes in financial assumptions	32	21	18	11
Actuarial gain/(loss) − changes in demographic assumptions	32	(12)	7	(2)
Gain/(loss) due to curtailments or settlements	(6)	-	1	-
Currency translation differences	-	-	-	-
Changes in the Group	-	-	-	-
Reclassification to liabilities relating to groups of assets held for sale	-	-	-	-
Obligations at end of period	**566**	**519**	**225**	**193**

In the reporting period, the technical rate applied to calculate the discounted value of future retirement severance obligations was -0.1%, and resulted from a 2.8% annual return on long-term Treasury bonds and a 2.9% forecast annual salary growth (at the end of 2017 the applied technical rate was 0.6%, and resulted from the rates of 3.3% and 2.7%, respectively).

6.3.1.1. Workforce streamlining within the Group

PGNiG Group companies are running workforce streamlining programmes in order to improve the Group's cost effectiveness and organisational efficiency. The programmes are part of the PGNiG Group's Strategy for 2017–2022 with an outlook until 2026, adopted in March 2017.

Key workforce streamlining initiatives implemented by Group companies in 2018 are presented below.

Company	Workforce restructuring/streamlining process
PGNiG S.A.	As part of the efforts to improve cost efficiency, in October 2018 the PGNIG S.A.'s Management Board adopted for implementation a concept for centralising HR and payroll services. The companies involved in the process of optimising the HR and payroll area are PGNIG S.A., PSG and PGNiG Obrót Detaliczny. The objective of the new concept is to reduce the number of locations where HR and payroll processes are carried out, optimise the workforce levels, and improve the efficiency of HR and payroll processes.
PSG Sp. z o.o.	In 2018, the Krosno Technologies project was executed, under which Polska Spółka Gazownictwa acquired a spun-off part of PGNiG Technologie S.A. The purpose of the project was to establish a new branch – the Investment and Repair Branch of Krosno, where 278 employees transferred from PGNiG Technologie S.A. were hired (under Art. 23' of the Polish Labour Code).
PSG Sp. z o.o.	In 2018, to counteract adverse demographic trends, work on changing the age structure of PSG Sp. z o.o.'s workforce was continued, in particular through pursuing the financial incentive scheme for persons with pension entitlements. On August 9th 2018, the Company's Management Board decided to pay additional severance payments upon termination of employment contracts with retiring employees. Accordingly, the Employer agreed to pay additional benefits to employees who terminate their employment relationship and retire by the end of 2018, on agreed terms. The purpose of the incentive scheme for retiring employees was to enable the Company to attract young, experienced employees to replace those already holding pension entitlements. In 2018, 105 employees decided to terminate their employment in accordance with the incentive scheme for retiring employees.
PGNiG TERMIKA Energetyka Przemysłowa S.A.	PGNiG Termika Energetyka Przemysłowa continued the employment optimisation process launched in 2017. For the period from March 15th to October 31st 2018, a Voluntary Redundancy Programme for the company's employees was launched. The compensation paid to the Programme participants totalled PLN 830,122.75. A total of 23 employees (of whom 17 retired in 2018 and six will retire in 2019) decided to retire in accordance with the programme. In addition, the company had in place the 'Term Leave until Reirement' incentive scheme launched in the previous year.

6.3.2. Other provisions

Accounting policies	Material estimates
Provision for certificates of origin and energy efficiency certificates	
If at a reporting date the number of certificates in not sufficient to meet the requirements stipulated in the Polish Energy Law and the Energy Efficiency Act, the Group recognises a provision for cancellation of certificates of origin and energy efficiency certificates or for the payment of emission charge, whichever of the two is lower. The provision is measured based on the carrying amount of the certificates held and the then current price (on the Polish Power Exchange) of certificates which should be additionally purchased to meet the cancellation requirement resulting from the volume of electricity sales to end users. The provision and the registered certificates of origin disclosed under inventories (see **Note 6.2.1**) are accounted for at the time of registering their cancellation in the Register of Certificates of Origin maintained by the Polish Power Exchange (PPE).	The provision for energy efficiency certificates is recognised as at the end of the reporting period based on the volume of electricity consumed (excluding internally generated electricity consumed) and the volume of gas fuel (in energy units), electricity and heat sold to end customers (with the exceptions provided for in the Energy Efficiency Act), and based on the applicable regulatory percentage ratios and prices of the certificates on the Polish Power Exchange on the last trading day in the reporting period, and the average price of the entire portfolio of energy efficiency property rights.
Provision for liabilities associated with exploration work abroad	
In 2013, the Parent recognised a provision for liabilities associated with the exploration work carried out by PGNiG Upstream North Africa B.V., PGNiG's subsidiary. Owing to the Force Majeure risk present in Libya, PGNiG Upstream North Africa B.V. has suspended operations. Therefore, the Parent has been maintaining a provision for licence obligations under licence agreements concluded with the Libyan government.	The amount of the provision is based on the obligations contracted under the licence agreements, but not met.
Provisions	
The Group recognises a provision for the cost of identification and reclamation of ground and water contamination, required under the applicable laws. The provision recognised for such liabilities reflects potential costs projected to be incurred, which are estimated and reviewed periodically based on current prices.	The amount of the provision is based on the estimates of future reclamation costs, which largely depend on the applied discount rate and the estimate of time when the cash flows are expected to take place.
Provision for claims under extra-contractual use of land	
In the ordinary course of business, the Group installs technical equipment on land owned by third parties, often natural persons. Where possible, at the time of installing the elements of the infrastructure, the Group enters into agreements establishing standard land easements and transmission easements. The Group recognises a provision for claims under extra-contractual use of land in respect of those claims which have been confirmed to be valid (the claimant presented a legal title to land) and in the case of which correspondence has been exchanged with the claimant in the last three years.	The Group estimates the provision for claims under extra-contractual use of land based on an estimate survey made by an expert appraiser, or its own valuation, taking into account the size of the controlled area in square meters, the amount of annual rent per square meter for similar land in a given municipality, and the period of extra-contractual use of land (not more than ten years). If it is not possible to obtain reliable data required to apply the method described above, the Group analyses submitted claims on a case-by-case basis. As the amounts used in the above calculations are arrived at based on a number of variables, the actual amounts of compensation for extra-contractual use of land that the Group will be required to pay may differ from amounts of the related provisions.

	Provision for certificates of origin and energy efficiency certificates	Provision for liabilities associated with exploration work abroad	Provision for environmental liabilities	Provision for UOKiK fine*	Provision for claims under extra-contractual use of land	Other provisions	Total	
As at Jan 1 2017	**143**	**194**	**117**	**10**	**36**	**258**	**758**	
Recognised provision taken to profit or loss	160	-	24	-	7	148	339	*Note 3.3.*
Provision reversal taken to profit or loss	(13)	-	(17)	-	(12)	(59)	(101)	*Note 3.3.*
Used provision	(133)	-	-	-	-	(28)	(161)	
Changes in the Group	-	-	-	-	-	-	-	
Other changes	(2)	(31)	-	-	-	-	(33)	
As at Dec 31 2017	**155**	**163**	**124**	**10**	**31**	**319**	**802**	
non-current	-	4	63	-	20	94	181	
current	155	159	61	10	11	225	621	
As at Jan 1 2018	**155**	**163**	**124**	**10**	**31**	**319**	**802**	
Effect of amended IFRS 9	-	-	-	-	-	18	18	
Increase taken to profit or loss	134	-	5	-	4	178	321	*Note 3.3.***
Decrease taken to profit or loss	(54)	-	(14)	-	(12)	(107)	(187)	*Note 3.3.*
Used	(114)	-	-	(10)	-	(3)	(127)	
Changes in the Group	-	-	-	-	-	-	-	
Other changes	30	12	-	-	-	3	45	
As at Dec 31 2018	**151**	**175**	**115**	**-**	**23**	**408**	**872**	
non-current	-	4	76	-	15	102	197	
current	151	171	39	-	8	306	675	

*For more information, see the Directors' Report on the Operations of PGNiG S.A. and the PGNiG Group.

** Other provisions (provisions for financial guarantees), in an amount of PLN 3m, are disclosed in Note 3.4 as other net finance costs.

6.3.3.Grants

Accounting policies

Grants

The Group receives grants related to assets, receivable on condition that the Group purchases, produces, or otherwise obtains non-current assets.

Grants related to assets are recognised in the statement of financial position under 'Grants' (non-current portion) and 'Other liabilities' (current portion), and subsequently taken – through equal annual charges – to profit or loss throughout the expected useful life of the assets.

Grants	2018	2017
Grants related to assets, including:	761	807
Kosakowo UGSC construction	71	80
Wierzchowice UGS extension	399	421
Strachocina UGS extension	53	55
Husów UGS extension	27	29
Construction of gas distribution systems in new areas and upgrades of existing distribution networks	149	158
Other	62	64
Revenue grants	-	-
Total	**761**	**807**
Including non-current	720	767

Grants related to assets

Group companies are executing projects for which EU co-financing has been obtained.

The largest projects are carried out by the Parent and Polska Spółka Gazownictwa Sp. z o.o.

In 2018, PGNIG S.A. received no co-financing, while Polska Spółka Gazownictwa Sp. z o.o. was performing agreements for co-financing covering eight investment projects, executed under the Operational Programme Infrastructure and Environment for 2014–2020. Therefore, in the current period Polska Spółka Gazownictwa Sp. z o.o. received a grant of PLN 1.8m from the Oil and Gas Institute – National Research Institute.

In 2017, PGNiG S.A. received PLN 0.2m as co-financing from the budget of the Town and Municipality Pyzdry in the form of de minimis aid for the construction of external gas networks under the project 'Construction of the Pyzdry gas station'. In the comparative period, Polska Spółka Gazownictwa Sp. z o.o. received co-financing of PLN 22m. From the European Regional Development Fund (ERDF) under a programme involving construction of gas distribution systems in areas where no such infrastructure had existed before, and upgrades of existing distribution networks.

6.3.4.Other liabilities

Accounting policies

Other liabilities

Until 2017, a subsidiary of the Group, Polska Spółka Gazownictwa Sp. z o.o., as a distribution system operator, recognised as deferred revenue connection charges (received for the provision of the connection service before June 30th 2009).
Following the application of IFRS 15, the connection charge was accounted for as at January 1st 2018 under *Retained earnings* (Note 1.2.1.1).

Other liabilities	2018		2017	
	Non-current	Current	Non-current	Current
Connection charges received in cash	-	-	318	20
Non-depreciable portion of the value of gas service lines provided by gas buyers	146	42	186	46
Prepaid deliveries	-	173	-	210
Accruals and deferred revenue	-	142	-	120
Liabilities under licences, rights to geological information and mining rights	46	-	76	-
Other deferred revenue	3	197	4	148
Other	69	390	60	357
Total	**264**	**944**	**644**	**901**

7. Notes on financial instruments and financial risk management

7.1. Financial instruments

Accounting policies

The Group holds the following categories of financial instruments:

- measured at amortised cost calculated using the effective interest rate,
- measured at fair value through other comprehensive income,
- measured at fair value through profit or loss,
- hedge derivatives.

In the case of equity instruments to be carried at fair value through profit or loss or through comprehensive income, the selection is made individually for each instrument.

The Group classifies financial assets based on:

- the entity's business model of financial asset management. The model concerns the way in which the entity manages its financial assets in order to generate cash flows. A business model may provide for holding assets in order to collect their contractual cash flows (the 'hold' model); the objective may be both to collect cash flows and sell financial assets (the 'hold and sell' model); or the Group may manage financial assets in order to generate cash flows through the their sale (the 'sell' model);
- assessment of the profile of contractual cash flows. At the time of initial recognition of a financial asset, a Group company determines whether the contractual cash flows are solely payments of principal and interest on the principal amount outstanding, and whether are thus consistent with the underlying loan agreement. Interest may include consideration for the time value of money, credit risk, other basic lending risks, as well as costs and profit margin.

On initial recognition of a new financial asset, the Group companies assess the business model and perform an SPPI test taking into account the new terms of the modified financial asset.

Classification of financial assets and liabilities is as follows:

Financial assets measured at amortised cost, meeting the SPPI test:

- loans advanced,
- trade receivables (**Note 6.2.2.**),
- debt instruments,
- term deposits,
- cash and cash equivalents (**Note 5.4.**).

Financial assets at fair value through other comprehensive income:

- investments in equity instruments (other than shares in subsidiaries, jointly-controlled entities and associates), which the Group measures through other comprehensive income,
- investments in debt instruments.

Financial assets at fair value through profit or loss:

- investments in listed equity instruments,
- loans advanced and other debt instruments not meeting the SPPI test,
- investment fund units,
- investments in equity instruments (other than shares in subsidiaries, jointly-controlled entities and associates), which the Group does not measure at fair value through other comprehensive income,
- other items (including non-refundable contributions to equity, recognised as an investment in a subsidiary at the contributing company).

Financial liabilities at amortised cost:

- trade payables (**Note 6.2.3.**),
- financing liabilities (**Note 5.2.**).

Financial assets and liabilities at fair value through profit or loss

Derivative financial instruments which are not hedging instruments are classified by the Group as financial assets/liabilities at fair value through profit or loss. For information on accounting policies, see **Note 7.2.**

Hedge derivatives

This category comprises derivative instruments to which the Group applies hedge accounting. For description of the applied hedge

accounting policies, see **Note 7.2**.

Modification of contractual cash flows

If any contractual cash flows which are to be renegotiated or otherwise modified are identified in contracts, the Group:

- renegotiates or modifies contractual cash flows and this does not result in derecognition of the original financial asset – minor modification; or
- renegotiates or modifies contractual cash flows and this leads to derecognition and elimination of the financial asset from the balance sheet – major modification.

The key criteria applied by the Group to determine a major modification of cash flows from a financial asset include:

1. the quantitative criterion – exceeding the materiality threshold, i.e. a 10% difference between the carrying amount after the change of schedule and the carrying amount before the change.
2. The qualitative criteria:
   - change of the variable interest rate into a fixed interest rate and vice versa;
   - deep restructuring of the loan in the case of the borrower's financial distress, including split of the loan, change of repayment dates or change of disbursement profile, increasing the level of cash flows;
   - material change in conditions resulting in change with regard to meeting the SPPI test;

On the date of the change, the previous financial instrument is derecognised, and the new instrument is recognised (at fair value).

The difference between the carrying amount of the original financial asset and the fair value of the modified asset, as determined for the modification date, is charged to profit or loss.

On initial recognition of a new financial asset, the Group assesses the business model and performs an SPPI test taking into account the new terms of the modified financial asset. If, upon initial recognition, the modified financial asset is measured at amortised cost, the Company uses a new effective interest rate to measure such asset.

7.1.1.Key financial assets by category

Balance-sheet item	Item referenced in Note	Notes	2018 Classification under IFRS 9: Financial assets at amortised cost	2018: Financial assets at fair value through profit or loss	2018: Financial instruments designated for hedge accounting	2018: Total	2017 Classification under IAS 39: Loans and receivables at amortised cost	2017: Financial assets at fair value through profit or loss	2017: Financial instruments designated for hedge accounting	2017: Total
Receivables	Trade receivables	*Note 6.2.2.*	4,864	-	-	4,864	4,743	-	-	4,743
	Loans advanced		14	-	-	14	330	-	-	330
Other assets - Loans advanced		*Note 8.4.*	562	-	-	562	243	-	-	243
Derivative financial instruments		*Note 7.2.*	-	928	390	1,318	-	425	25	450
Cash and cash equivalents		*Note 5.4.*	3,925	-	-	3,925	2,578	-	-	2,578
Total			**9,365**	**928**	**390**	**10,683**	**7,894**	**425**	**25**	**8,344**

7.1.2.Key financial liabilities by category

Balance-sheet item	Item referenced in Note	Notes	2018 Classification under IFRS 9: Financial liabilities at amortised cost	2018: Financial liabilities at fair value through profit or loss	2018: Financial instruments designated for hedge accounting	2018: Total	2017 Classification under IAS 39: Financial liabilities at amortised cost	2017: Financial liabilities at fair value through profit or loss	2017: Financial instruments designated for hedge accounting	2017: Total
Financing liabilities	Bank borrowings	*Note 5.2.*	1,385	-	-	1,385	1,085	-	-	1,085
	Debt securities	*Note 5.2.*	2,298	-	-	2,298	1,898	-	-	1,898
Trade and tax payables	Trade payables	*Note 6.2.3.*	1,411	-	-	1,411	1,326	-	-	1,326
Derivative financial instruments		*Note 7.2.*	-	802	358	1,160	-	297	25	322
Total			**5,094**	**802**	**358**	**6,254**	**4,309**	**297**	**25**	**4,631**

7.1.3. Items of income and expenses related to financial assets and liabilities

			2018 (in accordance with IFRS 9)			2017 (in accordance with IAS 39)		
Item of statement of profit or loss and statement of comprehensive income	**Item referenced in Note / additional explanations**	**Notes**	**Financial assets and liabilities at amortised cost**	**Derivative financial instruments not designated for hedge accounting**	**Derivative financial instruments designated for cash flow hedge accounting**	**Loans, receivables and liabilities at amortised cost**	**Derivative financial instruments not designated for hedge accounting**	**Derivative financial instruments designated for cash flow hedge accounting**
Effect on statement of profit or loss								
Net finance costs	Interest on debt	*Note 3.4*	(41)	-	-	(70)	-	-
	Foreign exchange differences	*Note 3.4*	11	-	-	36	-	-
	Measurement and exercise of derivative financial instruments not designated for hedge accounting	*Note 3.4*	-	(13)	-	-	(44)	-
Other income and expenses	Foreign exchange differences	*Note 3.3.*	16	-	-	(122)	-	-
	Impairment losses	*Note 3.3.*	(129)	-	-	(1)	-	-
	Measurement and exercise of derivative financial instruments not designated for hedge accounting	*Note 3.3.*	-	45	-	-	137	-
	Reclassification from other comprehensive income	*Note 3.3.*	-	-	-	-	-	-
Revenue from sale of gas	Reclassification from other comprehensive income	*Note 3.1.*	-	-	(378)	-	-	-
Raw materials and consumables used	Reclassification from other comprehensive income	*Note 3.2.*	-	-	16	-	-	(12)
			(143)	**32**	**(362)**	**(157)**	**93**	**(12)**
Effect on other comprehensive income								
Gains/(losses) on measurement of derivative instruments designated for cash flow hedge accounting [effective portion]					(77)			(88)
Reclassification of derivative instruments valuation to profit or loss upon exercise (cash flow hedges)					362			12
					285			**(76)**
Effect on comprehensive income			**(143)**	**32**	**(77)**	**(157)**	**93**	**(88)**
Change in equity recognised in inventories					**(204)**			

7.2. Derivative financial instruments

Accounting policies

Derivative financial instruments not designated for hedge accounting

Derivative financial instruments which are not hedging instruments in hedge accounting are classified as financial assets/liabilities at fair value through profit or loss. The instruments are economic hedges.

Derivative instruments at fair value include also derivatives with hedging relationship terminated.

Derivative instruments are initially recognised at fair value and as at each reporting date they are measured at fair value with gains or losses from the measurement recognised in statement of profit or loss under net finance costs (e.g. measurement of instruments hedging financing activity, such as debt liabilities) and other income and expenses (hedging transactions not designated for hedge accounting, e.g. forward contracts).

Hedge accounting

The Group applies hedge accounting to hedge against the risk of movements in gas prices and exchange rates (EUR/PLN and USD/PLN) for future gas purchases/sale. The gas price risk is related to the highly probable future gas purchase transactions. The Group applies cash flow hedge accounting to these transactions.

Derivatives are designated as hedging instruments.

The portion of gains or losses arising from change in the fair value of a cash flow hedge which is determined to be an effective hedge is recognised as a separate item of equity (hedging reserve). The ineffective portion is charged to profit or loss. The effective hedge taken to equity over its lifetime is reclassified to initial cost of inventories or affects profit or loss on gas sales.

The Group ceases to classify an instrument as a hedge if the derivative expires or is sold, terminated or exercised, the hedge no longer meets the criteria of hedge accounting, or if the hedged transaction is no longer expected to be executed.

The Group enters into transactions involving the following derivative instruments:

Derivative instruments designated for hedge accounting

Description and purpose of instrument	
Currency forwards	A currency forward is a contract for the purchase or sale of a currency for a specified exercise price, with delivery date falling no earlier than after two business days from the date when the forward terms have been agreed. The Group uses currency forwards to hedge against currency risk of USD and EUR exchange rates in future gas purchase/sale contracts. Average rate forwards/currency swaps are settled in cash based on the difference between the exercise price and the average monthly price.
Commodity swap	A commodity swap is a contract where two parties agree to exchange payments on a specified date. The payments are calculated based on agreed amounts of a specified commodity and its price. In the transaction, one party agrees to pay a fixed price, and the other party pays a floating price. However, no physical exchange of the underlying commodities takes place. The Group companies use the instrument to hedge against movements in purchase prices of gas.

Derivative instruments not designated for hedge accounting

Description and purpose of instrument	
CCIRS	A cross currency interest rate swap is an instrument which exchanges cash flows associated with an interest rate and a currency in respect of an agreed base amount at a fixed pre-agreed exchange rate. The Group uses CCIRS to exchange variable rate interest payments denominated in NOK into variable rate interest payments denominated in PLN or fixed rate interest payments denominated in EUR into variable rate interest payments denominated in PLN.
Currency forwards	For instrument description see the previous table.
Electricity futures contracts[1]	A futures contract (futures) is a standard contract enabling the sale or purchase of a commodity in a regulated market for a set exercise price, with a delivery date falling no earlier than after two business days from the date when the terms of the futures contract have been agreed. The Group uses this instrument as economic hedge against price changes in future purchases of electricity and gas.

CO_2 futures contracts	A futures contract is standard contract enabling the sale or purchase of CO_2 emission allowances in a regulated market for a set exercise price, with a delivery date falling no earlier than after two business days from the date when the terms of the futures contract have been agreed. The Group uses this instrument as economic hedge against price changes in future purchases of CO_2 emission allowances.
Electricity and gas forward contracts	A commodity forward is a contract for the purchase or sale of a commodity for a set exercise price, with delivery date falling no earlier than after two business days from the date when the forward terms have been agreed. The Group uses this instrument as economic hedge against price changes in future purchases of electricity and gas.[2]

1. EE – Phelix power futures contracts traded at the EEX
2. Electricity and gas forward contracts traded at the Polish Power Exchange

	2018		2017	
	Assets	Liabilities	Assets	Liabilities
Derivative instruments covered by hedge accounting	390	358	25	25
Derivative instruments not covered by hedge accounting	928	802	425	297
Total	**1,318**	**1,160**	**450**	**322**

Derivative instruments designated for hedge accounting

	2018					2017		
Type of derivative instrument	**Notional amount**	**Period when cash flow will occur and affect the financial result**	**Exercise price (exercise price range)**	**Weighted average exercise price**	**Fair value of instruments for which cash flow hedge accounting is applied**	**Notional amount**	**Period when cash flow will occur and affect the financial result**	**Fair value of instruments designated for cash flow hedge accounting is applied**
Derivative instruments used to hedge currency risk in gas purchase contracts								
Forwards								
USD	901 USD	up to 3 years	3,3427-3,7545	3.49	216	70 USD	1–3 months	(8)
USD	77 USD	1–3 months	3,7652-3,7865	3.77	(1)			
EUR	1,354 EUR	up to 3 years	4,3-4,501	4.40	50	-	-	-
EUR	438 EUR	up to 3 years	4,3162-4,4926	4.37	(18)	-	-	-
					247			**(8)**
Derivative instruments used to hedge gas purchase prices								
TTF call options	-	-	-	-	-	2 MWh	1–12 months	13
TTF swap MA	-	-	-	-	-	1 MWh	1–12 months	12
TTF swap DA	9 MWh	up to 3 years	20,715-28,31	23.00	67	-	-	-
TTF swap MA	2 MWh	1–3 months	24.775	24.78	(9)	-	-	-
TTF swap DA	3 MWh	up to 3 years	20,715-27,05	24.49	(54)	-	-	(1)
BRENT Swap	-	-	-	-	-	-	-	-
GASPOOL Swap DA	6 MWh	up to 3 years	20,95-21,98	21.44	57	-	-	-
GASPOOL Swap DA	0 MWh	up to 3 years	15,97-21,98	17.27	(276)	-	-	-
					(215)			**24**
Derivative instruments used to hedge interest rate risk								
IRS	-	-	-	-	-	1,500 PLN	1–3 years	(16)
				Total	**32**		**Total**	**-**
			Including:	Assets	390	Including:	Assets	25
				Liabilities	358		Liabilities	25

Type of hedging instrument	Notional amount	Carrying amount		Name of item in statement of financial position which includes hedging instrument	Change in fair value of hedging instrument used as basis for recognising hedge ineffectiveness in given period	Hedging gains or losses for reporting period, recognised in other comprehensive income	Hedge ineffectiveness amount taken to profit or loss	Item of statement of comprehensive income (statement of profit or loss) in which ineffectiveness amount is included	Amount reclassified from cash flow hedging reserve to profit or loss as reclassification adjustment	Item of statement of comprehensive income (statement of profit or loss) in which reclassification adjustment is included
		Assets	Liabilities							
CASH FLOW HEDGES										
CURRENCY RISK										
Forward contracts for currency purchase (USD)	3,678	216	1	Derivative financial instruments	215	418	-	Operating income / expenses	-	-
Average rate forwards (EUR)	7,707	50	18	Derivative financial instruments	27	30	-	Operating income / expenses	(3)	Revenue from sale of gas
COMMODITY PRICE RISK										
Basis swap contracts for gas price indices	208	34	9	Derivative financial instruments	25	(193)	-	Operating income / expenses	217	Revenue from sale of gas
Swap contracts for gas price indices	3,081	90	330	Derivative financial instruments	(189)	(359)	(10)	Operating income / expenses	164	Revenue from sale of gas
Swap contracts for petroleum product price indices	-	-	-	Derivative financial instruments	-	28	-	Operating income / expenses	-	-
FAIR VALUE HEDGES										
Total	**14,674**	**390**	**358**	**-**	**78**	**(76)**	**(10)**	**-**	**378**	**-**

The impact of cash flow hedges is presented in the table below.

Hedged items	Change in value of hedged item used as basis for recognising hedge ineffectiveness in given period	Balance of cash flow hedging reserve for continuing hedges	Balance remaining in cash flow hedging reserve in respect of all hedging relationships for which hedge accounting is no longer applied
CURRENCY RISK			
Natural gas (USD)	215	215	-
Natural gas (EUR)	(27)	32	(5)
COMMODITY PRICE RISK			
Gas contracts indexed to monthly gas price indices	(25)	25	1
Gas contracts indexed to daily gas price indices	179	(182)	2
Gas contracts indexed to monthly petroleum product indices	-	-	-
Total	**342**	**90**	**(2)**

Changes in the cash flow hedging reserve are presented in the table below.

	2018	2017
At beginning of period	**8**	**84**
CURRENCY RISK		
Hedging gains or losses recognised in other comprehensive income during reporting period	448	(29)
Part of loss taken to statement of profit or loss as hedged item was not expected to occur	-	-
Amount reclassified from cash flow hedging reserve to statement of profit or loss as reclassification adjustment	(3)	6
Amount transferred from cash flow hedging reserve and recognised as adjustment to carrying amount of inventories	(194)	-
COMMODITY PRICE RISK		
Hedging gains or losses recognised in other comprehensive income during reporting period	(524)	(59)
Part of loss taken to statement of profit or loss as hedged item was not expected to occur	(1)	-
Amount reclassified from cash flow hedging reserve to statement of profit or loss as reclassification adjustment	381	6
Amount transferred from cash flow hedging reserve and recognised as adjustment to carrying amount of inventories	(11)	-
Amount reclassified from cash flow hedging reserve to statement of profit or loss as reclassification adjustment for those hedging relationships to which hedge accounting is no longer applied	(16)	-
At end of period	**88**	**8**

Derivative instruments not designated for hedge accounting

Type of derivative instrument	2018		2017	
	Notional amount (million)	Fair value of instruments not designated for hedge accounting	Notional amount (million)	Fair value of instruments not designated for hedge accounting
Derivative instruments hedging interest rate risk and currency risk				
CCIRS				
NOK	2,318 NOK	94	2,318 NOK	114
Forward				
EUR	573 EUR	16	98 EUR	(12)
EUR	97 EUR	(8)	-	-
EUR	336 EUR	(15)	-	-
		87		**102**
Derivative instruments used as economic hedges of electricity purchase prices				
Forwards				
electricity – PPX	-	12	476 MWh	36
electricity – PPX	8 MWh	(7)	882 MWh	(34)
electricity – OTC	1 MWh	75	1 MWh	40
electricity – OTC	2 MWh	(97)	2 MWh	(64)
Futures				
electricity – EEX AG	5 MWh	203	2 MWh	71
electricity – EPEX SPOT	-	-	-	-
electricity – EEX AG	5 MWh	(180)	2 MWh	(47)
		6		**2**
Derivative instruments used to hedge gas purchase prices				
Forward				
gas - TGE	-	-	3 MWh	-
gas – OTC	30 MWh	305	15 MWh	94
gas – OTC	33 MWh	(342)	17 MWh	(113)
Futures				
gas – EEX AG	-	-	0.02 MWh	-
gas – EEX AG	-	-	0.02 MWh	-
gas – ICE ENDEX B.V.	7 MWh	85	2 MWh	16
gas – ICE ENDEX B.V.	5 MWh	(63)	2 MWh	(9)
gas – POWERNEXT SA	6 MWh	74	4 MWh	28
gas – POWERNEXT SA	6 MWh	(59)	3 MWh	(17)
TTF swap MA	1 MWh	2	-	-
TTF swap DA	5 MWh	37	-	-
TTF swap MA	1 MWh	(11)	-	-
TTF swap DA	2 MWh	(7)	-	-
		21		**(1)**
Derivative instruments used to hedge oil prices				
Futures				
Crude oil – ICE Futures Europe	-	11	-	-
Crude oil – ICE Futures Europe	-	(11)	-	-
		-		**-**
Derivative instruments used to hedge purchase prices of CO_2 emission allowances				
Forwards	2 EUR	-	7 EUR	-
Forwards	16 EUR	-	-	-
Forwards	-	-	12 t	(1)
Futures	1 t	-	11 t	1
		-		**-**
Derivative instruments used to hedge prices of property rights to certificates of energy origin – RES				
Forwards	-	-	0.86 MWh	1
Forwards	-	-	-	-
		-		**1**
Derivative instruments used to hedge share purchase prices				
Options	9 million shares	12	9 million shares	24
	Total	**126**	**Total**	**128**
	Including:		Including:	
	Assets	928	Assets	425
	Liabilities	802	Liabilities	297

Measurement of derivative financial assets and derivative financial liabilities is classified as level 2 in the fair value hierarchy (level 2: valuation based on observable inputs other than quoted prices).

Instrument	Valuation method	Key inputs
Currency call options	Garman Kohlhagen model	Market data such as interest rates, foreign-exchange rates, basis spreads, commodity prices and volatility of commodity prices
Asian commodity call and put options	Espen Levy model	
Forwards, average rate forwards, commodity swaps, CCIRS and IRS	Discount method	

7.3. Financial risk management policies

In its business activities, the Group is exposed in particular to the following types of financial risk:

- Credit risk **(Note 7.3.1.)**
- Market risk, including:
    - Commodity price risk **(Note 7.3.2.1.)**
    - Currency risk **(Note 7.3.2.2.)**
    - Interest rate risk **(Note 7.3.2.3.)**
- Liquidity risk **(Note 7.3.3.)**

To effectively manage the financial risks, the Parent implemented the 'Policy of Financial Risk Management at PGNiG S.A.' (the 'Policy'), which defines the distribution of functions and responsibilities between the Company's organisational units in the process of managing and monitoring the financial risks. The body responsible for ensuring compliance with the Policy and its periodic updates is the Risk Committee, which proposes risk management procedures, monitors the Policy implementation and revises the Policy as needed.

7.3.1. Credit risk

Credit risk is defined as the probability of failure by a Group's trading partner to meet its obligations on time or failure to meet such obligations at all, or the probability that the Group may be unable to recover any monies that have been deposited at a bank or otherwise invested.

The PGNiG Group's credit exposure arises mostly in connection with the following items:

Maximum risk exposure, equal to the carrying amount of the item	2018	2017
Cash and cash equivalents (cash at banks and bank deposits)	3,925	2,578
Non-current restricted cash	207	180
Trade receivables	4,864	4,743
Loans advanced	576	573
Total	**9,572**	**8,074**

As a rule, the Group concludes transactions in financial instruments with multiple entities with high creditworthiness. The key criteria applied by the Group in the selection of trading partners include their financial condition as confirmed by rating agencies, as well as their respective market shares and reputation.

Credit risk exposure associated with the individual items specified above is determined by reference to the carrying amounts of those items.

7.3.1.1. Credit risk related to cash and bank deposits

The Group seeks to minimize its credit exposure mainly by diversifying the portfolio of the institutions (mostly banks) with which the Group companies place their funds.

As at the reporting date, there was no concentration of credit risk within the Group. As at the end of 2018, the three banks with which the Group deposited the largest amounts of their funds accounted for 39%, 38% and 6% of the Group's total cash, respectively (2017: 36%, 22%, 19%).

Moreover, the parent has concluded Framework Agreements with all its relationship banks. The Framework Agreements stipulate detailed terms of execution and settlement of financial transactions between the parties.

The Group assesses the credit risk by reviewing the banks' financial standings on a regular basis, as reflected in ratings assigned to the banks by rating agencies.

The Group places its funds in a diversified portfolio of deposits held with reputable banks – the breakdown of the portfolio is presented below (the table also provides information on any derivatives contracts entered into with the financial institutions (where the Group carries assets in connection with such contracts)).

	Rating assigned by	2018		2017	
	Fitch	Bank deposits	Derivative instruments (assets)	Bank deposits	Derivative instruments (assets)
Bank\Financial Institution	A+	7%	7%	0%	0%
Bank\Financial Institution	A	0%	9%	4%	4%
Bank\Financial Institution	A-	2%	2%	88%	19%
Bank\Financial Institution	A2	0%	0%	0%	7%
Bank\Financial Institution	A2 (Moody's)	41%	11%	0%	0%
Bank\Financial Institution	A3 (Moody's)	0%	0%	1%	0%
Bank\Financial Institution	Baa1 (Moody's)	0%	6%	0%	0%
Bank\Financial Institution	BBB+	47%	3%	0%	0%
Bank\Financial Institution	BBB	1%	0%	4%	0%
Exchanges	-	0%	28%	0%	26%
OTC market	-	0%	30%	0%	38%
Bank\Financial Institution, other	-	2%	4%	3%	6%
Total		**100%**	**100%**	**100%**	**100%**

7.3.1.2. Credit risk related to receivables

The Group is exposed to credit risk of material value in connection with its trade receivables (i.e. amounts it is owed for any natural gas, LNG, crude oil or electricity the Group has sold) and other receivables (i.e. amounts owed to the Group for sold CO_2 emission allowances and certificates of origin for electricity).

Some of the Group's gas sales transactions are effected via the Polish Power Exchange ("PPX"). Transactions made at the Polish Power Exchange do not generate exposure to credit risk, as the system of guaranteed settlements operated by the Commodity Exchange Clearing House protects Clearing House members against insolvency of individual market participants. As at the reporting date, outstanding balances from settlement of transactions effected via the PPX were not material.

In order to minimise the risk of uncollectible receivables arising in connection with sale transactions executed outside of the PPE, uniform rules designed to secure trade receivables are in place.

In line with the procedures applied by the Group, each institutional trading partner's ability to meet current and future contractual obligations is assessed on a regular basis. Results of such assessment are used to determine individual credit limits granted to trading partners and the terms and conditions of the agreement, including the methods of settlement and potentially the security to be provided by the trading partners. The Group also minimises credit risk related to trade receivables by continuously monitoring the financial condition of its trading partners and taking appropriate measures to collect any debt in compliance with the procedures in place at the Group.

With respect to private customers, the Group's debt collection teams continuously monitor the balance of a customer's past-due receivables from the day when such arrears first arise. As part of the internal pre-litigation process, standard debt collection steps are taken: notification to the trading partners of overdue payments (by SMS, email or phone call), payment notice, notification and suspension of gas supply pursuant to Art. 6b.1.2) of the Energy Law. As a last resort, the Company terminates contracts due to non-payment, And the case is referred to court and subject to enforcement proceedings. Any debt that has not been recovered by the Group as part of its internal procedures is sold.

There is no credit risk concentration within the Group. As at December 31st 2018, trade receivables from the Group's three largest customers accounted for 6.3%, 5.0%, and 3.7% of the total balance of trade receivables, respectively (December 31st 2017: 10.4%, 2.1%, 1.5%).

7.3.1.3. Credit risk related to derivative transactions

Transactions in financial derivatives are executed with most reputable banks with high credit ratings. The Group has also concluded either Framework Agreements or ISDA Agreements with each of their relationship banks, stipulating detailed terms of service and limits of maximum exposure arising from the fair value of derivatives. The Group believes that all the measures described above protect it against any material credit-risk-related losses.

The relationship banks' credit ratings are presented in **Note 7.3.1.1**.

As at December 31st 2018, the shares of the three counterparty banks which accounted the largest proportion (in value terms) of transactions in derivative instruments with positive valuations were 38%, 15%, and 10% (2017: 61%, 23% and 5%).

7.3.2. Market risk

Market risk is defined as the risk of the Group's financial results or economic value being adversely affected by changes in the financial and commodity markets.

In line with the adopted policy, the purpose of the market risk management process in place at the Group is to:

- Reduce the volatility of cash flows related to the Group's operations to acceptable levels in the short- and medium term
- Build company value in the long term.

Considering potential impacts on its financial results, the Group has identified the following market risks:

Impact on financial results (↑)

Market risk	Approach to risk management
Natural gas and oil product prices	The Group manages the risk by purchasing derivatives to hedge natural gas prices.
EUR/PLN, USD/PLN and NOK/PLN exchange rates	[see above] The risk is mainly related to trade payables and debt instruments in issue. The Group hedges the risk by making purchases in the same currency.
Interest rates	The Group hedges the risk by purchasing derivatives.
Other commodity prices	The risk considered immaterial.

7.3.2.1. Commodity price risk

Commodity price risk is defined as the risk of the Group's financial results being adversely affected by changes in commodity prices.

The Group's exposure to commodity price risk arises mainly in connection with its gas fuel purchase and sale contracts entered into as part of daily trading activities on the PPX. It stems from volatility of prices of gas and oil products quoted on global markets. Under some of the contracts for gas fuel supply, the pricing formula relies on a weighted average of the prices recorded in previous months, which mitigates the volatility risk.

Commodity risk is also related to electricity trading, certificates of origin, and carbon credits. Trade in electricity is carried out on regulated exchange markets in Poland and abroad. The Group also executes transactions outside of regulated markets, under framework agreements. Commodity risk exposure is managed by mechanisms for identifying, calculating and monitoring exposure levels, as well as by valuation of open positions, value-at-risk measurement, and market risk limits.

The Group applies cash flow hedge accounting with respect to future, highly probable cash flows associated with the purchase/sale of gas and petroleum products. As for projected purchases and sales at prices resulting from PPX future indices, the Company hedges against a covert risk component being the value of the TTF DA index. In the case of contracts based on price formulas including the prices of BRENT and other petroleum products, the Company hedges against the risk component being the price of BRENT crude oil.

Based on historical analyses performed for the last two years (the Company hedges against commodity risk over a two-year time horizon), the Company determined that in the past the change in the TTF index accounted for approximately 120% of the volatility of the price of gas purchased/sold at the intraday price on the PPX. The Company also determined that there is a negative correlation between the TTF index and the currency exchange rate.

For details on hedge accounting, see **Note 7.2**.

For prices of electricity, carbon credits and certificates of origin, the Group applies economic hedges, but does not apply hedge accounting. For more information on derivatives not designated for hedge accounting, see **Note 7.2**.

The tables below present an analysis of sensitivity of material energy commodity derivatives (TTF) to price changes in 2018 and 2017.

2018	Carrying amount	TTF, EE - price change by:			
		+25%		-25%	
		Profit/(loss)	Other comprehensive income	Profit/(loss)	Other comprehensive income
Energy commodity derivative assets	928	10	2	152	500
Energy commodity derivative liabilities	1,116	(164)	(601)	(10)	-
Effect of TTF, EE* price changes		**(154)**	**(599)**	**142**	**500**

*The abbreviations TTF and EE are explained in Note 7.2.

2017	Carrying amount	TTF, EE - price change by:			
		+20%		-20%	
		Profit/(loss)	Other comprehensive income	Profit/(loss)	Other comprehensive income
Energy commodity derivative assets	312	45	-	10	-
Energy commodity derivative liabilities	286	(10)	-	(28)	-
Effect of TTF, EE* price changes		**35**	**-**	**(18)**	**-**

*The abbreviations TTF and EE are explained in Note 7.2.

7.3.2.2. Currency risk

Currency risk is defined as the risk of the Group's financial results being adversely affected by changes in the price of one currency against another.

As part of its risk management strategy, which consists in particular in managing the risk from a net open position in contracts to purchase or sell gas and petroleum products, the Group hedges the currency risk arising in connection with trading in gas and petroleum products payable by it under contracts settled in foreign currencies by entering into appropriate foreign exchange derivatives.

Currency risk largely arises on account of fluctuations in the EUR/PLN, USD/PLN and NOK/PLN exchange rates, And it mainly affects the Parent. The key sources of exposure include:

- Trade payables (mainly in respect of natural gas purchased by the Group (**Note 6.2.3.**),
- CCIRS hedging a NOK-denominated loan to PGNiG Upstream Norway AS (the loan is eliminated in the consolidated financial statements) (**Note 7.2.**), and
- Cash and cash equivalents (**Note 5.4.**).

The main objective of the Group's currency risk hedging activities is to mitigate volatility of net revenue from trading in gas and petroleum products (purchase, sale) arising from payments made in the euro, the US dollar and the Polish złoty, but resulting from economic indexation of commodity prices to the euro.

The Parent applies cash flow hedge accounting with respect to future, highly probable foreign-currency costs to purchase gas and petroleum products under contracts settled in the euro or the US dollar and economically indexed to the euro. The Company designates as a hedged item the risk component being the EUR/PLN exchange rate in those gas purchase and/or sale contracts for which the price is not determined in either of the currencies, but which give rise to the exposure to, inter alia, the EUR/PLN exchange rate. For details of the hedging transactions, see **Note 7.2**.

Analyses performed by the Company confirmed that currency exchange movements have a material impact on gas prices in Poland. As it is common knowledge that gas prices in Poland are strongly correlated with gas prices in Germany, and based on analyses, despite the fact that the foreign currency component is not expressly specified in the price of gas in Poland, the Company finds that such component can be separated and reliably measured.

Based on historical analyses performed for the last two years (the Company hedges against currency risk over a two-year time horizon), the Company determined that in the past currency exchange movements accounted for approximately 20% of the volatility of the price of gas purchased/sold at the intraday price (i.e. other than under contracts to sell/purchase gas at the price determined at the time of contract execution/amendment).

In 2018, the Group used derivative instruments to hedge against currency risk associated with trade payables/receivables denominated in foreign currencies (chiefly USD and EUR), including forwards and average rate forwards/currency swaps. For detailed information on derivative transactions executed by the Group (derivatives designated for hedge accounting and economic hedges not designated for hedge accounting), see **Note 7.2**.

The table below presents the Group's exposure to currency risk arising in connection with material items denominated in foreign currencies, and an analysis of the Group's sensitivity to the risk of movements in foreign exchange rates that the Group considers to be reasonably possible as at the reporting date (December 31st 2018).

2018	Carrying amount	Value at risk	EUR/PLN				USD/PLN				NOK/PLN				
			Exchange rate change: +10%		Exchange rate change: -10%		Exchange rate change: +10%		Exchange rate change: -10%		Exchange rate change: +10%		Exchange rate change: -10%		
			Profit/(loss)	Other comprehensive income	Profit/(loss)	Other comprehensive income	Profit/(loss)	Other comprehensive income	Profit/(loss)	Other comprehensive income	Profit/(loss)	Other comprehensive income	Profit/(loss)	Other comprehensive income	
Financial assets															
Trade receivables	4,864	990	51	-	(51)	-	23	-	(23)	-	3	-	(3)	-	*Note 6.2.2.*
Derivative financial instruments (assets)	1,318	377	-	-	47	285	-	293	-	-	-	-	-	-	*Note 7.2.*
Cash and cash equivalents	3,925	971	22	-	(22)	-	53	-	(53)	-	2	-	(2)	-	*Note 5.4.*
Financial liabilities															
Financing liability	3,702	1,174	(29)	-	29	-	(66)	-	66	-	-	-	-	-	*Note 5.2.*
Trade payables	1,411	1,014	(57)	-	57	-	(20)	-	20	-	(3)	-	3	-	*Note 6.2.3.*
Derivative financial instruments (liabilities)	1,160	43	(47)	(285)	-	-	-	-	-	(293)	-	-	-	-	*Note 7.2.*
Effect of exchange rate movements			**(60)**	**(285)**	**60**	**285**	**(10)**	**293**	**10**	**(293)**	**2**	**-**	**(2)**	**-**	

2017	Carrying amount	Value at risk	EUR/PLN				USD/PLN				NOK/PLN				
			Exchange rate change: +10%		Exchange rate change: -10%		Exchange rate change: +10%		Exchange rate change: -10%		Exchange rate change: +10%		Exchange rate change: -10%		
			Profit/(loss)	Other comprehensive income	Profit/(loss)	Other comprehensive income	Profit/(loss)	Other comprehensive income	Profit/(loss)	Other comprehensive income	Profit/(loss)	Other comprehensive income	Profit/(loss)	Other comprehensive income	
Financial assets															
Trade receivables	4,743	1,164	66	-	(66)	-	21	-	(21)	-	2	-	(2)	-	*Note 6.2.2.*
Derivative financial instruments (assets)	450	114	2	-	-	-	-	20	-	-	-	-	86	-	*Note 7.2.*
Cash and cash equivalents	2,578	246	15	-	(15)	-	3	-	(3)	-	-	-	-	-	*Note 5.4.*
Financial liabilities															
Financing liability	3,006	827	(44)	-	44	-	(23)	-	23	-	-	-	-	-	*Note 5.2.*
Trade payables	1,326	904	(29)	-	29	-	(40)	-	40	-	(2)	-	2	-	*Note 6.2.3.*
Derivative financial instruments (liabilities)	322	20	-	-	(2)	-	-	-	-	(20)	(86)	-	-	-	*Note 7.2.*
Effect of exchange rate movements			**10**	**-**	**(10)**	**-**	**(39)**	**20**	**39**	**(20)**	**(86)**	**-**	**86**	**-**	

7.3.2.3. Interest rate risk

Interest rate risk is defined as the risk of the Group's financial results being adversely affected by changes in interest rates.

The Group is exposed to interest rate risk primarily in connection with its:

- Cash and cash equivalents (bank deposits) (**Note 5.4.**).
- Financing liabilities (**Note 5.2.**),
- CCIRS and IRS not designated for hedge accounting (**Note 7.2.**).

Market risk (currency and interest rate risk) is monitored by the Group through sensitivity analysis and VaR measurement. VaR (value at sk) means that the maximum loss arising from a change in the market (fair) value will not exceed that value over the next n business days, given a specified probability level (e.g. 99%). VaR is estimated using the variance-covariance method. VaR is estimated using the variance-covariance method.

Items bearing variable-rate interest expose the Group to the risk of interest rate movements causing changes in cash flows associated with a given item by affecting interest income/expense recognised in profit or loss. Items bearing fixed-rate interest expose the Group to the risk of fair value changes. However, since the items are measured at amortised cost (save for derivatives), any such change has no impact on their carrying amounts or on profit or loss.

The table below presents key items exposed to interest rate risk, and an analysis of the Group's sensitivity to interest rate movements affecting items bearing variable-rate interest, which the Group considers reasonably possible as at the reporting date.

	2018				2017				
	Carrying amount	Balances bearing interest at variable rate	Interest rate movement: +30 pb	Interest rate movement: -+30 pb	Carrying amount	Balances bearing interest at variable rate	Interest rate movement: +30 pb	Interest rate movement: -+30 pb	
Cash and cash equivalents	3,925	2,355	7	(7)	2,578	907	3	(3)	*Note 5.4.*
CIRS not designated for hedge accounting (assets)	94	1,003	(106)	106	102	983	-	-	*Note 7.2.*
Financing liabilities	3,702	1,393	(4)	4	3,006	1,104	(3)	3	*Note 5.2.*
CIRS not designated for hedge accounting – liabilities	-	-	-	-	-	-	-	-	*Note 7.2.*
IRS designated for hedge accounting (liabilities)	-	-	-	-	16	1,500	5	(5)	*Note 7.2.*
Effect after hedge accounting			**(103)**	**103**			**5**	**(5)**	

7.3.3.Liquidity risk

Liquidity risk is defined as the risk of inadequate liquidity restricting the Group's ability to finance its capital requirements or the risk of structural excess liquidity adversely affecting profitability of the Group's business.

The main objective of the liquidity risk management is to monitor and plan the Group's liquidity on a continuous basis. Liquidity is monitored through at least 12-month projections of future cash flows, which are updated once a month. The Group reviews the actual cash flows against projections at regular intervals, which comprises an analysis of unmet cash-flow targets, as well as the related causes and effects.

The liquidity risk should not be associated exclusively with the risk of loss of liquidity by the Group. An equally serious threat is that of having excess structural liquidity, which could adversely affect the Group's profitability. The Group monitors and plans its liquidity levels on a continuous basis. As at December 31st 2018, the Group did not carry any amounts outstanding under overdraft facilities.

To enhance its liquidity position, the Group has launched several note issuance programmes. For details on note issue, see **Note 5.2**.

The Group companies have also contracted lines of credit, as set out in **Note 5.2.1.**

The liquidity risk at the Parent is significantly mitigated by following the PGNiG S.A. Liquidity Management Procedure, which ensures proper financial liquidity management through:

- Settlement of payments,
- Cash flow forecasting,
- Optimal free cash management,
- Raising and restructuring funds used to finance day-to-day operations and investment projects,
- Providing protection against temporary liquidity constraints resulting from unforeseen disruptions, and servicing contracted bank loans.

Measurement of the liquidity risk is based on ongoing detailed monitoring of cash flows, which takes into account the probability that specific flows will materialise, as well as the planned net cash position.
The tables below present maturities of financial liabilities at contractual undiscounted amounts.

2018	Time to contractual maturity at the reporting date					Total	Carrying amount
	Up to 3 months	3–12 months	1-3 years	3-5 years	over 5 years		
Financing liabilities							
Bank borrowings	9	210	645	429	93	**1,386**	**1,385**
Debt securities	2,300	-	-	-	-	**2,300**	**2,298**
Other	4	3	8	4	-	**19**	**19**
Trade payables	2,455	46	63	12	39	**2,615**	**2,615**
Derivative financial liabilities							
IRS designated for hedge accounting							
- inflows	-	-	-	-	-	**-**	**-**
- outflows	-	-	-	-	-	**-**	**-**
Forwards							
- inflows	2,340	3,110	1,132	-	-	**6,582**	**-**
- outflows	(2,299)	(3,245)	(1,124)	-	-	**(6,668)**	**488**
Other derivative instruments							
- inflows	91	317	129	-	-	**537**	**-**
- outflows	(103)	(423)	(145)	-	-	**(671)**	**670**
Financial liabilities (outflows)	**7,170**	**3,927**	**1,985**	**445**	**132**	**13,659**	**-**
Financial liabilities, including inflows from derivatives	**4,739**	**500**	**724**	**445**	**132**	**6,540**	**7,475**

2017	Time to contractual maturity at the reporting date					Total	Carrying amount
	Up to 3 months	3–12 months	1-3 years	3-5 years	over 5 years		
Financing liabilities							
Bank borrowings	4	136	311	474	160	**1,085**	**1,085**
Debt securities	1,900	-	-	-	-	**1,900**	**1,898**
Other	4	12	6	1	-	**23**	**23**
Trade payables	2,190	49	64	35	38	**2,376**	**2,376**
Derivative financial liabilities							
IRS designated for hedge accounting							
- inflows	15	16	-	-	-	**31**	**-**
- outflows	(15)	(15)	-	-	-	**(30)**	**16**
Forward							
- inflows	857	573	853	1	-	**2,284**	**-**
- outflows	(120)	(514)	(809)	-	-	**(1,443)**	**232**
Other derivative instruments							
- inflows	5	9	1	-	-	**15**	**-**
- outflows	(1)	-	(5)	-	-	**(6)**	**74**
Financial liabilities (outflows)	**4,234**	**726**	**1,195**	**510**	**198**	**6,863**	**-**
Financial liabilities, including inflows from derivatives	**3,357**	**128**	**341**	**509**	**198**	**4,533**	**5,704**

8. Other notes

8.1. Share capital and share premium

2018	Number of shares	Total par value	% of share capital / total voting rights held
Shareholder			
State Treasury	4,153,706,157	4,153,706,157	71.88%
Treasury shares	-	-	0.00%
Other shareholders	1,624,608,700	1,624,608,700	28.12%
Total	**5,778,314,857**	**5,778,314,857**	**100.00%**

2017	Number of shares	Total par value	% of share capital / total voting rights held
Shareholder			
State Treasury	4,153,706,157	4,153,706,157	71.88%
Treasury shares	-	-	0.00%
Other shareholders	1,624,608,700	1,624,608,700	28.12%
Total	**5,778,314,857**	**5,778,314,857**	**100.00%**

8.2. Earnings per share

Accounting policies

Basic earnings per share are calculated by dividing net profit/(loss) attributable to holders of the Parent's ordinary shares for a given reporting period by the weighted average number of outstanding ordinary shares in the reporting period.

Diluted earnings per share are calculated by dividing net profit/(loss) attributable to holders of the ordinary shares for a given reporting period (less interest on redeemable preference shares convertible into ordinary shares) by the weighted average number of outstanding ordinary shares in the reporting period (adjusted for the effect of dilutive options and dilutive redeemable preference shares convertible into ordinary shares).

The Group's diluted earnings per share are equal to basic earnings per share because the Group has no instruments with a dilutive effect.

Earnings per share and the weighted average number of ordinary shares are presented in the consolidated statement of profit or loss.

8.3. Assets held for sale

Accounting policies

The Group classifies a non-current asset (or disposal group) as held for sale if its carrying amount is to be recovered principally through a sale transaction rather than through continuing use. Non-current assets held for sale are measured at the lower of their net carrying amount and fair value less cost to sell. If the fair value is lower than the net carrying amount, the difference is charged to profit or loss as an impairment loss.

Asset (disposal group) held for sale	Terms and expected date of disposal	Carrying amount	
		2018	2017
Shares in held-for-sale companies	According to a valuation by an expert appraiser and as determined in negotiations (sale in 2018)	-	3
Property (office building) in Kraków, ul. Lubicz 25	Sold in 2018	-	40
Other non-current assets held for sale	Tender (sale expected in 2018 or 2020)	46	23
Total		**46**	**66**

8.4. Other assets

Accounting policies

Loans advanced are initially recognised at fair value and as at each reporting date are measured at amortised cost, using the effective interest rate method.

Non-current restricted cash represents cash of the Extraction Facilities Decommissioning Fund, accumulated by the Parent in a separate bank account from the first day of operation to the start of decommissioning of extraction facilities. The Fund's cash is increased by the amount of interest accruing on the Fund's assets. Due to formal and legal limitations on the use of this cash (it may only be applied towards specific long-term objectives), the assets accumulated in the Extraction Facilities Decommissioning Fund are recognised in the Group's statement of financial position as other assets under non-current assets. The amount of the provision for decommissioning of production and storage wells is adjusted for any unused contributions to the Extraction Facilities Decommissioning Fund (**Note 6.1.1.1**)

Connection charge is disclosed under accrued income. The charge amount is accounted for throughout the average useful lives of the relevant assets.

Unlisted shares are measured at cost (less impairment losses, if any) because their fair value cannot be measured reliably.

Amounts receivable under long-term contracts are the excess of recognised income (measured using the percentage of completion method) over progress billings.

Other non-current assets and other current assets include mainly prepayments.

	2018	2017
Other non-current assets	**1,363**	**1,055**
Loans advanced	562	242
Non-current restricted cash	207	180
Connection charge	125	128
Unlisted shares	30	26
Investment property	153	157
Prepayments for other tangible assets under construction, not related to exploration	182	186
Financial receivables (deposits, guarantees, and other)	67	99
Other non-current assets	37	37
Other current assets	**204**	**216**
Amounts receivable under long-term contracts	17	19
Other current assets	187	197

Changes in gross carrying amount of loans advanced

	Loans advanced		
	12-month expected loss	Lifetime expected loss	Impaired
Gross carrying amount as at January 1st 2018	**551**	**-**	**50**
Transfer to group with 12-month expected loss	-	-	-
Transfer to group with lifetime expected loss	-	-	-
Transfer to impaired group	-	-	-
Repaid financial assets	-300	-	(3)
Newly recognised financial assets	371	25	-
Write-offs	-	-	-
Changes due to modification of risk parameters	-	-	-
Other effect	(62)	-	8
Gross carrying amount as at December 31st 2018	**560**	**25**	**55**

Change in impairment losses on gross carrying amount of loans advanced in the reporting period

	Loans advanced		
	12-month expected loss	Lifetime expected loss	Impaired
As at Jan 1 2018	**54**	**-**	**49**
Increase taken to profit or loss	88	-	4
Decrease taken to profit or loss	(123)	-	(3)
Used	-	-	-
Transfers	-	-	-
Other changes	(10)	-	5
As at Dec 31 2018	**9**	**-**	**55**

Change in impairment of loans advanced

	Loans advanced		
	12-month expected loss	Lifetime expected loss	Impaired
Impairment as at Jan 1 2018	**54**	**-**	**49**
Transfer to group with 12-month expected loss	-	-	-
Transfer to group with lifetime expected loss	-	-	-
Transfer to impaired group	-	-	-
Impairment losses used	-	-	-
Repaid financial assets	(123)	-	(3)
Newly recognised financial assets	88	-	4
Changes due to modification of risk parameters	-	-	-
Effect of exchange rate movements and other	(10)	-	5
Impairment as at Dec 31 2018	**9**	**-**	**55**

8.5. Contingent assets and liabilities

Contingent asset	2018	2017
	Estimated amount	
Sureties and guarantees received	-	-
Promissory notes received	1	3
Grants awarded	218	172
Other contingent assets	14	15
Total	**233**	**190**

The increase in contingent assets in the reporting period is mainly attributable to the co-financing granted to Polska Spółka Gazownictwa Sp. z o.o. for the construction of new gas pipelines as part of the gas network roll-out process.

Contingent liabilities	2018	2017
	Estimated amount	
Guarantees and sureties	3,504	3,537
Promissory notes	784	702
Other	8	11
Total	**4,296**	**4,250**

The decrease in contingent liabilities under sureties and guarantees granted in the reporting period was principally due to the expiry of guarantees issued as security for gas supplies.

8.6. Joint operations

Accounting policies

In relation to its interest in **joint operations**, the Group, as a joint operator, recognises in its financial statements:

- its assets, including its share of any assets held jointly,
- its liabilities, including its share of any liabilities incurred jointly,
- its revenue from the sale of its share of the output arising from the joint operation;
- its share of the revenue from the sale of the output by the joint operation; and
- its expenses, including its share of any expenses incurred jointly.

As assets, liabilities, revenues and costs relating to the joint operation are also disclosed in the separate financial statements of the party, these items are not subject to adjustment or other consolidation procedures when preparing consolidated financial statements of that party.

Figure 2 Countries where the Group conducts joint operations

The Group is involved in joint operations mainly in Poland, and also in Norway and Pakistan. They consist mainly in exploration for and production of natural gas and crude oil, except for operations conducted in south-eastern Poland, where they involve an initial stage of exploration for unconventional deposits of gas.

Material estimates

As at the end of the reporting period, the Group was involved in joint ventures, as defined in IFRS 11, as part of projects carried out in Norway in the PL460 licence area, of which it had joint control.

As at December 31st 2018, the Group also held interests in other licences on the Norwegian Continental Shelf, covering, among others, the Skarv, Gina Krog, Morvin, Vilje, Vale and Tommeliten Alpha fields. Considering the IFRS 11 criteria, the Group's operations in the above fields do not represent joint arrangements as defined in the standard and the Group does not have joint control of the operations as there is more than one combination of parties that can agree to make significant decisions. Therefore, for the purpose of correct recognition and measurement of transactions related to the operations in those fields, the Group applies other relevant IFRSs taking into account its interest in the fields, which ensures that there are no material differences in the accounting recognition and measurement of transactions related to these operations and the manner of recognising operations which are carried out jointly with the PL460 licence interest holders and meet the definition of joint operations within the meaning of IFRS 11.

For more information on joint operations, see the Directors' Report on the operations of PGNiG S.A. and the PGNiG Group.

A detailed list of joint operations in which the Group is involved is presented in the tables below.

2018

Name of joint contractual arrangement	Country where joint operation is conducted	Interests in joint operations	Business of joint operations
Joint operation in the Sieraków licence area	Poland	PGNiG S.A. 51%; Orlen Upstream Sp. z o.o. 49%	Oil and gas exploration and production
Joint operation in the Płotki licence area	Poland	PGNiG S.A. 51%; FX Energy (Grupa ORLEN) 49%	Oil and gas exploration and production
Joint operation in the Górowo Iławieckie licence area	Poland	PGNiG S.A. 51%; LOTOS Petrobaltic S.A. 49%	Oil and gas exploration and production
Joint operation in the Poznań licence area	Poland	PGNiG S.A. 51%; FX Energy (Grupa ORLEN) 49%	Oil and gas exploration and production
Joint operation in the Bieszczady licence area	Poland	PGNiG S.A. 51%; ORLEN Upstream sp. z o.o. 49%	Oil and gas exploration and production
Joint operation in the Warszawa Południe licence area	Poland	FX Energy (Grupa ORLEN) 81.82%; PGNiG S.A. 18.18%	Oil and gas exploration and production
Joint operation in the Kirthar licence area	Pakistan	PGNiG S.A. 70%; Pakistan Petroleum Ltd. 30%	Oil and gas exploration and production
Joint operation in the PL460 licence area	Norway	PGNiG UI 35%, AkerBP 65%	Oil and gas exploration and production

2017

Name of joint contractual arrangement	Country where joint operation is conducted	Interests in joint operations	Business of joint operations
Joint operation in the Sieraków licence area	Poland	PGNiG S.A. 51%; Orlen Upstream Sp. z o.o. 49%	Oil and gas exploration and production
Joint operation in the Płotki licence area	Poland	PGNiG S.A. 51%; FX Energy (Grupa ORLEN) 49%	Oil and gas exploration and production
Joint operation in the PTZ Zaniemyśl licence area	Poland	PGNiG S.A. 51%; FX Energy 24.5%; Cal Energy 24.5%	Oil and gas exploration and production
Joint operation in the Kamień Pomorski licence area	Poland	PGNiG S.A. 51%; LOTOS Petrobaltic S.A. 49%	Oil and gas exploration and production
Joint operation in the Górowo Iławieckie licence area	Poland	PGNiG S.A. 51%; LOTOS Petrobaltic S.A. 49%	Oil and gas exploration and production
Joint operation in the Poznań licence area	Poland	PGNiG S.A. 51%; FX Energy (Grupa ORLEN) 49%	Oil and gas exploration and production
Joint operation in the Bieszczady licence area	Poland	PGNiG S.A. 51%; ORLEN Upstream sp. z o.o. 49%	Oil and gas exploration and production
Joint operation in the Warszawa Południe licence area	Poland	PGNiG S.A. 49%; FX Energy (Grupa ORLEN) 51%	Oil and gas exploration and production
Joint operation in the Kirthar licence area	Pakistan	PGNiG S.A. 70%; Pakistan Petroleum Ltd. 30%	Oil and gas exploration and production
Joint operation in the PL460 licence area	Norway	PGNiG UI 35%, AkerBP 65%	Oil and gas exploration and production
Joint operation in the PL856 licence area	Norway	PGNiG UI 25%, Capricorn 75%	Oil and gas exploration and production

8.7. Changes in the Group structure in the reporting period

Date	Company	Event
January 15th 2018	PGNiG Finance AB i likvidation	The resolution on liquidation of PGNiG Finance AB of Stockholm was registered. As of January 15th 2018, the company's name is PGNiG Finance AB i likvidation
March 16th 2018	CIFL Sp. z o.o.	The change of company name Gas Assets Management Sp. z o.o. to CIFL Sp. z o.o. was entered in the National Court Register. On December 21st 2018, the General Meeting of CIFL Sp. z o.o. resolved to dissolve the company. The resolution became effective as of January 1st 2019.

8.8. Other relevant information

8.8.1. Auditor fees

	2018	2017
Audit of the full-year separate financial statements and the full-year consolidated financial statements of the Group	1.76	1.97
Other assurance services, including review of financial statements	0.52	0.29
Other services	0.30	0.20
Total	**2.58**	**2.46**

Deloitte Polska Sp. z o.o. Sp.k. was the entity qualified to audit and review financial statements of the Parent and some of the subsidiaries, as well as the consolidated financial statements of the PGNiG Group.

The agreement was concluded on May 5th 2016 and covers the years 2016–2018.

Deloitte Polska Sp. z o.o. Sp.k. also provided review and other permitted services for the Group companies.

8.9. Events subsequent to the end of the reporting period

Date	Company	Event
January 16th 2019	PGNiG S.A.	The PGNiG Supervisory Board passed a resolution to remove Mr Radosław Bartosik from the position of Vice President of the PGNiG Management Board, Chief Operating Officer.
January 25th 2019	Polska Spółka Gazownictwa sp. z o.o.	By a decision of January 25th 2019, the President of the Energy Regulatory Office ("President of URE") approved new Tariff No. 7 for gas fuel distribution and liquefied natural gas regasification services provided by Polska Spółka Gazownictwa sp. z o.o. ("Distribution Tariff"). The average reduction of prices and rates of network fees used for settlements with customers in the Distribution Tariff in relation to the current tariff of Polska Spółka Gazownictwa sp. o.o. for all tariff groups with the exception of coke gas is 5%. The Distribution Tariff will be effective from February 15th to December 31st 2019. For detailed information on the approved Distribution Tariff, see www.ure.gov.pl and Biuletyn Branżowy URE – Paliwa gazowe (the ERO official gazette – Gaseous fuels).
January 25th 2019	PGNiG Obrót Detaliczny Sp. z o.o.	On January 25th 2019, the President of the Energy Regulatory Office approved new Gas Fuel Trading Tariff No. 7 of PGNiG Obrót Detaliczny Sp. z o.o. ("Retail Tariff"). The new Retail Tariff provides for a 2.5% increase in gas fuel prices for all tariff groups relative to the previous tariff of PGNiG Obrót Detaliczny Sp. z o.o. Subscription fees were adjusted in the 2.2 and 3.6 tariff groups by -1.3% and 0.3%, respectively, while in the other tariff groups they remained unchanged. Furthermore, new Retail Tariff groups were introduced for customers using prepaid metering systems. The Retail Tariff applies only to household consumers of gaseous fuels. The Retail Tariff will be effective from February 15th to December 31st 2019. For detailed information on the approved tariffs, see www.ure.gov.pl and Biuletyn Branżowy URE – Paliwa gazowe (the ERO official gazette – Gaseous fuels).
March 11th 2019	PGNiG S.A. PGNiG TERMIKA S.A.	On March 11th 2019 the President of the Office of Competition and Consumer Protection's notice of an initiation of the Anti-trust proceedings, whose parties are Veolia Energia Warszawa S.A., Veolia Energia Polska S.A., PGNiG TERMIKA S.A., a subsidiary of PGNiG, and PGNiG itself, regarding violation of prohibitions – which was supposed to take place in connection with suspicion of an agreement in 2014 – stated in Art. 6.1.1, 6.1.3 and 6.1.7 of the Act on Competition and Consumer Protection, as well as Art. 101.1.a and 101.1.c of the Treaty on the Functioning of the European Union in respect to heat price fixing, heat market division and reconciliation of the terms of offers placed in tenders for heat sales and deliveries.

PGNiG Management Board:

President of the Management Board	Piotr Woźniak	....
Vice President of the Management Board	Łukasz Kroplewski	....
Vice President of the Management Board	Michał Pietrzyk	....
Vice President of the Management Board	Maciej Woźniak	....
Vice President of the Management Board	Magdalena Zegarska	....
Responsible person for preparing the Consolidated Financial Statements	Aleksandra Sobieska-Moroz	....

Warsaw, March 13th 2019

This document is an English version of the original Polish version.
In case of any discrepancies between the Polish and English version, the Polish version shall prevail.

Polskie Górnictwo Naftowe i Gazownictwo S.A.

Directors' Report on the operations of PGNiG S.A. and the PGNiG Group

in 2018

Definitions

Whenever any of the following acronyms and terms appears in this Directors' Report on the Operations of PGNiG and the PGNiG Group in 2018 and nothing to the contrary is stated herein, these acronyms and terms should be interpreted as follows:

Proper names of companies and branches **PGNiG, Company or Issuer** – PGNiG S.A. as the parent of the group; **PGNiG Group**, **Group** – the PGNiG Group, which includes PGNiG S.A. as the parent and the subsidiaries; **CLPB** – Oddział Centralne Laboratorium Pomiarowo-Badawcze PGNiG S.A.; **ECSW** – Elektrociepłownia Stalowa Wola S.A.; **EXALO** – EXALO Drilling S.A.; **Gazoprojekt** – PGNiG Gazoprojekt S.A.; **GEOFIZYKA Kraków** – GEOFIZYKA Kraków Sp. z o.o. w likwidacji; **GEOFIZYKA Toruń** – GEOFIZYKA Toruń Sp. z o.o.; **GEOVITA** – GEOVITA S.A.; **GSP** – Gas Storage Poland Sp. z o.o.; **PGG** – Polska Grupa Górnicza Sp. z o.o.; **PGNiG OD** – PGNiG Obrót Detaliczny Sp. z o.o.; **PGNiG Technologie** – PGNiG Technologie Sp. z o.o.; **PGNiG TERMIKA** – PGNiG TERMIKA S.A.; **PGNiG TERMIKA EP** – PGNiG TERMIKA Energetyka Przemysłowa S.A.; **PGNiG UN** – PGNiG Upstream Norway AS; **PGNiG UNA** – PGNiG UPSTREAM NORTH AFRICA B.V.; **Polski Gaz TUW** – Polski Gaz Towarzystwo Ubezpieczeń Wzajemnych (mutual insurance company); **PSG** – Polska Spółka Gazownictwa Sp. z o.o.; **PST** – PGNiG Supply & Trading GmbH; **PST ES –** PST Europe Sales GmbH.

Names of institutions, capital market entities and energy markets: **EEX** – European Energy Exchange (an energy exchange in Germany); **GASPOOL** – GASPOOL Balancing Services GmbH (a hub in Germany); **GAZ-SYSTEM** – Operator Gazociągów Przesyłowych GAZ-SYSTEM S.A.; **WSE –** Warsaw Stock Exchange (Giełda Papierów Wartościowych w Warszawie S.A.); **National Court Register** – National Court Register; **NCG** – NetConnect Germany GmbH & Co. KG (a hub in Germany); **NBP** – National Balancing Point (a hub in the UK); **LNG Terminal** – the President Lech Kaczyński LNG Terminal in Świnoujście; **PPX** – Towarowa Giełda Energii S.A. (Polish Power Exchange); **TTF** – Title Transfer Facility; **URE** – Energy Regulatory Office;

With respect to units: **bbl** – one barrel of crude oil; **boe** – barrel of oil equivalent; **LNG** – liquefied natural gas; **Mg** – 1 megagram equals 1 tonne, unit used to measure amount of rainfall; **MWt** – 1 megawatt thermal; **MWe** – 1 megawatt electrical; **NGL** – gas composed of molecules heavier than methane: ethane, propane, butane, isobutane, etc. (natural gas liquids); **PJ –** 1 petajoule; **TWh** – 1 terawatt hour.

With respect to economic and financial ratios: **EBIT** – earnings before interest and taxes; **EBITDA** – earnings before interest, taxes, depreciation and amortisation; **EV** – enterprise value; **P/BV** – price/book value; **P/E** – price/earnings; **ROA** – return on assets; **ROE** – return on equity.

Other abbreviations: **HP** – heat plant; **CHPP** – combined heat and power plant; **SFG** – Storage Facilities Group; **SF** − storage facilities; **CGSF** – cavern gas storage facility; **EGM** – Extraordinary General Meeting (of a joint-stock company); **EGM** − Extraordinary General Meeting (of a limited liability company); **UGSF** – underground gas storage facilities; **GM** – General Meeting (of a joint-stock company); **GM** − General Meeting (of a limited liability company).

With respect to currency units: amounts expressed in the Polish złoty are designated with the acronym **PLN**; amounts expressed in the euro are designated with the acronym **EUR**; amounts expressed in the US dollars are designated with the acronym **USD**; amounts expressed in the Norwegian krone are designated with the acronym **NOK**; amounts expressed in the Swedish krone are designated with the acronym **SEK**; amounts expressed in the Ukrainian hryvnia are designated with the acronym **UAH**; and amounts expressed in the Omani rial are designated with the acronym **OMR.**

Converters

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	10,972
1m tonnes of crude oil	1,113	1	0.81	42.7	7.5 - 7,8*	11.65
1m tonnes of LNG	1.38	1.23	1	55	8.68	14.34
1 PJ	0,026	0.23	0,019	1	0.17	0.28
1m boe	0.16	0,128 - 0,133*	0.12	6.04	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.*

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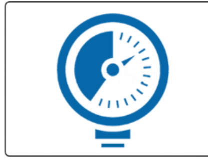
1. The PGNiG Group in 2018

1.1. Key financial and operating metrics

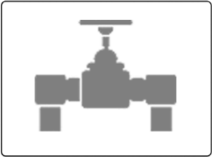
PLN 41.2bn	PLN 7.1bn	PLN 4.4bn	PLN 3.2bn	PLN 53.3bn
Revenue	EBITDA	EBIT	Net profit	Total assets
Third	PLN 39.9bn	24.8 thousand	8.8%	6.0%
largest company listed on the WSE*	Market capitalisation	Number of employees	ROE	ROA

5.6	12.6	1.1	PLN 24.2m
EV/EBITDA	P/E	P/BV	Average daily value of trading

1.3m tonnes	4.5 bcm
Production of crude oil, condensate and NGL	Production of natural gas
858 mboe	209
Oil and gas reserves	Number of producing licences



29 bcm	3.0 bcm
Volume of gas sold	Gas storage capacities
8.8 bcm	13.5 bcm
Volume of gas sold on PPX	Volume of imported gas



7m	186 thousand km
Number of customers	Length of distribution network
1,510	11.7 bcm
Number of municipalities connected to the gas grid	Volume of distributed gas

40.7 PJ	1.0 GW
Heat output	Electric power
5.3 GW	4.0 TWh
Thermal power	Electricity output

**In terms of market capitalisation as at December 31st 2018.*

1.2. Calendar of corporate events

January 2018

- January 19th – an agreement is concluded with GAZ-SYSTEM for the provision of gas transmission services from October 1st 2022 until September 30th 2037, as part of the 2017 Open Season procedure of the Baltic Pipe project, concerning gas transmission from Norway to Poland via Denmark. > For more information, see Section 7.1.2.
- January 25th – President of URE's decision to reduce the prices and rates of network fees under the PSG Distribution Tariff by 7.37%. > For more information, see Section 4.1.1.
- January 29th – an agreement is concluded with the Danish transmission system operator Energinet for the provision of gas transmission services from October 1st 2022 until September 30th 2037, as part of the 2017 Open Season procedure of the Baltic Pipe project. > For more information, see Section 7.1.2.

March 2018

- March 2nd – a contract is concluded with Naftogaz for the supply of over 60 mcm of gas until the end of March 2018 following the suspension of gas deliveries to Ukraine by Gazprom.
- March 8th – an agreement is signed for the provision of a PLN 450m loan to ECSW by PGNiG and Bank Gospodarstwa Krajowego S.A. > For more information, see Section 7.1.2.
- March 14th – President of URE's decision to increase the price of gas fuel under the PGNiG OD Retail Tariff by 1%. > For more information, see Section 4.1.1.
- March 19th – an agreement is signed with Mari Petroleum Company Limited on strategic partnership in the upstream segment within and outside of Pakistan. > For more information, see Section 5.1.4.

April 2018

- April 19th – an agreement is signed between PGNiG OD and LOTOS Asfalt Sp. z o.o. for joint provision of LNG bunkering services. > For more information, see Section 5.2.3.

May 2018

- May 9th – the Norwegian Ministry of Petroleum and Energy approves geological documentation and field development plans for Ærfugl and Skogul. > For more information, see Section 5.1.4.

June 2018

- June 26th − agreements are executed with Port Arthur LNG, LLC and Venture Global LNG, Inc., setting out the key terms of a long-term contract for LNG supplies. > For more information, see Section 5.2.3.
- June 30th − Arbitration Institute issues a partial ad hoc award in the arbitration proceedings brought by PGNiG against PAO Gazprom and OOO Gazprom Export concerning the price of gas under the Yamal contract. > For more information, see Section 5.2.3.

July 2018

- July 20th – PGNiG Annual General Meeting's decision on the allocation of net profit for the financial year 2017. > For more information, see Section 9.4.
- July 26th – President of URE's decision to increase the price of gas fuel under the PGNiG OD Retail Tariff by 5.9%. > For more information, see Section 4.1.1.

September 2018

- September 24th – PGNiG is included in the FTSE Russell index. > For more information, see Section 9.2.
- September 25th – PGNiG Management Board's proposal to the Extraordinary General Meeting concerning amendments to the Articles of Association enabling the payment of interim dividend from net profit for 2018.

October 2018

- October 2nd – PAO Gazprom and OOO Gazprom Export file a complaint to reverse the partial award issued by the Arbitration Institute. > For more information, see Section 5.2.3.
- October 16th – execution of long-term LNG supply contracts with Venture Global Calcasieu Pass, LLC, and Venture Global Plaquemines LNG, LLC is announced. > For more information, see Section 5.2.3.
- October 18th – an agreement is executed for the purchase by PGNiG UN of interests in the Tommeliten Alpha field from Equinor Energy AS. > For more information, see Section 5.1.4.
- October 29th – PGNiG Management Board's decision to pay interim dividend of PLN 405m, or PLN 0.07 per share, from the 2018 net profit.

November 2018

- November 8th – a long-term LNG supply contract is executed with Cheniere Marketing International, LLP. > For more information, see Section 5.2.3.

December 2018

- December 6th − acquisition of hydrocarbon exploration, appraisal and production rights in Ras Al Khaimah, the United Arab Emirates. > For more information, see Section 5.1.4.
- December 19th – a long-term LNG supply contract is executed with Port Arthur LNG, LLC. > For more information, see Section 5.2.3.
- December 24th – PGNiG is included in the Stoxx Europe 600 index published by Deutsche Boerse Group. > For more information, see Section 9.2.

1.3. Events subsequent to the reporting date

January 2019

- January 25th – President of URE's decision to reduce the prices and rates of network fees under the PSG Distribution Tariff by 5%.
- January 25th – President of URE's decision to increase the price of gas fuel under the PGNiG OD Retail Tariff by 2.5%.

March 2019

- March 11th – Notice of the initiation of the Anti-trust proceedings by the President of the Office of Competition and Consumer Protection's against PGNiG TERMIKA and PGNiG > For more information, see Section 6.3.2.

2. PGNiG Group's business model

2.1. PGNiG Group's business and the business model

Fig. 1 PGNiG Group's business model

gas and oil production

Pakistan

Poland

Norway

gas and oil sold
directly from the fields

sale and
distribution of heat

elecrticity

transfer for sale

in Trade and Storage

distribution services

distribution services
outside the Group

imports

storage

trading on European
power exchanges

trading on
Polish Power Exchange

exports

sales to:
wholesale customers (by PGNiG and PST)
retail customers (by PGNiG OD and PST)

2.2. Companies of the PGNiG Group

As at December 31st 2018, PGNiG (the parent) and 24 subsidiaries were fully consolidated.

Fig. 2 Fully consolidated companies of the PGNiG Group

Exploration and Production

- PGNiG S.A. (exploration and production activities)
- Exalo Drilling S.A.
  - Oil Tech International F.Z.E [United Arab Emirates]
  - EXALO DRILLING UKRAINE LLC [Ukraine]
  - Zakład Gospodarki Mieszkaniowej Sp. z o.o.
- GEOFIZYKA Kraków S.A. w likwidacji (in liquidation)
- GEOFIZYKA Toruń S.A.
- PGNiG Upstream Norway AS [Norway]
- PGNiG Upstream North Africa B.V. [The Netherlands] *Libya

Trade and Storage

- PGNiG S.A. (trade and storage activities)
- Gas Storage Poland Sp z o.o.
- PGNiG Obrót Detaliczny Sp. z o.o.
- PGNiG Supply & Trading GmbH [Germany]
  - PST Europe Sales GmbH [Germany]
  - XOOL GmbH [Germany]

Distribution

- Polska Spółka Gazownictwa Sp. z o.o.
  - PSG Inwestycje Sp z o.o.
  - GAZ Sp. z o.o.

Generation

- PGNiG TERMIKA S.A.
  - PGNiG TERMIKA Energetyka Przemysłowa S.A.

Other segments

- PGNiG S.A. (other activities)
- PGNiG GAZOPROJEKT S.A.
- Geovita S.A.
- PGNiG Serwis Sp. z o.o.
- PGNiG Technologie S.A.
- PGNiG Finance AB i likvidation (in liquidation) [Sweden] *entire Europe
- Polski Gaz Towarzystwo Ubezpieczeń Wzajemnych

Company name – PGNiG's indirect subsidiary
[country] – country of registration (if other than Poland)
** Principal place of business (if other than country of registration)*

3. Strategy of the PGNiG Group

3.1. Mission and vision

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 Group 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.

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

3.2. Key challenges

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

- **Developments in the global fuel and energy markets, including depressed oil prices, gas price volatility and rapid expansion of the LNG market**

  In 2018, changes taking place in the Polish gas market were accompanied by price rises elsewhere in Europe, with gas prices on European markets becoming increasingly detached from prices of oil products in recent years. Oil prices fell towards the end of 2018, with serious implications for the PGNiG Group, as this is bound to reduce the cost of gas under long-term contracts and make imports more attractive on the one hand, but on the other hand this will adversely affect the economics of foreign upstream projects with reserves dominated by oil, leading to a lower value of the Exploration and Production segment's foreign operations.

  LNG infrastructure – both export capacities (liquefaction plants, mainly in North America and Australia) and import capacities – has been expanding rapidly around the world in recent years. Earlier predictions of an LNG glut proved wrong as LNG demand saw strong growth in Asia, notably in China. However, the abundant supply helped to level out differences in LNG prices between the North Atlantic region and Far East markets. Prices in Asia remain relatively higher, reflecting additional freight costs that would need to be incurred to bring LNG cargoes to Asia. As a global LNG market player, PGNiG will be able to optimise its long-term gas portfolio and secure additional gas supplies to Poland in the short term to address spikes in demand or exploit price opportunities (optimisation of gas supplies from other directions).

- **Need to change the mix of imported gas sources**

  The PGNiG Group's portfolio of gas supply sources is designed to fully cover demand from the Group's customers and is mainly comprised of long-term import contracts (the Yamal and Qatar contracts). In 2018, the Group pursued its strategy to diversify import sources, raising the share of gas sourced from suppliers west and south of Poland (based on market prices of gas at relevant gas hubs) and LNG (spot deliveries and new long-term contracts), while reducing the share of gas supplies from countries east of Poland.

  As the Yamal contract expires after 2022, the PGNiG Group is actively looking for alternative sources of natural gas supplies to Poland, including in countries north of Poland (via the planned Baltic Pipe). Seeking to optimally utilise the LNG Terminal, in 2018 PGNiG also added to its portfolio new contracts with American partners for the gas supply to Poland from 2022 onwards.

- **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 each Group's segment revenues.

3.3. PGNiG Group Strategy for 2017-2022 with an Outlook until 2026

In response to the changing internal and external environment, the Group developed the new PGNiG Group Strategy for 2017−2022 with an Outlook until 2026, which was approved by the PGNiG Supervisory Board on March 13th 2017.

The key external developments reflected in the Strategy were of macroeconomic nature (e.g. falling prices of crude oil and natural gas), but they also included other factors, such as the rapidly accelerating competition growth on the Polish gas market, the need to diversify gas imports from 2022 onwards, and changes in the regulatory environment (gradual withdrawal of the tariff regime, unpredictable future of the support mechanism for power generation beyond 2018). Following analyses, the key macroeconomic assumptions underlying further strategic forecasts were updated, including those related to gas, oil and electricity prices. New strategic objectives and ambitions for the Group until 2022 were formulated.

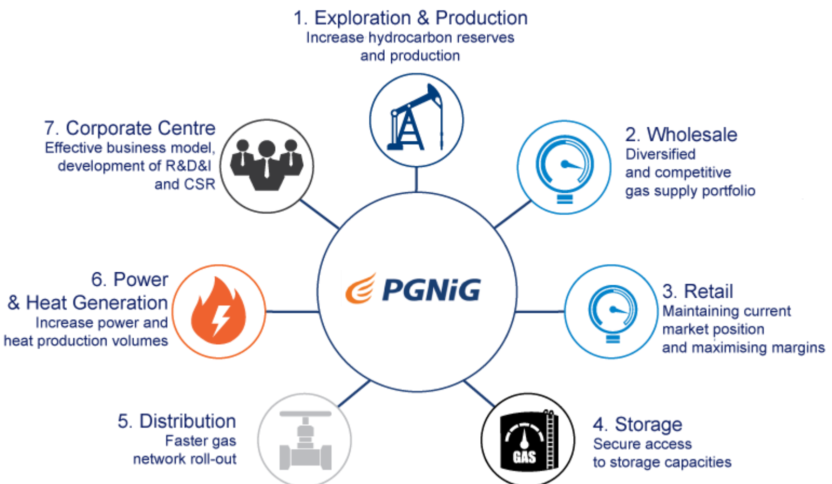
A major internal change associated with the adoption of the new Strategy was the implementation of the Balanced Scorecard (BSC) methodology, which enables the balancing of the Group's financial, operating and development objectives based on four key BSC 'perspectives' (finances, customers, processes, and resources and growth). The result is a new way of defining 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.

3.3.1. Targets and ambitions for 2017-2022

Fig.3 Ambitions in the key business areas



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

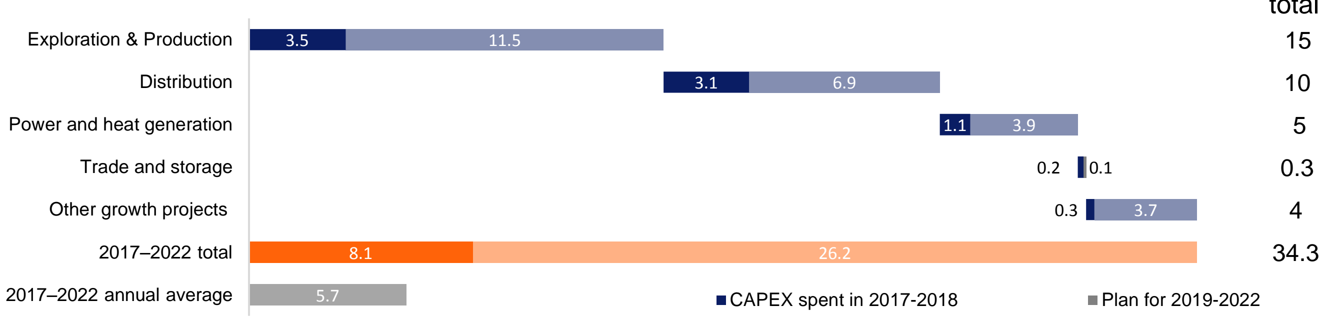
1. Exploration and Production – increase the current base of documented hydrocarbon reserves by ca. 35%, increase hydrocarbon production by ca. 41%, significantly reduce unit costs of exploration for and appraisal of deposits, and maintain unit cost of field development and hydrocarbon production;
2. Wholesale – build a diversified and competitive gas supply portfolio beyond 2022;
3. Retail – maximise retail margins, while maintaining the total volume of retail gas sales at ca. 67–69 TWh/year;
4. Storage – ensure the availability of storage capacities adjusted to actual demand and improve storage efficiency;
5. Distribution – build more than 300,000 new service lines and increase gas distribution volume by ca. 16%;
6. Power and Heat Generation – increase power and heat sales volumes by ca. 20%;
7. Corporate Centre – 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.

3.3.2. 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 and performance against plan in 2017 and 2018*



** CAPEX including expenditure on acquisition of hydrocarbon deposits.*

Capital expenditure in 2017 and 2018 totalled PLN 8.1m, representing approximately 24% of the 2017−2022 CAPEX plan.

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.

3.4. Capital expenditure in 2018

In 2018, the PGNiG Group's capital expenditure on property, plant and equipment and intangible assets was PLN 4.9bn, having gone up by ca. 53% 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 PGNiG in 2018

		2018	2017	Performance vs CAPEX plan 2018
I.	Exploration and Production, including:	989	867	66%
1	Exploration	764	475	71%
	including expenditure on dry wells	*99*	*60*	
2	Production	225	392	54%
II.	Trade and Storage	87	47	105%
1	Trade	0	3	-
2	Storage facilities used by the Trade and Storage segment	87	43	106%
III.	Other Segments	138	134	81%
IV.	Total capital expenditure (I+II+III)	1,213	1,047	69%

1) Including capitalised borrowing costs.

Capital expenditure[1] on property, plant and equipment made by the PGNiG Group in 2018

		2018	2017	Performance vs CAPEX plan 2018[2]
I.	Exploration and Production, including:	2,232	1,214	60%
1	Norway	1,149	275	78%
2	Pakistan	94	100	49%
3	Libya	9	4	144%
II.	Trade and Storage	108	60	67%
III.	Distribution	1,807	1,265	84%
IV.	Generation	605	526	57%
V.	Other Segments	143	145	78%
VI.	Total capital expenditure (I-V)	4,895	3,210	69%

1) Including capitalised borrowing costs.
2) Based on actual and planned expenditure in 2017 and 2018, net of expenditure on acquisitions of hydrocarbon reserves in Norway.

Key investment projects and CAPEX in each segment:

Exploration and Production > For more information, see Section 5.1.5
Distribution > For more information, see Section 5.3.4
Trade and Storage > For more information, see Section 5.2.6
Generation > For more information, see Section 5.4.4

3.5. Research, development and innovation

One of the goals set in the PGNiG Group's Strategy for the Corporate Centre is to step up innovation by effective implementation of R&D and innovation projects. Within the PGNiG organisational structure, these tasks fall within the remit of the Innovation and Business Development Department, which oversees activities in the area of innovation (solution identification, development, implementation/commercialisation) and energy efficiency, as well as the Research and Development Department, which is responsible for managing R&D projects and intellectual property rights and for collaboration with scientific and research centres.

3.5.1. Research and development

As a result of the efforts undertaken by the Research and Development Department, PGNiG received 99 proposals of research and development projects highly suitable for the needs of the PGNiG Group. Most of the proposals were from universities and research institutes (50 R&D proposals from 20 different entities, totalling PLN 99.6m) and the National Centre for Research and Development's INGA programme (34 proposals from 35 different entities/consortia for about PLN 226m in total). In 2018, PGNiG concluded 19 new contracts for R&D work worth PLN 9.7m, most of which pertained to Exploration and Production. Under the INGA programme, seven projects were selected for funding worth a total of PLN 65.4m (with about PLN 32.5m provided by the NCRD). In 2018, other PGNiG Group companies carried out 20 research and development projects for a total amount of PLN 4.1m.

As part of the efforts to identify R&D areas with the largest business potential for the PGNiG Group, an updated set of areas for development was prepared under the Foresight R&D 2018 project, to help formulate the PGNiG Group's long-term strategy and to meet the Group's current R&D needs. The R&D Intellectual Property Protection Model was also developed to improve security in intellectual property transfers and to strengthen sources of revenue relying on such transfers.

A series of research and development activities related to hydrogen technology as a potential new business line were also launched. A programme of R&D work that would enable the Group to enter this segment is being developed. The work will focus on fuel cells (distributed generation), hydrogen storage using underground gas storage facilities and distribution network, hydrogen-based electromobility, and large-scale power generation (hydrogen gas turbines).

The most important R&D projects implemented or completed in 2018 are listed below:

- Launch of the first competition and establishment of a ranking list of projects under the INGA programme implemented as a joint venture with the NCRD and GAZ-SYSTEM.
- Launch of the ELIZA project researching hydrogen issues and technologies. The project focuses on the possibility of obtaining hydrogen from a RES installation (wind turbine) through electrolysis in a process unit located at an underground gas storage facility, and then injecting the hydrogen into an underground storage cavern, from which it could be fed into the gas network.
- Launch of the Helium-3 project researching a technology for obtaining helium-3 isotope from liquid helium, an important material used in safety systems, medical diagnostics and nuclear power engineering.
- Completion of the research and development phase of the 'Low-power turboexpander' and 'MiniDrill – Technology for small-diameter waterjet drilling' R&D&I projects and commencement of work to launch further stages of implementation of these projects in order to reach the commercialisation phase.
- Obtaining a certificate of approval for use of a green wellhead (Ecohead) with an innovative structure based on cast steel bodies, instead of commonly used forged materials, and using new metal-to-metal sealing technology.
- Launch of the 'Early start-up' project enabling cooperation with start-ups or teams offering projects with a low technology readiness level, with Polish science and research institutions included in cooperation and incubation.
- Launch of a project to build a pilot hydrogen filling station as one in a series of projects to be implemented under the planned hydrogen technology advancement programme called HYDRA.

In 2018, the PGNiG Group also launched the Implementation Doctorates programme for its employees. Based on science-industry collaboration, the programme is to promote business growth by building upon past scientific achievements and by developing the expertise of PGNiG staff. The fourth edition of the 'Young Innovators for PGNiG' competition was held. The competition is designed for students, doctoral students and young scientists.

As part of collaboration with trade organisations, the Group joined the Hydrogen and Clean Coal Technology Cluster, whose mission is to initiate activities aimed at promoting hydrogen and clean coal technologies. The Group also joined the European Gas Research Group (Groupe Européen de Recherches Gazières, GERG), which promotes joint implementation of R&D projects related to innovative technologies in the gas industry.

3.5.2. Innovation and business growth

In 2018, the PGNiG Group was implementing 132 innovation projects worth a total of approximately PLN 349m, of which 58 were completed or suspended, while 74 remain in the implementation phase: 63 projects implemented and funded by the PGNiG Group companies and 11 projects implemented and/or funded by the Innovation and Business Development Department, namely InnVento Startup Centre, SORGE, Norwegian Funds, VPP Power, KELVIN, Flara, Digital Field, Microcoiled Tubing ¼'', Trigonostoma, Automatic Foaming Stick Injector, Concept for the Development and Construction of a Mobile LNG Sampling Facility. The most important Innovation projects implemented in 2018 were InnVento and Geo-Metan II.

InnVento Startup Centre

In 2018, InnVento's activities were centred around the following three pillars:

1. Building/expanding a network of collaboration with professional partners specialising in the search for startups
In addition to fostering cooperation with the MIT Enterprise Forum Poland accelerator, partnerships were also forged with the Industrial Development Agency and the Lesław Paga Foundation. A letter of intent was signed with the Startup Hub Poland Foundation accelerator, and the Poland Prize competition was held by the Polish Agency for Enterprise Development under the Smart Growth Operational Programme. This joint venture will be expanded in 2019. An open innovation concept based on solutions proposed by Polish-based and foreign startups is being developed in cooperation with key partners. Over 400 applications for innovative projects (submitted to InnVento directly or via partners) were reviewed in 2018, some of which were referred for acceleration and test implementations.

2. Support for selected startups and their business supervisors at the PGNiG Group in pilot implementations
In 2018, several Group companies continued to be engaged in collaborative partnerships with 15 startups. The scale of the pilot implementations was unprecedented. For instance, PGNIG OD launched a pilot project implementing the IC Pen solution developed by the startup IC Solution selected during the Innovative Ideas Workshop. The idea is a document digitisation system with an electronic flow option, which optimises document handling processes by eliminating scanning and by automating document processing in IT systems. The following startup pilot implementations were also under way:

   - Elastic Cloud Solutions – a communication platform designed to streamline internal communication and knowledge management and to improve productivity;
   - 1000 realities – pressure reducing and metering station simulator using virtual reality to train employees.

   The startup ideas enrolled into MIT Enterprise Forum Poland's accelerator under the ScaleUp programme run by the Polish Agency for Enterprise Development as part of the larger government scheme Start in Poland, continued to be implemented during the reporting period. Listed below are startups that continued to implement their ideas under the Energy Path programme partnered by PGNiG:

   - SEP Innovation – a solution based on the Bluetooth technology for measuring electricity or gas consumption by individual customers. The product consists of a beacon (sensor) and an analytical environment accessible via a mobile application.
   - BZB UAS – unmanned flying system used for inventory counting and monitoring purposes in areas where PGNiG plans to carry out surveying, exploration or production operations, in order to identify the current field structure and conditions.
   - DIMTT – a system for tracking the working time of employees and managing mechanical equipment.
   - Lerta – a platform enabling more efficient management of a large number of distributed generation units, improving network balancing, automating communication with operators or partners and supporting customer acquisition.
   - TalkToBot – a virtual customer advisor with a chat function, improving customer service and reducing the load on communication channels.
   - Vortex Oil – a device maximising the efficiency of crude oil extraction and water consumption using a water-based extraction method. The technology is based on a novel method of creating vortex flow in water injection pipes.

   After the programme ends, PGNiG wants to continue cooperation with MIT Enterprise Forum Poland as a partner of the next edition of the Energy Path programme. Out of 250 applications, four startups were selected for the pilot implementation phase:

   - PROA Technology – software bots supporting business processes through automatic task execution in interaction with IT systems, documents or databases. The pilot includes automation of outgoing payment processes at PGNIG OD using robots working through a graphic interface.
   - Lesss – a smart outdoor lighting control system based on HD cameras with advanced image analysis, enabling classification of objects and control of lighting efficiency depending on traffic density.
   - Innomesh – a pilot of a portable charger renting service offered at customer service points in shopping malls.
   - Solutions 4 tomorrow – a system for safe landing of drones on moving surfaces and battery replacement in all weather conditions. The pilot project will test an air quality analysis service for municipalities with significant air pollution.

   In 2018, a corporate acceleration model was developed in InnVento, covering, among other things, established and proven mechanisms of operation, established roles and tasks of individual participants, terms of cooperation with internal and external partners, as well as regular updates to the PGNiG Group's development needs and challenges.

3. Promotion of the InnVento Centre's offering and PGNIG's brand combined with intensive search for innovative startups
InnVento was an active participant of 14 international events bringing together startup, new tech and energy communities, and sought out innovative solutions that would fit the PGNiG Group's needs by networking with academic institutions during trade events.

   In 2018, the Innvento Startup Centre hosted two Pitch Days judged by a panel of PGNiG Group experts. Some 40 one-on-one meetings were held by PGNiG specialists with startups wishing to establish cooperation, and 18 information and workshop meetings focused on innovation were organised (with over 600 people participating). PGNiG was recognised for its InnVento project and startup collaboration in the Polish Radio Business Awards programme. The Company received the main prize in the Breakthrough Idea category.

Geo-Metan II

A multi-year project in pre-mining methane drainage from coal seams. The project will contribute to safe coal extraction, promote the domestic hard coal mining industry, and help reduce air emissions of methane. In 2018, potential locations for future drilling operations were identified based on the adopted criteria. In 2019, PGNiG plans to enter into agreements with coal mining companies on cooperation in vertical and horizontal drilling, hydraulic fracturing and methane inflow testing. The project is part of the governmental Programme for the Hard Coal Mining Sector in Poland.

3.5.3. R&D&I prospects

R&D

In 2019 and the following years, the research and development area will be geared towards project commercialisation and achievement of tangible business benefits. At the same time, new business areas with the potential for enhancing the Group's competitiveness and market position will be constantly explored. These activities will be implemented over two time horizons:

Short-term horizon until 2020, when the following tasks will be planned and undertaken:

- Strengthening the position of the PGNiG Group in hydrogen technologies by developing a roadmap for the advancement of hydrogen technologies for the PGNiG Group until 2030, forging a partnership with a leading auto maker, completing the ongoing and launching new projects, and building Poland's first accredited research laboratory (based on CLPB) qualified to perform hydrogen testing, etc.
- Implementation of the R&D Intellectual Property Protection Model across the Group.
- Transitioning the following research and development projects for commercialisation: MiniDrill, Ecohead, Turboexpander and others, to be completed in 2019 and 2020.
- Launch of the second INGA competition in the fourth quarter of 2019.
- Implementations under the Patent project, which aims to secure technological and R&D solutions that could be applied in the PGNiG Group's extraction operations.

Medium-term horizon until 2022, when the following tasks are planned:

- Implementation of the Group's 2017–2022 strategy in the area of research and development.
- Growth and expansion in the hydrogen technology market, including as a new revenue source (P2G energy storage, hydrogen storage).
- Commercialisation of R&D projects, including products and technologies developed on the basis of INGA projects.
- Stepping up patent-related activities.
- Putting forward proposals of new attractive business areas for the Group that could be included in the future strategy; selecting technologies/projects of an unprecedented scale for the PGNiG Group and delivering them for implementation by international consortia.

Innovation

In the coming years, the PGNiG Group is set to proactively acquire and implement innovation projects and efficiently deploy selected solutions, which will ultimately contribute to maximising profits and strengthening PGNiG's position as the leader on the gas market in Poland. There are also plans to implement initiatives aimed at fostering a culture of innovation, raising staff and management awareness in the area of innovation advancement and maintaining a network of collaboration with professional entities specialising in cooperation with startups and innovative companies.

The relationships with the startup community will be strengthened through open-minded collaboration with foreign companies and through development of diversified collaboration models, as well as through equity investments. The PGNiG Group's R&D work is expected to deliver first results in 2019. Then, the commercialisation process will need to be prepared and carried out.

4. Regulatory and market environment

4.1. Regulatory environment

4.1.1. Regulatory environment in Poland

Energy Law

The Energy Law of April 10th 1997 (consolidated text: Dz. U. of 2018, item 755, as amended; 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 downs 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 2018, the PGNiG Group held the following licences granted by the President of the Energy Regulatory Office under the Energy Law:

- four licences to trade in gas fuels (PGNiG, PGNiG OD, PST, PST Europe Sales),
- two licences to trade in natural gas with foreign partners (PGNiG, PST),
- four licences to produce electricity (PGNiG, PGNiG TERMIKA, PGNiG TERMIKA EP, PSG Inwestycje sp. z o.o.),
- 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 (PGNiG 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).

In 2018, a number of amendments were introduced to the Energy Law, all of them of high relevance to the functioning of Poland's natural gas and electricity markets:

- the Capacity Market Act of December 8th 2017 (Dz. U. of 2018, item 9) introduced new rules for the determination of and the amounts of licence fees, while clarifying the definition of an end user,
- the Act on Electromobility and Alternative Fuels of January 11th 2018 (Dz. U. of 2018, item 317) introduced preferential solutions for connections to the power grid and ensured promotion of the use of alternative fuels by means of tariff solutions,
- the Act Amending the Act on Trading in Financial Instruments and Certain Other Acts of March 1st 2018 (Dz.U. of 2018, item 685) aligned the regulations governing the exchange sale requirement to the new model of operation of the futures market in Poland,
- the Act Amending the Act on Biocomponents and Liquid Biofuels and Certain Other Acts of June 6th 2018 (Dz. U. of 2018, item 1346) introduced the Low Emission Transport Fund,
- the Act Amending the Energy Law and Certain Other Acts of November 9th 2018 (Dz. U. of 2018, item 2348) introduced the institution of a reserve supplier, regulated matters related to the appointment of a default supplier, and introduced the obligation to publicly sell all electricity output.

Bar the expected increase in licence fees, the amendments will have a positive effect on the PGNiG Group's business.

Act on Mandatory Stocks

The 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 2007 (consolidated text: Dz.U. of 2017, item 1210, as amended; the "Act on Mandatory 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.

In 2018, no major amendments were made to the act. It was only modified to bring it in line with systemic changes made in the Polish business legislation following the adoption of the Business Entities Law of March 8th 2018 (Dz.U. of 2018, item 646) and the Act on Implementation of the Business Entities Law and Other Business Legislation of March 8th 2018 (Dz.U. of 2018, item 650).

None of the above changes will affect the PGNiG Group's business.

Energy Efficiency Act

The Energy Efficiency Act of May 20th 2016 (Dz.U. of 2016, item 831; „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 (OJ EU L 315 of November 14th 2012). According to these laws, entities covered by the statutory obligation are required to reach final energy savings of 1.5% per year. The Energy Efficiency Act indicates two principal ways to fulfil this obligation:

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

The act provides for the option to fulfil the obligation by paying a substitution fee. In principle, though, it may not be higher than 30% of the 2016 obligation, 20% of the 2017 obligation and 10% of the 2018 obligation. 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.

In 2018, no major amendments were made to the act. It was only modified to bring it in line with systemic changes made in the Polish business legislation following the adoption of the Business Entities Law of March 8th 2018 (Dz.U. of 2018, item 646) and the Act on Implementation of the Business Entities Law and Other Business Legislation of March 8th 2018 (Dz.U. of 2018, item 650). The modifications will not affect the PGNiG Group's business.

Capacity Market Act

The Capacity Market Act of December 8th 2017 (Dz.U. of 2018, item 8) 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. The act aims to ensure the security of electricity supplies to end users by establishing a dedicated support system. Following the entry into force of the Capacity Market Act, both PGNiG and PGNiG TERMIKA will generate additional revenue.

In 2018, the Capacity Market Act was amended following the adoption of the Act on the Promotion of Electricity from High-Efficiency Cogeneration of December 14th 2018 (Dz. U. of 2019, item 42). The amendments clarified mutual relations between the support systems.

Act on the Promotion of Electricity from High-Efficiency Cogeneration

The Act on the Promotion of Electricity from High-Efficiency Cogeneration of December 14th 2018 (Dz. U. of 2019, item 42) sets out a framework for the provision of support for electricity from high-efficiency cogeneration units and provision of guarantees of origin for such electricity. The existing mechanism of support for electricity from high-efficiency cogeneration (based on certificates of origin) expired at the end of 2018. As of the beginning of 2019, a new mechanism will be in place to encourage the construction of new cogeneration units and to maintain electricity generation from existing high-efficiency cogeneration sources, which would not be able to operate without such support due to a financial gap in operating expenses. The support will only be available for units for which carbon dioxide emissions intensity does not exceed 450 kg/MWh of generated energy (electricity and heat jointly), and will be provided in the following categories:

- existing and modernised cogeneration units (with an installed capacity of 1-50 MW) and small cogeneration units (with an installed capacity of up to 1 MW) – under a guaranteed bonus application;
- new and substantially modernised cogeneration units (with an installed capacity of 1-50 MW) – under an auction process;
- new and substantially modernised cogeneration units (with an installed capacity above 50 MW) – under a call process;
- existing and modernised cogeneration units (with an installed capacity above 50 MW) – under an application for payment of an individual guaranteed bonus.

The new Act on the Promotion of High-Efficiency Cogeneration will allow the PGNiG TERMIKA Group to seek additional support for both its existing cogeneration units and those planned to be constructed. However, in the case of existing units which do meet the criteria in terms of return on generation assets, there is a very serious risk that they will not be eligible to receive support for economic reasons.

Act on Special Hydrocarbon Tax

The Act on Special Hydrocarbon Tax of July 25th 2015 (consolidated text: Dz.U. of 2016, item 979; "Act on Special Hydrocarbon Tax", "SHT") 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 eligible expense incurred in the tax year.

The obligation to pay the tax arises on revenue generated from January 1st 2020 onwards, with the proviso that the record-keeping obligations related to SHT and obligations to submit SHT filings to the relevant tax authorities are to be fulfilled as of January 1st 2016.

In the first tax year, i.e. the year from January 1st 2016, SHT payers may include in their eligible expenses the expenses they incurred in the four calendar years preceding January 1st 2016, and also – to a specified extent – the value of property, plant and equipment associated with the hydrocarbon production business which they acquired or generated internally in earlier periods, as well as the value of tangible assets under construction in the amount determined as at January 1st 2012.

In 2018, no major amendments were made to the Act on Special Hydrocarbon Tax. It was only modified to bring it into line the definition of a financial instrument as amended by the Act Amending the Act on Trading in Financial Instruments and Certain Other Acts of March 1st 2018 (Dz.U. of 2018, item 685). The modifications will not affect the PGNiG Group's business.

In December 2018, a draft Act Repealing the SHT Act and Amending Certain Other Acts was published on the Government Legislation Centre's website, aimed at repealing the SHT and accelerating the levy of taxes on the production of certain minerals. The proposed repeal of a special hydrocarbon tax is a positive news for PGNiG Group, whereas acceleration of the application of a mineral extraction tax would mean an additional tax burden for the Group since 2019.

Geological and Mining Law

The Geological and Mining Law of June 9th 2011 specifies, among other things, the rules of licensing the exploration for and extraction of minerals, as well as the 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.

Since 2016, in accordance with the amended Geological and Mining Law, 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 Environment announced the tender procedure for combined licence grant with respect to eight out of the ten areas. In 2018, 16 areas were put out to tender in two rounds.

In June 2018, the Geological and Mining Law was amended to introduce material changes to the hydrocarbon licensing system. Under the amended law a business entity may apply for an open door licence for the exploration for and appraisal of hydrocarbon deposits, while under the previous regime licences were granted exclusively for areas designated by the government. It is now also possible to apply for another conversion of a hydrocarbon exploration and appraisal licence into a combined exploration, appraisal and production licence by the end of 2018; and the obligation to provide security in case of non-performance or improper performance of the conditions specified in the licence has been waived.

National Commodity Policy

In 2018, the Minister of Environment announced draft assumptions for the National Commodity Policy. The document will be the basis for further work on the National Commodity Policy that may be undertaken and continued by representatives of all ministries, businesses operating in the sectors concerned, scientific institutions and social groups. The adoption of the National Commodity Policy will lead to a number of legislative changes that will affect the terms on which licensed activities are conducted in Poland.

In 2018, extensive consultation was undertaken concerning: domestic demand for minerals; production of commodities from mineral deposits and heat of the Earth; recovery of commodities from waste and commodity substitutes, reclamation and remediation; import of scarce minerals and international cooperation; legal considerations of the National Commodity Policy; dissemination of knowledge on geology, mining and mineral deposits; institutional framework for the development and implementation of the National Commodity Policy; risk, investment project planning and security; improvement of the system of taxes and other public levies. In 2018, working programmes started to be developed for each of these areas.

Diversification Regulation

The Council of Ministers' Regulation of April 24th 2017 on the minimum level of diversification of foreign sources of gas supplies (Dz.U. of 2017, item 902) 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.

System Regulation

The 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 2018, item 1058, as amended; "System Regulation") 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 amending the Regulation on detailed conditions of operation of the gas system (Dz.U., item 150), 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 cm/h, thus expanding the operating reach of distribution companies and stabilising the gas fuel transmission and distribution market.

The Regulation of the Minister of Energy of September 21st 2018 amending the Regulation on specific conditions for the operation of the gas system (Dz.U., item 1814) introduced the institution of an emergency supplier which would be responsible for the supply of gas to an end user if their contractual supplier ceases to supply gas for reasons attributable to such contractual supplier.

Tariff Regulation

The Regulation of the Minister of Economy of March 15th 2018 on detailed rules for determining and calculating tariffs for gas fuels and on settlement of transactions in gas fuels trade (Dz.U. of 2018, item 640; "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. Currently, the prices of natural gas sold to households are regulated.

In 2018, PGNiG OD applied the following gas fuel trading tariffs:

- PGNiG OD Gas Fuel Trading Tariff No. 6 – in the period from January 1st to March 31st 2018. In relation to the previous tariff, the gas prices and subscription fees did not change;
- Amendment to PGNiG OD Gas Fuel Trading Tariff No. 6 – in the period from April 1st to August 9th 2018. In relation to the previous tariff, gas fuel prices rose by 1%;
- Amendment No. 2 to PGNiG OD Gas Fuel Trading Tariff No. 6 – in the period from August 10th 2018 to February 14th 2019. In relation to the previous tariff, gas fuel prices rose by 5.9%.

By way of his decision of January 25th 2019, the President of URE approved PGNiG OD Gas Fuel Trading Tariff No. 7 for the period until December 31st 2019. It raised gas fuel prices for all tariff groups by 2.5% relative to the previous PGNiG OD tariff. Subscription fees were adjusted in the 2.2 and 3.6 tariff groups by -1.3% and 0.3%, respectively, while in the other tariff groups they remained unchanged. Furthermore, new retail tariff groups were introduced for customers using prepaid metering systems. The tariff took effect as of February 15th 2019.

In 2018, GSP carried out settlements with storage service clients in line with the following tariffs:

- Gas Fuel Storage Tariff No. 1/2017, approved by the President of URE on April 18th 2017 for the period from January 1st to May 26th 2018;
- Gas Fuel Storage Tariff No. 1/2018, approved by the President of URE on April 13th 2018 for the period from May 27th to August 10th 2018. In relation to the previous tariff (Tariff No. 1/2017), the average fee for storage services was reduced by 0.25%;
- Amendment to Gas Fuel Storage Tariff No. 1/2018, approved by the President of URE on July 26th 2018 for the period from August 11th 2018. In relation to the previous tariff (Tariff No. 1/2018), the average fee for storage services was increased by 0.4%.

In 2018, PSG applied the following tariffs:

- Tariff No. 3 for Gas Fuel Distribution Services and LNG Regasification Services, approved on December 17th 2014, for the period from January 1st to February 28th 2018;
- Tariff No. 6 for Gas Fuel Distribution Services and LNG Regasification Services for the period from March 1st to December 31st 2018. In relation to the previous tariff, the average fee for distribution services went down 7.37%.
- Amendment to Tariff No. 6, harmonising the text of the tariff with the Tariff Regulation of March 15th 2018. The amendment took effect as of October 1st 2018 and did not change the fees for distribution and regasification services provided.

By his decision of January 25th 2019, the President of URE approved new Tariff No. 7 for Gas Fuel Distribution Services and LNG Regasification Services provided by Polska Spółka Gazownictwa. The average reduction of prices and rates of network fees used for settlements with customers in the Distribution Tariff in relation to the previous tariff of PSG for all tariff groups with the exception of coke gas is 5%. The tariff took effect as of February 15th 2019.

In 2018, PGNiG TERMIKA applied the following tariffs for heat generated at PGNiG TERMIKA's heat generating sources: the Żerań CHP plant, Siekierki CHP plant, Pruszków CHP plant, Wola heating plant and Kawęczyn heating plant, and for transmission and

distribution of heat via the heating networks in the Pruszków area (supplied from the company's own heat generating source: Pruszków CHP plant), as well as in the Annopol, Chełmżyńska, Jana Kazimierza, Marsa Park and Marynarska areas:

- Tariff approved by the President of URE on January 25th 2017 in the period from January 1st to August 31st 2018;
- Tariff approved by the President of URE on July 27th 2018, for the period from September 1st to December 31st 2018, resulting in a 0.58% increase in the average prices charged by PGNiG TERMIKA S.A.

PGNiG TERMIKA EP applied, among others, the following tariffs:

- From January 1st to March 30th 2018 – a tariff for heat generated at PGNiG TERMIKA EP's heat generating sources, approved by the President of URE on October 10th 2016 (two separate ones, i.e. one for Spółka Energetyczna Jastrzębie S.A. and one for Przedsiębiorstwo Energetyki Cieplnej S.A.);
- From April 1st to December 31st 2018 − a tariff applied by the merged company for heat generated at PGNiG TERMIKA EP's heat generating sources and distribution services. The amended tariffs resulted in an average increase of 0.89% and 1.18% in heat generation and distribution rates respectively, relative to the previous tariffs. The tariff takes effect on March 31st 2019;
- From November 1st 2017 to October 31st 2018 – a tariff for PGNiG TERMIKA EP's electricity distribution services approved by the President of URE on October 17th 2017. On October 2nd 2018, an application for approval of the electricity distribution tariff was submitted.

The Act Amending the Energy Law and Certain Other Acts of November 30th 2016 (Dz.U., item 1986) provides for a phase-out of the system of administrative regulation of natural gas prices. According to the adopted schedule, the obligation to submit for approval gas tariffs for households will be abolished as of January 1st 2024.

4.1.2. European regulatory environment

Third Energy Package

In 2018, 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:

- Directive 2009/72/EC of the European Parliament and of the Council of July 13th 2009 concerning common rules for the internal market in electricity and repealing Directive 2003/54/EC;
- Directive 2009/73/EC of the European Parliament and of the Council of July 13th 2009 concerning common rules for the internal market in natural gas and repealing Directive 2003/55/EC;
- Regulation (EC) No 714/2009 of the European Parliament and of the Council of July 13th 2009 on conditions for access to the network for cross-border exchanges in electricity and repealing Regulation (EC) No 1228/2003;
- Regulation (EC) No 715/2009 of the European Parliament and of the Council of July 13th 2009 on conditions for access to the natural gas transmission networks and repealing Regulation (EC) No 1775/2005;
- Regulation (EC) No 713/2009 of the European Parliament and of the Council of July 13th 2009 establishing an Agency for the Cooperation of Energy Regulators (ACER).

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.

On November 30th 2016, the European Commission announced a package of legislative proposals amending the acts included in the Third Energy Package. The aim of the 'Clean Energy for All Europeans' package of legislative proposals is to ensure a transition of the European economy to one based on electricity, fulfilment of the commitments made by the European Union under the Paris Agreement of 2015 and implementation of the energy and climate policy objectives. The changes relate mainly to the electricity market, but there are also amendments to the Regulation establishing an Agency for the Cooperation of Energy Regulators (ACER) and a new Regulation on the Governance of the Energy Union is to be introduced, both of which may have significant implications for the gas market and PGNiG's operations.

Until the end of 2017, the European Parliament worked on the proposals and relevant EP committees prepared reports (leading committees: ITRE and ENVI) concerning the European Commission's proposal. In parallel, the Council of the European Union reached an agreement and adopted the general approach to the Regulation on the Governance of the Energy Union, largely consistent with the solutions proposed by the Company. Furthermore, the European Commission announced proposed amendments to the Gas Directive (Directive 2009/73/EC of the European Parliament and of the Council of July 13th 2009 concerning common rules for the internal market in natural gas and repealing Directive 2003/55/EC) the objective of which is to ensure that the directive's requirements also apply to the key infrastructure used for importing natural gas to the EU.

In 2018, work was under way on the European Commission's legislative proposal to review the Gas Directive, intended to extend the Third Energy Package to cover the EU's import gas pipelines. The Industry, Transport, Research and Energy (ITRE) Committee of the European Parliament adopted a report presenting the Committee's position on the legislative proposal. Also, the European Committee of the Regions and European Economic and Social Committee adopted positions on the proposal. In

the second half of 2018, the Austrian presidency proposed a new text of the directive (REV3), which is substantially different from previous proposals. As at the end of 2018, the EU Council had made no significant progress in their work on the revised text of the Gas Directive. Works accelerated in 2019, which resulted in achievement in February 2019 of agreements between the institutions. The agreement requires an ultimate approval from the EU Council and the European Parliament.

2018 saw continued negotiations between the institutions concerning the final version of the 'Clean Energy for All Europeans' package. All legislative acts included in the package were agreed on. Negotiations on the directive and regulation on the market in electricity lasted the longest, as a dispute arose around regulations concerning capacity markets. The interinstitutional agreement was finally reached in early December covering coal-fired units, depending on the time of the first energy supply, until 2025 or 2030.

In 2018, work was also continued on legal acts setting out the terms and conditions for spending EU funds as part of the 2021–2027 financial framework. The Connecting Europe Facility and the European Regional Development Fund (ERDF) were particularly important financial instruments in the context of the PGNiG Group's operations.

ERDF funds are to be used to support projects supporting the economic and social development of the European Union. Under both the previous and current financial frameworks, the ERDF was a significant source of funding for the extension of gas distribution network and gas storage facilities. The European Commission's proposal carried a significant risk: no applications could be submitted to the ERDF for financial support for any project involving the transport or combustion of fossil fuels. Work on the subject is being carried out by committees of the European Parliament and by the Council of the European Union.

With regard to natural gas, the regulation establishing the Connecting Europe Facility is intended to support infrastructure projects which are part of the supply corridors enabling diversification of natural gas supplies to the European Union. Funds from the Connecting Europe Facility support such projects as the Baltic Pipe and extension of the LNG Terminal in Świnoujście.

Directive on the Promotion of Clean and Energy Efficient Road Transport Vehicles

Directive 2009/33/EC on the promotion of clean and energy-efficient road transport vehicles, referred to as the Clean Vehicles Directive, complements the EU's horizontal legislation on public contracts award. The directive requires that – when awarding public contracts – lifetime energy and environmental impacts, including energy consumption, be taken into account when purchasing road transport vehicles, which is to promote and stimulate the market for clean and energy-efficient vehicles, reduce emissions of CO_2 and of other pollutants as well as improve energy efficiency.

In 2018, the plenary meeting of the European Parliament adopted reportconcerning the European Commission's legislative proposal. The European Parliament's proposal aims to significantly increase the number of electric vehicles and takes little account of the proposals made by other sectors, including the natural gas sector. In February 2019, the European Parliament and the Council of the European Union reached a preliminary agreement on the final wording of the directive. The agreement requires an ultimate approval from the EU Council and the European Parliament.

Jednocześnie w instytucjach europejskich trwają prace legislacyjne nad dwoma innymi aktami prawnymi z zakresu transportu – rozporządzenia ws. norm emisyjnych dla nowych pojazdów ciężkich (HDV) oraz norm emisyjnych dla nowych pojazdów lekkich (LDV). W sprawie Rozporządzenia HDV, w lutym 2019 r. Rada UE oraz Parlament osiągnęły wstępne porozumienie dotyczące ostatecznego brzmienia rozporządzenia. Porozumienie wymaga jeszcze ostatecznej akceptacji ze strony Rady UE oraz Parlamentu Europejskiego.

Regarding the LDV regulation, interinstitutional negotiations on the final wording of the regulation have been completed. In January 2019, European Union's Committee of Permanent Representatives (COREPER) approved the agreement with the Parliament. The agreement was also approved by the Committee on the Environment, Public Health and Food Safety (ENVI). The agreement requires an ultimate approval from the EU Council and the European Parliament.

SoS Regulation

Regulation (EU) 2017/1938 of the European Parliament and of the Council of October 25th 2017 concerning measures to safeguard the security of gas supply and repealing Regulation (EU) No 994/2010 (the "SoS Regulation") entered into force on November 1st 2017. Its purpose is to prevent disruptions in the supply of natural gas to the Member States, or to mitigate their impact if they occur.

In 2018, work was under way to harmonise the Polish legislation and procedures in place within the PGNiG Group with the requirements of the SoS Regulation.

TAR NC Regulation

The purpose of Commission Regulation (EU) 2017/460 of March 16th 2017 is to reduce discrepancies between tariff models applied in individual Member States. Legislative 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 March 16th 2017 establishing a Network Code on Capacity Allocation Mechanisms in Gas Transmission Systems and repealing Regulation (EU) No 984/2013 (the "NC CAM Regulation") 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.

The provisions of the NC CAM Regulation apply to interconnections between Member States. In order to ensure that all parties can gain access to interconnector transmission capacities on equal and non-discriminatory terms, the allocation of capacity is made through auctions organised by transmission system operators, at which intraday, daily, monthly, quarterly and annual products are offered.

In the first half of 2018, ACER also ran consultation on the selection of a single auction platform for the Poland-Germany interconnection point. A single platform will be selected based on feedback from market participants. The case was referred to ACER as at the earlier stage of discussions the transmission system operators and then the regulatory authorities failed to reach an agreement. In October 2018, ACER decided to select the Polish platform as the appropriate one for the Mallnow and PWP points. The PRISMA platform appealed against the decision.

EU ETS

The EU Emission Trading Scheme (EU ETS) imposes the obligation to account for CO_2 emissions and regulates the allocation of free emission allowances for heat and electricity. Under the ETS Directive, emitters of greenhouse gases (including CO_2) are obliged to account for their emissions by surrendering their CO_2 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 CO_2 is imposed, and the operator must acquire and surrender the necessary number of emission allowances.

Pursuant to the EU ETS Directive, industrial installations, including heat plants and combined heat and power (CHP) plants, may apply for free emission allowances. In the case of power systems, only eight Member States meeting the criteria set out in the EU ETS Directive could apply for the allocation of free emission allowances.

In the case of heat, emission allowances are granted on the basis of historical production data. Power generation installations may receive free allowances in exchange for execution of projects reducing CO_2 emissions. The PGNiG Group submitted ten investment projects to the National Investment Plan and may receive free emission allowances in exchange for their implementation.

In 2018, work was continued on the Innovation Fund ("IF"), aimed to support the RES technologies, energy storage and capture of carbon dioxide from the atmosphere. The IF, in accordance with the adopted revision of the EU ETS Directive, would be supported by EU ETS emission allowances. At the end of the fourth quarter of 2018, the European Commission submitted a draft delegated act establishing the IF.

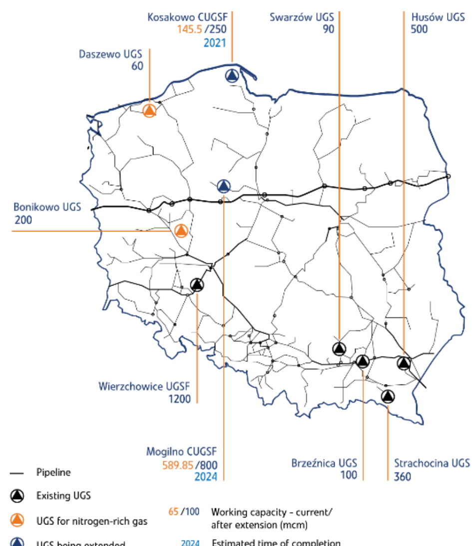
At the same time, work was under way on a draft list of sectors exposed to carbon leakage. Inclusion of the natural gas production sector in the list would mean additional emission allowances. Public consultation is being conducted by the European Commission, expected to last until the end of January 2019.

4.2. 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 gas 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-derived gas additionally fed into the network since 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 trading, the key role is played by the Polish Power Exchange where PGNiG has been the Gas Market Maker since November 2013.

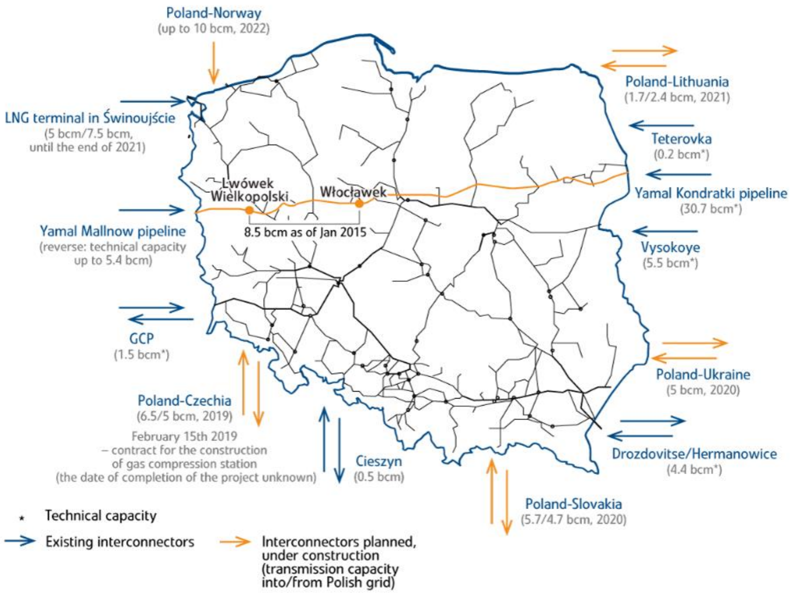
Transmission system

Fig. 4 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 directly 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 2018, the length of Poland's gas transmission network totalled over 10,743 km. The volume of gas fuel transmitted through the network amounted to 17.2 bcm in 2018 (measured as high-methane gas equivalent).

Fig. 5 Existing and planned strategically important cross-border entry points into the transmission system



Source: GAZ-SYSTEM and European Network of Transmission System Operators for Gas (ENTSOG)

Gas flow

2018 saw decreasing volumes of gas fuel imported to Poland, which reached 162.80 TWh (down by 4.2 TWh, or approximately 2.5%), with a 7% decline in gas imported from east of Poland and an 18% decrease in gas imports from the EU year on year. The majority of imported gas (approximately 61% of total flows) originated from countries east of Poland. According to ENTSOG's data, the largest flows were recorded at Drozdovitse. As regards imports from the west, the largest flows were recorded at the Mallnow point.

In 2018, gas deliveries by sea to the LNG Terminal were continued, which resulted in a 58% increase in the volume of gas regasified at the LNG Terminal compared to 2017. The volumes of gas previously supplied over onshore pipelines were partly replaced by the volumes supplied under the new long-term LNG contract with Qatargas and increased volumes of LNG spot purchases.

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

Entry/exit point (in TWh)	2018	2017	Change y/y
Supplies from EU	34.82	42.53	-18%
including Lasów, Gubin (GCP)	4.33	6.08	-29%
including Cieszyn	3.89	1.26	+209%
including Mallnow	26.60	35.20	-24%
Supplies from across Poland's eastern border	98.83	105.96	-7%
including Drozdovitse	42.51	49.72	-15%
including Teterovka	0.87	0.88	-1%
including Kondratki	22.06	20.98	+5%
including Vysokoye	33.39	34.37	-3%
LNG regasification	29.17	18.47	+58%
Exports to Ukraine (mainly Hermanowice)	7.26	13.78	-47%
Total flow	170.08	180.74	-6%

Source: ENTSOG

LNG in Poland

At present, the LNG Terminal can handle annual gas imports of 5 bcm (after regasification). In 2017, PGNiG increased its reservation from 65% to 100% of the terminal's regasification capacity. The relevant contract is valid from January 1st 2018 until January 1st 2035. Since 2018, Polskie LNG S.A. has been engaged in a project to expand the LNG Terminal. The project includes four tasks: construction of additional regasification units, a third LNG storage tank, LNG handling facilities for loading gas onto railway tank cars, and an additional wharf. After its planned expansion, the terminal's annual capacity should be increased to 7.5 bcm in the coming years. The terminal is able to receive LNG tankers not larger than Q-Flex, whose maximum capacity (depending on the vessel) ranges from 210 to 218 thousand cubic metres 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. LNG is also transported by tankers to regasification plants and stations located throughout Poland. Also, the volume of fuel delivered to end users in the form of liquefied natural gas (small-scale LNG) is growing steadily.

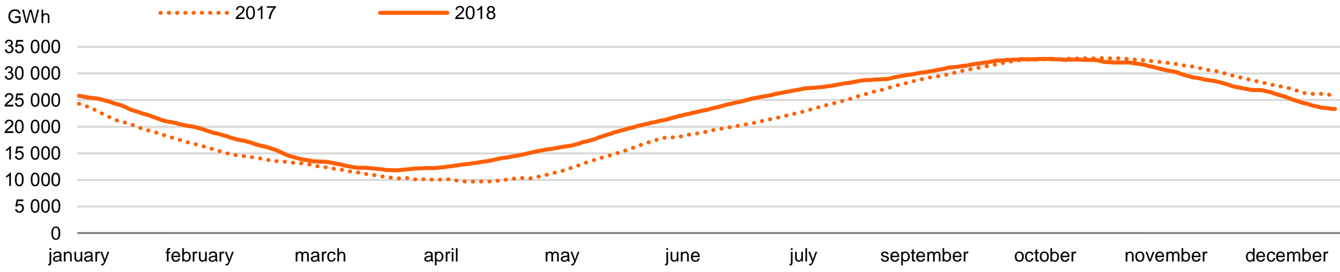
In 2018, PGNiG received a total of 18 LNG shipments under the long-term contracts with Qatargas. The volume of LNG imports from Qatar amounted to 1.65m tonnes, i.e. approximately 25.1 TWh or 2.29 bcm of natural gas after regasification. In 2018, PGNiG purchased gas under four spot contracts; the gas was delivered to Świnoujście in May, November and December (two deliveries), and its volume totalled 0.25m tonnes, i.e. approximately 3.7 TWh or 0.34 bcm of natural gas after regasification. The spot deliveries were sourced from Norway and the US, and were arranged in cooperation with the LNG trading office in London. In June 2018, PGNiG also received an LNG shipment under a medium-term contract with Centrica.

Over 2018, PGNiG imported 23 shipments of LNG via the LNG Terminal, with a total volume of 1.96m tonnes, i.e. approximately 29.8 TWh or 2.71 bcm of natural gas after regasification.

Gas storage

The average daily withdrawal of gas from Polish UGSFs over the withdrawal period amounted to 134 GWh in 2018, up 14% on the previous year. In the summer of 2018, gas was injected into storage at an average rate of 119 GWh/day, down 12 GWh/day on 2017.

Levels of gas in storage in Poland in 2017-2018.



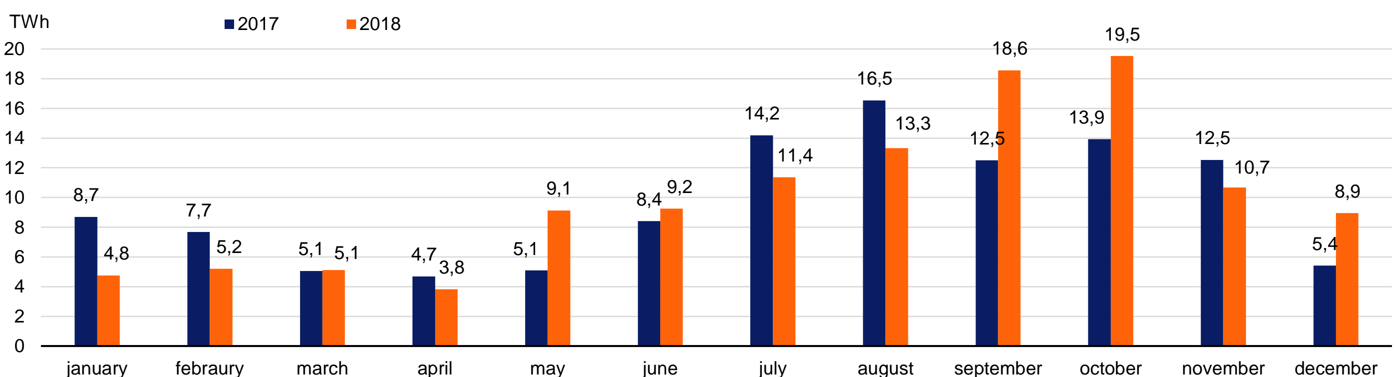
Source: In-house analysis based on Gas Infrastructure Europe and Gas Storage Europe data.

Polish Power Exchange

PGNiG is the leader of gas trading on the PPX. According to PPX data, in 2018 the total gas trading volume was 143.3 TWh, of which 119.6 TWh was traded on the commodity futures market (RTT). This means that almost 83% of gas trades in 2018 were executed under contracts with maturities of a year, season (summer, winter), quarter, month, and week.

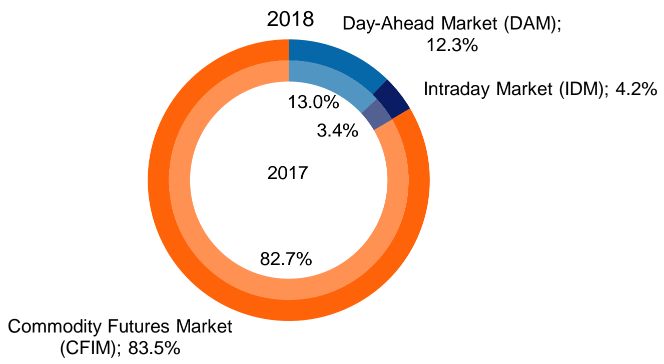
In 2018, the total volume of gas traded on the PPX grew by 3.4%. The largest number of trades (83% of the total, as in 2017) were executed on the futures market. The futures trading volume (RTT) increased by 4.3%, to a record number of around 120m contracts. It is worth noting that the trading volume on the Day-Ahead Market decreased by 8.6%, while trading on the Intraday Market increased by 28.5%.

Commodity futures (RTT) trading volume on the PPX in 2017 and 2018



Source: In-house analysis based on PPX data.

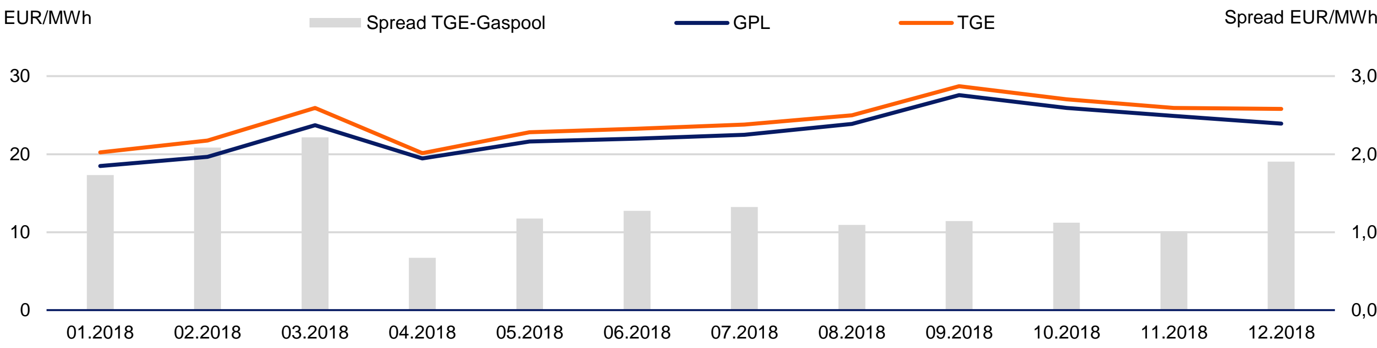
Contracts traded on the PPX in 2017 and 2018



Source: In-house analysis based on PPX data.

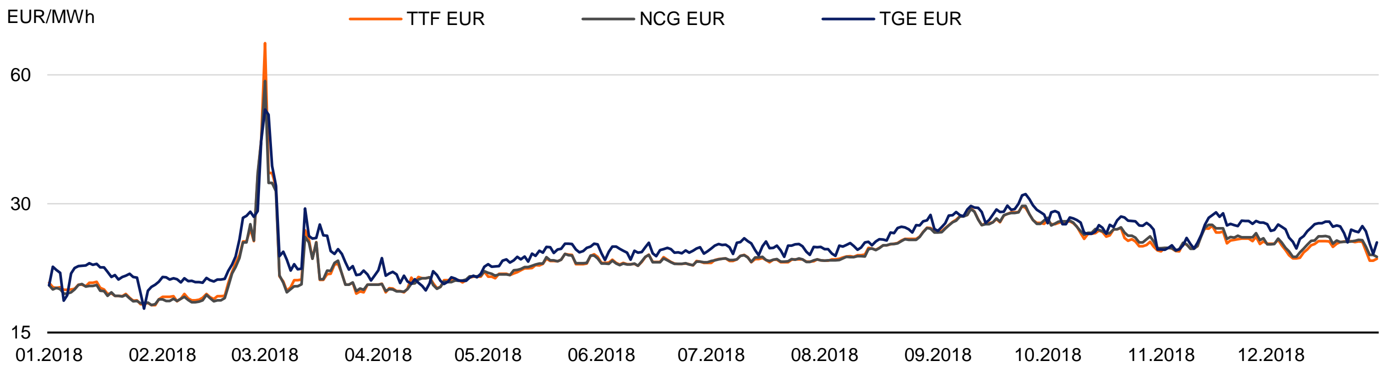
In 2018, the average spot price of gas in Poland was PLN 103.17/MWh, up 29.22% year on year. Gas prices in Poland were strongly correlated with gas price levels in Germany and other European markets. The average spread between spot prices on the PPX and the GASPOOL hub decreased from EUR 1.49/MWh in 2017 to EUR 1.40/MWh in 2018, that is by 5.9%.

Average monthly natural gas spot prices in Poland and Germany



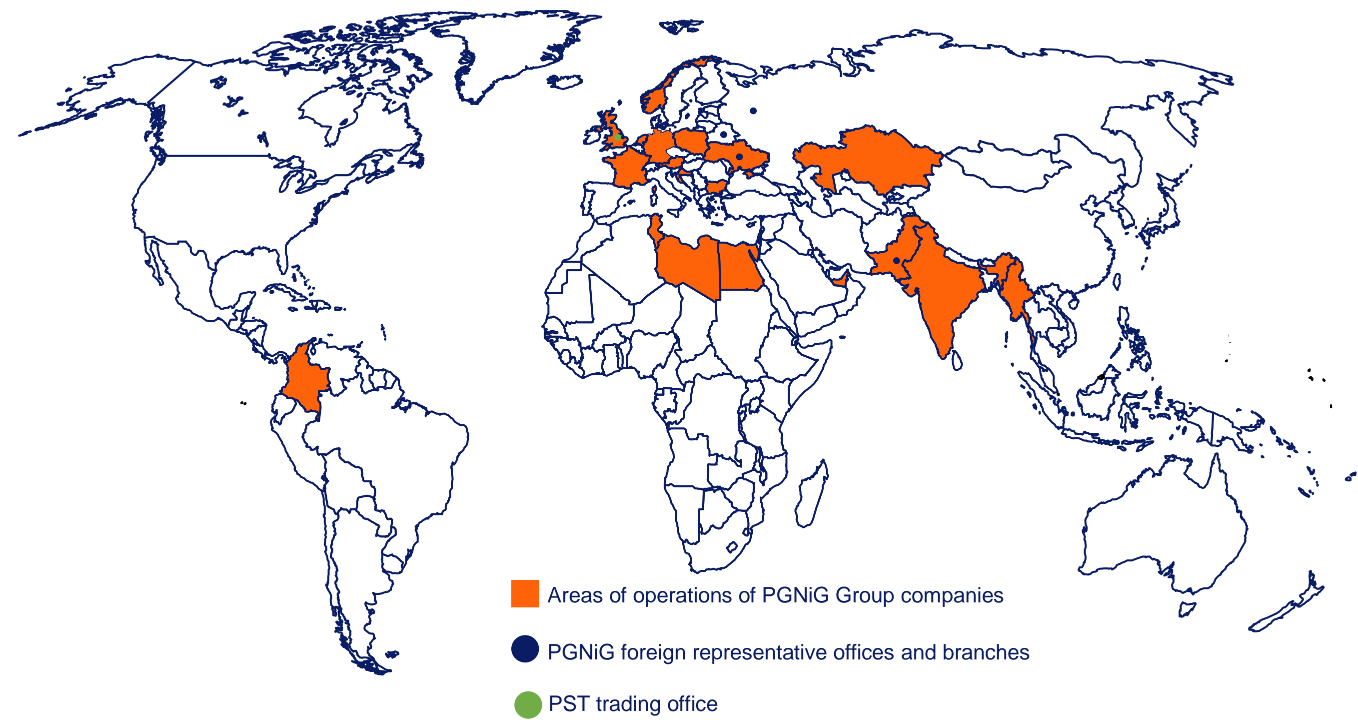
Source: In-house analysis based on PPX data and EEX data.

Spot price of gas at PPX, TTF and NCG in 2018



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

5. Operating activities in 2018



Total natural gas sales outside the PGNiG Group mcm	2018		2017		2016	2015	2014
	PGNiG Group	PGNiG	PGNiG Group	PGNiG	PGNiG Group	PGNiG Group	PGNiG Group
High-methane gas (E)	27,466	16,159	25,291	15,977	22,895	21,653	17,322
Nitrogen-rich gas (Ls/Lw as E equivalent)	1,578	1,088	1,496	1,007	1,371	1,295	1,252
TOTAL (measured as E equivalent)	29,044	17,247	26,787	16,984	24,266	22,948	18,574

5.1. Exploration and Production

The segment's business focuses on extracting hydrocarbons from deposits and preparing them for sale. This involves exploring for and extracting natural gas and crude oil from deposits, and includes geological surveys, analysis of geophysical data, drilling, and development of and production of hydrocarbons from gas and oil fields. The work is conducted by the segment on its own or jointly with partners, under joint operations agreements. The segment relies on storage capacities available at the Bonikowo and Daszewo UGSFs.

5.1.1. Segment's key data

Financial highlights	2018		2017		2016[2)]	2015[1)]	2014[1)]
	PGNiG Group	PGNiG	PGNiG Group	PGNiG	PGNiG Group	PGNiG Group	PGNiG Group
Total revenue	7,671	5,743	6,118	4,572	5,289	4,855	6,071
Revenue from sales outside the Group, including:	3,794	2,459	3,092	2,009	2,776	3,148	4,346
- high-methane and nitrogen-rich gas,	681	679	602	600	517	553	573
- crude oil, condensate, and NGL	2,554	1,543	1,862	1,184	1,606	1,945	2,654
- geophysical, geological and drilling services	262	-	358	-	429	382	761
Inter-segment revenue	3,877	3,284	3,026	2,563	2,513	1,707	1,725
EBITDA	5,019	3,862	3,865	2,937	2,206	2,426	3,143
EBITDA adjusted for impairment losses on property, plant and equipment	4,816	3,609	3,944	3,012	2,977	2,980	3,812

1) Data not restated, as reported.
2) Data restated according to the new segmentation of the PGNiG Group's operations.

Natural gas production by the PGNiG Group [mcm]	2018		2017		2016	2015	2014
	PGNiG Group	PGNiG	PGNiG Group	PGNiG Group	PGNiG Group	PGNiG Group	PGNiG Group
High-methane gas (E)	1,834	1,296	1,863	1,315	1,918	2,027	1,876
in Poland	1,296	1,296	1,315	1,315	1,401	1,454	1,457
PGNiG Zielona Góra Branch	-	-	-	-	-	-	-
PGNiG Sanok Branch	*1,296*	*1,296*	*1,315*	*1,315*	*1,401*	*1,454*	*1,457*
in Norway	538	-	548	-	517	573	419
Nitrogen-rich gas (Ls/Lw as E equivalent)	2,712	2,712	2,674	2,674	2,540	2,564	2,628
in Poland	2,512	2,512	2,524	2,524	2,481	2,513	2,570
PGNiG Zielona Góra Branch	*2,458*	*2,458*	*2,468*	*2,468*	*2,422*	*2,441*	*2,490*
PGNiG Sanok Branch	*54*	*54*	*56*	*56*	*59*	*72*	*80*
in Pakistan − PGNiG Pakistan Branch	200	200	150	150	59	52	58
TOTAL (measured as E equivalent)	4,546	4,008	4,537	3,989	4,458	4,591	4,504

The segment's natural gas sales outside the PGNiG Group [mcm]	2018		2017		2016	2015	2014
	PGNiG Group	PGNiG	PGNiG Group	PGNiG	PGNiG Group	PGNiG Group	PGNiG Group
High-methane gas (E)	26	26	31	31	77	54	33
in Poland	26	26	31	31	53	52	33
in Norway	-	-	-	-	24	1	-
Nitrogen-rich gas (Ls/Lw as E equivalent)	857	857	795	795	703	684	738
in Poland	658	658	646	646	645	633	682
in Pakistan	199	199	149	149	58	51	56
TOTAL (measured as E equivalent)	883	883	825	825	780	738	771

Crude oil* at the PGNiG Group (thousand tonnes)	2018		2017		2016	2015	2014
	PGNiG Group	PGNiG	PGNiG Group	PGNiG	PGNiG Group	PGNiG Group	PGNiG Group
Crude oil production*	1,345	818	1,257	787	1,318	1,428	1,207
in Poland	818	818	787	787	763	765	789
PGNiG Zielona Góra Branch	*780*	*780*	*747*	*747*	*719*	*719*	*742*
PGNiG Sanok Branch	*38*	*38*	*40*	*40*	*44*	*46*	*47*
in Norway	527	-	470	-	555	664	418
Sales of crude oil*	1,410	817	1,270	791	1,347	1,391	1,169
including oil produced in Poland	817	817	791	791	754	772	780
including oil produced in Norway	593	-	479	-	593	619	389

** including condensate and NGL*

5.1.2. Segment's strategy

Increasing hydrocarbon reserves

One of the segment's key objectives is to increase its hydrocarbon reserves by 35% in Poland and abroad. The PGNiG Group's ambition is to reverse the negative trend observed in 2010–2015, when the Group's total hydrocarbon base decreased by around 2% on average per year.

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 35 mboe in 2016 vs approximately 16 mboe in 2015). In 2017–2022, the gross annual growth in Polish hydrocarbon reserves (including production) is expected to continue at a rate close to the 2016 levels, ranging from approximately 27 mboe to 34 mboe annually.

To this end, the following steps have been taken:

- review of the granted licences to evaluate whether exploration and/or production can be continued efficiently, and sale of unpromising licences,
- review of exploration plans in Poland to maximise the probability of new discoveries and assign new hydrocarbon reserves,
- review of field development plans to accelerate, among other things, completion of investment projects,
- new approach to preparing field development plans and carrying out preparatory works (e.g. obtaining preliminary/conditional consents from land owners) prior to exploration drilling,
- standardisation of technical requirements for the construction of onshore infrastructure and their adaptation to actual technological and operational needs.

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

Increase annual hydrocarbon production volumes

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

To achieve that, the following measures have been taken:

- in Poland: increasing output from producing fields,
- abroad:
    - participation in licence award procedures 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.

Delivery of the PGNiG Group's exploration and production Strategy will lead to an increase in EBITDA until 2022; to optimisation of operating costs of service companies and expansion of field services offered to third parties; to optimisation of the portfolio of foreign upstream assets; to stepping up exploration projects abroad (in Norway and Pakistan); and to enhancing business processes with innovative technologies (e.g. in the management of hydrocarbon production operations).

5.1.3. Operations in Poland

Licences in Poland

As at January 1st 2018, PGNiG held 48 licences: 22 licences for exploration for and appraisal of crude oil and natural gas deposits, 1 suspended licence (as the conversion procedure was not completed and the licence expired after the relevant application was filed with the licensing authority) and 25 combined (exploration, appraisal and production) licences. As at December 31st 2018, PGNiG held 47 licences: 20 licences for exploration for and appraisal of oil and gas deposits and 27 combined licences (one licence was relinquished).

In 2018, 24 proceedings to extend, amend or convert licences were closed. As at December 31st 2018, proceedings to convert six licences and amend one licence were still pending at the Ministry of the Environment. 32 proceedings to approve additional works in plans of geological operations were also completed. In addition, proceedings are pending concerning two additions to geological projects, and one research project.

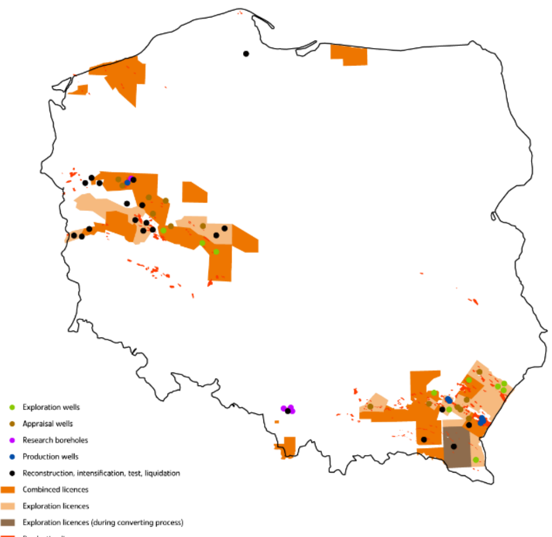
As at December 31st 2018, PGNiG held a total of 203 production licences in Poland. In 2018, PGNiG was awarded two new production licences (Zbąszyń and Dzików Stary), 34 licences were amended, and 12 were discontinued.

Work performed

Throughout 2018, 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. Out of the 36 boreholes drilled in 2018, the target depth was reached by 32, including: four research, nine exploration, 13 appraisal and six production wells.

As at the end of 2018, formation test results were obtained from 21 boreholes (one research, nine exploration, five appraisal and six production wells). The 21 wells with known formation test results included: 17 positive and three dry wells (all of which were exploration wells without a commercial flow of hydrocarbons that were abandoned) and one research well (abandoned – due to its research nature, the well is not subject to reservoir classification).

Fig. 6 PGNiG's licences and wells in 2018



In 2018, workovers, enhanced recovery treatments, formation tests and abandonment operations were also performed on wells drilled in previous years, including: six research wells (one well is being pumped and five were abandoned), 18 exploration wells (17 were abandoned, one is on test production) and two appraisal wells (on one well the first stage of formation tests was completed and further work has been planned, the other well was abandoned).

New wells brought on stream at the Sanok Branch in 2018 include: six wells on the Husów-Albigowa-Krasne field (Siedleczka-8, Siedleczka-9, Siedleczka-10K, Siedleczka-11K, Siedleczka-12K, Siedleczka-13K), one well on the Przeworsk field (Przeworsk-23), one well on the Zagorzyce field (Sędziszów-37), one well on the Pruchnik-Pantalowice field (Pantalowice-7K), one well on the Kowale field (Kowale-3) and two wells on the Wapowce field of the Przemyśl deposit (Przemyśl-283K, Przemyśl-66a – as part of long-term tests).

New wells brought on stream at the Zielona Góra Branch in 2018 include: four wells on the Paproć P1 field (Paproć-61, Paproć-62, Paproć-64, Paproć-65), three wells on the BMB field (Mostno-21H/K, Barnówko-21K, Barnówko-22K) and three wells on the Lubiatów field (Sowia Góra-11K, Lubiatów-13K, Lubiatów-11H).

New fields brought on stream at the Zielona Góra Branch in 2018 include the Czarna Wieś field (Czarna Wieś-4 and Czarna Wieś-5 wells) and the Dargosław field (Dargosław-1 well).

No. of production facilities	Sanok	Zielona Góra
Gas production facilities	18	10
Oil production facilities	5	1
Oil and gas production facilities	13	7
Total	36	18

With its oil production volume in Poland of over 800,000 tonnes in 2018, PGNiG is one of Poland's leading producers of crude oil. As regards total domestic gas production, PGNiG's share is approximately 90%.

Production of natural gas in Poland

Production of natural gas in Poland mcm	2018		2017		2016	2015	2014
	PGNiG Group	PGNiG	PGNiG Group	PGNiG	PGNiG Group	PGNiG Group	PGNiG Group
High-methane gas (E)	1,296	1,296	1,315	1,315	1,400	1,454	1,457
PGNiG Zielona Góra Branch	-	-	-	-	-	-	-
PGNiG Sanok Branch	*1,296*	*1,296*	*1,315*	*1,315*	*1,400*	1,454	1,457
Nitrogen-rich gas (Ls/Lw as E equivalent)	2,512	2,512	2,524	2,524	2,481	2,513	2,570
PGNiG Zielona Góra Branch	*2,458*	*2,458*	*2,467*	*2,467*	*2,422*	2,441	2,490
PGNiG Sanok Branch	*54*	*54*	*56*	*56*	*59*	72	80
Total (as E equivalent)	3,808	3,808	3,839	3,839	3,881	3,967	4,027

Production of crude oil in Poland (including condensate and NGL)

Crude oil production* in Poland thousand tonnes	2018		2017		2016	2015	2014
	PGNiG Group	PGNiG	PGNiG Group	PGNiG	PGNiG Group	PGNiG Group	PGNiG Group
PGNiG Zielona Góra Branch	*780*	*780*	*747*	*747*	*719*	*719*	*742*
PGNiG Sanok Branch	*38*	*38*	*40*	*40*	*44*	*46*	*47*
Total	818	818	787	787	763	765	789

** including condensate and NGL*

Production of other products

thousand tonnes	2018		2017		2016	2015	2014
	PGNiG Group	PGNiG	PGNiG Group	PGNiG	PGNiG Group	PGNiG Group	PGNiG Group
Propane-butane	39	39	38	38	37	35	32
LNG	21	21	22	22	26	25	30
mcm							
Helium	3	3	3	3	3	3	3

Collaboration with other entities

In 2018, in the PGNiG licence areas the Company conducted joint operations with other entities, including LOTOS Petrobaltic S.A. and ORLEN Upstream Sp. z o.o. Furthermore, PGNiG was engaged in exploration work with other entities in Pakistan and Norway.

Collaboration in Poland

Under licences held by PGNiG, work was continued in the following areas:

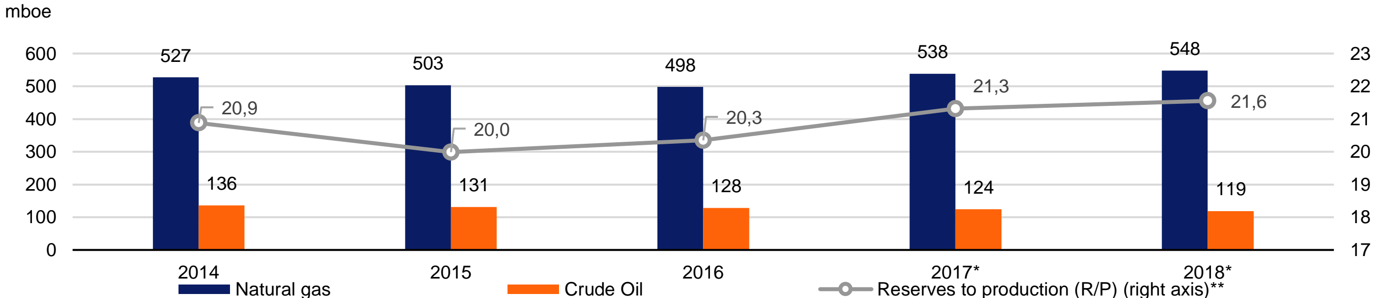
- 'Płotki' – under the joint operations agreement dated May 12th 2000; licence interests: PGNiG (operator) – 51%, FX Energy Poland Sp. z o.o. – 49%. Drilling of the Chwalęcin-1K well was completed, with a commercial flow of natural gas obtained. Furthermore, 3D seismic surveys were completed over the Radliniec and Mechlin licence areas, a 3D seismic survey was started over the Rusocin area, and processing/interpretation of old 3D seismic data from the Boguszyn-Młodzikowo area were commenced.
- 'Płotki' – 'PTZ' (the Extended Zaniemyśl Area) – under the joint operations agreement dated October 26th 2005; licence interests: PGNiG (operator) – 51%, FX Energy Poland Sp. z o.o. – 24.5%, Calenergy Resources Poland Sp. z o.o. – 24.5%. At present, PGNiG is awaiting a decision of the Ministry of the Environment to terminate the licence (contract in liquidation).
- 'Poznań' – under the joint operations agreement dated June 1st 2004; licence interests: PGNiG (operator) – 51%, FX Energy Poland Sp. z o.o. – 49%. The Miłosław E production facility was completed, and development of the Miłosław-5K/H well was commenced (the Miłosław production facility). Furthermore, drilling of the Kotlin-3 exploratory well was completed (the well was abandoned as it had been found dry); drilling of the Miłosław-6H appraisal well on the Miłosław E gas field was commenced (the well was then abandoned due to a drilling accident so as to enable continued emergency work and the construction of a contingent sidetrack); and drilling of the Komorze-3H appraisal well on the Komorze gas field was

commenced (the well was then abandoned due to technical complications). 3D seismic surveys over the Sośnica licence area were also completed.

- 'Bieszczady' – under the joint operations agreement dated June 1st 2007; licence interests: PGNiG (operator) – 51%, Eurogas Polska Sp. z o.o. – 24%, and Energia Bieszczady Sp. z o.o. – 25%. On July 20th 2015, ORLEN Upstream Sp. z o.o. acquired a 49% interest in licence blocks 437, 438, 456, 457, 458 and in parts of licence blocks 417 and 436 held by Eurogas Polska Sp. z o.o. and Energia Bieszczady Sp. z o.o., thus becoming a party to the joint operations agreement. The Niebieszczany-1 exploration well was abandoned, and 2D seismic surveys (Barycz-Paszowa, Leszczowate) as well as 3D seismic surveys (Wańkowa-Bandrów) were performed (and completed). At the end of 2018, drilling of the Czarna Dolna-1 well was started (target depth: 4,000 metres). A decision was made to withdraw from the licence covering block 456 due to a negative standpoint of the Regional Directorate for Environmental Protection regarding possible exploration work within a NATURA 2000 protected site.
- 'Sieraków' – under the joint operations agreement dated June 22nd 2009; licence interests: PGNiG (operator) – 51%, 51%, ORLEN Upstream Sp. z o.o. – 49%. Analytical, formal and legal work connected with the development of the Sieraków field continued and the Sieraków-4 well was abandoned.
- 'Kamień Pomorski' – under the agreement of August 14th 2013; licence interests: PGNiG (operator) – 51%, LOTOS Petrobaltic S.A. – 49%. In May 2018, LOTOS Petrobaltic S.A. terminated the joint operations agreement, which expired at the end of June 2018.
- 'Górowo Iławieckie' – under the joint operations agreement dated December 31st 2014; licence interests: PGNiG (operator) – 51%, LOTOS Petrobaltic S.A. – 49%. 3D seismic surveys were carried out over the Miłaki area (seismic interpretation began in December 2018).
- Under licences held by FX Energy Poland Sp. z o.o., work was conducted in the 'Warszawa-Południe' area (block 255), under the joint operations agreement dated May 26th 2011. The licence interests are as follows: FX Energy Poland Sp. z o.o. (operator) – 51%, and PGNiG – 49%. In October 2017, PGNiG terminated the joint operations agreement. To complete the process, the field infrastructure needs to be decommissioned (which is scheduled for 2019).

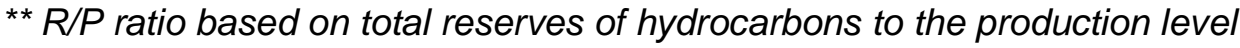
Collaboration abroad › For more information, see Section 5.1.4.

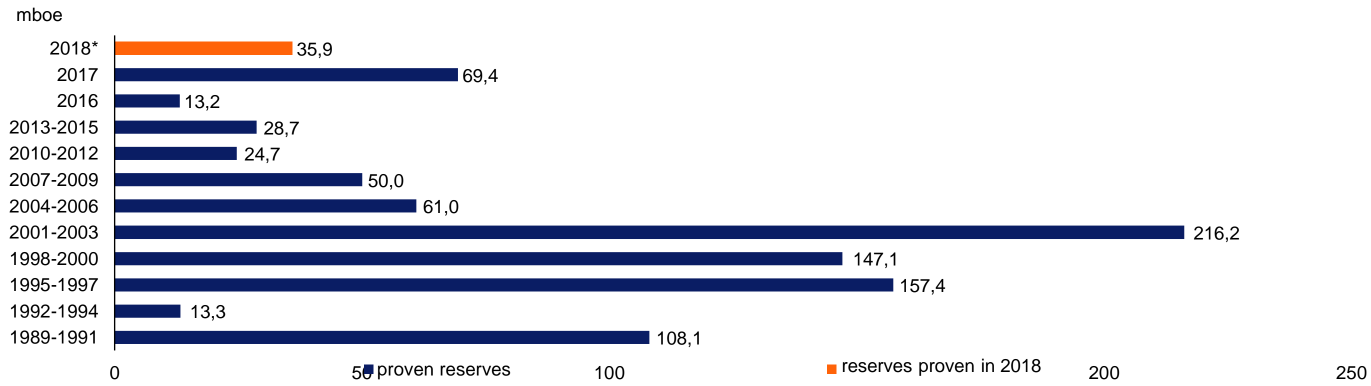
Recoverable reserves documented by PGNiG in Poland in 2014−2018



** Also included are reserve increases specified in the documentation approved by the Commission for Mineral Resources, without the decision of the Minister of the Environment.*

*** R/P ratio based on total reserves of hydrocarbons to the production level*





** including production from fields: Młodasko, Połęcko, Czarna Wieś, Czarna Wieś E*

Sales of key products

The main products sold by the Trade and Storage 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 LNG, gaseous and liquid helium, and liquid nitrogen.

Part of the natural gas extracted in Poland is sold directly from gas fields to non-PGNiG Group customers (see table below), and also within the PGNiG Group. Natural gas extracted and not sold in the upstream segment is transferred for sale to the Trade and Storage segment.

Domestic sales of natural gas produced by the segment outside the PGNiG Group (mcm)	2018		2017		2016	2015	2014
	PGNiG Group	PGNiG	PGNiG Group	PGNiG	PGNiG Group	PGNiG Group	PGNiG Group
High-methane gas (E)	26	26	30	30	53	52	33
Nitrogen-rich gas (Ls/Lw as E equivalent)	658	658	646	646	644	633	682
Total (as E equivalent)	684	684	676	676	697	685	715

As regards trading in crude oil extracted in Poland, in 2018 PGNiG continued its trading partnerships with major Polish and foreign players in the fuel sector.

Crude oil* in Poland, PGNiG Group (thousand tonnes)	2018		2017		2016	2015	2014
	PGNiG Group	PGNiG	PGNiG Group	PGNiG	PGNiG Group	PGNiG Group	PGNiG Group
PGNiG Zielona Góra Branch	*780*	*780*	747	747	719	719	742
PGNiG Sanok Branch	*38*	*38*	40	40	44	46	47
Crude oil production*	818	818	787	787	763	765	789
Sales of crude oil* produced in Poland	817	817	791	791	753	772	780

** Including condensate.*

Rail deliveries of crude oil (65% 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 2018, 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 S.A. (30% of sales). Crude oil is sold at market prices.

Seismic surveys, drilling and well services

In 2018, the Geology and Hydrocarbon Production Branch of PGNiG acquired 470.78 km of 2D seismic data and 1,049.60 km^2 of 3D seismic data. PGNiG Group companies provide seismic survey, well and drilling services both for other Group members and to external customers.

EXALO's principal business involves the provision of oil and gas drilling services, spanning the exploration to completion cycle, and oilfield services comprising drilling of wells, well testing and production. Key contracts performed by EXALO in 2018 included:

- For PGNiG Group companies: operation of the 2000 KM drilling rig, provision of oilfield services (in Poland) and drilling services for PGNiG (in Pakistan).
- For external customers: drilling of wells for customers in Pakistan and Kazakhstan, and provision of cementing services in Ukraine.

GEOFIZYKA Toruń's principal business involves exploration geophysics (seismic data acquisition, processing and comprehensive interpretation) and well logging (including data interpretation). Key seismic data acquisition projects carried out in 2018 by GEOFIZYKA Toruń included:

- In Poland: Leszczowate and Wolin: 2D seismic data acquisition; Kramarzówka, Topoliny Biecz, Chełmno, Żarnowiec, Lubiatów, Kopalino and TTZ-South: 3D seismic data acquisition.
- Abroad: 2D seismic data acquisition in Croatia, and 3D seismic data acquisition in Myanmar, Egypt and Colombia.

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.

Underground gas storage facilities (UGSF)	Working capacity mcm	Maximum withdrawal capacity mcm/day	Maximum injection capacity mcm/day
Bonikowo	200	2.4	1.7
Daszewo	60	0.4	0.2

Exploration, appraisal and extraction of coal bed methane

In 2018, as part of the second phase (research and demonstration) of the Geo-Metan project involving exploration for, appraisal and extraction of coal bed methane, detailed criteria were determined for selecting drilling sites for pre-mining coal bed methane extraction, addressed to three mining companies: Jastrzębska Spółka Węglowa S.A. (JSW), PGG, and Tauron Wydobycie S.A. The partners provided PGNiG with a list of mines meeting those criteria. Geological and mining information as well as formal and legal data were gathered and analysed during working meetings to select the mines for further work under the project. As a result, three locations were selected: the Budryk Hard Coal Mine (JSW), the Ruda Ruch Bielszowice Hard Coal Mine (PGG) and the Brzeszcze Mining Plant (Tauron Wydobycie). In 2018, contract negotiations were commenced with:

- JSW – in October 2018 a plan of geological operations was prepared, which envisages the drilling of a double system of exploratory wells at the Budryk-1, Budryk-2H and Budryk-3H plants to extract coal bed methane at the Budryk Hard Coal Mine.

- PGG – a plan of geological operations is being prepared, involving the drilling of a single system of exploratory wells at Bielszowice-1/1K and Bielszowice-2H. At the moment, the project completion depends on whether a final agreement is reached with PGG and on the conclusion of agreements with land owners.
- Tauron Wydobycie S.A. – negotiations of the contract terms and conditions are in progress; the contract provides for the drilling of a double system of wells at Brzeszcze-1, Brzeszcze-2H and Brzeszcze-3H.

Regardless of the status of the above projects, it wasdecided to start a preparing a plan of geological operations within the licence area which – in line with current assumptions – is to cover Śmiłowice, an undeveloped hard coal deposit with associated gas. The area covered by the requested licence is now being delineated.

As part of the work performed on the Gilowice-1 and Gilowice 2H wells and in the Międzyrzecze licence area, in 2018 a set of downhole pumps were installed at the Gilowice-1 well, and a pumping operation began. After PGNiG obtained a licence for exploration for and appraisal of coal bed deposits and for extraction of methane in the Międzyrzecze area, in 2018 the Gilowice-3K and Gilowice-4H wells were drilled (connected by intersection). Hydraulic fracturing operations were performed in the Gilowice-4H well and work to prepare the well for the pumping set commenced. In early 2019, pumping operations are planned to commence in both wells (Gilowice-3K and Gilowice-4H). In 2018, in the Międzyrzecze licence area the drilling of the Międzyrzecze-4 well was also completed. The well has been temporarily secured and is awaiting further work.

5.1.4. Foreign operations

Natural gas production abroad (mcm)	2018		2017		2016	2015	2014
	PGNiG Group	PGNiG	PGNiG Group	PGNiG	PGNiG Group	PGNiG Group	PGNiG Group
High-methane gas (E)	538	-	548	-	517	573	419
in Norway	538	-	548	-	517	573	419
Nitrogen-rich gas (Ls/Lw as E equivalent)	200	200	150	150	59	52	58
PGNiG Pakistan Branch	200	200	150	150	59	52	58
Total (as E equivalent)	738	738	698	698	576	625	477

Sales outside the PGNiG Group (mcm)	2018		2017		2016	2015	2014
	PGNiG Group	PGNiG	PGNiG Group	PGNiG	PGNiG Group	PGNiG Group	PGNiG Group
High-methane gas (E)	-	-	-	-	24	1	-
in Norway	-	-	-	-	24	1	-
Nitrogen-rich gas (Ls/Lw as E equivalent)	199	199	149	149	56	51	56
PGNiG Pakistan Branch	199	199	149	149	56	51	56
TOTAL (measured as E equivalent)	199	199	149	149	80	52	56

Crude oil* thousand tonnes	2018		2017		2016	2015	2014
	PGNiG Group	PGNiG	PGNiG Group	PGNiG	PGNiG Group	PGNiG Group	PGNiG Group
Production in Norway	527	-	470	-	555	664	418
Sales in Norway	593	-	479	-	593	619	389

*Including NGL.

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. Additionally, PGNiG UN is preparing to develop the Tommeliten Alpha deposit, acquired in 2018, and is considering the development of the Fogelberg discovery. 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 Gina Krog field, which was developed using a new production platform in the North Sea. The other fields (Morvin, Vilje and Vale) comprise a group of wells connected to the existing production infrastructure.

In 2018, the company produced a total of 527 thousand tonnes of crude oil with other fractions (measured as tonnes of crude oil equivalent) and 538 mcm of natural gas from the Skarv, Morvin, Vilje, Vale, and Gina Krog fields. The output was higher than planned, chiefly on the back of better-than-expected production from the Skarv, Morvin, Vilje and Gina Krog fields. A factor negatively affecting production volumes was a maintenance shutdown on the Vale field. In 2018, PGNiG and its partners continued to develop the Gina Krog field, which mainly included the drilling of successive production wells.

In 2018, PGNiG UN recorded an increase in its Norwegian reserves, from 83 mboe at the beginning of the year to 142 mboe at the end of 2018. The increase is mainly attributable to the acquisition of an interest in the PL044 licence, covering the Tommeliten Alpha discovery (the agreement, signed in October 2018, provides for the purchase of a 30% interest in the PL044 licence from Equinor Energy AS, resulting in a 42.38% interest in the Tommeliten Alpha field). The purchase price of the interest was approximately USD 220m, with January 1st 2018 marking the contractual transaction date.

In 2018, PGNiG UN and its partners continued to develop the Ærfugl and Skogul fields, with production launch scheduled for 2020. Development of the Ærfugl gas field means the fulfilment of strategic objectives by significantly increasing the production of natural

gas to be supplied to Poland via Denmark through a new gas link called the Norwegian corridor. Both investment projects will be financed with funds generated in the course of PGNiG's operations in Norway.

In 2018, an APA 2017 round (Awards in Pre-defined Areas) was concluded, with PGNiG UN awarded interests in two exploration licences:

- a 30% interest (as a partner) in the PL939 licence area in the Norwegian Sea; the awarded acreage is located next to the Åsgard field; the licence operator is Equinor (with a 70% interest);
- a 20% interest (as a partner) in the PL941 licence area in the Norwegian Sea; the awarded acreage is located next to the Skarv field; the licence operator is AkerBP (with a 50% interest), while the other partner is Wellesley Petroleum (a 30% interest).

In early 2019, an APA 2018 round was concluded, with PGNiG UN awarded interests in three new exploration licences:

- a 40% interest (as the operator) in the PL838B licence area in the Norwegian Sea; the other interest holders are: Aker BP (a 30% interest) and DEA (a 30% interest);
- a 50% interest (as the operator) in the PL1017 licence area in the Norwegian Sea; the remaining 50% interest was acquired by Equinor;
- a 35% interest (as a partner) in the PL1009 licence area in the Norwegian Sea; the remaining 65% interest was acquired by ConocoPhilips.

Under the PL1009 licence, an exploration well will be drilled within two years. In addition, as the PL838B and PL1009 licence areas are located close to the Skarv field, PGNiG UN will be able to draw on its own oil and gas exploration experience in the region. The licences awarded to PGNiG UN during the last two APA licensing rounds have significant gas potential, which fits in with plans envisaging gas imports from Norway to Poland. The licence areas are located close to existing production and pipeline infrastructure, which will make project work much simpler and faster.

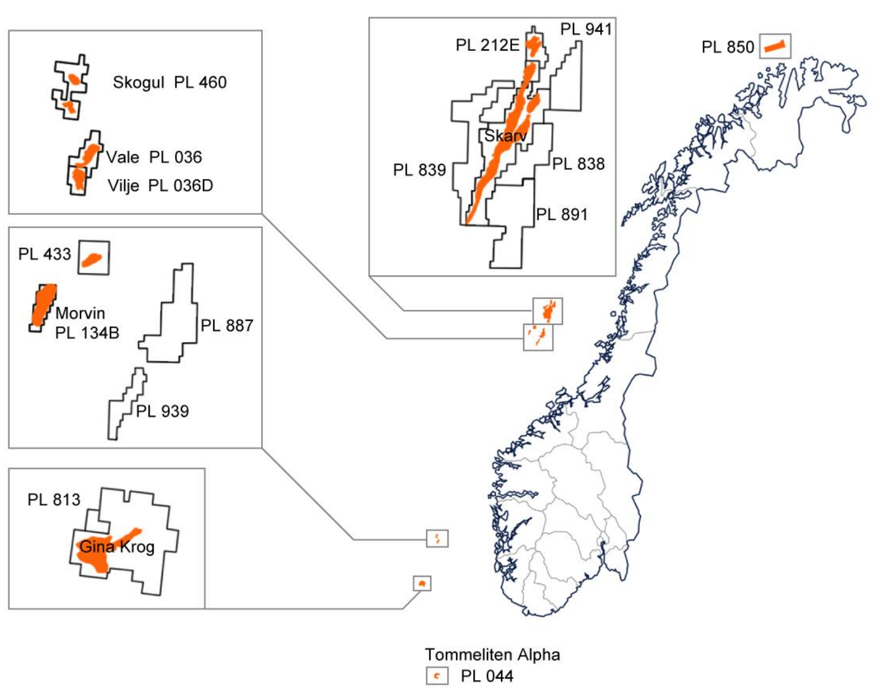
Jointly with its partners, PGNiG UN also continued work in other exploration licence areas. Among other work, the potential of the PL839, PL850, and PL887 licence areas was evaluated. The exploration licence partners carry out necessary geological and geophysical surveys to precisely estimate the potential of the licence areas. After that period, drill-or-drop decisions are made.

Based on the results of geological surveys and economic analyses, PGNiG UN and its partners decided to relinquish the PL856 licence in 2018.

In 2018, 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 actively participated in the consultation launched by the operators and submitted a number of proposals regarding the legal and regulatory framework for that link. › For more information on the Baltic Pipe project, see Section 7.1.2.

PGNiG UN holds a diversified portfolio of production and exploration licences. As at December 31st 2018, PGNiG UN held interests in 21 exploration and production licences, including as the operator of two licences.

Fig. 7 PGNiG UN's production fields



Licence	Operator	Interest	Type	Planned activities
PL029C (Gina Krog)	Equinor	29.63 % (8% interest in the project)	Exploration/development	Development (production to begin in 2017)/exploration
PL036D (Vilje)	Aker BP	24.243 %	Production	Production
PL036 (Vale) **PL249 (Vale)**	Spirit	24.243 %	Exploration/Production	Production
PL044	ConocoPhilips	30% interest in the licence (42.38% interest in Tommeliten Alpha)	Exploration/development	Exploration/Development
PL134B (Morvin) **PL134C (Morvin)**	Equinor	6%	Production	Production
PL212 (Skarv) **PL212B (Skarv)** **PL262 (Skarv)**	AkerBP	15% (11.9175% interest in the project)	Exploration/Development/Production	Production, development of the Ærfugl deposit, exploration, planned drilling in 2018
PL212E (Snadd Outer)	AkerBP	15%	Exploration	Possible tie-back to Snadd
PL433	Spirit	20%	Exploration/appraisal	Exploration/appraisal
PL460 (Skogul)	Aker BP	35%	Exploration/development	Exploration/development
PL813 (Elli)	Equinor	8%	Exploration	Expected DoD decision* February 2019
Op.PL838 (Shrek)	PGNiG	40%	Exploration	Drilling to commence in 2019
PL839 (Nise/Storkobbe)	AkerBP	11.9175 %	Exploration	Seismic data interpretation
PL850 (Ulv)	Edison	20%	Exploration	DoD decision* February 2019, planned licence extension application
PL887 (Novus East)	PGNiG	40%	Exploration	DoD decision* February 2019, planned licence extension application
PL891 (Slagugle)	ConocoPhilips	30%	Exploration	DoD decision* February 2019
PL939 (Egyptian Vulter)	Equinor	30%	Exploration	DoD decision* March 2020
PL941 (Gronlifielet)	AkerBP	20%	Exploration	DoD decision* March 2020

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

Producing fields

The Skarv field was brought on stream in December 2012. Currently it is developed with 16 wells connected to five subsea templates, which can support a further seven wells, adding much flexibility to the 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.

Reserves: 20.9 mboe, including 12.4 mboe of natural gas and 8.5 mboe of crude oil and NGL

The Gina Krog field is an oil and gas field brought on stream in June 2017 with five wells. Subsequent wells will continue to be drilled in 2019 in order to increase production capacity. Running simultaneous production and drilling operations helps optimise project financing. The field development plan provides for the construction of a new platform and for the deployment of an FSO unit with a capacity of 850,000 bbl for crude storage. Next, oil is transported by tankers for transshipment, while raw natural gas is transmitted to the Sleipner platform. Processed gas is pumped into the Gassled pipeline, while condensate and NGL are transported to the Kårstø plant in Norway.

Reserves: 14.8 mboe, including 6.6 mboe of natural gas and 8.2 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: 3.7 mboe

The Vale field is a gas and condensate field discovered in the North Sea in 1991. Despite the downtime seen in 2018, output from the Vale field is expected to rise in the coming years as a result of recent investments made in the Heimdal platform.

Reserves: 1.3 mboe, including 0.7 mboe of natural gas and 0.6 mboe of crude oil

The Morvin field was discovered in the Norwegian Sea in 2001. Oil is produced through two subsea templates. The field is tied back to the Åsgard B platform.

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

Fields under development

Tommeliten Alpha is a gas and condensate field located in the North Sea in the immediate vicinity of the Ekofisk field. Its reserves are likely to prove higher than confirmed to date, while the PL044 licence offers considerable potential for further exploration work. According to the current schedule, first oil is expected in 2024.

Tommeliten Alpha reserves: 54.1 mboe, including 36.1 mboe of natural gas and 18 mboe of crude oil and NGL

Ærfugl is a gas and condensate field discovered 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.

Ærfugl reserves: 30.5 mboe, including 21.4 mboe of natural gas and 9.1 mboe of crude oil and NGL

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. Drilling and completion of a production well is scheduled for 2019.

Reserves: 3.2 mboe, including 0.3 mboe of natural gas and 2.9 mboe of crude oil

Prospects being explored/appraised

Fogelberg is a condensate and gas prospect located in the Norwegian Sea, north-east of the Morvin field. The Island Innovator semi-submersible rig was used to drill an appraisal well in the prospect in order to construct a contingent sidetrack and perform production tests. As at the end of 2018, data from the appraisal well was still being reviewed, and various field development scenarios were being considered. The data obtained from the appraisal well will help identify the recoverable reserves of natural gas and condensate with a greater degree of accuracy.

Fogelberg reserves (preliminary data): 12.2 mboe, including 8.8 mboe of natural gas and 3.4 mboe of crude oil and NGL

Sales of hydrocarbons

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 S.A. (from the Morvin field). All fields except for Vilje also produce associated gas, which is transferred via gas pipelines mainly to Germany, where it is offtaken by PST.

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 pro rata to the parties' interests in the licence: PGNiG (operator) – 70%, PPL – 30%. Exploration activities within the licence area have resulted in the discovery of two gas deposits − Rehman and Rizq.

Natural (nitrogen-rich) gas reserves attributable to PGNiG: 6.96 bcm (35.7 mboe) in Rehman field and 2.44 bcm (13.7 mboe) 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 seven wells in 2018, amounted to 200 mcm of gas (measured as high-methane gas equivalent). The Rizq-2 and Rehman-4 wells were brought on stream in February and May 2018, respectively. In February and September 2018, PGNiG also completed drilling work on the Rehman-4 and Roshan-1 wells, respectively. Currently, the drilling of the Rehman-5 well is being continued (well spudded in September 2018), and equipment is being moved in and rigged up for the drilling of the Rehman-6 and Rizq-3 wells.

United Arab Emirates

In December 2018, PGNiG's bid for the acquisition of hydrocarbon exploration, appraisal and production rights in onshore block 5 in the Emirate of Ras Al Khaimah was selected. Following the selection of its bid, the Company acquired a 90% interest in the block. Agreements between PGNiG and the Ras Al Khaimah Petroleum Authority and RAK GAS LLC were signed in January 2019.

Libya

Due to mounting safety issues in Libya in early H2 2014, PGNiG UNA gave notice of a force majeure to the National Oil Corporation (NOC) and started to scale back its field operations in the country.

In 2018, PGNiG UNA took measures agreed upon with NOC to reduce the impact of the force majeure, including an analysis of seismic data acquired over the Ordovician formation as well as a review of the geological prospectivity of the LC113 licence and prospects of it producing usable hydrocarbons. In addition, efforts were made to secure assets accumulated in Libya, including the offices, downhole equipment in storage, and collection of core samples from the A1 and B1 wells drilled with positive results in 2013–2014.

Iran

PGNiG decided to cancel its operations in the Islamic Republic of Iran in 2018.

Geological services and seismic surveys

In 2018, Geofizyka Toruń, a PGNiG Group company, carried out the following tasks:

- seismic data acquisition in: Poland, Croatia, Bulgaria, Myanmar, Egypt, Tunisia, Colombia, and Ukraine;
- seismic data processing and interpretation in: Poland, France, India, Pakistan and Colombia;
- projects related to well logging and measurement of gas drilling parameters across Poland.

The foreign markets where EXALO was most active in 2018 were Pakistan, Kazachstan, and Ukraine.

5.1.5. Key investment projects and CAPEX

In 2018, PGNiG's capital expenditure in the Exploration and Production segment amounted to PLN 989m, 14% more than in 2017. The key exploration projects (in terms of allocated CAPEX) in 2018 included:

- drilling of the Pniewy 5KH appraisal well – PLN 30.5m;
- drilling of the Krobielewko 8 appraisal well – PLN 25.6m;
- fracturing and formation tests in the Kramarzówka 2H well – PLN 35m.

PGNiG's expenditure on exploration activities in Poland and abroad totalled PLN 764m.

Key development projects (in terms of allocated CAPEX) in 2018 included:

- development and hook-up, at the Husów-Albigowa-Krasne field, Siedleczka section – of six wells drilled in previous years: Siedleczka-8, Siedleczka-9, Siedleczka-10K, Siedleczka-11K, Siedleczka-12K, and Siedleczka-13K,
- development of the Sowia Góra-11K, Lubiatów 11H and Lubiatów 13K wells, consisting in completion of the infrastructure necessary to hook up the wells to the existing Lubiatów facility

PGNiG's total expenditure on upstream development and production projects in Poland and abroad amounted to PLN 225m. Capital expenditure made in 2018 in Pakistan totalled PLN 94m, and was 6% lower than in 2017.

Capital expenditure made in 2018 in Norway reached PLN 302m (net of acquisitions). Work continued to drill additional production wells in the Gina Krog field, with a view to optimising the project financing. In 2018, the Norwegian Ministry of Petroleum and Energy approved development plans for the Ærfugl i Skogul fields. Production from these fields is scheduled to commence in 2020.

In line with its strategic objectives, PGNiG UN completed a major transaction consisting in the acquisition of interest in the Tommeliten Alpha field from Equinor. The field is currently under development.

5.1.6. Development prospects

In 2019, PGNiG plans to produce in Poland 3.9 bcm of natural gas (measured as high-methane gas equivalent), and 0.8m tonnes of crude oil and condensate.

Work planned to be carried out in 2019 by the Sanok Branch includes:

- development of the following wells: Przeworsk (-24,-25), Gilowice 1, Przemyśl (-287K, -289K, -290, -299K, -308K, -354K, -355K, -356K, -357K, -303K, -304K, -350K, -351K, -352K, -353K), Gnojnica (-2K, -3K), Kraczkowa-3, Palikówka (-10K, -13K), Sędziszów (-38, -39), Rogoźnica (-3K, -4K, -5K), Wielgoszówka-1K, Nowe Sioło-1, Mielniki-1, Czarna Dolna 1, Korzeniówek 1, Królewska Góra 1, Przeworsk (-26, -27, -28, -29);
- development and hook-up of the following wells: Przemyśl (-283, -286, -288K, -302K, -305), Brzyska Wola-2 and Dąbrowica Duża (-3, -6).

Work planned to be carried out in 2019 by the Zielona Góra includes:

- development of the following fields: Miłosław (Miłosław-5K/H well), Kamień Mały, Gryżyna, Różańsko, Sieraków, Babimost and Zbąszyń;
- development of the following wells: Pniewy-5H, Wielichowo-8, Koźminiec-1, Grotów (-4k, -10, -12k) and Dzieduszyce-11K.

In addition, both of the PGNiG production branches will be pursuing other projects, focusing mainly on maintaining or ramping up hydrocarbon production. Such projects include, for instance, work related to the installation of gas compressors, extension of oil and gas production facilities, upgrade of compressor stations, flowline systems or gas pipelines.

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. Coal bed methane may be an important element of national energy security based on production of hydrocarbons from domestic resources, while mine demethanization will improve the work safety of miners and contribute to reducing emissions of methane, an aggressive greenhouse gas, into the atmosphere.

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. At the beginning of 2019, the number of licences in which PGNiG UN holds interests will increase to 24 following the awards in the most recent APA 2018 licensing round.

PGNiG UN intends to continue acquiring interests in new licence areas by participating in annual APA and in regular licensing rounds. The company may seek to acquire new licence areas through farm-in (purchase of interests from other companies) or farm-down

(exchange of interests with other companies) arrangements. In the future, PGNiG UN may participate, as a partner, in drilling projects within the Arctic Zone, in connection, among other things, with its holding of an interest in the PL 850 licence area in the Barents Sea.

As regards Pakistan, plans for 2019 include completion of drilling and then testing and bringing on stream of the Rehman-5 production well, in parallel with the spudding of the Rehman-6 and Rizq-3 production wells, which will require mobilising a second drilling rig. In 2019, PGNiG is also planning to start drilling the Rehman-7 and Rizq-4 wells. In parallel with the drilling campaign, work will be carried out to expand the capacity of the production infrastructure and consecutively tie in new wells for commercial production. In 2019, the Rizq-3, Rehman-5 and Rehman-6 wells are scheduled to come on stream. With respect to continuing exploration work, the Pakistan Branch is also planning to complete some seismic data acquisitions commenced in 2018, namely the 3D seismic survey over the W1 prospect and the 2D seismic survey over the W2 prospect.

As regards seismic services, work planned for 2019 includes 2D and 3D seismic data acquisitions in Poland (mainly for PGNiG) and abroad, including in Germany, the Netherlands, Bulgaria, Egypt, Mozambique, Hungary and Ukraine.

5.2. Trade and Storage

The principal activity of the segment is trade in natural gas. In Poland, where the PGNiG Group is the largest natural gas supplier, the segment sells natural gas produced from domestic fields as well as imported gas. Through PGNiG Supply and Trading GmbH (wholesale) and PST Europe Sales GmbH (retail sale), the PGNiG Group is also developing its natural gas business in Germany, the Netherlands and Austria. The segment also trades in electricity, certificates of origin for electricity, CO_2 emission allowances, and crude oil (since 2018, through PST). The segment operates seven underground gas storage facilities and provides a ticketing service for gas storage to external customers.

5.2.1. Segment's key data

Financial highlights	2018		2017[3)]		2017	2016[2)]	2015[1)]	2014[1)]
	GK PGNiG	PGNiG	GK PGNiG	PGNiG	GK PGNiG	GK PGNiG	GK PGNiG	GK PGNiG
Total revenue	31,704	19,790	26,540	16,968	30,495	28,180	31,742	28,825
Revenue from sales outside the Group, including:	31,038	19,736	26,045	16,928	30,000	27,733	31,274	28,367
- high-methane and nitrogen-rich gas	29,094	17,053	23,869	14,507	27,813	25,615	29,413	26,555
Inter-segment revenue	666	54	495	40	495	454	468	458
EBITDA	(848)	(967)	(435)	(890)	(435)	614	623	764
EBITDA adjusted for impairment losses on property, plant and equipment	(848)	(967)	(70)	(525)	(70)	626	627	822

1) Data not restated, as reported.
2) Data restated according to the new segmentation of the PGNiG Group's operations - for more information, see Section 1.3 of the consolidated financial statements.
3) Data taking into account the potential effect of IFRS 15.

Natural gas sales outside the PGNiG Group mcm	2018		2017		2016	2015	2014
	PGNiG Group	PGNiG	PGNiG Group	PGNiG	PGNiG Group	PGNiG Group	PGNiG Group
High-methane gas (E)	27,440	16,132	25,261	15,947	22,818	21,596	17,289
Nitrogen-rich gas (Ls/Lw as E equivalent)	721	232	701	212	671	611	514
TOTAL (measured as E equivalent)	28,161	16,364	25,962	16,159	23,489	22,207	17,803
including:							
PGNiG	*16,364*	*16,364*	*16,159*	*16,159*	*13,734*	*12,415*	*12,834*
PGNiG OD	*7,868*	-	*7,617*	-	*7,245*	*7,753*	*3,209*
PST	*3,929*	-	*2,186*	-	*2,510*	*2,039*	*1,760*

5.2.2. Segment's strategy

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. In this respect, the Group's key activities include:

- Supporting the construction of the Norwegian Corridor – the Group's strategic objective is to build a mix of gas supply sources that would be available via the Norwegian Corridor, to enable gas imports from new directions and at market prices, thus ensuring flexibility of the gas supply portfolio beyond 2022. › For more information on the Baltic Pipe project, see Section 7.1.2.
- Enhancement of LNG trading and logistic capabilities on the global market – improvement of these capabilities will help the PGNiG Group create a more flexible gas supply portfolio beyond 2022 as it will be able to swiftly balance its gas imports. To this end, PGNiG has signed long-term contracts for supply of liquefied natural gas to Poland, which are to be performed after 2022. Looking further ahead, efforts will continue to develop the Group's capabilities and strengthen its presence on the global LNG market.
- Expanding the resource base in Poland and abroad – by developing and maintaining high gas production in Poland and investigating potential for acquiring gas from new directions with a view to strengthening the Company's competitive position beyond 2022.

Wholesale: Wholesale of natural gas

In 2018, PGNiG's sales of natural gas totalled almost 190 TWh. The Group is aspiring to further increase its natural gas trading volumes in Poland and on international markets. As a matter of strategy and supported by PST's experience and capabilities, the Group will continue working towards expanding its foothold in other gas and electricity trading markets in Central and Eastern Europe. The Group intends to continue its efforts aimed at strengthening its presence in Ukraine, one of the most promising markets in the region.

Retail: Maintaining the market position and improving operational efficiency in retail trade

During the term of the PGNiG Group Strategy, the overriding strategic objective of PGNiG OD will be to improve the efficiency of retail sales of gas while maintaining the total volume of retail sales at around 67−70 TWh/year.

In 2018, PGNiG OD continued to pursue the objectives of maintaining its market position and improving operational efficiency. Thus, maintaining an attractive portfolio of products and services, whether dedicated to large business customers (B2B) or the mass consumer market (B2C), as well as effective sales and customer service, remained crucial.

2018 saw continued modernisation work at the customer service offices with a view to improving customer service quality and transforming the existing outlets into a modern chain. A project was launched to implement a process management system, process architecture was designed and process management standard was formulated at PGNiG OD. In March 2018, the first mobile application (mBOK) for customers was launched, providing access to billing data, payments and contact with service teams. By the end of 2018, more than 200 thousand customers used the mobile application. Tools were also developed to enhance the efficiency of bidding and contracting processes in the business customer segment (with respect to gas fuels and electricity).

As regards IT systems, in 2018 PGNiG OD developed the concept, prepared tender documentation and launched a tender procedure for a centralised billing system.

Storage: Increasing available storage capacities

In its storage business, the PGNiG Group focuses on securing the availability of storage capacities in keeping with actual demand, and further improving the efficiency of its storage operations. Given the growing pace of the gas market deregulation in Poland, the legal framework concerning the maintenance of emergency (mandatory) gas stocks is expected to be amended as of 2021. At the same time, relevant analyses have shown that the strong growth in demand for gas is set to continue, which will translate into increased demand for storage services related to commercial needs and emergency stock keeping obligations.

The key objective remains to successfully complete the investment projects currently in progress (Kosakowo UGSF). Once the projects are completed, Poland's total capacity to store high-methane gas will be approximately 3.1 bcm.

5.2.3. Trade in Poland

In Poland, where the PGNiG Group is the largest natural gas supplier, the segment sells natural gas produced from domestic fields as well as imported gas. 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.

Natural gas sales in T&S segment outside the PGNiG Group (including gas exports from Poland) mcm	**2018**		**2017**		**2016**	**2015**	**2014**
	PGNiG Group	PGNiG	PGNiG Group	PGNiG	PGNiG Group	PGNiG Group	PGNiG Group
High-methane gas (E)	23,511	16,132	23,075	15,947	20,435	19,557	15,543
Nitrogen-rich gas (Ls/Lw as E equivalent)	721	232	701	212	671	611	514
TOTAL (measured as E equivalent)	24,232	16,364	23,776	16,159	21,106	20,168	16,057
including:							
PGNiG	16,364	16,364	16,159	16,159	13,734	12,415	12,834
PGNiG OD	7,868		7,617	-	7,245	7,481	3,209
PST	-		-	-	127	272	14

PGNiG Group's gas customer base in the Trade and Storage segment mcm	**2018**		**2017**	
	PGNiG Group	PGNiG	PGNiG Group	PGNiG
Households	4,107	-	4,065	-
Retail, services, wholesale	1,859	351	1,774	480
Nitrogen processing plants	2,325	2,319	1,981	1,981
Power and heat plants	1,836	1,661	900	725
Refineries and petrochemical plants	2,111	2,105	2,795	2,787
Other industrial customers	2,741	991	3,018	1,035
Exchange	8,802	8,486	8,515	8,423
Exports from Poland	451	451	728	728
Total Trade and Storage segment sales outside the PGNiG Group	24,232	16,364	23,776	16,159

Wholesale market – PGNiG SA

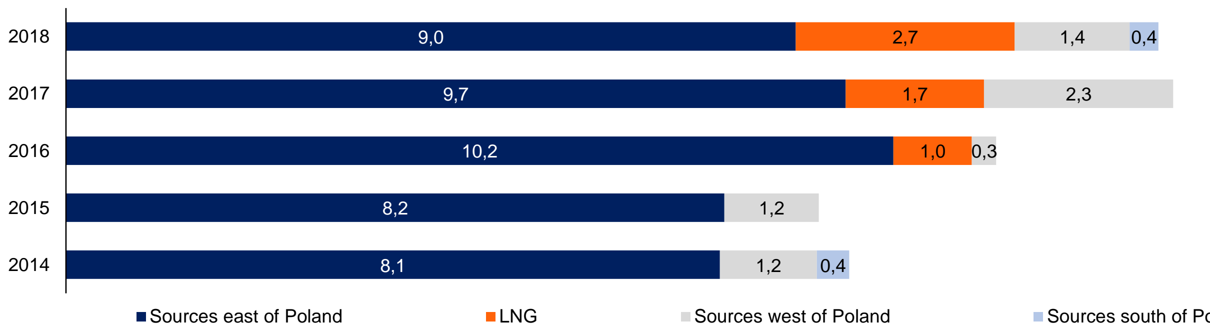
Gas imports

In 2018, PGNiG purchased natural gas mainly under the long-term agreements and contracts 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), and supplementary agreement to the long-term agreement of March 2017 (effective from beginning of 2018 to June 2034).

PGNiG also received gas under medium- and short-term contracts for grid deliveries and LNG supply (e.g. the five-year contract which entered into force in 2018 for nine liquefied natural gas shipments from Centrica LNG Company Limited).

Imports of natural gas to Poland in 2014–2018 (bcm):



In 2018, the imported gas volume was 13.5 bcm. Gas purchases from sources east of Poland fell by 0.7 bcm compared with 2017. LNG deliveries increased significantly, from 1.7bcm in 2017 to 2.7 bcm 2018. In 2018, PGNiG took further steps to diversify its gas supply sources and build a gas acquisition portfolio:

- on September 28th 2018, two firm long-term contracts for supply of liquefied natural gas were signed with Venture Global Calcasieu Pass, LLC, and Venture Global Plaquemines LNG, LLC. Each contract provides for the purchase by PGNiG of approximately 1 million tonnes of LNG (i.e. approximately 1.35 bcm of natural gas after regasification) annually for 20 years. The deliveries may be further traded by the Company on international markets and will be made on a free-on-board basis. The deliveries from Venture Global Calcasieu Pass, LLC, and Venture Global Plaquemines LNG, LLC will be made via production facilities in Louisiana (Calcasieu Pass LNG in Calcasieu Parish and Plaquemines LNG in Plaquemines Parish), which are planned to be completed in, respectively, 2022 and 2023 at the earliest.
- on November 8th 2018, a firm long-term contract was concluded for supply of liquefied natural gas from Cheniere Marketing International, LLP. The contract provides for the purchase of LNG by the Company and its deliveries to the LNG Terminal in Świnoujście, and was made for a period of 24 years. The supplies will be made on a Delivered Ex-Ship basis. Under the contract, PGNiG will purchase ca. 0.73 bcm of gas after regasification in the entire period between 2019 and 2022, and approximately 39 bcm of gas after regasification in the entire period between 2023 and 2042.
- on December 19th 2018, a firm long-term contract was concluded for supply of liquefied natural gas from Port Arthur LNG, LLC, a subsidiary of Sempra LNG & Midstream, LLC. The contract provides for the purchase by PGNiG of approximately 2m tonnes of LNG (i.e. approximately 2.7 bcm of natural gas after regasification) annually for 20 years. LNG supplied under the contract may be sold by PGNiG on international markets and will be delivered on a free-on-board basis from the Port Arthur production facility in Jefferson County, Texas, which is currently under construction and is planned to be completed in 2023 at the earliest.

PGNiG actively supports all efforts leading to the construction of a connection that would give Poland direct access to gas from North Sea fields. In January 2018, a contract was concluded for the provision of gas transmission services in the period from October 1st 2022 until September 30th 2037, as part of the 2017 Open Season procedure of the Baltic Pipe project, concerning gas transmission from Norway to Poland via Denmark. Conclusion of transmission contracts with transmission system operators, i.e. GAZ-SYSTEM and Energinet, with a total value of PLN 8.1bn, was the last stage of the Open Season 2017 process. For more information on the Baltic Pipe project, see Section 7.1.2.

Renegotiation of price terms under the contract with OOO Gazprom Export

PGNiG continued its efforts to change the price terms under the Yamal contract as part of a procedure formally launched on November 1st 2014. On June 29th 2018, the Arbitration Institute issued a partial award in the arbitration proceedings instigated by PGNiG against PAO Gazprom and OOO Gazprom Export. In the partial award, issued on an ad hoc basis, the Arbitration Institute:

- Found that in November 2014 PGNiG had filed a valid and effective request to renegotiate the contract price;

- Confirmed the satisfaction of the condition set forth in the Yamal contract which entitled PGNiG to demand a reduction of the contract price for the gas supplied by Gazprom under the Yamal contract, thus confirming that, in principle, PGNiG's request to determine a new, lower contract price was justified; and
- Found, contrary to Gazprom's claims, that PGNiG had the right to change the contract price within the limits of the claim, also declaring that PGNiG's initial demand regarding the new price formula was too far-reaching; the Court also decided ad hoc that the new contract price would be determined later on in the proceedings.

Under the Yamal contract, the new contract price determined ad hoc by the Arbitration Institute should apply with retroactive effect as of November 1st 2014.

On October 1st 2018, Gazprom filed a complaint with the Stockholm Court of Appeals seeking reversal of the partial award issued by the Arbitration Institute. In the Company's opinion, there are no grounds to demand reversal of the partial award. A relevant response by PGNiG concerning the matter was presented on December 20th 2018.

Notwithstanding the continuing arbitration proceedings, on November 1st 2017, PGNiG submitted another notice to PAO Gazprom/OOO Gazprom Export requesting renegotiation of the price terms of gas supplies. The Russians submitted their own renegotiation request on December 7th 2017, which the Company believed to be groundless and ineffective as it failed to meet the formal requirements set out in the Yamal contract. So far, the parties have not reached an agreement on the terms of supply.

LNG supplies

In 2018, PGNiG received 23 LNG shipments totalling approximately 2 mcm of LNG, which corresponds to approximately 29.8 TWh of natural gas after regasification.

As a result of execution of the supplementary agreement with Qatar Liquefied Gas Company Limited, the total volume of LNG that PGNiG may receive under the long-term contracts with Qatargas rose to 2m tonnes (equivalent to about 2.7 bcm of gas after regasification) in 2018, and to 2.17m tonnes per year (equivalent to about 2.9 bcm of grid gas) in 2019–2020. In 2018, PGNiG received 18 LNG shipments under the long-term contracts with Qatargas. The volume of LNG imported from Qatar was 1.65m tonnes, or 25.1 TWh of natural gas after regasification.

In June 2018, the *Arctic Voyager* tanker arrived at the Świnoujście terminal, delivering nearly 140 kcm of LNG purchased by PGNiG under the contract with Centrica LNG Company Limited. In the following years of the contract term (2019−2022), eight more LNG shipments will be delivered to Poland.

The PGNiG Group continues to purchase LNG under spot contracts through its trading office opened in London in February 2017. In 2018, four shipments of LNG purchased on the basis of spot contracts arrived in Poland: each tanker delivered approximately 140 kcm of LNG, equivalent to more than 80 mcm of gas after regasification:

- in May 2018, the contract with Endensa was performed – LNG from Norway was supplied to Poland by the *Arctic Princess*;
- in November 2018, the contract with Equinor was performed – LNG from Norway arrived in Poland on the *Arctic Discoverer*;
- in December 2018, the contract with Centrica was performed – LNG from the US was delivered by the *Hoegh Gallant*;
- in December 2018, the contract with Equinor was performed – LNG from Norway arrived in Poland on the *Arctic Voyager.*

Sale of gas by PGNiG

Customers buy gas from PGNiG at market prices, in line with the formulas and mechanisms set out in the agreements concluded with them. The pricing formulas offered are based on exchange indices. PGNiG customers may also pay fixed prices for gas supplies, determined on the basis of the agreements. The Company applies an individual approach to each customer, i.e. it sets prices based on an objective pricing mechanism which guarantees equal treatment of all customers.

In 2018, the largest amounts of gas in Poland were sold to industrial customers. The largest Polish customers in this category include Grupa Azoty S.A. and its subsidiaries, PKN Orlen S.A. and its subsidiaries, Grupa Lotos S.A., Polska Grupa Energetyczna S.A., Arcelor Mittal Poland S.A., and KGHM Polska Miedź S.A.

In pursuit of its strategic objective to increase gas sales volumes, in 2018 PGNiG entered into a number of contracts to sell gas to customers in Poland, and extended its cooperation with strategic customers it already had. The Company also signed contracts with new customers from the steel and metallurgy industry, including CMC Poland Sp. z o.o.

In 2018, PGNiG developed its operations in the small-scale LNG business segment, where gas is sold in the form of LNG transported by tankers to regasification facilities or stations throughout Poland. In 2018, 1,794 LNG tankers were loaded at the LNG Terminal in Świnoujście, while in 2017 the number of tankers loaded was 1,523. In aggregate, since 2016 when the Terminal was put into operation, PGNiG loaded there 4,000 tankers. In 2018, PGNiG introduced into the market a total of 52.7 thousand tonnes of LNG, of which 31.5 thousand tonnes came from the LNG Terminal, while 21.2 thousand tonnes originated from PGNiG's facilities in Odolanów and Grodzisk. According to the Company's estimates, the entire domestic LNG market amounted to roughly 76 thousand tonnes in 2018, which translates into an almost 70% share for PGNiG.

Exports – PGNiG

In 2018, PGNiG continued to sell natural gas to the Ukrainian market. In October 2018, PGNiG and ERU Trading signed a contract to supply gas to Ukrtransgaz, the Ukrainian transmission network and gas storage facility operator. The contract provides for the supply of more than 200 mcm of natural gas in the period from October 2018 to May 1st 2019. In September 2018, PGNiG signed another contract with Ukrtransgaz to use its underground gas storage facilities in Ukraine. The Company also has a contract with Ukrtransgaz concerning transmission of gas over the territory of Ukraine, under which PGNiG can use Ukrainian transmission networks. Negotiations are underway between the gas transmission system operators GAZ-SYSTEM and Ukrtransgaz, concerning extension of the interconnector infrastructure between Poland and Ukraine. Such extension would increase the transmission capacity into Ukraine, allowing the Company to further boost its sales to the Ukrainian market.

Gas sold on PPX – PGNiG

In 2018, sales on the Polish Power Exchange (PPX) accounted for the largest portion of the PGNiG Group's total gas sales. The volume of gas sold by PGNiG on the PPX in 2018 increased by approximately 0.8 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 the PPX, both on the futures and day-ahead markets, allowing it to offer natural gas to other market participants at prices corresponding to those on deregulated wholesale, exchange and OTC markets in Western and Northern Europe.

Competition

In Poland, PGNiG competes with a number of companies selling natural gas to industrial customers. For quite some time, the companies have been intensifying their efforts to win new customers. Despite this strong activity on the part of the competitors, in 2018 PGNiG was successful in its efforts to win and retain customers, securing its market position as a natural gas supplier. In 2018, PGNiG's sales of high-methane grid gas in Poland amounted to 172.5 TWh, having grown by 3% on 2017, from 167.4 TWh.

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 85% of total electricity sales in 2018. Total trading volume in 2018 was over 6.8 TWh.

Sales of electricity by PGNiG	GWh	%
End users	0.1	-
Trading companies	1,951.4	28.6
Balancing market	712.5	10.4
Exchange	3,851.0	56.5
Producers	305.2	4.5
TOTAL	6,820.2	100.0

In 2018, 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. PGNiG also provided services under a commercial balancing agreement to PGNiG OD, PGNiG TERMIKA, and companies in the PGNiG TERMIKA Group. PST traded in electricity on the German market as part of exchange (EEX) and OTC transactions.

Capacity market

Following auctions organised by Polskie Sieci Energetyczne in 2018 (related to the implementation of the capacity market and the capacity obligation), PGNiG entered into the following contracts:

- the power plant at the Wierzchowice UGSF, annual contracts for supples in 2021-2023 (net capacity of 17 MW)
- Radoszyn-Lubiatów-Połęcko generating units, annual contracts for supples in 2021-2023 (net capacity of 4.5 MW).

> More information about the capacity market – Section 5.4.3

Retail market – PGNiG OD

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).

Gas purchase

High-methane gas is procured from three main sources: (1) the PPX, (2) under a contract with PGNiG for delivery of gas to a virtual trading point in the transmission network operated by GAZ-SYSTEM, and (3) under a contract with PGNiG for delivery of gas to a physical trading point in Słubice. 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.

The largest share in the global volume of high-methane gas purchases was attributable to transactions on the PPX.

Gas supply contracts with PGNiG OD are governed by the Contracts Policy, which defines the rules of making 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, the Contracts Policy was adapted to the current market conditions and contracts with customers exempt from the tariff approval requirement were separated. The remaining gas volumes covered by special price offers are hedged according to the level of utilisation of the price offers, to mitigate the risk that gas procurement costs would not correspond with current wholesale prices.

As regards bilateral contracts for the purchase of gas fuel delivered to a physical and virtual point, PGNiG OD uses contracts with PGNiG, providing an option to depart from the fixed price of purchased gas using pricing formulas that link the final price of gas to the prices of instruments traded on the PPX.

Sales of gas

High-methane gas and nitrogen-rich gas are the key products sold by PGNiG OD. PGNiG OD's customer base includes consumers and non-consumers.

Customers are classified into tariff groups based on the following criteria:

- point of receipt, according to the operator from whose network gas is taken;
- type of gas received: high-methane gas, nitrogen-rich gas, propane-butane-air or decompressed propane-butane;
- annual volume of gas taken: for customers receiving up to 110 kWh/h of gas fuel.

Group 1-4 retail customers purchase gas used mainly for cooking and for water and space heating, as well as in shop-floor processes.

In 2018, PGNiG OD acquired 145,000 new retail accounts in tariff groups 1–4 (both high-methane and nitrogen-rich gas), of which about 54,000 were former customers of Energetyczne Centrum S.A. and Energia dla Firm S.A. (an emergency supplies process).

Business customers buy gas both for the purposes of their industrial processes and for heating.

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 (accounting for ca. 70% of the total volume supplied), which rolled out their fleets of CNG buses when excise duty was suspended and CNG transport became economically viable. The balance are customers in the utility vehicle market (ca. 15%) and retail customers (ca. 15%).

Competition

According to the Energy Regulatory Office (URE), approximately 44,000 customers switched suppliers in 2018, compared with approximately 58,000 in 2017. Listed below are PGNiG's most active competitors operating directly on the Polish market.

- B2B: PGE Polska Grupa Energetyczna S.A., Fortum Holdings, Hermes Energy Group S.A., HANDEN Sp. z o.o. and CEZ Trade Polska Sp. z o.o.;
- B2C: Fortum Marketing and Sales Polska S.A., ENERGA-OBRÓT S.A., Hermes Energy Group S.A., Tauron Grou;
- LNG market: Duon Dystrybucja sp. z o.o., Novatek Polska sp. z o.o., Krio-Gaz S.C., Barter sp. z o.o., BEST Systemy Grzewcze sp. z o.o., Blue Line Engineering S.A., Blue Gaz sp. z o.o., LNG Silesia sp. z o.o., G.EN. GAZ ENERGIA sp. z o.o., UNIMOT System sp. z o.o., Gaspol S.A.

Rivals in the B2B and B2C segments compete chiefly by offering competitive gas prices and dual-fuel bundles, as well as by cross selling products and services.

In 2018, the activity of competitors combined with growing customer awareness resulted in continued market pressure on PGNiG OD to reduce gas prices and individually negotiate contract terms with large business customers. On the other hand, steps relating to the product area and sales management were taken in order to maximise margins on contracts. In 2018, the Group continued to win new contracts and win back lost accounts. High effectiveness was also achieved in tenders based on the Public Procurement Procedures. The high quality of the offering process and an attractive product portfolio translated into an increase in orders from business customers and higher security in the BW5-BW7 tariff groups. Once again, we were able to increase the volume of gas sales to the business market.

Business-to-customer sales policy

PGNiG OD actively monitors the retail market and develops its gas offering, taking into account customers' expectations regarding competitive terms of gas sale, as well as flexibility and security of supplies. In 2018, the company launched a number of promotional campaigns, which stimulated customers' interest in its offering and increased added value for customers. Some of the campaigns were:

- Automatic Promotion – the automatic promotion for non-consumer customers lasted from January to the end of March 2018; As a result of removal of tariffs, the 'Gas for Business' price list came into force as of January 1st 2018. As a means to mitigate the competition, for the BW1-BW4 tariff groups an automatic promotion was introduced, which temporarily reduced the selling price (for the first quarter of 2018) without the need for customers to sign any documents
- 'Low Price All the Time, 2nd and 3rd Edition' – ensuring protection against fluctuations in gas prices. In both editions, customers could benefit from a special price offer on gas for 12 or 24 months, depending on the selected option.
- 'Subsidy of up to PLN 3,000' (1st and 2nd edition), offering financial support to consumers who plan to switch from solid fuel to gas fuel in their heating systems;
- 'Gazek – Keeping Your Home Safe', in which insurance products (insurance of home appliances and consumer electronics as well as assistance insurance) were added to the offering;
- 'Switch to Gas', where PGNiG joined forces with local authorities to actively reduce smog by offering people easier access to environmentally-friendly gas fuel;
- 'PGNiG Debt of Gratitude' (including the edition dedicated to miners who went on strike at the Wujek mine) – helping PGNiG OD customers with the Warsaw Uprising or Wujek Mine Defender veteran status to pay for gas.

Business-to-business sales policy

In the B2B market in 2018, PGNiG OD continued its strategy to expand the gas fuel portfolio and improve its margin management. PGNiG OD is a gas supplier with the most extensive portfolio of gaseous fuels, tailored to the diverse needs of individual segments of business customers. To the customers interested in the fixed price guarantee (for the duration of the contract), the following mass products were offered: Low Price All the Time, Flexible Price, Constant Savings for Business, Business Online and Certain Price. Larger customers had the ability to flexibly determine contract terms (payment terms, delivery periods) in the fixed price formula (based on individual valuation) or by tying their price with gas prices at the Polish Power Exchange (indexed product, tranche product or a mix of the two).

Sale of LNG

The pricing policy for both LNG supplies and regasified LNG supplies uses prices obtained at the LNG Terminal in Świnoujście, based on the natural gas prices quoted on the Polish Power Exchange. Offered prices of the finished product are linked to the ordered LNG volume and distance from the LNG Terminal. In total, PGNiG OD made 361 LNG deliveries with a volume in excess of 6,000 tonnes in 2018 (to off-grid regasification stations).

In April 2018, PGNiG OD signed a contract with LOTOS Asfalt Sp. z o.o. under which the two companies will offer LNG bunkering services using gas from the LNG Terminal. Since PGNiG OD and LOTOS Asfalt Sp. z o.o. first teamed up over a year ago, more than 30 LNG bunkering operations were completed at Stocznia Remontowa S.A. in Gdańsk. In June 2018, PGNiG OD and another PGNiG Group subsidiary Gas-Trading S.A. signed an agreement with Zarząd Morskiego Portu Gdynia S.A. concerning the use of LNG for marine purposes. Among other things, the agreement provides for building an LNG bunker barge. The project will be implemented as part of the INNOSHIP programme of the National Centre for Research and Development.

Sale of CNG

PGNiG continued with the process of defining a market price for CNG charged to its strategic customers by pegging it to wholesale prices of diesel oil or gas prices quoted on the Polish Power Exchange, taking into account the volume of gas taken. The volume of CNG sold in 2018 by PGNiG OD totalled about 16 mcm.

In June 2018, PGNiG OD entered into an agreement with Miejskie Zakłady Autobusowe Sp. z o.o. of Warsaw for the supply of approximately 54m Nm^3 of CNG for CNG buses over ten years together with refuelling infrastructure, and signed an agreement with the Municipality of Tarnów's Miejskie Przedsiębiorstwo Komunikacyjne Sp. z o.o. for CNG supplies to power vehicles used for municipal purposes.

Emergency gas supplies

In accordance with the Minister of Energy's Regulation of September 21st 2018, PGNiG OD was designated as an emergency supplier to end users of gas. As Energetyczne Centrum S.A. and Energia dla Firm S.A. ceased to deliver gas, in September 2018 PGNiG OD ensured uninterrupted gas supplies to their customers. Since September 12th 2018, customers acquired by PGNiG OD through the emergency supplies process have been billed according to tariff rates applied by PGNiG OD (consumers) and the Gas for Business price list (non-consumers).

Sale of electricity

PGNiG OD's customer base includes consumers and non-consumers who have concluded comprehensive service contracts for the supply of electricity or contracts for the sale of electricity. As at the end of 2018, PGNiG OD's base of customers on dual fuel (electricity and gas) plans comprised consumer accounts (91%) and non-consumer accounts (9%). In 2018, an energy contracting element was introduced for business customers, which resulted in 1,252 contracts signed with 4,515 customers for a total volume of approximately 329 GWh.

According to the URE data, the number of customers who switched their electricity suppliers in 2018 was around 71,000, including approximately 58,000 households (G tariff groups), compared with some 99,000 a year earlier, including more than 84,000 households (G tariff groups).

5.2.4. Trade abroad

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

Gas sales outside the PGNiG Group (excluding gas exports from Poland) mcm	2018 PGNiG Group	2018 PGNiG	2017 PGNiG Group	2017 PGNiG	2016 PGNiG Group	2015 PGNiG Group	2014 PGNiG Group
High-methane gas (E)	3,929		2,186	-	2,384	2,039	1,745
Nitrogen-rich gas (Ls/Lw as E equivalent)			-	-	-	-	-
TOTAL (measured as E equivalent), including:	3,929		2,186	-	2,384	2,039	1,745
PST	3,929		2,186	-	2,384	2,039	1,745

Customer base

mcm	2018 PGNiG Group	2018 PGNiG	2017 PGNiG Group	2017 PGNiG
Households	38	-	48	-
Other industrial customers	32	-	35	-
Retail, services, wholesale	2,388	-	1,303	-
Exchange	1,471	-	800	-
Total sales outside the Group	3,929	-	2,186	-

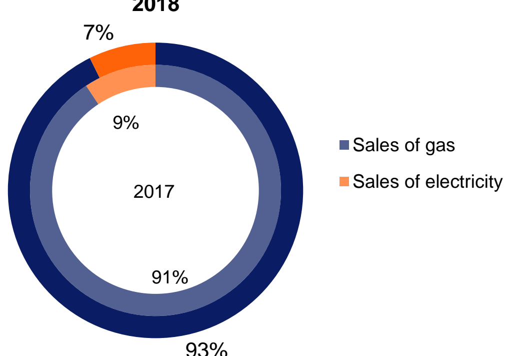
Exchange and OTC wholesale trading

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. PST operates in Germany and its neighbouring countries: Austria, the Czech Republic, the Netherlands, and the UK (NBP). The company also reached operational readiness in France and Poland, where it commenced active trading operations in October 2018. The French market is attractive due to LNG receiving capacities and cross-border trade. PST is also registered as a forwarding operator in Denmark, Slovakia and, since 2018, in Hungary. If business opportunities arise in the region (i.e. transit through Slovakia to Ukraine), the company intends to use such countries as transit markets.

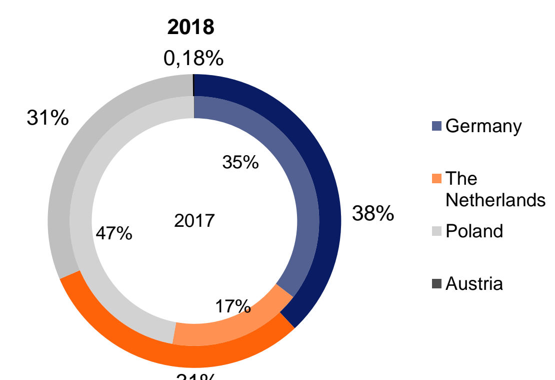
In 2018, PST launched trading operations in new products: it commenced trading in futures contracts for Brent crude on the ICE Futures Europe exchange. Furthermore, PST was registered with ICE Futures U.S. in order to secure LNG supplies, and it is a market maker on the PEGAS exchange for the GASPOOL gas hub market area.

In 2018, PST and PST Sales GmbH sold a total of 64.3 TWh of pipeline-delivered gas, 4.7 TWh of LNG, 5.0 TWh of electricity and 0.5 TWh of crude oil in exchange and OTC transactions. Poland was PST's largest gas sales market, with a 36% share in total sales volume. The shares of gas sales on the German and Dutch markets were 35% and 29%, respectively. In 2018, electricity was only sold in Germany.

Sales of PST and its subsidiaries by product (in volume terms)



Sales of PST and its subsidiaries by country (in volume terms)



Retail sales

In 2015, PST separated its sales operations, which have since been carried out through its subsidiary PST ES, which sells gas and electricity to end users in Germany and Austria on a retail basis. Target customers include small and medium-sized enterprises (SMEs) and households with standard consumption profiles.

As at December 31st 2018, PST Group's customer base comprised ca. 44,000 accounts (close to the level recorded as at December 31st 2017). In 2018, PST signed roughly 20,000 new contracts, with deliveries scheduled to begin in 2018 and the following years confirmed under about 43% of them.

PST ES is expanding exclusive sales channels to further improve its portfolio quality and sustainability, while launching new products and alternative distribution channels. An example of this strategy is the partnership with American Express under which exclusive products were developed enabling American Express members to pay for energy with credit cards. In late 2018, the company also launched the new Polska Energia brand targeted at Poles living in Germany.

Trading highlights

PST's key contracts effective in 2018 included a contract for the provision of a ticketing service with respect to the maintenance of mandatory gas stocks of 576 GWh (with PGNiG) and a contract for the management of Austrian gas storage capacities (a working volume of 17 GWh) signed in order to optimise peaks in gas demand from end users in the winter season. Under its current contracts, PST supplies natural gas to PGNiG on the Polish-German and Polish-Czech borders, ensuring diversification of supply sources, guaranteeing security and continuity of supplies or off-take of gas from the PGNiG portfolio for sale on the German market. PST also has in place a contract with PGNiG UN for the purchase of gas produced from the Norwegian Skarv field as of 2013, Vale and Morvin fields as of 2015, and Gina Krog field as of July 2017.

5.2.5. Storage

The Trade and Storage segment uses for its own needs the working capacities of the Wierzchowice, Husów, Strachocina, Swarzów 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 gas 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 Wierzchowice, Husów, Strachocina, Swarzów and Brzeźnica UGSFs 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, equal-treatment basis, so as to ensure the most efficient use of the storage capacities. Storage services are provided under standard storage service agreements (SSSA).

To ensure equal treatment of storage service users, SSSAs are concluded based on GSP's Rules of Storage Services and the gas fuel storage tariff. GSP's services are provided using the following Storage Facilities (SF) and Groups of Storage Facilities (GSF):

- Kawerna GSF (comprising the Mogilno CGSF and Kosakowo CGSF, located in worked-out salt caverns),
- Sanok GSF (comprising the Husów UGSF, Strachocina UGSF, Swarzów UGSF and Brzeźnica UGSF, located in partly depleted gas reservoirs),
- Wierzchowice SF (comprising Wierzchowice UGSF).

Service	Terms of storage services	Facility	Number of packages/flexible packages
Long-term	On a firm basis	Wierzchowice SF	3,863
		Kawerna SFG	6,235
		Sanok SFG	2,579
	On an interruptable basis	Wierzchowice SF	9,188
		Kawerna SFG	1,368
		Sanok SFG	8,941
Short-term	On an interruptable basis	Kawerna SFG	-
Total			**32,174**

As at December 31st 2018, GSP had provided a total of 32,174 long-term storage capacity packages, including 12,677 packages of services provided on a firm basis and 19,497 packages on an interruptible basis.

Ticketing service – PGNiG

PGNiG offers a ticketing service which allows gas importers and traders to meet their gas-stocking obligations in accordance with the applicable Polish regulations. The ticketing service supports efficient use of storage capacities by natural gas market players, while importers of natural gas to Poland do not have to collect and maintain emergency gas stocks in storage facilities on their own.

Contracts for the provision of ticketing services concluded with 11 entities for the gas year 2017/2018 were effective until September 30th 2018. For the gas year 2018/2019, PGNiG has concluded contracts with 13 energy companies obliged to maintain emergency stocks of natural gas. The total volume of gas stocks maintained by PGNiG for other entities is over 385 GWh (approximately 34 mcm). PGNiG maintains gas stocks for the above entities, on a contract basis, in storage facilities managed by GSP, in which PGNiG previously leased appropriate storage capacities and injected gas.

Third-party access (TPA) storage capacities

As at December 31st 2018, the PGNiG Group's underground gas storage working capacities totalled 2,985.35 mcm of high-methane gas, 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. 37.19 mcm was made available under a short-term contract. 5.23 mcm of Kawerna's working capacity is allocated for the Mogilno and Kosakowo cavern facilities' own needs.

Total working capacities and TPA working capacities

	Working storage capacities (mcm)		TPA working storage capacities (mcm)		TPA working storage capacities (GWh)	
	2018	2017	2018	2017	2018	2017
Kawerna SFG	735	735	730	730	13,166	13,166
Wierzchowice SF	1,200	1,200	1,200	1,200	8,011	8,011
Sanok SFG	1,050	1,050	1,050	1,050	11,520	11,520
Total	2,985	2,985	2,980	2,980	32,697	32,697

** Converted to gas with a calorific value of 39.5 MJ/cm.*

5.2.6. Key investment projects and CAPEX

In 2018, at the Kosakowo CGSF, further work to construct five Cluster B chambers together with the necessary technical infrastructure and land development was under way. On January 10th 2019, three Cluster B storage chambers (K-6, K-8 and K-9) were handed over to PGNiG. In December 2018, GSP applied to the President of URE for an amendment of the licence to the effect that the working storage capacity of the Kosakowo CGSF is increased by that additional capacity. K-7 and K-10 chambers are expected to be placed in service in September 2021. Upon completion of the project, the Kosakowo CGSF's working capacity will reach approximately 300 mcm.

As regards the implementation of the contract to construct the Kosakowo CGSF, an application to amend the licence held by the Kosakowo CGSF was prepared and submitted to the Ministry of the Environment in 2017. 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 (the procedure was pending in 2018).

5.2.7. Development prospects

Development prospects in Poland

Import strategy

Following the investment decisions by the Polish and Danish transmission operators, which would mean that the joint Baltic Pipe project is approved, PGNiG will be able to win contracts for the supply of gas from the Norwegian Continental Shelf (from its own deposits and imported). As part of the project, the following interconnectors are to be created:

- North Sea Entry Point (Energinet), with a planned technical capacity of approximately 10.7 bcm per year for gas transmission from the Norwegian Continental Shelf towards the transmission system in Denmark;
- Baltic Pipe Bidirectional Interconnection Point › For more information about the Baltic Pipe project, see Section 7.1.2.

In the long term, PGNiG will focus on the performance of its obligations under long-term contracts with respect to the minimum offtake volumes (Yamal contract) and contracted volumes of LNG, both on a delivery ex-ship (Qatargas – currently, Cheniere – from 2019 onward) and free-on-board basis (Venture Global LNG, Inc., Port Arthur LNG, LLC – from 2023 onward), taking into account that free-on-board contracts allow PGNiG to sell LNG on foreign markets.

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. PGNiG's import strategy is in line with the strategy to expand its activity on the international LNG market by entering into spot contracts for deliveries to the LNG Terminal and by trading in LNG on the global market.

The planned extension of the LNG terminal – to 7.5 bcm of natural gas per year at the first stage, and then to 10 bcm annually – will make it possible to bring greater volumes of LNG to Poland.

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.

PGNiG OD's key growth objectives include:

- in gas sales – to maximise margins on a stable volume portfolio, manage the risk of losing high-margin customers, and expand the offering and improve availability of CNG and LNG services;
- in electricity sales – to keep the offering attractive in order to maintain long-term customer relationships (strong interest in temporary offers);
- in complementary sales – to offer solutions building customer loyalty (such as added insurance services), enhance the offering in cooperation with third parties (who offer solutions complementary to the principal business of PGNiG OD), develop the range of energy efficiency products and services.

Launch of products with significant business potential, including insurance and assistance packages for retail customers, will play an important role in enhancing PGNiG OD's product portfolio in 2019. Other services under partnership agreements with third parties are also being considered.

Due to the complex situation on the electricity retail market, the product structure will need to be adjusted to the new legal regulations (in particular the Act Amending the Excise Tax Act and Certain Other Acts). In 2019, a complete restructuring of PGNiG OD's electricity sale offering will be prepared, to be launched in Q1 2020.

Development of PST's capabilities

As part of developing PST's capabilities, a portion of the PGNiG customer base will be migrated in 2019. Thus, PST will strengthen its operations in Poland, offering natural gas and electricity to wholesale and retail customers.

Business development in the CNG and LNG segments

Key development directions for the PGNiG Group in the CNG and LNG segments:

- 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.

As part of its operations on the LNG and CNG markets, PGNiG OD also plans to expand LNG supplies for the food industry, prepare business proposals and make deliveries for distributed generation and heat plants, as well as provide solutions for agricultural production.

Storage

PGNiG will strive to develop the ticketing service. With respect to expansion of the Kosakowo CGSF, GSP will continue the work to construct K-7 and K-10 chambers. In the Mogilno CGSF, a project to upgrade and reconstruct the pressure reduction and metering station for fuel gas is planned to be launched.

GSP's CAPEX plan for 2019–2021 also provides for replacement and development projects (involving IT and safety systems).

Development prospects abroad

PGNiG's growth depends strongly on whether gas supplies to Poland are effectively diversified – gas from North Sea fields may start to be delivered if the Baltic Pipe and Northern Gate projects are finalised. In 2019, PGNiG will also continue to sell gas on the Ukrainian market in cooperation with its Ukrainian partner ERU Trading. The Company's business in Ukraine will also be affected by the outcome of negotiations between GAZ-SYSTEM and Ukrtransgaz concerning expansion of the transmission network connections between Poland and Ukraine.

PST intends to further expand its business of selling electricity and gas to end users and wholesale customers in Western Europe in 2019. In the coming years, the acquisition of customers through traditional sales channels (telesales and door-to-door) will continue, in collaboration with the existing and new partners. Stable acquisitions will rely not only on cooperation with existing trading partners, but also on new partnerships. 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. Since PST plans to acquire a part of PGNiG's customer base, it has opened a branch in Poland and will begin to supply gas to industrial customers as of 2019.

The PGNiG Group will also continue to work on building its capabilities and strengthening its presence in the global LNG market. As a result of its operations on the LNG market, PST started trading in new merchandise (crude oil, diesel oil) and with new markets (Henry Hub) in order to hedge potential LNG transactions and generate margin on its own transactions.

5.3. Distribution

The segment's principal business activity consists in the delivery 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. Natural gas distribution is the responsibility of PSG. 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.

5.3.1. Segment's key data

Financial highlights	2018 GK PGNiG	2017[1)] GK PGNiG	2017 GK PGNiG	2016 GK PGNiG	2015 GK PGNiG	2014 GK PGNiG
Total revenue, including	4,927	4,937	4,937	4,915	4,585	4,283
- external sales of distribution services	4,604	4,753	788	729	363	67
- intra-group sales of distribution services	323	185	3,807	3,657	3,748	3,868
EBITDA	2,385	2,493	2,493	2,559	2,339	2,002
EBITDA adjusted for impairment losses on property, plant and equipment	2,386	2,490	2,490	2,563	2,341	1,994

1) Data taking into account the potential effect of IFRS 15.

Volume of distributed gas (high-methane, nitrogen-rich, propane-butane, and coke gas)

in natural units – mcm	2018	2017	2016	2015	2014
Total volume of distributed gas	11,747	11,645	10,858	9,823	9,586
- including high-methane gas	9,918	9,797	9,301	8,646	8,495
- including nitrogen-rich gas	971	989	836	643	568
including outside the PGNiG Group	*3,101*	*3,110*	*3,081*	*1,793*	*804*

In 2018, 31 new municipalities were connected to the gas grid. Thus, the geographical coverage in terms of the number of municipalities connected reached 60.94% (1,510 out of 2,478).

5.3.2. Segment's strategy

Accelerate the rate of connecting new customers

The strategy provides for significant acceleration of development of the distribution system and for increasing the rate of connecting new customers to the grid. 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 47,000 new connections in 2017 to about 55,000 new connections a year in 2022 (up 8,000 or ca. 17%).

This, however, will not be possible without optimisation of the related processes (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%).

The increase in the volume of distributed gas will be achieved by connecting new customers to the existing distribution network, expanding the distribution network into unserved areas, and delivering gas to customers lacking access to the gas transmission and distribution network through roll-out of local gas delivery solutions.

Given the growing supply of LNG on the Polish market, PSG plans to build local distribution networks which would not be connected to the national gas system, but instead will be fed with LNG (off-grid distribution networks). Another driver of increase in the volume of distributed natural gas will be the growing problem of smog blanketing many Polish cities and towns, and local governments' initiatives for air quality improvement through, inter alia, promoting conversion to low carbon fuels, including gas.

Performance of PSG's strategy for 2016–2022

Under its strategy, PSG is to distribute a total of 79 bcm of gas in 2016−2022. In January 2018, the President of URE approved the draft Development Plan for PSG 2018−2022. The updated plan assumes that capital expenditure over the next two years will reach PLN 2.86bn. The approved plan is a part of PSG's strategy, under which the company intends to allocate PLN 11.3bn to investments in 2016–2022. Pursuant to the Energy Law, the gas distribution operator is required to prepare a development plan concerning demand for gas fuels for a period of not less than five years and update it every two years.

In 2018, PSG planned to build over 51,000 new connections, a project completed already in November. Under PSG's strategy, 74 new municipalities are to be connected to the gas grid and 350,600 new connections are to be built by 2022. Over the last three years, more than 171,000 new connections were built, indicating that the strategy progress reached approximately 50%. In this respect, PSG operates according to the 'off-grid roll-out' model, in which LNG is supplied in new areas even before a supply pipeline is constructed. In 2018, 18 LNG stations were commissioned. At the end of 2018, PSG provided distribution services using 10 LNG regasification stations, and the number of customers covered by the off-grid roll-out model grew by 757 as at the end of 2018, to over 20,000.

In October 2018, the 'Programme for accelerating investment in Poland's gas network' was announced, in which it is planned that by 2022 around 90% of all Poles will live in municipalities connected to the gas grid. Under the programme, between 2018 and 2022 the number of municipalities with access to the gas grid will increase by another 300 as 4,817 km of gas networks and 77 LNG stations are built. Additional funds of PLN 867m − approved by the Annual General Meeting of PGNiG in 2018 − will be applied towards construction of new networks in unserved municipalities, connection of new customers and increasing the capacity of the infrastructure.

In order to remove system constraints, nine large projects involving the high-pressure network are planned, which – together with GAZ-SYSTEM's strategic projects – will make it possible to deliver larger volumes of gas in the north-eastern part of Poland as well as in the vicinity of Łódź, Radom and Warsaw.

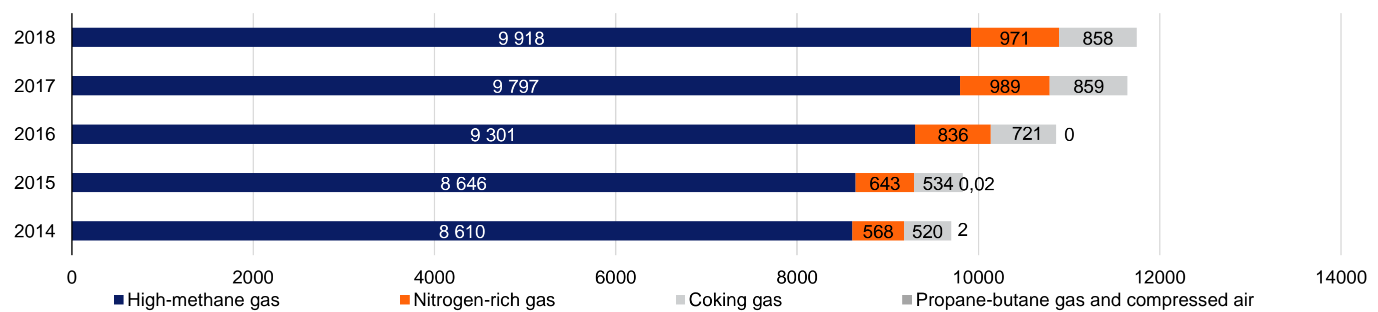
To support PSG's investment efforts, on April 1st 2018, the company opened the Infrastructure Development and Maintenance Branch in Krosno, which will be responsible for infrastructure development and maintenance projects at PSG. In 2018–2020, an investment programme is planned to be implemented providing for network expansion and modernisation, with an average annual CAPEX of approximately PLN 1.5bn.

5.3.3. Operations in 2018

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 2018, PSG executed three distribution agreements and two Interoperator Distribution Agreements. Throughout the year, about 61,000 customers changed their gas suppliers.

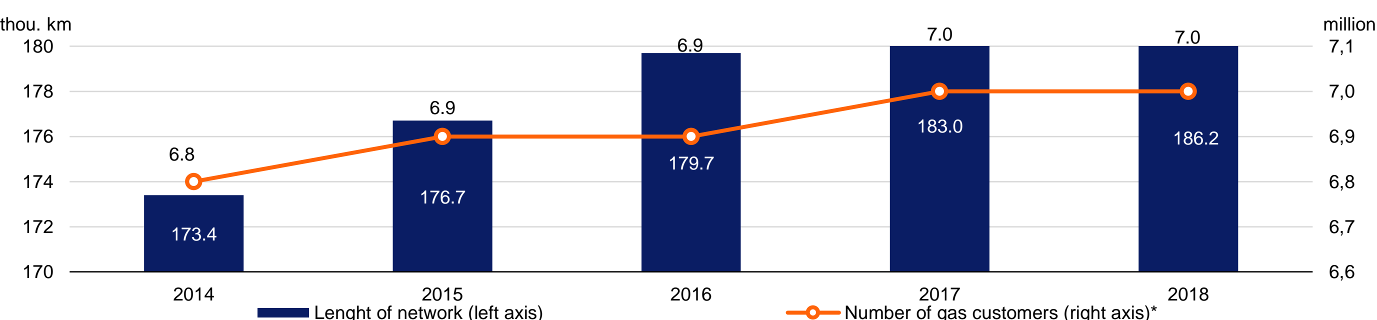
PSG took steps which in 2018 resulted in the execution of more than 88,500 connection agreements, providing for 97,600 new connections to the gas grid. In 2018, PSG planned to build more than 51,000 new connections. By the end of 2018, nearly 179,000 decisions defining the terms of connection were issued (up 19% year on year) and 60,750 service lines with a total length of 616.2 km were built.

Volume of gas transmitted via the distribution system (mcm)



As at December 31st 2018, PSG had a multi-branch organisational structure, comprising the Support Branch in Warsaw, the Infrastructure Development and Maintenance Branch in Krosno, and 17 Gas Distribution Branches. PSG's branches operate within the administrative borders of the respective provinces. Ultimately, there will be 172 local gas utilities and 59 service points operating within the branches.

Length of network, including service lines (thousand km), and number of customers (million)



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

An important factor affecting the performance of PSG's operator obligations in 2018 was the conclusion of comprehensive gas supply contracts with an emergency supplier on behalf of and for about 57,000 end users, following the termination of gas fuel supply by Energetyczne Centrum S.A. and Energia dla Firm S.A. to customers connected to the distribution network.

5.3.4. Key investment projects and CAPEX

In 2018, PSG spent more than PLN 643m on network expansion and connection of new customers, of which approximately PLN 95m to buy out assets. 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 to upgrade its network assets. In 2018, approximately PLN 553m was spent on the redevelopment and modernisation of the gas network, including more than PLN 201m on the replacement and verification of gas meters and metering systems.

In 2018, contracts for construction work and project owner's supervision were successively concluded, with a total value of more than PLN 103m (and further contract award procedures estimated at ca. PLN 36m were initiated).

In 2018, about 60 business and investment projects were implemented, including a number of projects designed to support the delivery of the PGNiG Group Strategy for 2017–2022, with a view to deploying new technology and organisational solutions in customer service, meter reading and billing of distribution services. The new solutions will improve process handling efficiency, enable uniform process reporting and monitoring across the Company, facilitate introduction of changes into business processes and improve information flow. The PSG projects are all part of the 'Implementation of the CIS Customer Service System' programme, and include:

- Implementation of the Customer Service Portal (e-bok).
- Implementation of the Customer Information System (CIS).
- Implementation of the Customer Service System − Stos in Gdańsk.
- Setting up the contrywide Contact Centre in Jarosław.
- Development and integration of the Edifact data exchange format.

As a distributor of the environmentally-friendly fuel, PSG additionally takes a range of measures promoting the prevention of smog and air pollution. In 2017, a number of environmental initiatives were launched, which were implemented in 2018 (often in cooperation with local governments). These include:

- *Aktywizacja nieczynnych przyłączy* (Activation of inactive connections) – a project aimed at mobilising customers who have inactive gas connections, especially in areas with a high level of low-stack emissions (smog).
- *Przyłącz się, liczy się każdy oddech* (Connect, because every breath matters) – an education and promotion project intended to raise the awareness of the risks to human health presented by air pollution and to promote gas fuel as an environmentally-friendly alternative to solid fuels.
- *Proste przyłącze* (Simple connection) – a project aimed at reducing the duration of the connection process.

In 2018, PSG continued its efforts to secure financing under the EU 2014–2020 financial framework. As part of Measure 7.1. – Development of intelligent storage, transmission and distribution systems, Priority axis VII – Improvement of energy security, PSG entered into agreements with the Oil and Gas Institute – National Research Institute, providing for co-financing of investment projects. The expected total cost of eight projects for which the co-financing agreements were executed in 2017–2018 exceeds PLN 498m (the amount of subsidies will be in excess of PLN 220m). The total length of the distribution pipelines which to be built or modernised as part of the projects is 431 km.

In 2018, PSG continued efforts aimed at intensifying its research and development work with a view to enhancing its innovativeness. It partnered with various scientific and research institutions in Poland to identify potential innovative projects for PSG. The *Pomysł na Innowacje* (Innovative Idea) project was completed. Its objective was to attract innovative solutions supporting PSG's principal operations and improve the commitment of employees to its business development. Overall, 35 ideas were submitted by employees, of which 10 were honoured with awards and 2 with distinctions.

PSG was also actively involved in the INGA project – the company's experts selected 14 thematic areas within which PSG was looking for innovative solutions, and evaluated projects in terms of their business utility. The project eventually selected for implementation was the 'Development of an autonomous GC/DMS analytical system for a continuous remote analysis of transported gas fuel and its additives to streamline the management of the smart gas grid'. One of the key R&D activities in 2018 involved the launch of a project with the primary objective to develop the basic concept of a telemetry deployment model for tariff group 1 and 2 customers.

5.3.5. Development prospects

PSG intends to carry out tasks related to the construction of gas networks, connection of new customers, network upgrades, as well as initiatives contributing to the development of the gas market and the gas distribution system, including:

- Addition of transmission network exit points.
- Development of gas distribution at PSG based on the LNG technology – building of LNG regasification stations, both to feed micro gas grids and to support the roll-out of local gas delivery solutions (including acquisition projects). Under the 'Programme for accelerating investment in Poland's gas network by PSG in 2018–2022', the company has identified the possibility of opening a total of 77 LNG regasification stations.

- Identification of opportunities for agricultural biogas plants to feed the distribution network.

PSG will continue to carry out tasks under the 'Programme for accelerating investment in Poland's gas network in 2018–2022'. These will include 9 tasks designed to eliminate transmission limitations. Further, the company plans to continue work on 44 tasks under the strategic investment programme, while carrying out routine activities involving gas network expansion, connection of new customers in Poland, and upgrade of the existing network infrastructure.

Project category	Expenditure in 2019 (PLNm)
Gas mains and service line extensions	882
Network upgrades	722
Other	390
Total	1,994

5.4. Generation

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. In this field, the PGNiG Termika Group acts as the competence centre for the PGNiG Group. The PGNiG TERMIKA Group comprises PGNiG TERMIKA (and its subsidiaries), PGNiG TERMIKA EP (and its subsidiaries) and the non-consolidated PGNiG TERMIKA Energetyka Rozproszona Sp. z o.o.

PGNiG Termika's business focus is on the generation and sale of heat and electricity, provision of system services, and administration of certificates of origin for electricity. The installed capacity of its generating assets is 4.3 GW of thermal power and 1 GW of electric power, which satisfies most of the heat demand on the Warsaw market and almost the entire demand of the district heating network. The company is also a producer and supplier of heat and the owner of heat sources and heat networks in Pruszków, Komorów and Piastów. PGNiG TERMIKA is one of the largest Polish producers of electricity and heat in high-efficiency cogeneration.

PGNiG TERMIKA EP was established following the merger of Przedsiębiorstwo Energetyki Cieplnej S.A. of Jastrzębie Zdrój and Spółka Energetyczna Jastrzębie S.A., and its 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 centre for commercial power generation and extraction of coal mine methane. PGNiG TERMIKA EP operates generation assets with a total capacity of approximately 955 MWt and 181 MWe, and approximately 302 km of heat networks.

5.4.1. Segment's key data

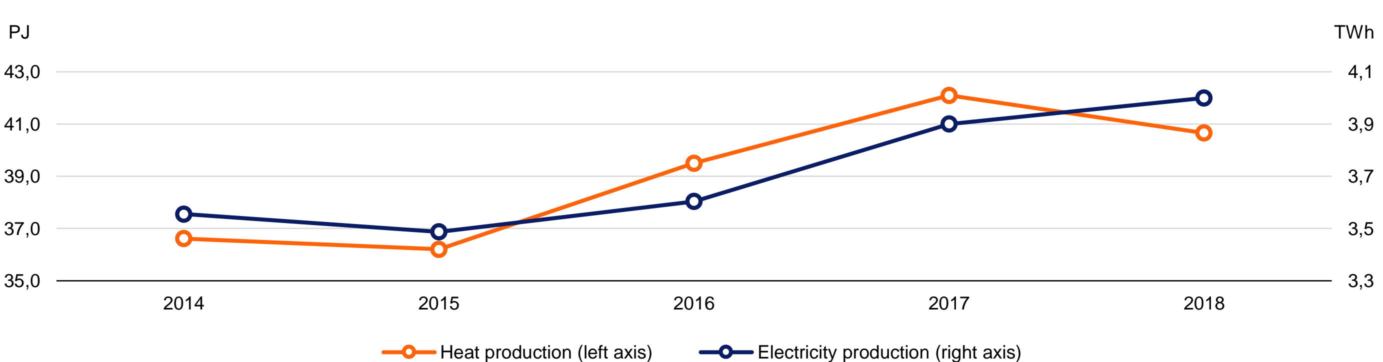
Financial highlights	2018 PGNiG Group	2017 PGNiG Group	2016 PGNiG Group	2015 PGNiG Group	2014 PGNiG Group
Total revenue	2,387	2,251	2,195	1,887	1,943
Revenue from sales outside the Group, including:	1,617	1,655	1,472	1,215	1,149
- heat	1,323	1,372	1,262	1,126	1,079
- electricity	31	50	36	8	7
Inter-segment revenue	770	596	723	672	794
EBITDA	788	843	759	679	463
EBITDA adjusted for impairment losses on property, plant and equipment	772	840	775	710	463

Heat and electricity sales volumes

(TJ)	2018	2017	2016	2015	2014
Total heat sales volumes from own generation sources	40,659	42,608	39,527	36,209	36,617
PGNiG TERMIKA	38,290	40,034	38,780	36,209	36,617
PGNiG TERMIKA EP*	2,369	2,574	747	-	-
(GWh)					
Total electricity sales volumes from own generation sources	3,974	3,882	3,604	3,487	3,555
PGNiG TERMIKA	3,535	3,593	3,466	3,487	3,555
PGNiG TERMIKA EP*	439	289	138	-	-

** The data for 2016 represents the sales volumes generated by PEC and SEJ. As of 2017, the data represents the sales volumes generated by PGNiG TERMIKA EP (which comprises PEC and SEJ).*

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/h]
PGNiG TERMIKA	4,346	1,015	-	-
Siekierki CHPP	2,068	620	-	-
Żerań CHPP*	1,300	386	-	-
Pruszków CHPP	164	9	-	-
Kawęczyn HP	465	-	-	-
Wola HP	349	-	-	-
PGNIG TERMIKA EP	954	181	17	337
Zofiówka Branch**	405	113	-	117
Moszczenica Branch	181	38	-	-
Pniówek Branch	72	14	17	123
Suszec Branch (Suszec site)	38	11	-	97
Suszec Branch (Częstochowa site)	3	3	-	-
Wodzisław Branch (Wodzisław Śląski site)	55	2	-	-
Wodzisław Branch (Niewiadom site)	3	-	-	-
Racibórz Branch (Racibórz site)	87	-	-	-
Racibórz Branch (Kuźnia Raciborska site)	4	-	-	-
Żory Branch (Żory site)	87	-	-	-
Żory Branch (Leszczyny site)	15	-	-	-
Distribution Office	4	-	-	-

** At the Żerań CHP, permanent shutdown of two WP120 water boilers (11, 12) to be decommissioned in connection with the adaptation of the plant to new emission requirements.*
*** Including the 70 MWe and 120 MWt CFB unit, commissioned in 2018.*

5.4.2. Segment's strategy

The PGNiG Group's strategy for the generation business is to expand its share in the heat generation and distribution market. In terms of electricity and heat generation, the Group's strategic ambition is to increase the volume of electricity and heat sales from approximately 15 TWh in 2017 to around 18 TWh in 2022.

The current market and regulatory environment as well as tariffs provide favourable conditions for the growth of Poland's heating market. The regulated nature of the business guarantees stable rates of return. The entry into force in 2018–2019 of new capacity market regulations and regulations promoting high-efficiency cogeneration will also support the development of new electric capacities, in particular high-efficiency gas-fired cogeneration units.

PGNiG TERMIKA

The achievement of strategic objectives of the Generation segment will be possible thanks mainly to the completion of strategic upgrade and development projects at the existing PGNiG TERMIKA generation facilities, including the new CCGT unit at the Żerań CHPP. Furthermore, PGNiG TERMIKA intends to intensify its efforts in search of acquisition targets in the heat distribution and heat and electricity generation business, and to improve its operational efficiency through process optimisation.

In the period covered by the strategy, PGNiG TERMIKA will also complete the construction of a CCGT unit at the Stalowa Wola CHPP, a project executed jointly with TAURON Wytwarzanie S.A. (with each of the companies to hold a 50% equity interest in the project).

PGNiG TERMIKA's aspirations until 2022:

- Deliver EBITDA of PLN 1bn in 2022;
- Implement an investment plan that will ensure compliance of generation assets with current and future environmental requirements;
- Secure a leading position among Poland's heating companies in terms of network infrastructure;
- Assert the role of moderator of regulatory and market change in the sector;
- Achieve market benchmarks for organisational efficiency in Poland;
- Enhance efficient mechanisms for managing the PGNiG TERMIKA Group.

PGNIG TERMIKA EP

Additionally, the PGNiG Group is seeking to increase its electricity and heat output at PGNiG TERMIKA EP, for instance by starting up a new unit at the Zofiówka CHPP in November 2018. The PGNiG Group wants to continue developing PGNiG TERMIKA EP through further acquisitions of local heating systems, primarily in Upper Silesia.

5.4.3. Operations in 2018

In 2018, PGNiG TERMIKA supplied heat to two municipal networks: the Warsaw heating network, owned by Veolia Energia Warszawa S.A., 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').

The thermal power generated by the company in 2018 met the requirements set out in the annual schedule agreed with Veolia Energia Warszawa S.A. In July 2018, a new multi-year contract for heat supply from PGNiG Termika S.A. generation facilities was signed between PGNiG TERMIKA and Veolia Energia Warszawa S.A., effective from May 14th 2018 to August 31st 2028. The sale and supply of heat by PGNiG TERMIKA will be effected through the Warsaw heating network (the estimated network coverage is approximately 70% of total heat demand in Warsaw).

In 2018, in line with the investment plan, a contract for the construction of a CCGT unit and peak-load boiler house at the Żerań CHPP was being performed, and investment programmes were launched to upgrade the Pruszków CHPP and Kawęczyn HP. At the Pruszków CHPP, the first stage of the project to upgrade existing water boilers No. 12 and 13 and to upgrade the coal feeding system is under way. Conceptual work to modernise the remaining sections of the Pruszków CHPP was also completed: the intention is to build three gas engines with a total capacity of up to 12 MWe and 12 MWt, two WR-12 coal-fired boilers with a total capacity of 25 MWt, and a 45 MW peak load and reserve oil-fired boiler house.

With respect to adaptation work on the premises of the Kawęczyn HP to bring the plant in line with the Best Available Techniques (BAT) Conclusions, a decision was made to implement a project involving the conversion of one WP-200 gas and oil-fired boiler, construction of a new 190 MWt gas and oil-fired boiler house and development of an oil management system.

The project involving the construction of a multi-fuel unit at the Siekierki CHPP is now nearing the achievement of an environmental permit. The multi-fuel unit was included in the draft 'Waste Management Plan for the Warsaw Province 2024', which received a favourable opinion from the Ministry of the Environment in December 2018.

To ensure a stable regulatory environment in the power and heat generation area, PGNiG TERMIKA was actively involved in the efforts of industry organisations geared towards introducing the capacity market and providing support for cogeneration. A new service was rolled out pursuant to the Capacity Market Act of December 8th 2017 – called the capacity obligation. It requires that a capacity market unit remains ready to deliver a certain volume of electric power to the power system and that it actually delivers a certain volume of electric power in a period of emergency. In 2018, as a result of three main auctions held by Polskie Sieci Energetyczne, PGNiG TERMIKA and PGNiG TERMIKA EP entered into the following capacity contracts:

- CCGT unit at the Żerań CHPP 2: A 17-year delivery contract for 2021–2037 (net capacity of 433 MW).
- Units No. 7 and No. 8 at the Siekierki CHPP: annual delivery contracts for 2021–2023 (total net capacity of 140 MW).
- Moszczenica CHPP unit: annual delivery contract for 2021–2023 (net capacity of 7 MW).
- Częstochowa-Wodzisław CHPP unit: annual delivery contract for 2021–2023 (net capacity of 1.2 MW).

Furthermore, the Stalowa Wola CHPP (a combined cycle unit project implemented by PGNiG TERMIKA and Tauron Polska Energia S.A.) signed a 7-year delivery contract for 2021–2027 (net capacity of 386 MW).

The PGNiG TERMIKA Group is actively seeking potential acquisition targets among district heating systems. At present, the total length of the Generation segment's heating networks is 383.3 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.

In 2018, PGNiG TERMIKA EP completed the integration of its heating assets acquired in 2016 (PEC and SEJ), which currently operate as a single business entity as a result of the merger. This has improved the efficiency of its management and the quality of business oversight, while delivering synergies between all entities.

5.4.4. Key investment projects and CAPEX

In order to meet the more stringent emission requirements the generating assets are being gradually modernised. In 2018, the capital expenditure of the PGNiG TERMIKA Group amounted to PLN 605m.

In 2018, major investment projects included:

- Construction of a ca. 450 MW CCGT unit at the Żerań CHPP (Żerań CCGT) – a contract for unit delivery and erection as part of the project was performed in 2018. Foundations were laid for the main components, i.e. the electrical building, main structures for the recovery boiler and the gas turbine house. Additionally, the lower frame of the gas turbine, gas turbine stator and an overhead crane in the main building were installed. Work is currently under way to install recovery boiler modules, and the following activities are continued: construction work at the steam turbine house, erection of the steel structure in the gas and steam turbine buildings, foundations for the step-up transformer of the gas turbine and for the auxiliary consumption transformer. In consequence of the adoption of the BAT Conclusions, PGNiG TERMIKA is obligated to install a catalytic flue gas deNOx (SCR) system for the new generating unit. The Company recognised that the best solution would be to include the unit within the scope of the contract, which would allow it to comply with the applicable legislative requirements within the shortest possible time, eliminating the need to postpone the start-up of the new unit. Capital expenditure on the project is estimated at PLN 1.6bn.
- Construction of a ca. 450 MW CCGT unit at the Stalowa Wola CHPP (ECSW) – the EPCM service was provided during 2018. In 2018, tendering procedures were also carried out, resulting in contracts to complete the construction work and deliver the CCGT unit control system, among other things. Furthermore, annexes were signed to the contract for the construction of a cooling water pipeline. In March 2018, a loan agreement was signed with Bank BGK, with the involvement of PGNiG, to complete the construction of the CCGT unit. Capital expenditure on the project is estimated at PLN 1.4bn.

- Construction of a ca. 70 MWe fluidised bed unit at the Zofiówka CHPP – in October 2018, PGNiG TERMIKA EP put the unit in service. The project is at the closing stage now – pending approval of the as-built documentation and drafting of the final project report. Capital expenditure on the project until the end of 2018: PLN 585m.
- Construction of a peak-load boiler house at the Żerań CHPP – In the second half of 2018, a building permit was obtained, and demolition works and utility rerouting were completed to release space for the site.
- Upgrading of the Pruszków CHPP – in 2018, a concept was prepared for the adaptation of the Pruszków CHPP to operations beyond 2022, and the final scenario of tasks to be executed in 2019–2022 was selected, including the construction of two coal-fired boilers, an oil-fired boiler house (with a light oil tank) and gas engines with a total capacity of up to 12 MWe. In addition, project activities were carried out to alter the coal feeding infrastructure and two water boilers, along with the construction of an environmental protection system.
- Projects aimed at bringing the generation units in line with BAT – the objective is to expand the flue gas treatment system at PGNiG TERMIKA EP branches to achieve conformity with the extent and level of flue gas treatment required by the BAT Conclusions for existing units in order to maintain and sell energy utilities. The projects will be implemented at three sites: the Zofiówka Branch, Żory Branch, and Racibórz Branch.
- EU-funded projects – the continued 'Construction and redevelopment of heating networks to achieve efficient heat distribution in Jastrzębie-Zdrój' project, subsidised by the EU under the Infrastructure and Environment 2014–2020 Operational Programme.
- Investment projects related to heat supply in Rybnik – the objective is to build the technical infrastructure to secure hot water supplies for heating, starting from the 2022/23 heating season.
- Boiler upgrade using the membrane wall technology at the Racibórz Branch.

The PGNiG TERMIKA Group is actively involved in innovation programmes. In 2018, it was engaged in project evaluations under the INGA initiative implemented by PGNiG, GAZ-SYSTEM and NCRD, and analysed options for growing the share of renewable technologies in cooperation with Honeywell. Additionally, PGNiG TERMIKA Group companies are involved in a range of R&D activities in collaboration with other PGNiG Group companies. Key R&D projects implemented in 2018 include:

- The project for remote meter readings based on the Sigfox technology in partnership with PSG – in 2018, it was extended to include five additional modules in Warsaw, installation of a transceiver station at the Siekierki CHPP and preparation for the assembly of a new transceiver station at the Kawęczyn HP in January 2019.
- The project for remote meter readings based on the LoRa technology in partnership with PSG – three network range tests were carried out at 60 sample locations.
- Tests of dry sodium injection systems and systems of activated carbon injection for mercury control – the project was carried out as part of the preparation of the Kawęczyn HP for the BAT Conclusions. In 2018, a decision was made to deploy the technology on the fluidised bed boilers at the Żerań CHPP.
- The intake air aftercooling unit – a concept for the construction of a unit to boost the capacity of the CCGT unit built at the Żerań CHPP was developed in 2018.
- Analysis of the options for cooperation with the Institute of Power Engineering, including on projects involving optimisation of the fluidised bed boiler at the Żerań CHPP and the biomass-fired boiler at the Siekierki CHPP.
- The PGNiG TERMIKA Bank of Initiatives – 76 new ideas were submitted in 2018, out of which 28 were recommended for implementation by expert teams. Ultimately, eight innovative solutions were brought to life, of which one with measurable annual benefits estimated at more than PLN 750,000.

Equity investment in Polska Grupa Górnicza Sp. z o.o.

In 2018, PGG continued the restructuring and operational streamlining processes initiated in 2016, primarily in respect of organisational changes, transfers of economically inefficient assets to Spółka Restrukturyzacji Kopalń S.A. and revenue optimisation.

On January 31st 2018, the Extraordinary General Meeting of PGG approved a share capital increase through the issue of new shares in the third recapitalisation amounting to PLN 300m (to which PGNiG TERMIKA contributed PLN 90m as one of the investors). As at December 31st 2018, following the third recapitalisation effected under the investment agreement of March 31st 2017, PGNiG TERMIKA's holding in PGG's share capital was 20.43%.

PGNiG TERMIKA performs its ownership supervision functions directly through a Supervisory Board member. The decision to invest in PGG was based on the assumption that the profitability of coal sales would improve markedly in the long term, mainly on the back of optimised production costs. Currently, PGG is implementing a business plan approved by investors and its technical and economic plan, which provide for efficiency improvement and business restructuring measures. › More information – Note 2.4 to the consolidated financial statements of the PGNiG Group.

5.4.5. Development prospects

The Act on the Promotion of Electricity from High-Efficiency Cogeneration was passed in December 2018. The entry into force of its provisions along with a set of secondary legislation will allow the company to apply – with respect to the planned new gas-fired units of the PGNiG TERMIKA Group – for participation in a new support system that will replace the existing one, based on certificates of origin and described in the Energy Law. In consequence of the introduction of the capacity market system and the main auctions which have taken place, additional revenue has been secured for 2021–2037.

Furthermore, in 2019, the PGNiG TERMIKA Group will continue projects related to upgrades of existing and construction of new power generation units, including:

- Continuation of the construction of a CCGT unit at the Żerań CHPP – total capital expenditure estimated at PLN 1.6bn. Incurred capital expenditure on the project until the end of 2018: PLN 196m. Completion is scheduled for 2020. The progress of works at the end of 2018: 61%.
- Construction of a peak-load boiler house at the Żerań CHPP – total capital expenditure estimated at PLN 150m. Incurred capital expenditure on the project until the end of 2018: PLN 11m. The trial run is scheduled to begin in 2019.
- Continuation of the construction of a CCGT unit at the Stalowa Wola CHPP – total capital expenditure estimated at PLN 1.4bn. Incurred capital expenditure on the project until the end of 2018: PLN 1,1bn. Completion is scheduled for Q4 2019.

PGNiG TERMIKA will seek to improve its return on assets, diversify its fuel mix (coal, gas, biomass, RDF), and defend its market position as a leading heat producer in Warsaw. In the whole of Poland, it will focus on the acquisition of heating systems and development in the area of gas technologies in the heating sector, autoproducer generation and distributed generation.

PGNiG TERMIKA EP will focus its efforts on maintaining its position of a major producer and main supplier of heat in the region. The company will also seek to reinforce its leading position in Poland with respect to the commercial use of methane in cogeneration systems.

5.5. Other Segments

5.5.1. Segment's key data

Financial highlights	2018		2017		2016[2]	2015[1]	2014[1]
	PGNiG Group	PGNiG	PGNiG Group	PGNiG	PGNiG Group	PGNiG Group	PGNiG Group
Revenue	503	149	459	124	362	325	424
EBITDA	(214)	(258)	(162)	(188)	(187)	(49)	(44)

1)Data not restated, as reported.
2) Data restated according to the new segmentation of the PGNiG Group's operations.

5.5.2. Segment's strategy

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. Its three main aspirations are to increase the PGNiG Group's growth potential in research, development and innovation, improve the Group's operational efficiency, and enhance the Group's image.

5.5.3. Operations in 2018

Corporate Centre

In the 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 2018, the PGNiG Group was strongly involved in the implementation of R&D and innovation projects. In the reporting period, it focused primarily on improving process efficiency and enhancing products and services in key business areas. A mobile LNG metering station named SMOK was set up, which is likely to revolutionise the small-scale LNG market in Poland. › For more information on R&D projects, see Section 3.5.

In 2018, the activities of selected PGNiG departments (as part of the corporate centre functions) included:

- Delivery of a project related to the implementation at the PGNiG Group of Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (GDPR) − unit in charge: the PGNiG Security Department.
- Update of the PGNiG Group's IT strategy to develop a strategic model that would ensure compliance and alignment of IT activities with the Group's business strategy (the project will be carried on in 2019) – unit in charge: the PGNiG IT Department.
- In cooperation with the Oil and Gas Institute – National Research Institute (INiG – PIB)– completion of the first stage of a research project entitled 'Evaluating the possibility of reducing emissions of pollutants into the air at PGNIG SA', which involves an analysis of technological processes which are relevant to surveying gaseous and solid pollutant emissions into the air at PGNiG – unit in charge: the OHS and Social Benefits Department.

PGNiG Group's subsidiaries and branches

PGNiG Technologie

PGNiG Technologie implements comprehensive investment projects in the field of construction of crude oil and natural gas production facilities and natural gas transmission facilities, manufacture and repair of drilling and production equipment, pressure vessels, storage tanks and steel structures. In 2018, it provided services to members of the PGNiG Group, related to development of fields and wells as well as supply of well surface equipment (mainly to PGNiG, and to a lesser extent to third parties, such as Lotos Petrobaltic S.A., Orlen Upstream Sp. z o.o and MhWirth).

In connection with a large-scale investment programme to develop the gas transmission infrastructure in Poland by GAZ-SYSTEM and increasing investment of PSG in the expansion of the domestic distribution network, PGNiG Technologie stepped up its activity in the area of construction, assembly and delivery of end products for the construction, expansion and maintenance of gas networks and gas infrastructure facilities.

PGNiG Serwis

The principal business of PGNiG Serwis is the provision of comprehensive finance, accounting, HR, payroll and ICT services, direct physical security services, reception services, project management support, and property management 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 studies and analyses, prepares studies for the purposes of applying for technical requirements and administrative decisions with respect to projects, draws up environmental studies, legally required documents, produces design, as-built and tender documentation, and prepares 3D visualisations. In 2018, demand for Gazoprojekt's project support work remained high. Most of it involved transmission infrastructure (gas pipelines, compressor stations, fuel pipelines) and hydrocarbon production for PGNiG, PSG, PERN S.A., and GAZ-SYSTEM.

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, Gronów near Łagów, Jugowice, Lądek-Zdrój, Zakopane, Wisła, Złockie near Muszyna, Krynica-Zdrój, Czarna near Ustrzyki Dolne and Kraków. Since 2017, Geovita's operations have been undergoing changes in order to reduce operating expenses and use resources more efficiently. In the second half of 2018, further measures were taken to improve Geovita's participation in public procurement procedures.

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

Polski Gaz TUW offers insurance cover to PGNiG Group companies, including: property, motor and civil liability insurance, as well as insurance guarantees and legal protection. Polski Gaz TUW also provides insurance cover to third parties, especially from the power sector.

In 2018, cooperation 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.

In 2018, cover provided under the upstream business insurance for PGNiG was renewed, an application was filed with the Polish Financial Supervision Authority to extend the scope of Polski Gaz TUW's business to include sickness-related insurance, and the company's share capital was increased to PLN 40m in order to establish a life insurance subsidiary.

Moreover, two major changes took place in the regulatory environment of Polski Gaz TUW in 2018, which had a material effect on the operations of insurance companies. They involved a significant increase in information provision requirements in consequence of the entry into force of the Act on Insurance Distribution and the provisions of the GDPR.

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 2018, 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, verification of cryogenic flow metering systems on tankers and LNG flow metering during tanker unloading operations at LNG regasification stations (making use of SMOK stations and systems). Key customers of the branch are members and branches of the PGNiG Group, GAZ-SYSTEM and EuroPolGaz S.A.

5.5.4. Development prospects

PGNiG Technologie

PGNiG Technologie is revamping its business model in order to adapt it to the existing market opportunities and demands. In line with the objectives for 2018–2020, it will operate primarily as a provider of construction and assembly services and manufacturer of finished products in the gas and oil mining sector, mainly as part of the PGNiG Group. With its highly skilled staff and specialist welding equipment, PGNiG Technologie intends to gain new business in the area of linear infrastructure welding.

The company additionally intends to improve the success rate of winning high-budget strategic contracts involving the construction or upgrade of gas and oil pipelines and mines, as well as development of oil/gas fields and underground gas storage facilities. Furthermore, PGNiG Technologie seeks to acquire new contracts on foreign markets (mainly in Norway and Ukraine) and in the power sector.

PGNiG Serwis

The company perceives opportunities in the ongoing process of streamlining and reduction of operating expenses at the PGNiG Group, as a result of which it may take over ancillary activities and provide support services to more PGNiG Group companies. In 2019, PGNiG Serwis additionally wants to expand its personal, property and IT security business.

Gazoprojekt

In 2019, Gazoprojekt will seek to continue its services for existing customers, not only within the PGNiG Group, but also for other leading gas and oil market players. This applies, in particular, to projects involving the transmission and storage of crude oil and natural gas, and expansion of chemical plants. Additionally, Gazoprojekt intends to intensify its networking efforts, seeking to acquire project support contracts on foreign markets.

Geovita

In the near future, the company will continue its restructuring efforts to optimise costs and improve the efficiency of sales channels and operational processes.

CLPB (Central Measurement and Testing Laboratory)

CLPB's primary objective is to maintain its position as the leading research laboratory and attestation centre for measurement systems and devices used in the natural gas industry and a natural gas quality control laboratory for all kinds of natural gas (L and E) and all their forms (CNG, LNG), as well as biogas. In the coming years, CLBP intends to grow its capabilities in testing hydrogen as a fuel for vehicles (there is no such laboratory in Poland, despite the emerging market for hydrogen fuel) and geological analysis (porosimetry and core gas testing, analysis of liquid mineral hydrocarbons).

6. Additional information on the PGNiG Group

6.1. Structure of the PGNiG Group

As at December 31st 2018, the PGNiG Group comprised PGNiG (the parent), 33 production, trade and service companies, and a mutual insurance company, including: 20 direct subsidiaries of PGNiG and 14 indirect subsidiaries of PGNiG

The list of the PGNiG Group companies as at December 31st 2018 is presented in the table below.

PGNiG Group companies as at December 31st 2018

No.	Company name	Share capital [in PLN, unless stated otherwise]	Value of shares held by PGNiG [in PLN, unless stated otherwise]	PGNiG's ownership interest (%, direct holdings)	PGNiG Group's ownership interest (%, direct and indirect holdings)
	Subsidiaries – first tier				
1	PGNiG GAZOPROJEKT S.A.	4,000,000	3,000,000	75%	75%
2	EXALO Drilling S.A.	981,500,000	981,500,000	100%	100%
3	GEOFIZYKA Kraków S.A. w likwidacji (in liquidation)	64,400,000	64,400,000	100%	100%
4	GEOFIZYKA Toruń S.A.	75,240,000	75,240,000	100%	100%
5	Geovita S.A.	102,176,575	102,176,575	100%	100%
6	Gas Storage Poland Sp. z o.o.	15,290,000	15,290,000	100%	100%
7	PGNiG Obrót Detaliczny Sp. z o.o.	600,050,000	600,050,000	100%	100%
8	PGNiG Serwis Sp. z o.o.	9,995,000	9,995,000	100%	100%
9	PGNiG Technologie S.A.	272,727,240	272,227,240	100%	100%
10	PGNiG TERMIKA S.A.	1,740,324,950	1,740,324,950	100%	100%
11	Polska Spółka Gazownictwa Sp. z o.o.	10,488,917,050	10,488,917,050	100%	100%
12	PGNiG Finance AB i likvidation	SEK 500,000	SEK 500,000	100%	100%
13	PGNiG Supply & Trading GmbH	EUR 10,000,000	EUR 10,000,000	100%	100%
14	PGNiG Upstream Norway AS	NOK 1,100,000,000	NOK 1,100,000,000	100%	100%
15	PGNiG Upstream North Africa B.V.	EUR 20,000	EUR 20,000	100%	100%
16	GAS-TRADING S.A.	2,975,000	1,291,350	43.41%	79.58%[2]
17	PGNiG SPV 5 Sp. z o.o.	250,000	250,000	100%	100%
18	PGNiG SPV 6 Sp. z o.o.	51,381,000	51,381,000	100%	100%
19	PGNiG SPV 7 Sp. z o.o.	250,000	250,000	100%	100%
20	Polski Gaz Towarzystwo Ubezpieczeń Wzajemnych	20,000,000	20,000,000	100%	100%
	Subsidiaries – second tier				
21	PGNiG TERMIKA Energetyka Przemysłowa S.A.	370,836,300	370,836,300	-	100%[9]
22	GAZ Sp. z o.o.	300,000	300,000	-	100%[3]
23	PSG Inwestycje Sp. z o.o.	81,131,000	81,131,000	-	100%[3]
24	Oil Tech International F.Z.E.	USD 20,000	USD 20,000	-	100%[4]
25	EXALO DRILLING UKRAINE LLC	EUR 20,000	EUR 20,000	-	100%[4]
26	PST Europe Sales GmbH	EUR 1,000,000	EUR 1,000,000	-	100%[5]
27	Ośrodek Badawczo-Rozwojowy Górnictwa Surowców Chemicznych CHEMKOP Sp. z o.o.	3,000,000	2,565,350	-	85.51%[6]
28	CIFL Sp. z o.o.	1,360,000	1,360,000	-	100%[7]
29	Gas-Trading Podkarpacie Sp. z o.o.	6,670,627	5,257,524	-	78.82%[8]
30	PGNiG Serwis Doradztwo Ubezpieczeniowe Sp. z o.o.	5,000	5,000		100%[1]
31	PGNiG TERMIKA Energetyka Rozproszona Sp. z o.o.	13,550,000	13,550,000		100%[9]
32	Zakład Gospodarki Mieszkaniowej Sp. z o.o.	1,806,500	1,806,500	-	100%[4]
	Subsidiaries – third tier				
33	XOOL GmbH	500,000 EUR	500,000 EUR	-	100%[10]
34	SEJ-Serwis Sp. z o.o.	200,000	200,000	-	100%[11]

1) PGNiG's interest held indirectly through PGNiG Serwis Sp. z o.o.
2) PGNiG's direct interest is 43.41%, with a 36.17% interest held indirectly through PGNiG SPV 6 Sp. z o.o.
3) PGNiG's interest held indirectly through Polska Spółka Gazownictwa Sp. z o.o.
4) PGNiG's interest held indirectly through EXALO Drilling S.A.
5) PGNiG's interest held indirectly through PGNiG Supply & Trading GmbH.
6) PGNiG's interest held indirectly through Gas Storage Poland Sp. z o.o.
7) PGNiG's indirect interest in the company is 100%: 99.98% is held through PGNiG SPV 6 Sp. z o.o. and 0.02% is held through PGNiG SPV 5 Sp. z o.o. Dissolved as of January 1st 2019.
8) PGNiG's interest held indirectly through GAS TRADING S.A.
9) PGNiG's interest held indirectly through PGNiG TERMIKA S.A.
10) PGNiG's interest held indirectly through PGNiG Supply & Trading GmbH and PST Europe Sales GmbH.
11) PGNiG's interest held indirectly through PGNiG TERMIKA S.A. and PGNiG TERMIKA Energetyka Przemysłowa S.A. (100%)

Changes in the Group structure in 2018:

- On January 15th 2018, a resolution to liquidate PGNiG Finance AB of Stockholm was registered, following which the company's name was changed to PGNiG Finance AB i likvidation.
- On March 16th 2018, the change of company name Gas Assets Management Sp. z o.o. to CIFL Sp. z o.o. was entered in the National Court Register.
- On May 25th 2018, the Extraordinary General Meeting of Geovita increased the company's share capital from PLN 86,139,000 to PLN 102,176,575, i.e. by PLN 16,037,575, through the issue of 16,037,575 Series B ordinary (non-preference) registered shares with a par value of PLN 1 per share. The share capital increase was covered with a non-cash contribution in the form of tourist and hotel facilities. The declaration of acquisition of new shares in the increased share capital was made on June 22nd 2018. The increase in Geovita's share capital was recorded in the National Court Register on November 7th 2018.
- On June 22nd 2018, the Extraordinary General Meeting of PSG resolved to increase the company's share capital by PLN 34,710,500, i.e. from PLN 10,454,206,550 to PLN 10,488,917,050, through the creation of 694,210 new shares with a par value of PLN 50 per share. The new shares were acquired by PGNiG in exchange for a contribution in kind in the form of a 50% interest in a real property located at ul. Krucza 6/14 in Warsaw, with a total market value of PLN 34,710,521.50. The

positive difference of PLN 21.50 between the contribution in kind and the par value of the acquired shares was transferred to PSG's share premium. The capital increase was recorded by the National Court Register on October 2nd 2018.

- On August 9th 2018, the Extraordinary General Meeting of PGNiG OD resolved to increase the company's share capital from PLN 600,050,000 to PLN 625,307,815, i.e. by PLN 25,257,815, through the creation of 459,233 new, equal and indivisible shares with a par value of PLN 55 per share. The new shares were acquired by PGNiG in exchange for a contribution in kind (CNG assets) with a total net value of PLN 25,257,842. The positive difference of PLN 27.00 between the contribution in kind and the par value of the acquired shares is to be transferred to PGNiG OD's share premium. The declaration of acquisition of the shares was submitted on the same day, i.e. August 9th 2018. The increase in PGNiG OD's share capital was recorded in the National Court Register on January 7th 2019.
- On November 19th 2018, the Extraordinary General Meeting of Polski Gaz TUW resolved to increase the company's share capital by a total of PLN 20m, to PLN 40m, through the creation of one million of new shares with a par value of PLN 20 per share. As at the date of this Report, the share capital increase was not entered in the National Court Register.
- On December 21st 2018, the Extraordinary General Meeting of Geovita resolved to increase the company's share capital from PLN 102,176,575 to PLN 113,407,782, i.e. by PLN 11,231,207. The share capital was increased through the issue of 11,231,207 Series C ordinary (non-preference) registered shares with a par value of PLN 1 per share. The share capital increase was covered by a contribution in kind in the form of assets of the Perła Bieszczadów hotel and resort complex. The declaration of acquisition of the 11,231,207 new Series C shares in the increased share capital was made on December 21st 2018. As at the date of this Report, the increase was not recorded by the National Court Register.
- On December 21st 2018, the GM of CIFL Sp. z o.o. resolved to wind up the company with effect as of January 1st 2019.

6.2. Other ownership interests and organisational links

The list of the PGNiG Group related entities as at December 31st 2018 is presented in the table below.

PGNiG Group companies as at December 31st 2018

No.	Company name	Share capital	Value of shares held by PGNiG	PGNiG's ownership interest (%, direct holdings)	PGNiG Group's ownership interest (%, direct and indirect holdings)
	Jointly-controlled and associated entities - first tier				
1	Sahara Petroleum Technology Llc w likwidacji) (in liquidation)	OMR 150,000	OMR 73,500	49.00%	49.00%
2	SGT EUROPOL GAZ S.A.	80,000,000	38,400,000	48.00%	51.18%[1)]
3	PFK GASKON S.A.	13,061,325	6,000,000	45.94%	45.94%
4	ZWUG INTERGAZ Sp. z o.o.	4,700,000	1,800,000	38.30%	38.30%
5	Dewon ZSA	UAH 11,146,800	UAH 4,055,205.84	36.38%	36.38%
	Jointly-controlled and associated entities - second tier				
6	Zakład Separacji Popiołów Siekierki Sp. z o.o.	10,000,000	7,000,000	-	70%[2)]
7	Elektrociepłownia Stalowa Wola S.A.	28,200,000	14,100,000	-	50%[2)]
8	Polska Grupa Górnicza S.A.	3,616,718,200	710,000,000	-	20.43%[2)]
9	Polimex-Mostostal S.A.	473,237,604	78,000,048		16.48%[3)]

1) PGNiG's direct interest is 48.00%, with a 3.18% interest held indirectly through GAS-TRADING S.A.
2) PGNiG's interest held indirectly through PGNiG TERMIKA S.A.
3) PGNiG's interest held indirectly through PGNiG Technologie S.A.

Changes in other ownership interests within the PGNiG Group in 2018:

- On January 31st 2018, an Extraordinary General Meeting of PGG passed a resolution to increase the company's share capital by PLN 300m, from PLN 3,616,718,200 to PLN 3,916,718,200, through the issue of 3m new Series B shares with a par value of PLN 100 per share. 900,000 new registered Series B shares with a par value of PLN 100 per share and a total par value of PLN 90m were acquired by PGNiG TERMIKA S.A. in exchange for a cash contribution of PLN 90m. Following the share capital increase, PGNiG TERMIKA holds 8m shares in PGG, with a par value of PLN 100 per share and a total par value of PLN 800m, which corresponds to 20.43% of PGG's share capital and the same percentage of voting rights at its General Meeting. The share capital increase was entered in the National Court Register on April 6th 2018.

Equity investments outside the group of related entities:

In 2018, the PGNiG Group made no material equity investments outside the group of related entities. As at the end of 2018, the total par value of PGNiG's equity interests held outside the group of related entities was PLN 21.3m. As at the end of 2018, the total par value of the PGNiG Group's (PGNiG's and the PGNiG Group companies') equity interests held outside the group of related entities was PLN 51.5m.

Basic rules of management at the PGNiG Group and their changes in 2018

Following the entry into force of the laws governing the exercise of shareholder (ownership) rights by the State Treasury, in 2017 the PGNiG Group companies introduced new standards for selecting members of their governing bodies, new rules of remuneration of members of their governing bodies, and amendments to their articles of association, taking into account the ownership policy guidelines for state-owned companies.

Furthermore, the remuneration policy and the amounts of remuneration paid to the Management and Supervisory Board members at the PGNiG Group companies in 2017 were modified to meet the requirements stipulated by the Act on Rules of Remunerating

Persons Who Direct Certain Companies of June 9th 2016. At most subsidiaries, the remuneration was adjusted in accordance with the general rule set out in the Act. At some subsidiaries, subject to the Supervisory Board's approval, a different method was used to determine the remuneration. The corporate governance objectives and principles adopted in 2017 continued to apply in 2018.

6.3. Court proceedings

6.3.1. Pending court proceedings

Proceedings with respect to the obligation of public sale of natural gas

The Act Amending the Energy Law and Certain Other Acts, dated July 26th 2013 (Dz.U. of 2013, item 984), imposed on energy companies meeting certain criteria the obligation of public sale of no less than 55% of high-methane gas volume introduced into the transmission network in a given year: i) At entry points to the Polish transmission system, at interconnections with transmission systems of other countries, or ii) Via a network of production site pipelines, or iii) Through liquefied natural gas terminals.

Pursuant to the transitional provisions of the Act, the volume of gas covered by the public sale obligation from the effective date of the amendment to December 31st 2013 was 30%; from January 1st 2014 to December 31st 2014: 40%; and as from January 1st 2015: 55%.

On January 13th 2015, the President of URE initiated proceedings to fine PGNiG for failure to meet the exchange sale requirement in 2013. PGNiG filed an appeal with the Competition and Consumer Protection Court at the Regional Court of Warsaw against one of the interlocutory decisions made by the President of URE in the course of the proceedings. On April 15th 2016, the Competition and Consumer Protection Court at the Regional Court of Warsaw dismissed the appeal. On May 25th 2016, the President of URE instigated ex officio proceedings to impose a financial penalty on PGNiG for its failure to meet the exchange sale requirement in 2013. On June 17th 2016, acting under Art. 56.6a of the Energy Law, the Company filed a request for the President of URE to refrain from imposing the penalty. As at the date of this Report, the proceedings instigated by the President of URE were pending.

On October 28th 2015, the President of URE instigated proceedings to impose a financial penalty on PGNiG for its failure to meet the exchange sale requirement in 2014. On April 20th 2016, having considered the evidence, PGNiG filed a request for the President of URE to refrain from imposing the penalty. By a decision of May 9th 2016, the President of URE imposed a fine of PLN 15m for PGNiG's failure to meet the exchange sale requirement in 2014. On May 27th 2016, the Company appealed against the decision in its entirety and requested that a legal question be presented to the Constitutional Tribunal about the constitutionality of Art. 49b.1 of the Energy Law and Art. 25 of the Act of July 26th 2013 Amending the Energy Law and Certain Other Acts. On December 27th 2016, the President of URE replied to the appeal, requesting its dismissal. PGNiG filed its response on January 27th 2017, providing additional grounds for the request to present the legal question to the Constitutional Tribunal. On October 10, 2018, the Court of Competition and Consumer Protection allowed the appeal of PGNiG and reduced the administrative fine from PLN 15 million to PLN 5 million. It also abolished the legal costs of the first instance proceedings between the parties. On December 11, 2018, the Company appealed against this verdict.

6.3.2. Proceedings before the President of the Office of Competition and Consumer Protection (UOKiK)

Anti-trust proceedings instigated on December 28th 2010

On December 28th 2010, the President of the Office of Competition and Consumer Protection ('UOKiK') instigated ex officio anti-trust proceedings concerning alleged abuse by PGNiG of its dominant position on the domestic natural gas wholesale market, which consisted in inhibiting trade in natural gas against the interests of trading partners or consumers and in impeding the development of market conditions necessary for the emergence or development of competition by refusing to sell gas fuel under a comprehensive supply contract to a business entity that intended to resell the gas, i.e. NowyGaz Sp. z o.o. of Warsaw. In a decision of July 5th 2012, the President of UOKiK found these practices to be anti-competitive, stated that PGNiG had discontinued them on November 30th 2010 and imposed a PLN 60m fine on the Company. On July 24th 2012, PGNiG appealed against the decision to the Competition and Consumer Protection Court at the Regional Court of Warsaw. In its judgment of May 12th 2014, the Regional Court of Warsaw dismissed the appeal. On June 4th 2014, PGNiG appealed against the decision to the Warsaw Court of Appeals. In the judgment of May 29th 2015, the Court of Appeals amended the decision of the President of UOKiK where it referred to the amount of the fine by reducing the fine to PLN 5.5m. The judgment is final. On June 12th 2015, PGNiG paid the penalty imposed by the judgment of the Warsaw Court of Appeals. Both PGNiG and the President of UOKiK filed cassation complaints against the Court of Appeals' judgment to the Supreme Court. PGNiG's cassation complaint seeks to challenge the finding of competition law infringement, whereas the President of UOKiK's cassation complaint seeks to question the Court of Appeals' decision to reduce the penalty imposed on PGNiG.

On January 10th 2017 (case No. III SK 61/15), the Supreme Court reversed the Court of Appeals' judgment concerning PGNiG's cassation complaint and remanded the case to the Court of Appeals for re-examination and decision on the costs of the cassation procedure. At the same time, the Supreme Court dismissed the President of UOKiK's cassation complaint and ordered the President of UOKiK to reimburse the costs of the cassation proceedings to PGNiG.

On June 8th 2017, the Court of Appeals in Warsaw reversed the ruling of the Competition and Consumer Protection Court of May 12th 2014 and remanded the case for re-examination by that court. The proceedings concerning this case is currently pending before the Court of Competition and Consumer Protection.

Anti-trust proceedings instigated on April 3rd 2013

On April 3rd 2013, the President of UOKiK instigated anti-trust proceedings concerning an alleged abuse by PGNiG of its dominant position on the domestic wholesale and retail natural gas market, which consisted in impeding the development of market conditions necessary for the emergence or development of competition by:

- Limiting the ability of business customers to reduce the contracted volumes of gas fuel and capacity,
- Limiting the ability of business customers to resell gas fuel,
- Requiring that business customers define the maximum volume of gas fuel purchased for resale in the contract,
- Refusing to grant wholesale customers the right to a partial change of supplier.

In the course of the proceedings, PGNiG submitted a request to the President of UOKiK for an obligation decision, in which it voluntarily agreed to revise certain provisions in its contracts with non-household customers. By virtue of decision No. DOK-8/2013 of December 31st 2013, the President of UOKiK resolved not to impose a fine on the Company and obliged the Company to fulfil its commitment. PGNiG performed its obligations set out in the President of UOKiK's obligation decision within the deadlines specified therein.

On August 1st 2014, PGNiG OD took over the existing retail gas trading business from PGNiG and assumed all rights and obligations arising from the decisions issued by the President of UOKiK under the Act on Competition and Consumer Protection in respect of agreements to which PGNiG OD became a party. PGNiG OD is in the course of performing the obligation (in the part corresponding to its scope of business) imposed under the decision of the President of UOKiK dated December 31st 2013.

On October 17th 2014, the President of UOKiK commenced administrative proceedings to impose a fine under Art. 107 of the Act on Competition and Consumer Protection of February 16th 2007 (Dz.U. No. 50, item 331, as amended) on PGNiG and PGNiG OD for alleged delay in complying with the President of UOKiK's decision of December 31st 2013 where it relates to optional reduction by business customers of gas fuel quantities and capacity contracted for future years. In their response, PGNiG and PGNiG OD presented grounds for their actions and stated that by taking such actions they duly complied with the decision. On September 24th 2015, the President of UOKiK issued decision No. DOK-3/2015 to impose a financial penalty of PLN 10.4m on PGNiG for its delay in compliance with the decision. The President of UOKiK also decided to discontinue the proceedings against PGNiG OD. The President of UOKiK found that PGNiG OD had performed its obligations under the President of UOKiK's decision of December 31st 2013.

On November 2nd 2015, PGNiG filed an appeal against the decision of the President of UOKiK with the Competition and Consumer Protection Court at the Regional Court of Warsaw. The first hearing was scheduled for March 14th 2017. On March 21st 2017, the Regional Court of Warsaw – Court of Competition and Consumer Protection dismissed the appeal filed by PGNiG (on November 2nd 2015) against the decision of the President of UOKiK, and awarded the costs of the proceedings (PLN 360) from the Company to the President of UOKiK. The ruling is not final. On April 18th 2017, the Company appealed against the ruling in its entirety. On May 29th 2018, the Court of Appeals dismissed PGNiG's appeal and ordered PGNiG to pay PLN 270 as reimbursement of the costs of second-instance proceedings. The judgment of the Court of Appeals is final. PGNiG paid the sanction and reimbursed the costs of the proceedings to the President of UOKiK.

On July 20th 2018, PGNiG received from the Court of Appeals a copy of the Court's decision with a statement of reasons, which opened a statutory period for the Company to submit a cassation appeal. On September 20th 2018, PGNiG filed a cassation appeal. In a letter dated October 10th 2018, the President of UOKiK replied to the cassation appeal. The cassation appeal has not been resolved to date.

The antitrust proceedings commenced on March 11, 2019

On March 11, 2019, the President of the Office of Competition and Consumer Protection (UOKiK) notified of the initiation of an antitrust proceedings, to which Veolia Energia Warsaw SA, Veolia Energia Polska SA, PGNiG TERMIKA and PGNiG are parties, on the violation of prohibitions specified in art. 6 section 1 items 1.3 and 7 of the Act on competition and consumer protection, as well as art. 101 section 1 letter a) and c) of the Treaty on the functioning of the European Union. The said violation was supposed to occur in connection with the suspected conclusion of an agreement in 2014 in the scope of agreeing heat energy prices, division of the heat energy market and agreeing the terms of bids in procurement procedures for the sale and supply of thermal energy.

6.3.3. Renegotiation of price terms under the contract with OOO Gazprom Export

In 2018, 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 within the time limit provided for in the contract, on May 13th 2015 PGNiG instigated arbitration proceedings, in accordance with the contract. The subject matter of the dispute is a revision of the price terms under the contract for gas supply to Poland. In the course of the arbitration proceedings, on February 1st 2016 PGNiG filed with the Arbitration Institute a claim against PAO Gazprom and OOO Gazprom Export. The arbitration proceedings are expected to conclude in the first half of 2019. The fact that the dispute was referred to arbitration does not preclude commercial negotiations and an amicable settlement with the supplier. Additionally, on November 1st 2017 PGNiG, PAO Gazprom and OOO Gazprom Export entered into another round of negotiations on the gas prices. On June 30th 2018, the Arbitration Institute of the Stockholm Chamber of Commerce ruled in a partial award that the contractual condition for the Company to demand a change in the price of gas supplied to Poland under the Yamal contract had been met. > For more information, see Section 5.2.3.

6.3.4. Proceedings concerning the OPAL pipeline

Proceedings concerning the OPAL pipeline are pending before:

- The Court of Justice of the European Union – two appeals against the decision of the General Court of the European Union concerning inadmissibility of PST's complaint (PST submitted an appeal on February 13th 2018 and the Republic of Poland did so on March 5th 2018), and one appeal against the decision of the General Court of the European Union concerning inadmissibility of PGNiG's complaint, submitted on May 24th 2018;
- The Higher Regional Court in Düsseldorf (Oberlandesgericht Düsseldorf) where PGNiG and PST lodged complaints and requests for injunctive reliefs on December 15th 2016, subsequently extended on January 20th 2017.

The complaint and the request for injunctive relief filed with the General Court of the European Union are against the European Commission's decision of October 28th 2016 whereby the Commission allowed a revision to the exemption of the OPAL pipeline from the common gas market regulations (especially with respect to the Third Party Access (TPA) rule), in accordance with the text of the administrative decision issued by the German regulator – Federal Network Agency (Bundesnetzagentur), subject to modifications referred to in the Commission's decision. The complaint and the application for injunctive relief were submitted by PST. On December 23rd 2016, the President of the General Court of the European Union stayed execution of the challenged decision of the European Commission, temporarily granting PST's request for injunctive relief. The parties exchanged pleadings. No further decisions were issued on the case. On March 13th 2017, PST supplemented its complaint and request for injunctive relief due to the fact the European Commission's decision was not published until January 3rd 2017, while the complaint and the request of December 4th 2016. On May 29th 2017, PST filed its position on the plea of inadmissibility of the complaint raised by the European Commission.

A complaint against the Commission's decision together with a request for injunctive relief were also filed by PGNiG on March 1st 2017. On August 21st 2017, PGNiG replied to the plea of inadmissibility raised by the European Commission. On July 6th 2017, an application was filed to admit PGNiG as an intervener supporting the Ukrainian company Naftogaz in the case against the decision of the European Commission. On March 9th 2018, the General Court of the European Union issued a decision to declare inadmissibility of the complaint lodged by Naftogaz. On July 5th 2017, the President of the General Court of the European Union held hearings regarding the injunctive relief in the cases instigated by PST and PGNiG. On July 21st 2017, the President of the General Court of the European Union decided to revoke the injunctive relief in the PST case and dismiss the request for an injunctive relief in both cases.

On December 14th 2017 and March 15th 2018, the General Court of the European Union rejected PST's and PGNiG's respectively complaint on the grounds of inadmissibility and awarded the costs of the proceedings against PST. They were formal decisions, which were not based on examination of the validity of claims made in the complaint against the European Commission's decision.

Two appeals were submitted to the Court of Justice of the European Union against the decision of December 14th 2017 concerning PST's complaint. PST's appeal was lodged on February 13th 2018 and the Republic of Poland lodged its appeal on March 5th 2018. As regards PGNiG, an appeal was lodged on May 24th 2018.

The complaint and the request for an injunctive relief filed with the Higher Regional Court of Düsseldorf (Oberlandesgericht Düsseldorf) are primarily against the administrative settlement between the German regulator, OPAL Gastransport GmbH & Co. KG, OAO Gazprom and OOO Gazprom Export, specifying the revised conditions for exemption of the OPAL pipeline from the common gas market regulations (especially with respect to the Third Party Access (TPA) rule). On December 30th 2016, the Higher Regional Court of Düsseldorf issued an injunction whereby it obliged the German regulator to suspend the effects of the disputed administrative settlement by prohibiting OPAL Gastransport GmbH & Co. KG from holding any further daily, weekly, monthly and annual capacity auctions for the OPAL pipeline. Following the Court's ruling, on the same day the German regulator issued an immediately enforceable decision whereby it prohibited OPAL Gastransport GmbH & Co. KG from conducting such auctions.

On January 20th 2017, PGNiG and PST extended the earlier complaint by lodging a complaint against a decision of the German regulator – Federal Network Agency (Bundesnetzagentur), dated December 20th 2016, whereunder the regulator refused to instigate formal administrative proceedings concerning revised conditions for the pipeline's exemption from the common gas market regulations (especially with respect to the Third Party Access (TPA) rule) and allow the applicants, i.e. PGNiG and PST, to join the proceedings. The companies also extended the list of arguments contained in their earlier pleading. On March 31st 2017, a statement of reasons for the complaint against the administrative settlement was filed with the Higher Regional Court, containing an in-depth legal argument as a condition to pursuing any further legal remedies.

As no further rulings were issued on the case, the Court's decision of December 30th 2016 remains in force. After an exchange of pleadings, the Higher Regional Court in Düsseldorf, by a decision of July 27th 2017, overturned its decision of December 30th 2017, thus cancelling the previously granted injunctive relief. After a further exchange of pleadings, the Court dismissed the application for an injunctive relief during a hearing on October 11th 2017. A decision to dismiss the application, accompanied by a statement of reasons, was delivered on October 23rd 2017. On June 4th 2018, the companies filed a pleading. No further hearings have been scheduled.

6.3.5. Other proceedings

In 2018, proceedings were pending concerning a statement of claim filed by one of the shareholders to void/revoke Resolution No. 1/IX/2017 of PGNiG's Extraordinary General Meeting of September 13th 2017. Neither PGNiG nor its subsidiaries were engaged in any other material proceedings before a court, arbitration court or administrative authority concerning liabilities or claims.

7. Financial condition of the PGNiG Group in 2018

7.1. Fuel prices and currency exchange rates

7.1.1. Macroeconomic environment

Forecasts of the European Commission indicate that in 2018 the EU's GDP should grow by 2.1%, 0.4pp less than the year before. The European Commission also expects GDP growth to decline to below 2% in 2019–2020. Interest rates kept at 0%, falling unemployment and internal funding schemes should all stimulate the EU economy's growth. On the other hand, global trade is slowing down, fewer jobs are created, and investment uncertainty is mounting.

The Polish economy, measured by GDP, grew 5.1% year on year in 2018, an increase of 0.5pp. However, at the end of 2017 the GDP growth rate was higher (1.6pp). Poland's economic growth was driven by an increase in investment: of 12.4% at the end of Q3 2018 – the highest figure since 2015. It should be noted that domestic demand has been on the rise since 2016, with the average for the first three quarters of 2018 having grown 5.9%, the level last seen many years ago. According to GUS, at the end of Q4 the unemployment rate was 5.8% (6% throughout 2018), having fallen 0.6pp year on year, its lowest in over 25 years. In 2018, price rises slowed down to 1.2% at the end of 2018, a decrease of 0.4pp on 2017.

Selected macroeconomic indicators in 2014-2018

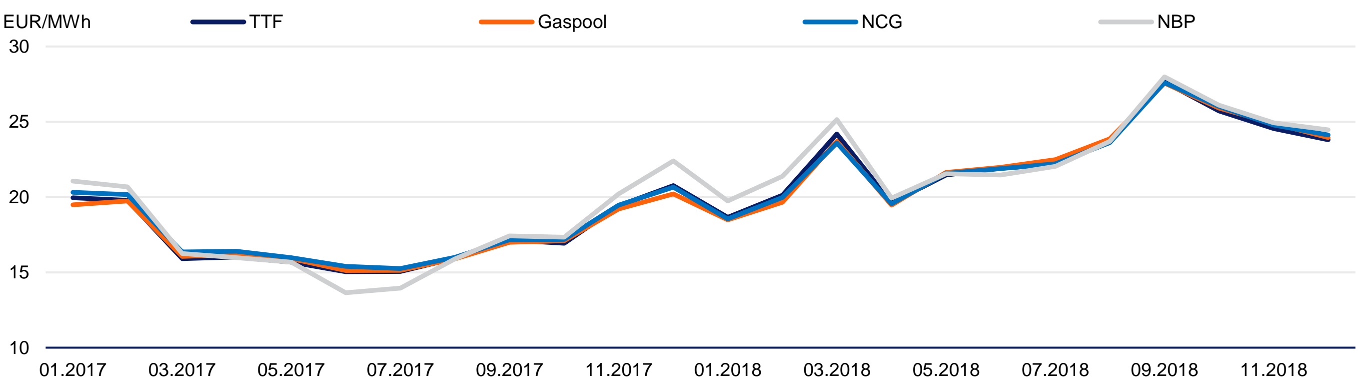
Indicator [%]	2014	2015	2016	2017	2018
Gross Domestic Product (quarterly data, change y/y)*					
Change y/y*	3.3%	3.8%	2.9%	4.6%	5.1%
Domestic demand (quarterly data, change y/y)*					
Change y/y*	4.7%	3.3%	2.2%	4.7%	5.9%
Investment (gross spending on capital goods) (quarterly data, change y/y)*					
Change y/y*	15.6%	12.6%	-9.6%	0.2%	9.8%
Inflation (data as at end of quarter, change y/y/)* (December of previous year)					
Change y/y*	0.1%	-0.7%	-0.2%	1.6%	1.2%
Unemployment rate (at end of quarter)* (year-end data)					
year-end data	11.5%	9.7%	8.3%	6.6%	6.0%

Source: Central Statistics Office in Poland

7.1.2. Trends on natural gas market

In 2018, natural gas prices in Europe increased on average by 31% year on year (based on prices recorded at TTF, GASPOOL, NCG and NBP hubs, and on the Polish Power Exchange), to EUR 23.16/MWh from EUR 17.67/MWh in 2017. The highest price increases were recorded in Germany (GASPOOL) and in the UK (NBP), of 32% on average, while the lowest were seen in Poland (29%).

Average monthly spot prices of natural gas at selected European hubs



Source: ICE

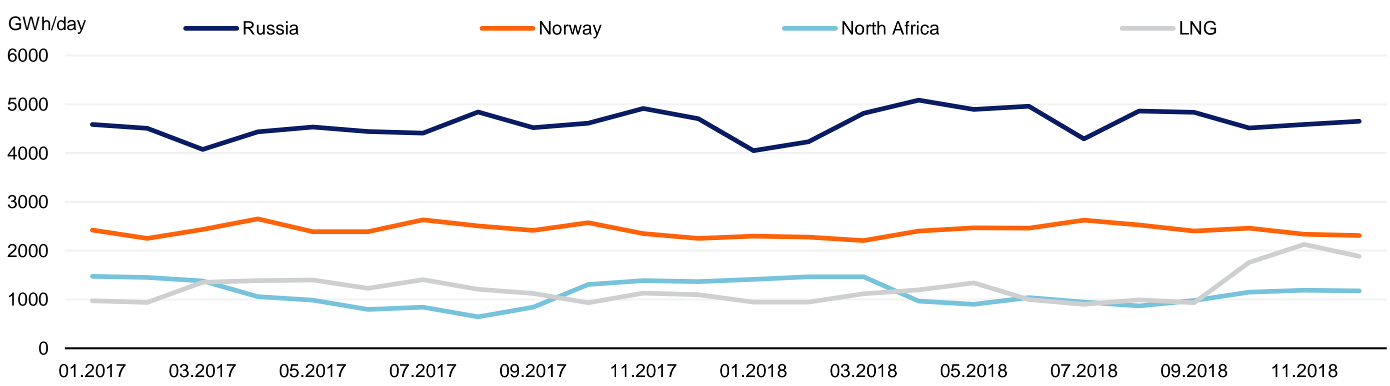
In Europe, the air temperature in winter was often lower than the seasonal standard, which boosted the demand for gas used for heating purposes. The temperature in the second half of February was as much as 12^{0}C below the average. The higher demand caused a surge in gas prices in late February and early March, the elevated price levels continuing into April.

In Q2 2018, gas prices were growing steadily. At the beginning of June, the Dutch Minister of Economy announced that production from Groningen, Europe's largest gas field, is to be reduced to 12 bcm on average per year starting from 2020, although – as declared earlier – that target was originally expected to be achieved in 2022. At present, gas volumes produced from the field amount to 19.4 bcm per year.

In Q3 2018, low supply of LNG was among the strongest factors affecting gas prices in Europe. Asia's growing demand and rising prices of gas in the region prompted LNG exporters to redirect some of their supplies from Europe to Asia. In addition, at the end of winter the volumes of gas held in storage in most Western European countries were very low. As a result, the gas injection rates in summer were much higher than the year before, which reduced the supply of gas on the continent. The growing prices of coal and carbon dioxide emission allowances led to higher gas consumption in the power generation sector. In September, the average price of gas on TTF was EUR 27.65/MWh. In the same month, there were also unexpected disruptions in gas supplies from the Gullfaks and Asgard fields in Norway.

The fourth quarter saw a decline in gas prices on the European market, as they followed the falling prices of other energy carriers, namely crude oil and coal. The trade dispute between the United States and China had an added adverse impact on commodity markets. High gas inventory levels in Asia significantly reduced the region's demand for LNG supplies. In consequence, large volumes of LNG were sold in Europe.

Sources of gas imports to Europe



Source: Thomson Reuters

In 2018, the total volume of gas imported to Europe via pipelines was 3,463 TWh, of which 49% (1,697 TWh) originated from Russia. The share of Russian imports was close to the 2017 level. Norway emerged as the second largest supplier of gas to Europe, providing 876 TWh (80 bcm), or 25% of total imports. The share of gas imports from Norwegian deposits fell 1pp. Volumes of gas imported from North Africa totalled 412 TWh (37.5 bcm). LNG deliveries to Europe amounted to 462 TWh.

Gas inventory levels

At the end of 2018, Polish gas storage facilities were filled to approximately 70% of capacity, down 8pp on the end of the previous year. In other European countries, the levels of gas storage increased, most notably in the UK, up 23% year on year.

Gas stock levels in selected countries

Country	Gas storage filling level at the end of 2017	Gas storage filling level at the end of 2018	Change (pp)
Austria	63%	63%	0%
Belgium	42%	50%	8%
Bulgaria	68%	66%	-2%
Czech Republic	73%	71%	-2%
Germany	66%	75%	9%
Denmark	82%	86%	4%
Spain	70%	71%	1%
France	52%	71%	19%
Hungary	56%	50%	-6%
Italy	74%	75%	1%
The Netherlands	65%	81%	16%
Poland	78%	70%	-8%
Portugal	54%	63%	9%
Slovakia	66%	54%	-12%
Ukraine	47%	45%	-2%
United Kingdom	77%	100%	23%
Romania	50%	43%	-7%
Croatia	75%	64%	-11%
Europe	65%	70%	5%

Source: Aggregated Gas Storage Inventory, AGSI GIE - Gas Infrastructure Europe (AGSI GIE)

Infrastructure projects on the European gas market

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. The annual transmission capacity of the Baltic Pipe will reach up to 10 bcm to Poland and up to 3 bcm to Denmark and Sweden. The Baltic Pipe was included in the third list of Projects of Common Interest (it was also on the first and second lists published in 2013 and 2015, respectively) prepared by the European Commission. In January 2018, PGNiG signed transmission agreements with GAZ-SYSTEM and Energinet, and on November 30th 2018 GAZ-SYSTEM and Energinet made final investment decisions, implementation of which is a precondition for launching the provision of gas transmission services via the Baltic Pipe.

The positive investment decisions having been made by both GAZ-SYSTEM and Energinet means that the companies committed to building a gas pipeline as part of the Baltic Pipe project.

7.1.3. Trends on the crude oil market

In early 2018, the prices of crude oil continued to grow at rates similar to those recorded in H2 2017. Key factors contributing to the steady price increase included the honouring of the output reduction deal by OPEC members and countries cooperating with the organisation, including Russia. Some of the oil producers even reduced their output below the agreed levels.

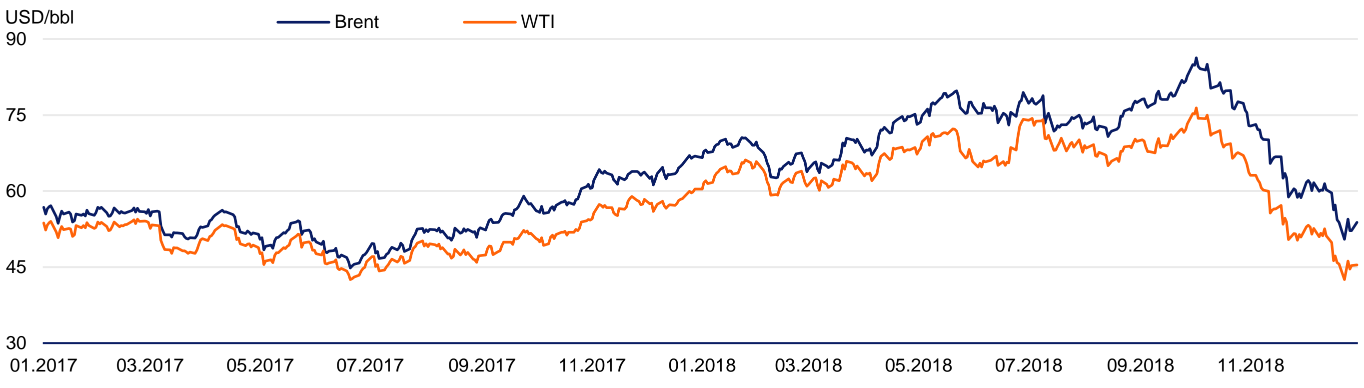
In the first quarter of 2018, there was a short-lasting slump in oil prices, attributable to sharply rising numbers of producing wells in the United States. In March, however, the oil price rebounded to continue the upward trajectory in response to distressing news from Libya, where local militia broke into the production facilities zone in Sharara, one of the largest oil fields in the country.

In the second quarter, the price of crude oil continued to rise, pushed by lower crude production in Venezuela. Globally lower oil supply encouraged producers in North America to increase their output. In May, production in the United States (10.73m bbl/d) came close to the output volumes recorded by the global leader – Russia (11m bbl/day), causing a drop in oil prices at the end of May and beginning of June, in particular of the benchmark WTI grade. The Brent-WTI spread on a month-ahead contract was USD 9/bbl in favour of Brent. At the end of the quarter, an OPEC summit made a decision to raise oil production by 1m bbl/d.

The third quarter in the oil market was marked by growing risk of insufficient global supply. On the other hand, the Chinese-American trade war raised investor concerns over the economic slowdown and faltering global oil demand.

At the beginning of Q4 2018, crude oil prices reached their all-year high. In early October, a month-ahead Brent crude contract was worth USD 86.29/bbl. Then, in response to the exemption of eight countries, including China, Greece, Taiwan, Turkey, Italy, India, Japan and South Korea, from US sanctions banning the import of crude from Iran, the prices started to fall sharply. The threat of insufficient oil supply on the global market waned, which was soon reflected in the price of the commodity dropping 24% in November. At their meeting in December, OPEC members and countries cooperating with OPEC agreed to cut oil output in 2019 by 1.2m bbl/day.

Month-ahead Brent and WTI oil prices



Source: ICE, NYMEX.

In 2018, the average demand for crude oil rose by 1.54% compared with the previous year, to an average of 100.07m bbl/d. Among the world's largest consumers outside the OECD, the most pronounced increase, of 3.82%, was observed in China. Other Asian countries also recorded a demand increase, on average by 3.37%.

The global oil supply rose in 2018 by 2.43% year on year. The strongest oil output increase was recorded in the United States – by 13.9%, or 2.18m bbl/d. Canada also raised its output, by 5.09%, or 0.25m bbl/d. The former Soviet Union countries boosted output by 0.24m bbl/d.

The strongest decline in production (by 4.52%, or 0.14m bbl/d) was recorded in the North Sea region. The OPEC countries also slightly cut their output, by 0.45%, to an average of 39.11m bbl/d.

Global oil demand

million bbl/d	2017		2018	
Demand	**H1**	**H2**	**H1**	**H2**
OECD	46.81	47.66	47.25	48.04
including the US	*19.80*	*20.11*	*20.28*	*20.64*
Non-OECD	51.04	51.61	52.10	52.75
including China	*13.38*	*13.35*	*13.91*	*13.84*
World total	97.84	99.26	99.36	100.78

Source: EIA

Global oil supply

million bbl/d	2017		2018	
Supply	**H1**	**H2**	**H1**	**H2**
OECD	27.02	27.76	28.91	30.47
including the US	*15.24*	*16.07*	*17.08*	*18.58*
Non-OECD	69.96	70.67	70.05	70.75
including China	*4.82*	*4.75*	*4.79*	*4.79*
including FSU countries	*14.37*	*14.27*	*14.41*	*14.72*
including OPEC	*39.01*	*39.56*	*39.10*	*39.11*
World total	96.99	98.44	98.96	101.21

Source: EIA

Crude oil supply and demand balance

million bbl/d	**Surplus / deficit**	**-0.85**	**-0.83**	**-0.40**	**0.44**

Source: EIA

7.1.4. Outlook for crude oil and natural gas market

At the beginning of January 2019, the United States Energy Information Administration (EIA) revised downwards its 2019 Brent crude price forecast by about 0.8%, to USD 60.52/bbl. With respect to WTI, EIA maintained its projections of USD 54.19/bbl. EIA explained that the downward revision of the Brent crude price forecast was attributable to the planned record-high output in the US, expected to reach an average of 12.07m bbl/d in 2019.

In a longer term, the oil prices may grow. 2020 is the year of entry into force of the most recent regulations by the International Maritime Organization, imposing restrictions on fuels used in marine vessels, including those carrying crude oil. Fuels used in such vessels will be subject to lower permitted levels of sulfur and other pollutants, which means that vessels will have to be equipped with appropriate fuel treatment systems. The necessity to comply with these regulations may increase the cost of transporting crude oil, which will affect the price of the commodity.

Moreover, according to International Energy Agency analysts, the oil prices may rise in the coming years driven by growing demand. The main sectors in which demand is expected to grow include production of plastics and petrochemicals in developing countries, notably China and India. By 2030, demand for crude oil from the plastics and petrochemicals industries is expected to rise by 3m bbl/d, accounting for approximately 30% of the total demand growth by 2030.

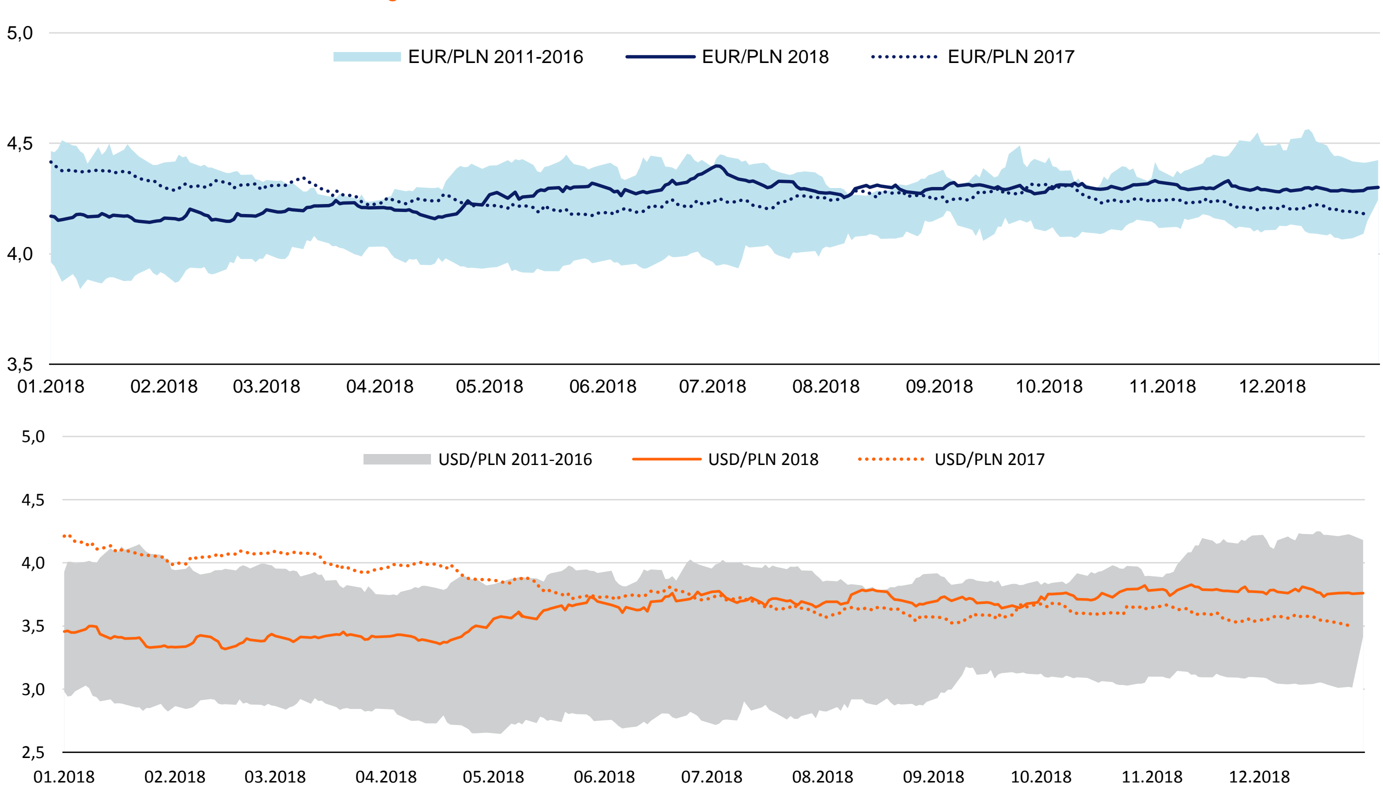
According to analysts, the price of natural gas in Europe will be gradually falling in the coming years due to the oversupply of LNG on the global market. This situation will be caused by increased production of shale gas in North America and Australia and launch of new units for liquefying natural gas, which will enhance competitiveness on the LNG market. The strongest growth in demand for LNG will be seen in Asia, although its rate will be slower than in 2017–2018. Europe, with its growing demand, will continue to be a balancing market for global LNG supplies.

7.1.5. EUR/PLN and USD/PLN exchange rates

In the first two quarters of 2018, the złoty remained strong against the euro and the US dollar. At the end of June, the Polish currency strongly depreciated, and remained weak until the end of the year. On the last day of the year, the USD/PLN exchange rate was PLN 3.76, while the EUR/PLN exchange rate closed the at 4.30. Growing inflation and very good conditions in the labour market led to an acceleration of the US economic growth, which prompted FED's decision in June to raise interest rates in the country by 0.25 points, to 2%. The decision significantly strengthened the US currency. Also in June, a plan was announced at the European Central Bank conference to phase out quantitative easing, although declarations were also made of keeping interest rates in the eurozone at the current level of 0%.

The EUR/USD exchange rate ended the year 2018 at USD 1.15, in the lower part of the annual range. Instability in Italy, the ongoing Brexit process and weakening of the German economy are only some of the factors that contributed to the weakening of the euro and the złoty against the US dollar.

USD/PLN and EUR/PLN exchange rates



7.2. Financial performance

Summary information on the financial performance of PGNiG and the PGNiG Group in 2018 is presented below.

7.2.1. Financial highlights of PGNiG

Financial highlights of PGNiG (PLNm)

	2018	2017	Change y/y
Revenue	22,344	19,061	3,283
Total operating expenses, including	(20,505)	(17,967)	(2,538)
Depreciation and amortisation expense	(798)	(766)	(32)
Operating profit	1,839	1,094	745
Profit before tax	3,677	2,290	1,387
Net profit	3,298	2,034	1,255
Net cash flows from operating activities	2,658	862	1,796
Net cash flows from investing activities	644	(88)	732
Net cash flows from financing activities	(138)	(4,017)	3,879
Net increase/(decrease) in cash and cash equivalents	3,164	(3,243)	6,407

	2018	2017	Change y/y
Total assets	36,933	33,447	3,546
Non-current assets	25,742	24,234	1,508
Current assets, including	11,251	9,213	2,038
Inventories	2,691	2,231	460
Total equity and liabilities	36,993	33,447	3,527
Total equity	28,833	26,033	2,800
Total non-current liabilities	2,551	2,288	263
Total current liabilities	5,609	5,126	483
Total liabilities	8,160	7,414	746

Profitability

	2018	2017
EBIT operating profit	1,839	1,094
EBITDA operating profit + depreciation/amortisation	2,637	1,860
ROE net profit to equity at end of period	11.4%	7.8%
Net margin net profit to revenue	14.7%	10.7%
ROA net profit to assets at end of period	8.9%	6.1%

Liquidity

	December 31st 2018	December 31st 2017
Current ratio current assets to current liabilities (net of employee benefit obligations, provisions and deferred revenue)	2.2	2.0
Quick ratio current assets less inventories to current liabilities (net of employee benefit obligations, provisions and deferred revenue)	1.7	1.5

Debt

	December 31st 2018	December 31st 2017
Debt ratio total liabilities to total equity and liabilities	22.1%	22.2%
Debt to equity ratio total liabilities to equity	28.3%	28.5%

Financial performance of PGNiG

In 2018, PGNiG's operating profit (EBIT) came in at PLN 1,839m, up PLN 745m year on year. The chart below shows changes in EBIT from 2018 to 2017.

Change in EBIT: 2017 vs 2018

Including the provision for certificates of origin and energy efficiency certificates.

The PLN 745m y-o-y increase in operating profit (EBIT) came primarily as a result of:

- higher margin on sales of crude oil driven by higher average selling prices; the difference in the average Brent crude prices between 2017 and 2018 was +29%;
- higher margin on services;
- slight increase in margin on sales of other products, including electricity, helium and LPG;
- lower impairment losses/write-downs, in particular on tangible assets and tangible assets under construction.

The increase was partly offset by a lower margin on sales of high-methane gas and higher operating provisions recognised in 2018.

In 2018, net finance income rose by PLN 642m year on year as a result of a PLN 529m increase in dividend income from subsidiaries.

The Company's financial position was reflected in its key financial ratios. ROE, ROA and net margin rose respectively from 7.8% to 11.4%, from 6.1% to 8.9%, and from 10.7% to 14.7%.

7.2.2. Financial highlights of the PGNiG Group

Change in presentation of the PGNiG Group's financial data

In 2018, the PGNiG Group has applied the requirements of new IFRS 9 and IFRS 15 using a modified retrospective method, with effect as of January 1st 2018 (without restating the comparative period figures).

1. IFRS 15 Revenue from Contracts with Customers:
   - The Group companies which identified their role with respect to specific goods or services as that of an agent changed the manner of presentation of relevant revenue and expenses. Revenue is recognised in the amount of net consideration.
   - In respect of gas transmission and electricity distribution services, the Group has no control over the main features or price of such services, acting solely as an agent. Revenue from sales of gas distribution services is recognised in an amount equal to the full value of such services provided to customers from outside the PGNiG Group.
   - Effect on segments:
     - the Trade and Storage segment acts as an agent with respect to gas distribution, gas transmission and electricity distribution services. Therefore, revenue and expenses are recognised in net amounts;
     - in the Distribution segment, the presentation change consists in the recognition of revenue from sales of distribution services provided to customers from outside the PGNiG Group as sales to external customers.
2. IFRS 9 Financial Instruments:
   - Changes to the rules for classification and measurement of financial assets;
   - Introduction of a new model for determining expected credit losses; and
   - Changes in hedge accounting requirements.

Effect of IFRS 15 on the consolidated statement of profit or loss (PLNm)

2017	2017 before restatement	effect	2017 after restatement
Revenue, including:	35,857	(172)	35,685
Revenue from sales of gas	28,613	(3,944)	24,669
Other revenue	7,244	3,772	11,016
Operating expenses (excl. D&A), including:	(29,278)	172	(29,106)
Transmission services	(1,144)	153	(991)
Other services	(1,749)	19	(1,730)
2018	**2018 before restatement**	**effect**	**2018 after restatement**
Revenue, including:	41,422	(188)	41,234
Revenue from sales of gas	33,415	(3,787)	29,628
Other revenue	8,007	3,599	11,606
Operating expenses (excl. D&A), including:	(34,307)	188	(34,119)
Transmission services	(1,195)	156	(1,039)
Other services	(1,897)	32	(1,865)

Effect of IFRS 15 on segments (PLNm)

Without presentation changes under IFRS 15	2017	2018
Trade and Storage		
Revenue	30,495	35,517
Operating expenses (excl. D&A)	(30,930)	(36,365)
Distribution		
Revenue	4,937	4,927
Sales to external customers	969	979
Inter-segment sales	3,968	3,948
Operating expenses (excl. D&A)	(2,444)	(2,542)
Effect of IFRS 15	**2017**	**2018**
Trade and Storage		
Revenue	(3,955)	(3,813)
Operating expenses (excl. D&A)	3,995	3,813
Distribution		
Revenue	0	0
Sales to external customers	3,783	3,625
Inter-segment sales	(3,783)	(3,625)
Operating expenses (excl. D&A)	0	0

New presentation under IFRS 15	2017	2018
Trade and Storage		
Revenue	26,540	31,704
Operating expenses (excl. D&A)	(26,975)	(32,552)
Distribution		
Revenue	4,937	4,927
Sales to external customers	4,753	4,604
Inter-segment sales	185	323
Operating expenses (excl. D&A)	(2,444)	(2,542)

New presentation by segments required under IFRS 15 (PLNm)

2018	Revenue	Operating expenses	EBITDA	Depreciation and amortisation	EBIT
Exploration and Production	7,671	3,715	5,019	(1,063)	3,956
Trade and Storage	31,704	32,741	(848)	(189)	(1,037)
Distribution	4,927	3,469	2,385	(927)	1,458
Generation	2,387	2,071	788	(472)	316
Other Segments	503	787	(214)	(70)	(284)
Eliminations	(5,958)	(5,944)	(15)	1	(14)
Total	41,234	36,839	7,115	(2,720)	4,395

2017	Revenue	Operating expenses	EBITDA	Depreciation and amortisation	EBIT
Exploration and Production	6,118	3,313	3 865	(1,060)	2,805
Trade and Storage	26,540	27,180	(435)	(205)	(640)
Distribution	4,937	3,369	2 493	(925)	1,568
Generation	2,251	1,826	843	(418)	425
Other Segments	459	682	(162)	(61)	(223)
Eliminations	(4,620)	(4,595)	(25)	-	(25)
Total	35,685	31,775	6 579	(2,669)	3,910

Financial highlights of the PGNiG Group taking into account the effect of IFRS 15 (PLNm)

	2018	2017	Change y/y
Revenue	**41,234**	**35,685**	5,549
Total operating expenses, including	(36,839)	(31,775)	(5,064)
Depreciation and amortisation expense	(2,720)	(2,669)	(51)
Operating profit (EBIT)	4,395	3,910	485
Profit before tax	4,502	3,922	580
Net profit	3,209	2,921	288
Net cash flows from operating activities	5,814	4,816	998
Net cash flows from investing activities	(4,704)	(3,863)	(841)
Net cash flows from financing activities	237	(4,204)	4,441
Net increase/(decrease) in cash and cash equivalents	1,347	(3,251)	4,598
	2018	**2017**	**Change y/y**
Total assets	53,271	48,203	5,068
Non-current assets	38,898	36,364	2,534
Current assets, including	14,373	11,839	2,534
Inventories	3,364	2,748	616
Total equity and liabilities	53,271	48,203	5,068
Total equity	36,632	33,627	2,987
Total non-current liabilities	7,255	7,004	251
Total current liabilities	9,384	7,572	1,812
Total liabilities	16,639	14,576	2,063

Profitability

	2018	2017
EBIT operating profit (PLNm)	4,395	3,910
EBITDA operating profit + depreciation/amortisation (PLNm)	7,115	6,579
Adjusted EBITDA operating profit + depreciation/amortisation + impairment losses on property, plant and equipment (PLNm)	6,891	7,012
ROE net profit to equity at end of period	8.8%	8.7%
Net margin net profit to revenue	7.8%	8.2%
ROA net profit to assets at end of period	6.0%	6.1%

Liquidity

	2018	2017
Current ratio current assets to current liabilities (net of employee benefit obligations, provisions and deferred revenue)	1.8	1.8
Quick ratio current assets less inventories to current liabilities (net of employee benefit obligations, provisions and deferred revenue)	1.3	1.4

Debt

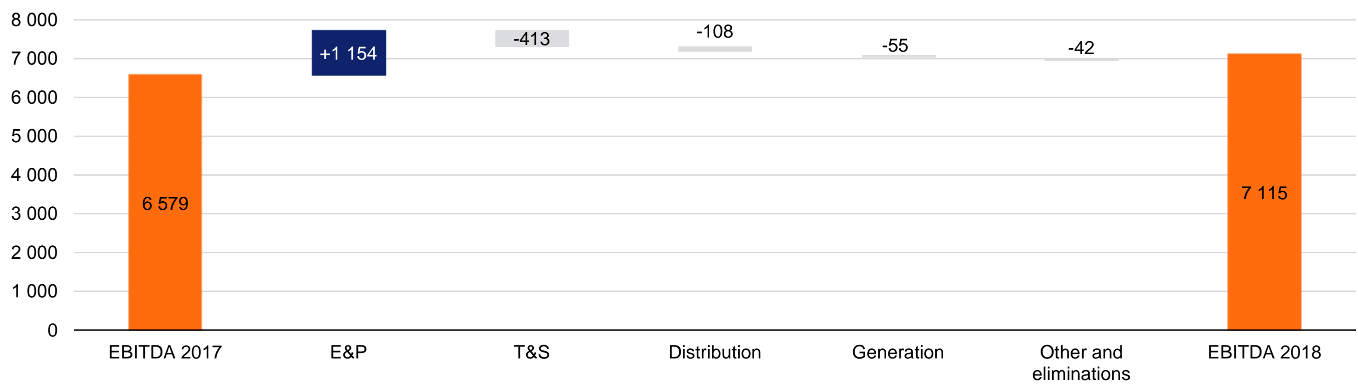
	2018	2017
Debt ratio total liabilities to total equity and liabilities	31.2%	30.2%
Debt to equity ratio total liabilities to equity	45.4%	43.3%

Financial performance of the PGNiG Group

In 2018, the PGNiG Group posted revenue of PLN 41,234m, up by PLN 5,549m (16%) compared with the previous year, when revenue was PLN 35,685m (after presentation changes under IFRS 15). In the same period, operating expenses amounted to PLN 36,839m, up 16% year on year. As a result, consolidated EBIT for 2018 came in at PLN 4,395m, up PLN 485m (12%) year on year, while EBITDA reached PLN 7,115m, up by PLN 536m (8%) year on year.

Key factors driving the increase of revenue, but also of operating expenses, during the year included the growing prices of hydrocarbons. With temperatures in Poland higher by an average of 0.6^{O}C in 2018, the Group sold a total of 29.0 bcm of gas (up 2.3 bcm on 2017). Sales of crude oil and condensate from production also rose year on year, by 140 thousand tonnes, to 1,410 thousand tonnes. The higher temperatures also translated into 5% lower heat output and only a minor (1%) increase in gas distribution volume.

Change in EBITDA: 2017 vs 2018



Exploration and Production (E&P)

The segment's revenue rose by PLN 1,553m, to PLN 7,671m, which represents a 25% increase on 2017. At the end of 2018, the Exploration and Production segment's operating profit was PLN 3,956m, up PLN 1,154m year on year. EBITDA came in at PLN 5,019m, up PLN 1,154m year on year.

Compared with 2017, the segment's gas production increased by 9 mcm of high-methane gas equivalent. Lower output in Poland (down by 31 mcm) and Norway (down by 10 mcm) was offset by higher production of nitrogen-rich gas in Pakistan (by 50 mcm, measured as high-methane gas equivalent). Compared with 2017, the volume of gas sold directly from the fields rose by 59 mcm. In 2018, crude oil sales rose by 140 thousand tonnes year on year, including by 26 thousand tonnes in Poland, and by 114 thousand tonnes in Norway, mainly on increased production from Skarv and Gina Krog fields.

The segment's operating expenses increased by PLN 401m (12%) year on year, mainly due to higher costs of dry wells and seismic surveys written off (up by PLN 287m year on year), employee benefits (up by PLN 72m year on year) and transmission services (up by PLN 64m year on year).

Trade and Storage (T&S)

In 2018, the Trade and Storage segment reported an operating loss of PLN -1,037m, a further deterioration (by PLN 397m) on 2017. At the EBITDA level, the segment recorded a loss of PLN -848m, PLN 413m further into the negative territory compared with 2017, when the Group generated an EBITDA of PLN -435m. The segment's revenue reached PLN 31,704m, up by PLN 5,165m (after the presentation changes made to ensure compliance with IFRS 15) year on year.

In 2018, there was a significant increase in the segment's operating expenses, which went up by PLN 5,561m (or 20%) to PLN 32,741m. The segment's poorer performance was attributable to the effect of a 30% year-on-year increase in market prices of hydrocarbons on gas procurement cost.

At the end of 2018, the stocks of PGNiG's gas held in underground high-methane gas storage facilities stood at approximately 2.3 bcm, close to the level recorded at the end of 2017.

Distribution

In 2018, the Distribution segment's operating profit fell by 7% year on year to PLN 1,458m, while EBITDA came in at PLN 2,385m, down by PLN 108m year on year. The segment's revenue from sales decreased by PLN 10m, while revenue from distribution services dropped by PLN 181m (after the presentation changes made to ensure compliance with IFRS 15), i.e. by 4% year on year. On the other hand, the PLN 72m lower year-on-year net income from/expenses of system balancing increased the segment revenue.

The volume of distributed gas rose by 102 mcm, or 1%, year on year. The segment's operating expenses in 2018 went up by PLN 100m, or 3%, year on year, mainly due to 34% higher other services and 2% higher employee benefits year on year.

Generation

The segment's operating profit for 2018 came in at PLN 316m, down by PLN 109m year on year. EBITDA was reported at PLN 788m, down by PLN 55m, or 7%, year on year. The segment's revenue was PLN 2,387m, having increased by PLN 136m on 2017.

The segment's performance was driven by higher average temperatures in 2018 compared with 2017, which translated into a nearly 5% year-on-year decline in the volumes of heat sold. The segment also produced 4.0 TWh of electricity, up 2% year on year, thanks mainly to contribution from the Zofiówka CHP plant, which was commissioned in the second half of the year. The segment's expenses rose 13% year on year, to PLN 2,071m, chiefly on higher prices of coal (up PLN 139m) and electricity for trading (up PLN 40m).

Fluctuations in financial performance

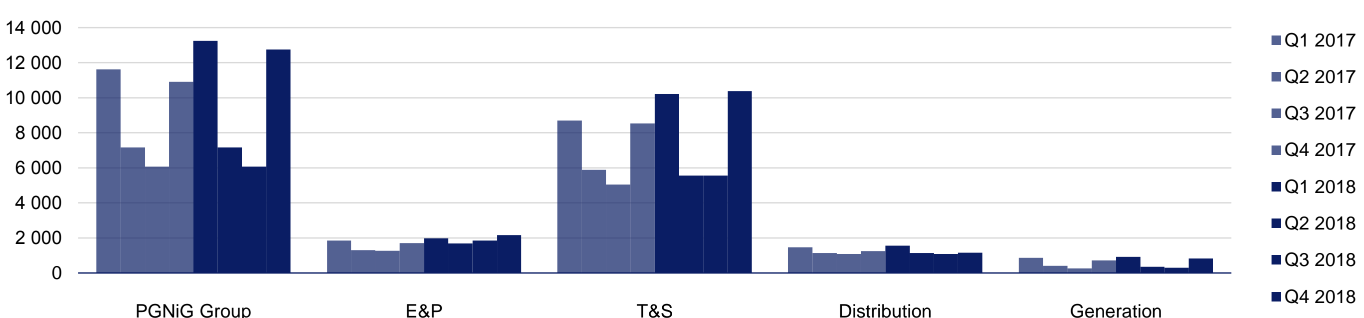
The sale, distribution and storage of gas fuels, as well as cogeneration of heat and electricity, which, in addition to hydrocarbon exploration and production, constitute the principal business of the Group, are subject to significant seasonal fluctuations.

Revenue from sale of natural gas and heat in the winter season (Q1 and Q4) is substantially higher than in summer (Q2 and Q3). This is due to the seasonal changes in weather conditions in Poland, and the extent of the fluctuations is determined by temperatures – low in winter and higher in summer. Revenue from gas and heat sales is subject to much greater seasonal changes in the case of households, where gas and heat are used for heating, than in the case of industrial customers.

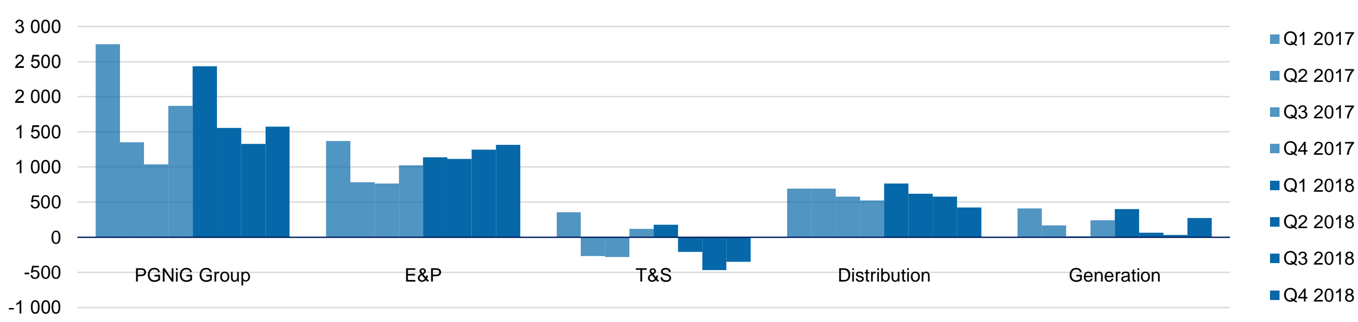
In order to ensure uninterrupted gas supplies in periods of peak demand and to maintain the security of gas supplies, it is necessary to replenish the gas stocks of underground gas storage facilities in summer, and to reserve higher transmission and distribution system capacities for winter.

The performance of individual segments is also subject to significant fluctuations reflecting changes in product prices. Moreover, the performance of the Exploration and Production segment reflects changes in hydrocarbon production profiles.

Fluctuations in revenue of the PGNiG Group in 2017–2018



Fluctuations in the PGNiG Group's EBITDA (adjusted for impairment losses on property, plant and equipment) in 2017-2018



			2018		
PLNm	**PGNiG Group**	**Exploration and Production**	**Trade and Storage**	**Distribution**	**Generation**
Q1 EBITDA	2,674	1,380	179	763	401
Adjusted Q1 EBITDA	*2,433*	*1,139*	*179*	*763*	*401*
Q2 EBITDA	1,627	1,187	-209	622	65
Adjusted Q2 EBITDA	*1,555*	*1,116*	*-209*	*620*	*65*
Q3 EBITDA	1,468	1,376	-469	579	34
Adjusted Q3 EBITDA	*1,329*	*1,245*	*- 469*	*579*	*34*
Q4 EBITDA	1,347	1,076	-349	422	288
Adjusted Q4 EBITDA	*1,574*	*1,315*	*-349*	*424*	*272*

			2017		
PLNm	**PGNiG Group**	**Exploration and Production**	**Trade and Storage**	**Distribution**	**Generation**
Q1 EBITDA	2,769	1,376	358	692	409
Adjusted Q1 EBITDA	*2,750*	*1,371*	*358*	*692*	*409*
Q2 EBITDA	1,408	863	(268)	692	170
Adjusted Q2 EBITDA	*1,352*	*785*	*(268)*	*693*	*170*
Q3 EBITDA	1,079	798	(280)	581	22
Adjusted Q3 EBITDA	*1,039*	*765*	*(280)*	*580*	*17*
Q4 EBITDA	1,323	828	(244)	529	241
Adjusted Q4 EBITDA	*1,872*	*1,023*	*120*	*525*	*244*

Statement of financial position

As at December 31st 2018, total assets recognised in the consolidated statement of financial position were PLN 53,271m, up PLN 5,068m (10%) on the end of 2017.

Assets

Property, plant and equipment are the largest component of the PGNiG Group's assets. As at December 31st 2018, this item amounted to PLN 34,236m, having increased by PLN 1,784m (6%) relative to December 31st 2017. The balance of impairment losses on those assets rose by PLN 240m year on year. Equity-accounted investees rose by PLN 205m (13%) year on year, following the revaluation of shares in Polska Grupa Górnicza Sp. z o.o. and Polimex-Mostostal S.A.

As at the end of 2018, the Group's current assets were PLN 14,373m, having increased by PLN 2,534m (21%) relative to the end of 2017. The rise in current assets was mainly attributable to the PLN 1,347m (52%) year-on-year increase in cash and cash equivalents. It is worth to note the growth in inventories, which stood at PLN 3,364m at the end of 2018, up by PLN 616m (22%) on the end of 2017.

Equity and liabilities

Equity is the main source of financing of the PGNiG Group's assets. At the end of 2018, the Group's equity was PLN 36,632m, up by PLN 3,005m (9%) relative to the end of 2017. The change in equity was attributable, among others, to the net profit of PLN 3,209m earned in the reporting period and no dividend payment in 2017.

As at the end of 2018, non-current liabilities were PLN 7,255m, up PLN 251m (4%) on December 31st 2017. As at December 31st 2018, the PGNiG Group reported current liabilities of PLN 9,384m, up PLN 1,812m (24%) year on year. The increase in liabilities was attributable to a PLN 469m (23%) growth of short-term debt (mainly under debt securities) and a PLN 499m (15%) rise in trade and tax payables (mainly relating to current income tax).

In connection with the increase in equity and in current liabilities, the Group's debt ratio and debt to equity remained fairly stable year on year, having changed respectively from 30.2% to 31.2% and from 43.3% to 45.4%.

Current ratio was 1.8, while quick ratio was 1.3 in the reporting period, compared with 1.4 a year earlier.

Material related-party transactions on non-arm's length terms

In 2018, PGNiG and its subsidiaries did not enter into any material related-party transactions on non-arm's length terms.

7.2.3. Financial highlights of key subsidiaries

PGNiG UN (mln NOK)	2018	2017
Revenue	3,569	2,463
EBITDA	2,247	1,779
EBIT	1,343	872
Net profit/(loss)	157	21
Total assets	10,145	8,394
Equity	751	594

PGNiG OD (PLNm)	2018	2017
Revenue	9,097	11,934
EBITDA	76	432
EBIT	67	425
Net profit/(loss)	54	346
Total assets	3,183	2,549
Equity	809	1,056

PST Group (EURm)	2018	2017
Revenue	1,531	1,077
EBITDA	0	(1)
EBIT	0	(2)
Net profit/(loss)	(1)	(2)
Total assets	418	199
Equity	6	7

PSG (PLNm)	2018	2017
Revenue	4,927	4,937
EBITDA	2,346	2,469
EBIT	1,412	1,535
Net profit/(loss)	1,121	1,250
Total assets	15,190	14,834
Equity	12,123	11,937

PGNiG TERMIKA GROUP (PLNm)	2018	2017
Revenue	2,016	1,925
EBITDA	687	744
EBIT	286	381
Net profit/(loss)	208	228
Total assets	5,949	5,718
Equity	3,415	3,418

7.3. Expected future financial condition

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 złoty 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. Changes in the market prices of CO_2 emission allowances will be increasingly affecting the PGNiG Group's financial position in the segment. 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 expenditure[1)] on property, plant and equipment planned by the PGNiG Group in 2019

	PLNm	2019[2)]
I.	Exploration and Production, including:	2,579
1	*Norway*	662
2	*Pakistan*	244
3	*Libya*	1
II.	Trade and Storage	221
III.	Distribution	1,994
IV.	Generation	1,859
V.	Other Segments	195
VI.	Total capital expenditure (I-V)	6,626
	including PGNiG	*1,972*

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 2019 and beyond, the PGNiG Group takes into account its financial standing, including the available sources of external financing and cash generated by the Group's day-to-day operations. Based on such evaluation, it can be concluded that the funds available to the PGNiG Group are sufficient to finance its investment plans.

7.4. Borrowings

Borrowing agreements executed in 2018

In 2018, the PGNiG Group did not enter into or terminate any material credit facility agreements and did not grant any material loans. For detailed information on loans advanced by PGNiG to its subsidiaries and other related entities, see Note 7.4 to the separate financial statements.

Key credit facility agreements of the PGNiG Group as at December 31st 2018

Bank	Facility amount (million)	Currency	Interest rate	Type	Maturity date
Syndicate of eight banks	340	USD	3M LIBOR USD/3M EURIBOR*+1.55%	working capital/ investment facility	Aug 13 2022
Bank Gospodarstwa Krajowego	271	PLN	1M WIBOR + 0.99%	long-term facility	Aug 27 2027
Deutsche Bank	35	EUR	Average monthly EONIA+0.85%	short-term overdraft facility	on demand
PKO Bank Polski	20	EUR	1M EURIBOR + 0.95%	short-term overdraft facility	Mar 31 2019

**A multi-currency credit facility, may be drawn in USD and EUR*

7.5. Securities issuance programmes

In 2018, the PGNiG Group was able to issue bonds and notes under the following programmes:

- Note issuance programme of June 10th 2010,
- Note issuance programme of October 2nd 2014,
- Note issuance programme of December 21st 2017.

For detailed information on the effective terms and utilisation of the programmes, as well as debt outstanding under the notes in issue, see Note 5.2 to the consolidated financial statements.

The issue proceeds were applied to finance the PGNiG Group's day-to-day financial needs related to implementation of its strategy. They were also used to finance exploration for oil and gas deposits, field development, construction and extension of underground gas storage capacities and the distribution network, including new connections, as well as power generation projects.

Pursuant to an agreement of December 1st 2010 (as amended by annexes of 2011 and 2014), in 2018 PGNiG continued to issue short-term discount notes to PGNiG Group companies. Under an annex of August 7th 2015, the programme amount was increased from PLN 3bn to PLN 5bn. For PGNiG, the maximum amount of notes in issue remained at PLN 1bn, with the balance allocated to other PGNiG Group companies. The note issuance programme is designed to facilitate the flow of cash between companies, thus optimising the liquidity management within the PGNiG Group.

As at December 31st 2018, PGNIG S.A. had no outstanding debt under notes issued to other PGNiG Group members.

7.6. Contingent liabilities and receivables

As at December 31st 2018, the PGNiG Group's most important off-balance-sheet item was contingent liabilities of PLN 4.30bn, as disclosed in the consolidated financial statements (December 31st 2017: PLN 4.25bn).

8. Risks

Key: Risk materiality level: low; medium; high ●○○ ●●○ ●●●
Probability that the risk will materialise: low ●○○ ; medium ●●○ ; high ●●●
Yoy change in the risk level: increase ↗; decrease ↘; no change →

8.1. Operational risk

8.1.1. Risks in the Exploration and Production segment

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. The existence of a hydrocarbon accumulation depends on the occurrence of a number of geological conditions. In addition, the actual quantity and quality of accumulated hydrocarbons may differ from estimates. If the results of successful exploration in the form of new reserves do not balance production from existing fields, the recoverable reserves in the PGNiG Group's fields will gradually decrease as the production continues.

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 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. Any downward adjustment of the reserves or production volumes may lead to lower revenue and adversely affect the PGNiG Group's financial performance.

Exploration for unconventional deposits of gas ●○○ ●●● → Poland

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. Another material factor is the difficulty of accessing unconventional gas plays given the environmental regulations and the requirement to obtain the landowners' consent for access to the area.

Competition ●○○ ●○○ ↘ Poland

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. The formal and legal obstacles, beyond PGNiG's control, include those related to:

- local governments' failure to approve local zoning plans or amendments to those already approved;
- obstacles in having investment projects incorporated into the local zoning plans;
- requirement to obtain and comply with administrative or other formal and legal decisions, including environmental decisions or building permits;
- amendments to the current investment project;
- difficulties in obtaining the landowners' consent for access to the area.

These factors materially delay investment activities and entering the area to commence construction 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 the PGNiG Group's operating expenses. Currently, the Group 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, as well as environmental protection. Offshore upstream operations carry a significant risk of environmental pollution resulting from oil spills. The risk is monitored on an ongoing basis, and field operators have implemented a number of barriers and technical solutions to mitigate the risk.

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 ●○○ ●○○ ↘ Poland

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 and emergencies ●●○ ●○○ → Poland ●●● ●●○ → Norway

Hydrocarbon deposits developed by the PGNiG Group 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), the natural environment and production equipment.

In Norway, PUN keeps records of all risks related to upstream operations as they arise. All risks are reviewed every three months by an interdisciplinary team of experts. A set of preventive measures is assigned to each risk, designed to reduce the probability and impact of potential accidents.

Legislative changes ●●○ ●●○ ↘ Poland ●●● ●○○ → Norway

In some countries, exploration and production activities may be hindered by frequent and unexpected changes in legislation, which may give rise to particularly serious risks in countries with authoritarian regimes. The risk is low in Norway, given the country's stable legal regime governing the oil industry operations.

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 discontinued.

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. Problems may also arise in providing supplies and ensuring appropriate health care. These risks may lead to limitation or suspension of the Company's exploration activities.

8.1.2. Risks in the Trade and Storage segment

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

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 deregulation advances. The first customer groups in respect of which the tariff requirement will be disapplied are wholesale and 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. Inaccurate estimates of demand for gas (affecting the accuracy of projected purchase volumes) and changes in prices of gas

purchased on the Polish Power Exchange, which cannot be accurately projected, may have an adverse effect on the financial performance of PGNiG OD.

Disruptions in gas supplies from countries east of Poland ●●● ●●○ ↗

In 2018, there were no disruptions in gas supplies from across Poland's eastern border. However, given the continuing political instability in Ukraine, there is a risk of limitation in gas supply.

Take-or-pay gas supply contracts ●●● ●○○ →

PGNiG is a party to long-term take-or-pay contracts for gas supply to Poland, and takes care to duly discharge its obligations under those contracts. Assuming that PGNiG's customer portfolio remains unchanged, the volume of gas imports specified in the take-or-pay contracts will allow the Company to optimise its gas purchases under long-term and spot contracts, including for LNG. If PGNiG loses its market share, there is a risk that the Company would be forced to look for new ways to utilise the surplus volumes of gas in its portfolio.

Competition ●●● ●●● →

Competitors seek to increase gas fuel sales by offering competitive prices of the fuel or dual fuel (gas and electricity) deals. A noteworthy development is also the growing activity of large energy companies on the Polish natural gas market.

Given the prevailing trend in supplier switch numbers (according to URE data), the number of people switching energy supplier should increase in the coming years.

8.1.3. Risks in the Distribution segment

Limited market development in terms of supplying the distribution network ●●○ ●●○ →

Limitations at the entry points to the distribution system result from the limitations of the supply network and the insufficient capacity of gas stations. Consequently, the possibility of connecting new customers and gas network roll-out may be limited. In addition, end users may switch to direct or substitute competitors.

Risk associated with direct competition ●○○ ●○○↘

The activity of companies involved in the construction and/or operation of distribution networks and regasification plants limits the PGNiG Group's development opportunities and reduces the profitability of the constructed networks.

Risk associated with lack of long-term regulatory policy ●●● ●●● →

The risk is related to the lack of URE'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 URE.

Claims raised by property owners ●●○ ●●○→

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, as well as provisions and claims related to extra-contractual use of property.

Sources of gas supply for the distribution system ●●● ●●○ →

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.

Substitution ●●○ ●●○ ↘

The substitution risk is associated with a potential lower cost of using alternative fuels and with unavailability or insufficient capacity of the gas network. In the context of alternative solid fuels, the difference relative to the cost of gas fuel has markedly shrunk, something that potential consumers do not always realise. The risk may arise from the inability to use a wide range of marketing tools due to the nature of the business (separation of distribution and sales operations), from the direction of changes in the national energy policy, and from fuel prices on commodity exchanges. 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 such projects.

8.1.4. Risks in the Generation segment

Acquired CO_2 emission allowances ●●● ●●● ↗

The Company purchases CO_2 emission allowances in quantities representing the difference between actual emissions and the emissions covered by free allowances it receives. The policy governing the purchase of CO_2 emission allowances at PGNiG TERMIKA allows, to some extent, for offsetting the effect of the purchase cost on profit or loss against revenue from the wholesale of electricity, whose price is partly correlated with the price of allowances.

Fuel prices ●●● ●●● ↗

PGNiG TERMIKA uses coal (as its core fuel) and biomass. The rising cost of these fuels had a negligible effect on costs incurred in 2018 as the company used fuels purchased under earlier contracts. Matching the timing of electricity and certificate sales to the timing of fuel purchases permits to partly to mitigate the adverse impact of rising fuel prices on financial performance.

Coal procurement and supply ●●● ●●● ↗

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. Any deterioration in contract performance by the Group's trading partners may lead to non-compliance with the emergency stocks obligation.

Adapting to BAT requirements ●●○ ●●○ →

With installations adapted to meet the requirements expressly stated in the Industrial Emissions Directive (IED), the next step will be to ensure compliance with emission limits imposed under the decision establishing the BAT Conclusions for large combustion plants. The deadline for compliance is August 17th 2021 or, where an IED derogation applies to an installation, the end date of the relevant derogation period. An investment plan has been developed to ensure that the emission and technology requirements defined in the BAT Conclusions are duly met. Assumptions and arguments have been prepared for the purposes of drafting integrated permit applications. Also, the implementation of the BAT Conclusions is monitored on an ongoing basis and any doubts as to their interpretation are clarified.

8.2. 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 liberalised gas prices were the key element of the overall 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. In view of the expected removal of tariffs, PGNiG took a number of measures to adapt itself to the new regulatory framework, including:

- preparation of new framework agreements and individual contracts, as well as an updated product portfolio and price list to meet the customers' current needs,
- conclusion of contracts with the majority of key industrial customers, with price-setting mechanisms ready for the post-tariff regime.

In 2017, the process of adapting contract terms to the situation that will exist following the elimination of administrative price control was completed.

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 Article 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 has access to 50% (under a decision of 2009) and in fact 100% (under a decision of 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 staying the decision execution. PGNiG and PST also filed a complaint against the German regulator's related decision with a German court in Düsseldorf. By decisions of December 23rd 2015 and December 30th 2016, the General Court of the European Union and the German court, respectively, granted the injunction preventing Gazprom from using the full capacity of the OPAL pipeline. The injunction was effective for approximately seven months. The General Court of the European Union lifted the injunction on July 21st 2017.

As a result, the German court issued a decision to the same effect on July 27th 2017. This opened the door for resumption of additional auctions for the OPAL pipeline capacity and use of the Nord Stream 1 gas pipeline at full capacity, with lower volumes of gas transmitted via Ukraine. On December 14th 2017, one of the complaints filed by PST was found inadmissible due to formal reasons (lack of direct concern). A decision to the same effect was served on March 21st 2018 with respect to the complaint filed by PGNIG. Two appeals were submitted to the Court of Justice of the European Union against the decision of December 14th 2017 concerning PST's complaint. PST's appeal was lodged on February 13th 2018 and the Republic of Poland lodged its appeal on March 5th 2018. As regards PGNiG, an appeal was lodged on May 24th 2018. It should be noted that the General Court has not yet issued any ruling concerning the subject matter of any of the proceedings. The proceedings before the German court are also pending.

Lower amount of EU funding allocated to gas projects ●●○ ●●○ ↗

Work is currently under way on a new text of the ERDF Regulation. The draft proposed by the European Commission provided for, among other things, the exclusion of projects related to transport of gas, processing and burning of fossil fuels. The exclusion of the natural gas industry, particularly in the area of distribution, would pose a significant risk to the PGNiG Group and its ambitious plans for gas network rollout in Poland.

In order to mitigate this risk, PGNiG presented its position during the public consultation process carried out by the European Commission and to members of the European Parliament. The Company's position is that gas projects should not be banned from seeking support under the ERDF as they contribute to a significant reduction in emissions while affording major economic benefits to society and industry. The Company also cited the potential for using gas infrastructure to support RES generation, energy storage and transmission of fuels, including hydrogen.

Winter package (electricity) – Clean energy for all Europeans

Some provisions of the legislative proposals included in the 'Clean energy for all Europeans' package pose a significant threat to the PGNiG Group's operations. First of all, the introduction of an emission limit (at the currently proposed level of 550g of CO_2 per 1 kWh generated) as a criterion for participation of an installation in the capacity market may constitute a legislative barrier for the PGNiG Group's CHP plants to enter this market.

Another source of risk is the proposed introduction of binding targets for Member States regarding the share of energy from renewable sources, energy efficiency and individual trajectories to achieve these targets (including sectorial ones). The adoption of binding national targets and trajectories proposed by the European Commission may pose a risk to the growth of the PGNiG Group's business.

In order to mitigate these risks, PGNiG takes a number of measures to provide support for its requests. In this respect, PGNiG regularly monitors the legislative process carried out both at the Council of the European Union and the European Parliament, and provides professional support for the parties involved. Concurrently, the Company seeks to achieve compromises and common ground at the IOGP. The steps taken so far have already brought measurable benefits, including the lack of the IOGP's support for the emission limit as a proposed element of the capacity market design.

New EU legislative package for the natural gas market ●●● ●●○

The new European Commission (to be appointed by the newly elected European Parliament in 2019) is likely to commence legislative work on a new European regulatory framework for the natural gas market (the Fourth Package). Several reports by external consultants are expected to be delivered in the first half of 2019, which are to help identify the potential direction for the new gas sector regulatory framework.

PGNiG presented its position and general postulates regarding the new regulations through the IOGP, directly to European institutions and during industry events. The Company is monitoring the work of European institutions and awaiting the reports of external consultants.

The key risk in this area lies in potential failure to recognise the regional specificities and adoption of EU law that would adversely impact the development of the gas sector in Poland.

Draft amendment to Directive 2009/73 ●●● ●●○

The proposed amendment to Directive 2009/73 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 EU'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.

Since the publication of the proposed amendment to the directive by the European Commission, PGNiG has supported its rapid adoption. The directive will have a positive impact on the internal energy market, ensuring consistency of the legal regime and introducing uniform, transparent and competitive rules applicable to all gas pipelines in the European Union. PGNiG will take steps to clarify some of the provisions of the draft amendment to ensure its maximum effectiveness.

However, considering the complexity of the legislative process in the European Union, there are certain risks that may limit the effectiveness of the directive. It must also be noted that there is a political risk related to the scepticism among some Member States regarding the proposed amendments. There is a risk that some Member States will try to limit the effectiveness of the directive by imposing only illusory obligations on the owners of infrastructure associated with imports to the European Union.

It is difficult to predict the effective date of the proposed legislation at the current stage of the process. Of note, however, is the difference in opinion between Member States on such important matters as the rationale for adopting the regulation, its territorial scope, and the role of the European Commission in the process of ensuring the effectiveness of the directive with regard to import infrastructure. Given the slow progress of work by the Council of the European Union in 2018, the probability is high that the legislation will not be passed during the current term and thus the expected benefits it could offer will not in fact be realised.

8.3. Non-compliance risk ●●● ●○○ →

PGNiG has an organisationally and functionally separated Compliance unit. In line with the compliance risk management model, each area at risk of non-compliance was assigned a dedicated compliance risk area manager (leader), who is in charge of ensuring that compliance standards are met.

Compliance risks (risks of breaching compliance standards) may arise in various areas and may materialise:

- immediately as fines, damages, compensation or other liabilities the Company may be required to pay,
- as damage to the Company's image, which could also have its financial implications;
- in the Company's operations and (iv) as a factor affecting the value for stakeholders, including shareholders.

As part of anti-corruption measures PGNiG has put in place the PGNiG Group's Anti-Corruption and Gift Policy, adopted by the PGNiG Management Board and implemented by the President of the PGNiG Management Board's Order on July 25th 2017. In addition, the PGNiG Group's Compliance Policy was adopted in 2018, as a result of which the Ethics and Compliance areas were merged into the Compliance Department. The Transparency Policy for Managers was also adopted, its principal objective being to eliminate the risk of conflicts of interest and lack of transparency in decision-making processes within the Group.

8.4. Financial risks

PGNiG and the PGNiG Group are exposed to financial risks, including in particular:

- Credit risk For more information, see > Note 7.3.1 to the consolidated financial statements of the PGNiG Group,
- Market risk For more information, see > Note7.3.2 to the consolidated financial statements of the PGNiG Group,
- Liquidity risk For more information, see > Note 7.3.3 to the consolidated financial statements of the PGNiG Group.

Assessment of financial resources management

The PGNiG Group actively manages its financial resources by optimising both its debt structure and financing costs. PGNiG Group companies adapt the form of financing to its purpose (operating or investing activity) and to its term. The forms of financing available to PGNiG Group companies include note issuance programmes, credit facilities, finance leases and intra-Group loans advanced by PGNiG.

An important tool improving the efficiency of financial resources management is the liquidity management system in which the balances of specified bank accounts of PGNiG and its subsidiaries can be aggregated (cash pooling). Thanks to the cash pooling system within the Group, cash of entities with excess liquidity is used to finance the operations of entities recording cash deficits. The result is improved efficiency of cash management within the PGNiG Group, but also a material reduction in interest expenses incurred by companies financing their cash deficits through the system. To finance their operations, these companies do not use other, external sources of funding, which are usually more expensive than cash pooling.

While assessing the efficiency of financial resources management, a noteworthy fact is the optimum diversification of the portfolio of financial institutions. It should also be noted that, thanks to the diversity of available financing sources and liquidity management tools at the PGNiG Group, the Group companies are able to timely fulfil their financial obligations.

9. Shareholding structure and PGNiG at WSE

9.1. Shareholding structure

As at December 31st 2018, 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 2018, there were no changes in the shareholding structure.

On June 26th 2008, disposal by the Minister of State Treasury of one PGNiG share in accordance with general trading rules triggered the eligible employees' rights to acquire a total of up to 750,000,000 PGNiG shares free of charge. First share transfer agreements were executed on April 6th 2009 and the eligible employees' rights to acquire PGNiG shares free of charge expired on October 1st 2010. As at December 31st 2017, nearly 60 thousand eligible employees acquired 728,294 thousand shares. The Company shares acquired by eligible employees free of charge were subject to a lock-up until July 1st 2010, while trading in shares acquired free of charge by members of the Company's Management Board was restricted until July 1st 2011.

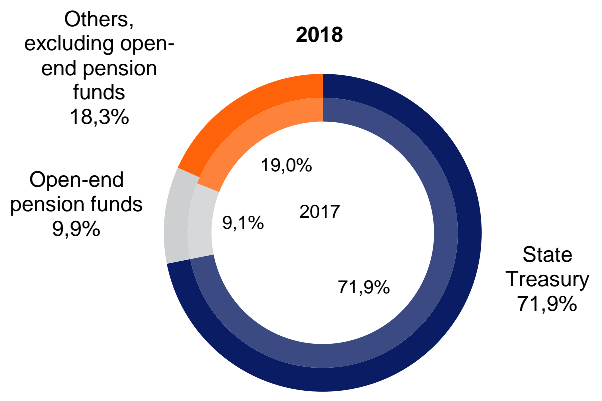
Shareholding structure at the end of 2018

Shareholders	Number of shares/voting rights attached to the shares as at December 31st 2017	Percentage of share capital/total voting rights at the GM as at December 31st 2017	Change in 2018	Number of shares/voting rights attached to the shares as at December 31st 2018	Percentage of share capital/total voting rights at the GM as at December 31st 2018
State Treasury	4,153,706,157	71.88%	-	4,153,706,157	71.88%
Others, including:	1,624,608,700	28.12%	-	1,624,608,700	28.12%
- OFE[1]	525,205,570	9.09%	43,851,066	569,056,636	9.85%
Total	5,778,314,857	100.00%	-	5,778,314,857	100.00%

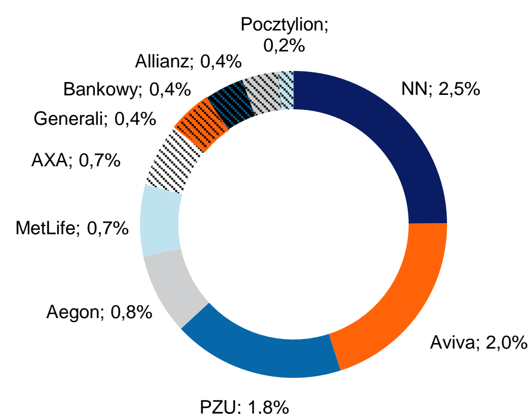
1) Data based on annual asset specifications of open-end pension funds as at December 29th 2018.

Institutional investors, primarily open-end pension funds (OFE), pension fund management companies, as well as Polish and foreign investment funds, held over 16% of all shares issued by PGNiG. Major holdings of PGNiG shares were included in the portfolios of open-end pension funds, which at December 29th 2018 held 9.85% of PGNiG's equity, valued at just under PLN 4bn. Relative to 2017, the number of shares held by open-end pension funds increased by 0.8pp. Based on the closing price on the last trading day in 2018, the value of PGNiG shares held by open-end pension funds rose PLN 637m relative to 2017.

Shareholding structure comparison



Percentage of PGNiG share capital held by open-end pension funds at the end of 2018



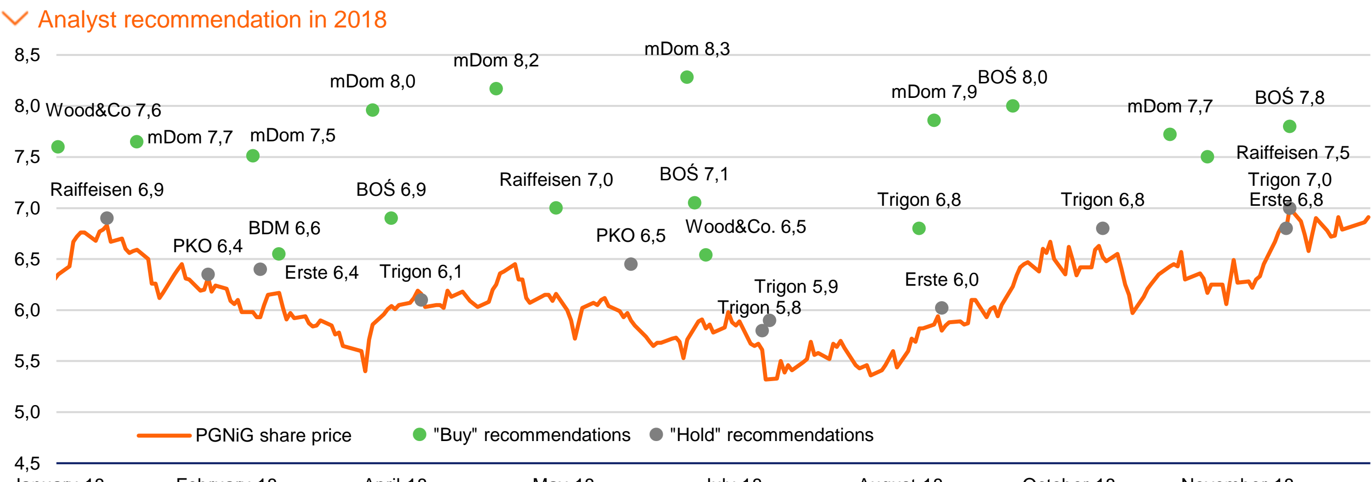
Source: In-house analysis based on annual asset specifications of open-end pension funds as at December 29th 2018.

The largest equity interests in PGNiG were held by funds managing the largest portfolios of future pensions, including Nationale-Nederlanden (NN), Aviva and PZU Złota Jesień. The share of open-end pension funds in the PGNiG shareholder base rose 6.3pp from the IPO, 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. 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 24.2m in 2018 (2017: PLN 21.7m).

Analyst recommendations

Compared with 2017, the number of recommendations concerning the PGNiG stock issued by equity analysts rose slightly (from 26 to 28 in 2018). Over the year, analysts issued 17 buy recommendations, 11 hold recommendations, and no sell recommendations. The average target price was 7.1, with an average closing price for the year of 6.12.

Analyst recommendation in 2018



Source: In-house analysis.

PGNiG shares and shares in PGNiG's related entities held by management and supervisory personnel

Full name	Position	Number of shares/voting rights attached to the shares as at December 31st 2017	Par value of shares (PLN)	Number of shares/voting rights attached to the shares as at December 31st 2018	Par value of shares (PLN)
Mieczysław Kawecki	Member of the Supervisory Board	9,500	9,500	9,500	9,500
Stanisław Sieradzki	Member of the Supervisory Board	17,225	17,225	17,225	17,225

As at the date of this Report, PGNiG was not aware of any agreements which could lead to future material changes in the equity interests held in the Company by its existing shareholders.

9.2. Performance of the PGNiG stock

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 2018, PGNiG shares were included in the following indices: WIG, WIG20, WIG30, WIG-Poland, RESPECT Index, WIGdiv, and WIG-PALIWA (sectoral index).

Performance of PGNiG shares vs WSE indices

Index / PGNiG stock price*	Value as at Dec 31 2017	Value as at Dec 31 2018	2018 low	2018 high	PGNiG's weight in the index as at Dec 31 2018
WIG	63,746 points	54,027 points	54,027 points	67,529 points	3.89%
WIG20	2,461 points	2,083 points	2,083 points	2,630 points	5.36%
WIG30	2,825 points	3,017 points	3,017 points	2,375 points	5.07%
WIG-Poland	65,184 points	55,056 points	55,056 points	69,047 points	3.98%
RESPECT Index	3,078 points	2,550 points	2,550 points	3,270 points	8.07%
WIGdiv	1,214 points	1,011 points	1,011 points	1,281 points	10.78%
WIG-Paliwa	7,140 points	5,814 points	5,814 points	8,164 points	23.08%
PGNiG	PLN 6.29	PLN 6.91	PLN 5.32	PLN 7.00	-

Source: WSE – Warsaw Stock Exchange (Giełda Papierów Wartościowych w Warszawie).
**PGNiG stock price and index values based on closing prices, excluding the ex-dividend day effect.*

In 2018, PGNiG shares outperformed the main indices of the WSE. The annual rate of return on the Company shares for the year, excluding dividends, was positive, at 10%. Over that time, the broad market index WIG and the blue-chip index WIG20, which includes PGNiG, yielded negative rates of return of -9% and -7%, respectively. The PGNiG share price movements ranged between -13% (the lowest closing price of PLN 5.32 on July 20th 2018) and +14% (the highest closing price of PLN 7.00 on December 7th 2018) from the 2018 average closing price (PLN 6.12). To compare, fluctuations of the WIG20 index ranged between -9% (the lowest value of 2,082.77 points on October 26th 2018) and +15% (the highest value of 2,630.37 points on January 23rd 2018).

Material market variables, analysed on an ongoing basis by investors in PGNiG shares, include market prices of crude oil and natural gas, which are produced and traded by the Group.

- In the first quarter of 2018, the price of a month ahead contract for Brent crude rose from USD 66.57/bbl on January 2nd to USD 70.27/bbl on March 29th. The trend continued over the next two quarters to peak on October 3rd, when the price of Brent crude reached USD 86.29/bbl. In the fourth quarter of 2018, the price of Brent crude fell sharply, until it reached its annual low of USD 50.47/bbl on December 24th.
- The price of gas on the PPX was on an upward trend for the first three quarters of 2018, when the spot price rose from PLN 80.80/MWh on January 1st to PLN 120.99 on September 30th 2018. At the end of February and beginning of March, the price of gas on the PPX skyrocketed for a short time to over PLN 200/MWh. In the fourth quarter of the year, the trend reversed and the price of gas on the PPX fell from PLN 115.69/MWh on October 1st to PLN 92.42/MWh on December 31st.

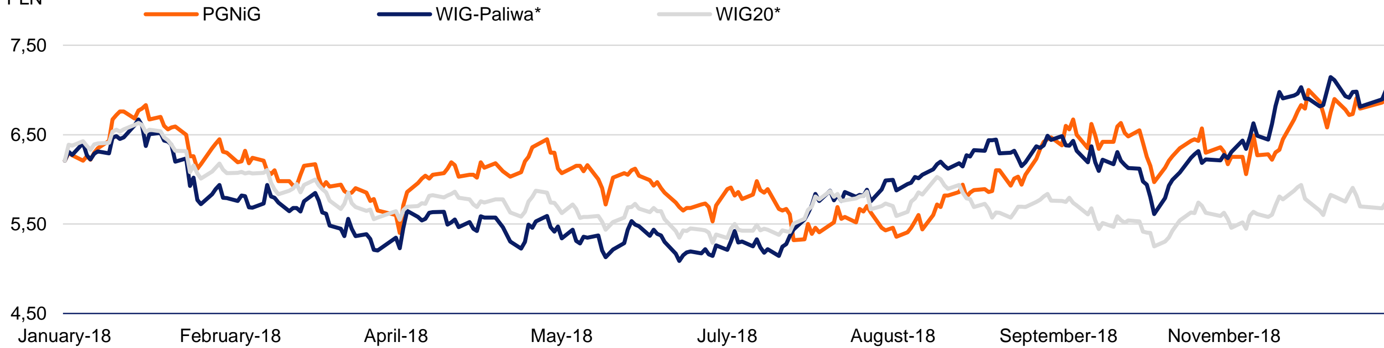
In the first quarter of 2018, the price of PGNiG shares followed the movements of WIG20. In that period, the PGNiG shares and WIG20 delivered identical rates of return of -10%. Corporate and market developments of significance for stock exchange investors buying and selling PGNiG shares over that time included the President of URE's decision of January 25th to reduce the prices and rates of network fees under the Distribution Tariff, and conclusion of transmission contracts between PGNiG and the gas transmission system operators in Poland and Denmark, i.e. GAZ-SYSTEM and Energinet, on January 19th and January 29th, respectively, as part of the 2017 Open Season procedure of the Baltic Pipe project.

In the second quarter, the PGNiG shares slightly outperformed WIG20. Their rate of return was positive at +1% in the period, while WIG20 yielded a negative rate of return of -3% at the quarter end. On May 28th, the PGNiG Management Board recommended to the Annual General Meeting that a dividend of PLN 0.15 per share, i.e. PLN 0.05 below the consensus, be paid to the shareholders. A month later, on June 26th, PGNiG entered into preliminary long-term contracts with Port Arthur LNG, LLC and Venture Global LNG, Inc. for the purchase of liquefied natural gas from the US. On June 30th, the Arbitration Institute issued a partial award favourable to PGNiG in the arbitration proceedings against PAO Gazprom and OOO Gazprom Export concerning the price of gas under the Yamal contract.

The beginning of the third quarter 2018 saw a strong weakening of the PGNiG stock price relative to WIG20, but the Company made up lost ground in September 2018. Eventually, the rate of return on PGNiG shares in the third quarter was higher than that of WIG20 (13% vs 7%). The key event for the share price in the period was the announcement by PGNiG on July 20th of the Annual General Meeting's decision not to pay dividend from the 2017 net profit. Other events key for PGNiG in the third quarter included the decision of the President of URE of July 26th to increase the gas fuel price under the Retail Tariff, and the PGNiG Management Board's request to the Extraordinary General Meeting to amend the Articles of Association so as to enable the Company to pay interim dividend for 2018.

In the fourth quarter of 2018, the PGNiG stock yielded a rate of return of 7%, markedly outperforming the WIG20 index, which came in at -0.4%. In early December, the Company stock price hit an all-time high. On December 7th, the shares were priced at PLN 7, the highest level recorded during the Company's more than 13 years on the WSE. The price hikes took place around the time when the Deutsche Boerse Group announced, on December 4th, that the Company would be included in the Stoxx 600 index as of December 24th. Other events of key importance to PGNiG in the third quarter included the announcement of the execution of final long-term LNG supply contracts with Venture Global LNG, Inc. and Port Arthur LNG, LLC on October 16th and December 19th, respectively, as well as the purchase of the Tommeliten Alpha field and hydrocarbon exploration, appraisal and production rights in Ras Al Khaimah in the United Arab Emirates. More than a month earlier, on October 29th, the PGNiG Management Board decided to pay interim dividend of PLN 0.07 per share from the profit earned in 2018. The dividend was paid on December 3rd 2018.

On December 28th 2018 (the last trading day in the year), the PGNiG stock price closed at PLN 6.91. The price was nearly 132% above the issue price of 2005 and 81% above the closing price on the first day of listing. Factoring in the dividends of PLN 1.73 per share paid in 2005–2018, investors who acquired PGNiG shares at the closing price on the first listing date and held them until the end of 2018 saw a profit of 127%.



Source: WSE – Warsaw Stock Exchange
**Rebased to PGNiG share price.*

Rates of return on WSE indices vs PGNiG stock in 2018 and from PGNiG's IPO[1]

Index	Rate of return in 2018	Rate of return from PGNiG's IPO[2] to Dec 31 2018
WIG	-9.50%	73.64%
WIG20	-7.50%	-7.32%
WIG30	-8.63%	1.65%[3]
WIG-Poland	-9.66%	79.90%
WIG-Paliwa	12.01%	140.74%
RESPECT Index	-9.26%	71.33%[4]
PGNiG	9.86%	81.36%[5]

Source: WSE – Warsaw Stock Exchange (Giełda Papierów Wartościowych w Warszawie).
1) Rates of return do not include dividends paid in 2005−2018.
2) Closing price on September 23rd 2005: PLN 3.81
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 132%.

9.3. Trading multiples

Key metrics	Unit	2018	2017	2016	2015	2017/2018 change (%)
Net profit attributable to owners of the parent	PLNm	3,209	2,923	2,351	2,134	9.20%
Earnings per share[1]	PLN	0.55	0.51	0.40	0.36	7.84%
Stock price at the close of trading on last session day in the year	PLN	6.91	6.29	5.63	5.14	9.86%
Average stock price in the year	PLN	6.12	6.33	5.16	5.94	-3.32%
Number of shares outstanding	million shares	5,778	5,778	5,778	5,900	0.00%
Capitalisation at year end	PLNm	39,928	36,346	32,532	30,326	9.86%
Average daily trading volume	million shares	3.9	3.5	4.9	4.7	11.43%
Average daily trading value	PLNm	24.2	21.7	25.5	27.9	11.52%
Dividend amount[3]	PLNm	-	1,156	1,062	1,180	-
Trading multiples[2]						
P/E at average share price	-	11.13	12.41	12.90	16.50	
P/E at year end	-	12.56	12.33	14.08	14.28	
P/BV at year end	-	1.09	1.08	1.02	0.99	
EV/EBITDA	-	5.58	5.59	5.53	5.02	
Dividend per share[3]	PLN	-	0.2	0.18	0.2	

Source: WSE – Warsaw Stock Exchange (Giełda Papierów Wartościowych w Warszawie).
1) Attributable to holders of ordinary shares in the parent (in PLN).
2) Prices at close.
3) Dividend from previous year's profit.
P/E at average share price = average share price in financial year / net earnings per share attributable to owners of the parent
P/E at year end = share price at close of trading on last session day in financial year / net earnings per share attributable to owners of the parent
P/BV at year end = share price at close of trading on last session day in financial year / book value per share
EV/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

9.4. Dividend

The PGNiG Group's Strategy for 2017–2022 in effect as at the date of this Report provides for distribution of up to 50% of consolidated net profit as dividend, with the proviso that in recommending dividend payments the PGNiG Management Board must always take into account the PGNiG Group's current financial condition and investment plans.

On May 28th 2018, the PGNiG Management Board resolved to recommend that the Annual General Meeting of PGNiG allocate PLN 866,747,228.55 from the 2017 net profit to dividend payment (PLN 0.15 per share). On July 20th 2018, the Annual General Meeting passed Resolution No. 28/2018 on allocation of the net profit for 2017, in line with the draft resolution submitted by a shareholder. Based on the resolution, the Company distributed the 2017 net profit of PLN 2,034,103,359.30 as follows: PLN 866,747,228.55 was allocated to capital reserve to be used to finance the extension and upgrade of the national gas distribution network and PLN 1,167,356,130.75 was allocated to the Company's statutory reserve funds. Following the resolution, the WSE Management Board decided to make, after the July 24th 2018 session, a special adjustment to the list of companies included in the WIGdiv index by deleting the PGNiG stock from the list.

On October 22nd 2018, the Extraordinary General Meeting passed Resolution No. 3/2018 to amend the Articles of Association with respect to the Management Board's powers to pay – upon approval by the Supervisory Board – interim dividend to the shareholders. On October 29th 2018, the Management Board of PGNiG decided that on December 3rd 2018 an interim dividend of PLN 404,482,039.99 from net profit earned in 2018 would be paid.

Dividend from 2012–2018 net profit

	2018	2017	2016	2015	2014	2013	2012
Dividend for financial year (PLNbn)	0.4*	-	1.16	1.06	1.18	0.89	0.77
Dividend per share (PLN)	0.07*	-	0.20	0.18	0.20	0.15	0.13
Average annualised share price (PLN)	6.12	6.33	5.16	5.94	4.85	5.83	4.06
Dividend yield	1.05%	-	3.88%	3.03%	4.12%	2.57%	3.20%

**Interim dividend from the Company's profit for 2018*

10. Corporate governance

10.1. Management Board

Piotr Woźniak − President of the Management Board

Mr Piotr Woźniak graduated from the University of Warsaw with a degree in geology. In 1990 and 1991, he was an adviser to the Agriculture Minister and Industry Minister. Between 1992 and 1996, he was the Trade Commissioner of the Republic of Poland in Canada. In 1998−2000, Piotr Woźniak was an adviser on infrastructure to the Polish Prime Minister. In 1999–2002, he held various positions in Polskie Górnictwo Naftowe i Gazownictwo S.A., including member of the Supervisory Board and Vice President of the Management Board (from June 2000). He served on the Warsaw City Council in 2002−2006. From 2005 to 2007, he was the Economy Minister.

From December 2011 to December 2013, Mr Woźniak was the Deputy Minister of the Environment and Chief State Geologist. He is a lecturer at the Łazarski University and at the Warsaw School of Economics, and a member of the Council of the Maria Grzegorzewska University in Warsaw. From 2009 he served as Chairman, and from March 2014 to the end of 2015 he was the Deputy Chairman, of the Administrative Board of the Agency for the Cooperation of Energy Regulators (ACER). He was a member of the Board until September 2017.

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, pay 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 optimisartion 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, Chief Operating Officer

Mr Radosław Bartosik 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. Save for a four-year interval, Radosław Bartosik has worked for the PGNiG Group since 1997. He started his career with PGNiG in the Zielona Góra Branch, where he gained professional experience first working in oil and gas production facilities, and then as Marketing Specialist and head of the Contracts and Tenders 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 GSP, a subsidiary of PGNiG) in Warsaw. He was also a 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 Polska Spółka Gazownictwa.

On January 16th 2019, the Supervisory Board passed a resolution to remove Mr Radosław Bartosik from the position of Vice President of the PGNiG Management Board, Chief Operating Officer.

Vice President, Chief Operating Officer, 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

A lawyer and mediator, he completed an Executive MBA course. Member of the UNECE Group of Experts on Coal Mine Methane. Vice Chairman of the UNECE Group of Experts on Gas. President of the Chamber of Natural Gas Industry. President of the International Centre of Excellence on Coal Mine Methane (ICE-CMM). Member of the Scientific Council of the Institute of Aviation of the 2017–2021 term. Counsel at the National Chamber of Commerce.

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

Mr Michał Pietrzyk 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.

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

- implementation 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

Mr Maciej Woźniak is a graduate of the Cracow University of Economics (holding a master's degree in economics) 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 Program run by the US Department of State.

In 2003−2008, he worked at the Ministry of Finance and at the Ministry of Economy, where he led the Oil and Gas Department and was responsible for the implementation of the Act on Mandatory Oil, Gas and Fuel Stocks 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 also supervised the implementation of the second package of the EU gas market liberalisation legislation and led the coordination of Poland's position in the EU during work on the third package.

In 2008−2010, he was Prime Minister's 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 Świnoujście 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.

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 (URE) 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 – Vice President of the Management Board

Ms. 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.

She has received honorary awards for outstanding service to the Oil Mining and Gas Sector and the Mazovian Trading Division. She is a Grade III Mining Director and Grade II Mining Director.

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 protection,
- 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.

10.2. Supervisory Board

Bartłomiej Nowak – Chairman of the Supervisory Board

Mr Bartłomiej Nowak completed management courses at the Kozminski University in Warsaw and is a graduate of the Faculty of Law and Administration of the University of Warsaw. Since 2009, he has held the degree of Doctor of Laws - European University Institute, and since 2013 - a Habilitated Doctor degree from the Institute of Legal Sciences of the Polish Academy of Sciences.

Bartłomiej Nowak specialises in energy law, business law, competition law, and EU law. In 2007–009, 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 (URE). 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 S.A. Since 2009, he has worked for the Leon Kozminski 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 submitted a statement to the effect that he meets the independence criteria stipulated under Art. 129 of the Polish Act on Statutory Auditors, Audit Firms, and Public Oversight dated May 11th 2017 and under Commission Recommendation 2005/162/EC of February 15th 2005.

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. As part of his job duties, he participates in negotiations of EU legal acts, including the revision of the Gas Directive, the Regulation concerning measures to safeguard security of gas supply, and shaping the regulatory environment through the 'Clean energy for all Europeans' package. He coordinates activities related to international cooperation and Poland's membership in the European Union and in international energy organisations 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.

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 Paradyż 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. Mr 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.

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 S.A. 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 S.A., and in 2002 was appointed Deputy Director of the Financial Investments Office at PZU S.A. 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 S.A. (2008–2011) and Vice President of the Management Board of PZU TFI S.A. (2009–2013). For over four years (2013–2017), he served as Member of the Management Board of TFI BGK S.A., and since July 2018 – as the CFO of ElectroMobility Poland S.A. He has long-standing experience as a member of supervisory boards, having served in that capacity in 2002–2004 at PZU Asset Management S.A. and PZU NFI Management S.A., in 2005–2006 at Lentex S.A., and in 2006–24007 at Jago S.A. He has authored a number of publications concerned with finance as an expert cooperating with the Sobieski Institute.

Piotr Broda has submitted a statement to the effect that he meets the independence criteria stipulated under Art. 129 of the Polish Act on Statutory Auditors, Audit Firms, and Public Oversight dated May 11th 2017 and under Commission Recommendation 2005/162/EC of February 15th 2005.

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 has held 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 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, Mr Sieradzki holds the position of Deputy Head of the Project Design Department in Jasło, 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 and 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 (from 2009). As an expert, he currently focuses on evaluating competitiveness of countries and businesses, global supply chains, and development of a low-emission environment in Poland. He conducts research projects in the fields of electromobility, gas mobility, shared mobility, and hydrogen technologies.

Grzegorz Tchorek has submitted a statement to the effect that he meets the independence criteria stipulated under Art. 129 of the Polish Act on Statutory Auditors, Audit Firms, and Public Oversight dated May 11th 2017 and under Commission Recommendation 2005/162/EC of February 15th 2005.

10.3. Remuneration policy and remuneration of management personnel

PGNiG's 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:

- 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.

Incentive scheme

At PGNiG, a bonus scheme is in place whose key components include:

- MBO (Management By Objectives) bonus, which applies to management positions responsible for achieving PGNiG's key objectives. The amount of an MBO bonus depends on the quality and progress in the achievement of allocated objectives.
- Discretionary periodic bonus, which covers the remaining employees and is granted on a quarterly basis, based on discretionary assessment of an employee's performance by their superior;
- Discretionary task bonus, earmarked for employees excelling in their work for the Company (a special account placed at the disposal of the PGNiG Management Board).
- Discretionary project bonus, earmarked for employees who have been involved in the execution of project work; the bonus amount depends on the quality and progress in the execution of specific projects.

An additional component of the incentive scheme is a system of retention of PGNiG's key personnel, implemented in 2015. The system is designed to prevent departures of employees whose expertise, experience and access to PGNiG's sensitive information might be exploited by competitors.

An element supporting the incentive scheme is also the miner's titles and industry badges as well as related financial rewards given on the occasion of the Miners' Day. The titles and badges are awarded for long service as well as for special merits and achievements at work.

Employee benefits

PGNiG has in place an Employee Pension Plan within the meaning of the Act on Employee Pension Plans of April 20th 2004 (Dz.U. No. 116, item 1207). Every employee who has continuously worked for the Company for at least three months is eligible for the plan.

Remuneration policy for members of the governing bodies of the subsidiaries

In 2017, the remuneration policy and amounts of remuneration paid to the Management and Supervisory Board members at the PGNiG Group subsidiaries were modified to meet the requirements stipulated by the Act on Rules of Remunerating Persons Who Direct Certain Companies of June 9th 2016. In most subsidiaries, the remuneration was adjusted in accordance with the general rule set out in the Act. At some subsidiaries, subject to the Supervisory Board's approval, the remuneration was determined without applying the general rule prescribed in the Act, as permitted under the Act.

Remuneration policy for PGNiG management and supervisory personnel

On September 9th 2016, the Company's General Meeting passed Resolution No. 9/VIII/2016 on the rules of remuneration for members of the Supervisory Board of PGNiG. Pursuant to the resolution, the monthly remuneration of Supervisory Board members equals the average monthly remuneration in the business sector (net of bonuses paid from profit) in the fourth quarter of the previous year, as announced by the President of the Central Statistics Office of Poland, multiplied by the following factors:

- For the Chairman of the Supervisory Board – 1.7;
- For the Deputy Chairman and Secretary of the Supervisory Board − 1.6;
- For other members of the Supervisory Board − 1.5.

On November 24th 2016, the Company's General Meeting passed Resolution No. 9/XI/2016 on the rules of remuneration for members of the Management Board of PGNiG. Pursuant to the resolution, total remuneration of a member of the Management Board consists of a fixed component in the form of a monthly base pay ('Fixed Remuneration') and a variable component representing additional remuneration payable for PGNiG's financial year ('Variable Remuneration').

The General Meeting authorised the Supervisory Board to define the amounts of Fixed Remuneration of Management Board members, subject to the following conditions:

a) Fixed Remuneration of the President of the Management Board will range from 7x to 15x of the average remuneration in the business sector, net of bonuses paid from profit, in the fourth quarter of the previous year, as announced by the President of the Central Statistics Office of Poland;
b) Fixed Remuneration of other Management Board members will range from 7x to 15x of the average remuneration in the business sector, net of bonuses paid from profit, in the fourth quarter of the previous year, as announced by the President of the Central Statistics Office of Poland.

The General Meeting resolved that Variable Remuneration would depend on the progress in the achievement of Management Objectives and would not exceed 100% of Fixed Remuneration. The general set of Management Objectives comprises:

- delivery of positive consolidated EBITDA by the Group,
- number of new customer accounts,
- implementation of the Group strategy,
- timely completion of investment projects,
- annual replacement of domestic oil and gas reserves.

Specific Management Objectives are defined by the Supervisory Board. The Supervisory Board defines the weight of each objective as well as objective and quantifiable implementation and accounting criteria. A Management Board member may not receive remuneration for holding positions on the governing bodies of PGNiG subsidiaries included in its group within the meaning of Art. 4.14 of the Competition and Consumer Protection Act of February 16th 2007.

If the Company terminates a contract for reasons other than a material breach of the contract, the Management Board member may receive a severance payment of:

a) up to 1x (one time) the Fixed Remuneration, provided that the member has held the position for at least 6 (months) and up to 12 (twelve) months prior to the termination;
b) up to 3x (three times) the Fixed Remuneration, provided that the member has held the position for at least 12 (twelve) months prior to the termination.

No severance payment is due to a Management Board member if their contract is terminated or amended following appointment to a different position on the Management Board or following reappointment, or if the Management Board member is appointed to the management board of a Group company or resigns from their position.

Remuneration paid to members of management and supervisory bodies of PGNiG

Full name	January 1st–December 31st 2018 Total remuneration, additional benefits and bonuses paid and due in 2018 for holding key positions at PGNiG	Total remuneration for holding key positions at subordinated entities in 2018	Total remuneration in 2018
	(PLN '000)		
Total remuneration of Management Board members, including:	6,072	428	6,500
Piotr Woźniak − President of the Management Board	955	154[1)]	1,109
Radosław Bartosik − Vice President	894	137[1)]	1,031
Łukasz Kroplewski – Vice President	896	-	896
Michał Pietrzyk – Vice President	891	137[1)]	1,028
Maciej Woźniak – Vice President	887	-	887
Magdalena Zegarska – Vice President	887	-	887
Violetta Jasińska-Jaśkowiak – Commercial Proxy	576	-	576
Persons no longer in office as at December 31st 2018:			
Waldemar Wójcik [2)]	86	-	86
Total remuneration of Supervisory Board members, including:	662	-	662
Sławomir Borowiec	86	-	86
Piotr Broda	79	-	79
Andrzej Gonet	81	-	81
Mieczysław Kawecki	80	-	80
Bartłomiej Nowak	91	-	91
Stanisław Sieradzki	80	-	80
Piotr Sprzączak	85	-	85
Grzegorz Tchorek	81	-	81
Total	6,734	428	7,162

1) All remuneration for service on the Supervisory Board of EUROPOL GAZ S.A. will be paid to the bank account of a non-profit organisation entered in the list approved by the PGNiG Supervisory Board.
2) Served as Member of the Management Board until March 6th 2017.

Full name	Total remuneration, additional benefits and bonuses paid and due in 2017 for holding key positions at PGNiG*	January 1st – December 31st 2017 Total remuneration for holding key positions at subordinated entities in 2017	Total remuneration in 2017
	(PLN '000)		
Total remuneration of Management Board members, including:	8,649	1,591	10,240
Piotr Woźniak − President of the Management Board	1,422	375	1,797
Radosław Bartosik − Vice President	895	224	1,119
Łukasz Kroplewski – Vice President	1,242	241	1,483
Michał Pietrzyk – Vice President	909	238	1,147
Maciej Woźniak – Vice President	1,243	276	1,519
Magdalena Zegarska – Vice President [1)]	729	113	842
Violetta Jasińska-Jaśkowiak – Commercial Proxy	554	77	631
Persons who were Management Board members in 2017 but not as at December 31st 2017:			
Waldemar Wójcik – Vice President [2)]	1,141	47	1,188
Persons who were Management Board members or commercial proxies in 2016 but not as at December 31st 2016:			
Janusz Kowalski	512	-	512
Bogusław Marzec	2	-	2
Total remuneration of Supervisory Board members, including:	676	-	676
Wojciech Bieńkowski [3)]	42	-	42
Sławomir Borowiec	86	-	86
Mateusz Boznański [3)]	39	-	39
Piotr Broda [4)]	41	-	41
Andrzej Gonet	81	-	81
Mieczysław Kawecki [4)]	41	-	41
Bartłomiej Nowak	92	-	92
Stanisław Sieradzki [4)]	41	-	41
Piotr Sprzączak	83	-	83
Grzegorz Tchorek [4)]	41	-	41
Ryszard Wąsowicz [5)]	34	-	34
Anna Wellisz [3)]	39	-	39
Magdalena Zegarska [1)]	16	-	16
Total	9,325	1,591	10,916

** The aggregate amount of remuneration, additional benefits and bonuses paid and payable to the Management Board members providing management services under managerial contracts in 2017 includes VAT; this does not apply to commercial proxies.*
1) Magdalena Zegarska has served as Member of the Management Board since March 6th 2017. From January 1st to March 5th 2017, she was a Member of the Supervisory Board.
2) Waldemar Wójcik served as Member of the Management Board until March 6th 2017.
3) Supervisory Board Members until June 28th 2017.
4) Supervisory Board Members since June 28th 2017.
5) Ryszard Wąsowicz served as Member of the Supervisory Board until May 30th 2017.

10.4. Statement of compliance with corporate governance rules

Pursuant to Par. 70.6.5 of the Regulation of the Minister of Finance on current and periodic information to be published by issuers of securities and the conditions for recognition as equivalent of information whose disclosure is required under the laws of a non-member state (the 'Regulation'), dated March 29th 2018, the Management Board of PGNiG (the 'Issuer' or the 'Company') hereby presents its statement of compliance with corporate governance rules.
The Issuer's objective is to ensure maximum transparency of its activities, appropriate quality of its investor communications and protection of shareholder rights.

1. Corporate governance code applicable to the Issuer and where the text of such code is publicly available

In 2018, the Issuer was in compliance with the set of corporate governance rules laid down in the 'Best Practice for WSE Listed Companies 2016' (the 'Code of Best Practice'), adopted by the WSE Supervisory Board in its Resolution No. 26/1413/2015 of October 13th 2015. The amended text of the code is publicly available on the Warsaw Stock Exchange's corporate governance website at www.gpw.pl/dobre-praktykiand on the Issuer's website at www.pgnig.pl/pgnig/lad-korporacyjny/dobre-praktyki.

The Code of Best Practice was developed by experts representing various groups of capital market participants, who are members of the WSE Corporate Governance Consultative Committee. All changes in the Code of Best Practice were introduced in a way ensuring continuity of coverage of the matters addressed in the previous versions of the Code. To ensure clarity of the document and to emphasise the most important matters, a new thematic division of the Code was introduced. Further, a new scheme of the document, compliant with the European Commission's recommendation, was adopted.

2. Corporate governance standards referred to in Section 1 which were not complied with by the Issuer, with a statement of reasons for the non-compliance

In 2018, the Issuer did not comply with two of the rules and two recommendations of the Code of Best Practice:

1. Disclosure Policy and Investor Communications – I.Z.1.15;
2. Management and Supervisory Board – II.Z.7;
3. General Meeting, Shareholder Relations – IV.R.2;
4. Remuneration − VI.R.4.

Reasons for the non-compliance with these rules and recommendations are presented below.

2.1. Disclosure Policy and Investor Communications – I.Z.1.15

"A company should operate a corporate website and publish on it, in a legible form and in a separate section, in addition to information required under the legislation: information about the company's diversity policy applicable to the company's governing bodies and key managers; the description should cover the following elements of the diversity policy: gender, education, age, professional experience, and specify the goals of the diversity policy and its implementation in the reporting period; where the company has not drafted and implemented a diversity policy, it should publish the explanation of its decision on its website."

Decisions to select members of the Company's governing bodies are made by the owner, taking into consideration the Ministry of Energy's 'Standards of the owner's supervision at state-owned companies in which rights attached to shares are exercised by the Minister of Energy' and 'Rules and procedure for selecting candidates for members of the supervisory boards of state-owned companies in which rights attached to the State Treasury's shares are exercised by the Minister of Energy' – Order of the Minister of Energy of August 4th 2016.

The Company believes there is no need to define a diversity policy for its key managers.

2.3. Management and Supervisory Board – II.Z.7

"Annex I to the Commission Recommendation referred to in principle II.Z.4 applies to the tasks and the operation of the committees of the Supervisory Board. Where the functions of the audit committee are performed by the supervisory board, the foregoing should apply accordingly."

An Audit Committee operates within the Issuer's Supervisory Board as a standing committee, advising the Supervisory Board on matters within the Committee's remit.

Pursuant to the Best Practice for WSE Listed Companies, with respect to the tasks and the operation of its Supervisory Board committees, the Issuer should apply the rules laid down in Annex I to Commission Recommendation of February 15th 2005 on the role of non-executive or supervisory directors of listed companies and on the committees of the (supervisory) board. In the case of the Audit Committee, the primary purpose of the rules is to ensure that the Audit Committee performs its role correctly.

The Issuer has complied with all the requirements which guarantee the Audit Committee's involvement in the supervision of the Issuer's business. However, the Issuer did not comply with all the detailed requirements for the operation of the Committee. The requirements which the Issuer did not comply with include:

1. the rule laid down in Section 4.3.2 of Annex I, pursuant to which the management should inform the audit committee of the methods used to account for significant and unusual transactions where the accounting treatment may be open to different approaches;
2. the rule laid down in Section 4.3.8 of Annex I, pursuant to which the audit committee should review the process whereby the company complies with the existing regulations regarding the possibility for employees to report alleged significant irregularities in the company, by way of complaints or through anonymous submissions, normally to an independent director, and should ensure that arrangements are in place for the proportionate and independent investigation of such matters and for appropriate follow-up action.

Given the way in which the Audit Committee currently operates, the Issuer does not consider it necessary to introduce very detailed rules to regulate its operation.

The Issuer will take appropriate steps in the future, if justified by the actual manner of operation of the Audit Committee.

2.5. General Meeting, Shareholder Relations – IV.R.2

"If justified by the structure of shareholders or expectations of shareholders notified to the company, and if the company is in a position to provide the technical infrastructure necessary for a general meeting to proceed efficiently using electronic communication means, the company should enable its shareholders to participate in a general meeting using such means, in particular through:

1st real-life broadcast of general meetings,
2nd real-time bilateral communication where shareholders may take the floor during a general meeting from a location other than the general meeting,
3rd exercise of the right to vote during a general meeting either in person or through a proxy."

The Company has decided not to comply with the recommendation, as its Articles of Association currently do not provide for shareholders' participation in a General Meeting using electronic communication means. In accordance with the Commercial Companies Code, bringing that recommendation into effect would require a relevant amendment to the Company's Articles of Association.

The Company does not rule out making such amendments in the future.

2.6. Remuneration − VI.R.4

"The remuneration levels of members of the management board and the supervisory board and key managers should be sufficient to attract, retain and motivate persons with skills necessary for proper management and supervision of the company. Remuneration should be adequate to the scope of tasks delegated to individuals, taking into account additional functions, for instance on supervisory board committees."

The Company follows recommendation VI.R.4 on the remuneration levels of key managers. The recommendation cannot be implemented by the Issuer with respect to members of its Supervisory Board and Management Board, as their remuneration is regulated by generally applicable laws, namely the Act on Rules for Remunerating Persons Who Direct Certain Companies, dated June 9th 2016 (Dz.U. of 2017, item 2190).

3. Basic features of internal control and risk management systems used by the Issuer in the process of preparation of financial statements and consolidated financial statements

The Issuer's internal control system consists of:

1. Group-wide uniform accounting policies on measurement, recognition and disclosure in accordance with the International Financial Reporting Standards, as well as unified templates for separate and consolidated financial statements;
2. Internal control mechanisms, including separation of duties, multi-stage data verification, accuracy reviews of data received, independent checks, etc;
3. Internal operating procedures implemented under Orders of the President of the Management Board;
4. Definition of accounting, financial reporting and tax settlement responsibilities at the Company, in the task book and in relevant rules approved by the Management Board and the Supervisory Board;
5. Definition of rules on supervision of the flow of financial and accounting documents, including review of the documents in terms of form, substance and accounting correctness;
6. Recording of economic events in an integrated finance and accounting system configured in compliance with the accounting policies in place at the Company, containing controls and checks ensuring data consistency and integrity, such as integrity checks, hardware checks, operating checks, and authority checks;
7. An IT system supporting the consolidation process, enabling the Group to streamline the consolidation process at the level of financial and management reporting, and speed up the preparation of consolidated reports;
8. Uniform rules and procedures for consolidating financial data, ensured through the use of unified reports, automatic validations of the consistency and completeness of reported data, as well as two-stage authentication and approval in the data consolidation system;
9. Formalised procedure for the preparation of financial statements (scheduled tasks with individual deadlines and persons responsible);

10. Multi-stage review and authorisation process for financial statements, involving the Supervisory Board;
11. Assessment of current reporting risk by the PGNiG Group's Internal Audit and Control Department and the Security Department;
12. Independent review of financial statements for reliability and accuracy by an independent external auditor;
13. Progressive development of the Group's internal procedures and regulations designed to ensure uniformity of the reporting processes and their continuous improvement.

At the centre of the accounting and financial reporting controls is a fully integrated financial and accounting system. The system checks recorded transactions for correctness, but also identifies which users have entered and approved individual transactions. Access to financial information is restricted by an authorisation system. Access authorisation is granted based on an employee's function and responsibilities, and is subject to stringent controls.

An additional level of control was introduced to oversee the Group's financial statements by assigning the preparation of the Issuer's financial statements and the Group's consolidated financial statements to two separate Departments at the Company's Head Office; the financial statements are entered in the integrated IT system with the accounts of other consolidated entities. Data undergoing consolidation is automatically checked for correctness by automatic validation systems and is subject to logical verification procedures carried out by dedicated Group employees.

The PGNiG Group's Accounting Policy ensures compliance of the Issuer's accounting procedures and financial statements with the relevant regulations, in particular with the International Financial Reporting Standards. The Accounting Policy is regularly updated to ensure its continuing compliance with amended regulations. The most recent update to the Accounting Policy was made in 2018.

To further mitigate the risks associated with financial reporting, financial statements are verified by an independent auditor every three months. The Issuer's auditor selection procedures ensure the auditor's independence in performing its duties (auditors are selected by the Supervisory Board acting on the Audit Committee's recommendation) and high standards of auditing services.

Full-year financial statements are audited, whereas Q1, H1 and Q3 statements are reviewed. The results of both processes are presented by the auditor to the Management Board and to the Supervisory Board's Audit Committee.

In its operations, the Issuer manages its overall financial security using dedicated liquidity, financial risk, budget drafting and control management systems.

The financial reporting process is also reviewed on an ongoing basis through internal audit of individual processes and projects, which consists in reviewing accounting records for specific processes and one-off events in terms of their reliability and completeness, as well as in checking the correctness of the flow of accounting documents. Based on the findings and assessments formulated during operating audits in different areas of accounting, no need to develop a dedicated mechanism for reviewing the preparation process for financial statements has been identified. In particular, there are no reasons to believe that the absence of such a dedicated mechanism poses any threat to the Issuer's business. There is also no reason to believe that this situation is likely to significantly change in the near future. Annual reviews of the internal control and risk management system at the Company level show consistent implementation of recommendations intended to improve the financial reporting components of the system.

Factors mitigating the risks related to financial reporting include constant upgrading of particular modules of the integrated management system and improvement of the practical and specialist skills of employees operating the system.

4. Shareholders holding directly or indirectly major holdings of shares, with an indication of the number of shares and percentage of the share capital held by such shareholders, and the number of votes and percentage of the total voting power that such shares represent at the General Meeting

The Issuer's shares are listed on the Warsaw Stock Exchange, and its share capital is divided into 5,778,314,857 ordinary bearer shares with a par value of PLN 1.00 per share.

In 2018, the State Treasury, represented by the Minister of Energy (ul. Krucza 36/Wspólna 6, 00-522 Warsaw), was the only shareholder with a major holding of Issuer shares (more than 5% of the Issuer's share capital).

Issuer's shareholding structure as at December 31st 2018

	Number of shares	Ownership interest	Number of votes at the Issuer's General Meeting	Percentage of the total voting power at the Issuer's General Meeting
State Treasury	4,153,706,157	71.88%	4,153,706,157	71.88%
Other shareholders	1,624,608,700	28.12%	1,624,608,700	28.12%
Total	5,778,314,857	100.00%	5,778,314,857	100.00%

As at December 31st 2018, 728,293,842 PGNiG shares, representing 12.60% of the share capital and total voting rights at the General Meeting, were distributed among 59,256 of the 61,516 eligible employees.

5. Holders of any securities conferring special control rights, with a description of those rights

Pursuant to the Articles of Association, as long as the State Treasury holds Issuer shares, the State Treasury, represented by the minister competent for matters pertaining to energy, has the right to appoint and remove one member of the Supervisory Board.

Further, pursuant to the Articles of Association, the State Treasury (as a shareholder) approves in writing: (i) any changes to the material provisions of existing trade contracts for natural gas imports to Poland, as well as execution of such contracts, and (ii) the implementation of any strategic investment projects or the Company's involvement in investment projects which may, permanently or temporarily, impair the economic efficiency of the Company's business activities, but which are necessary to ensure Poland's energy security.

Irrespective of the State Treasury's ownership interest in the Issuer, the State Treasury has the right to demand that the General Meeting be convened and that particular matters be placed on its agenda.

As a shareholder in PGNiG, the State Treasury also enjoys other rights under relevant laws and regulations.

6. Restrictions on voting rights, such as limitation of the voting rights of holders of a given percentage or number of votes, time limits on the exercising of voting rights, or provisions under which, with the company's cooperation, equity rights attaching to securities are separated from the holding of the securities

Under PGNiG's Articles of Association, the voting rights of the Company's shareholders have been restricted so that no shareholder (except as specified below) can exercise at a General Meeting more than 10% of the total voting rights existing as at the date of the General Meeting, with the proviso that this restriction is deemed non-existent for the purposes of determining the obligations of buyers of major holdings of shares.

The voting rights restrictions do not apply to shareholders who were holders of shares conferring more than 10% of total voting rights at the Company on the date of the General Meeting's resolution imposing the restrictions, and to shareholders acting together with shareholders holding shares conferring more than 10% of total voting rights under agreements on voting in concert.

For the purpose of the voting rights restriction, votes of shareholders bound by a parent-subsidiary relationship are aggregated and if the aggregated number of votes exceeds 10% of total voting rights at the Company, it is subject to reduction.

7. Restrictions on the transfer of ownership rights to the Issuer's securities

Under Art. 13.14 of the Act of December 16th 2016 on State Property Management (Dz.U. of 2016, item 2259, as amended), Company shares held by the State Treasury may not be disposed of.

8. Rules governing the appointment and removal of management personnel and such personnel's powers, particularly the power to make decisions on the issuance or buy-back of shares

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 applicable provisions of the Articles of Association and in compliance with the requirements for candidates laid down in Art. 22 of the Act of December 16th 2016 on State Property Management (Dz.U. of 2016, item 2259, as amended). The procedure does not apply to Management Board members elected by employees.

As long as the State Treasury holds Issuer shares and the Issuer'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 a candidate to the Management Board 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 their position by delivering a notice to that effect to the Company, represented by another Management Board member or commercial proxy, with copies to the Chairman of the Supervisory Board and the minister competent for matters pertaining to energy. The resignation must be submitted in writing, or will otherwise be ineffective towards the Company.

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.

The powers of the Management Board are described in Section 11.1.2. hereof.

Pursuant to the Articles of Association, decisions on the issuance or buy-back of shares are adopted by the Issuer's General Meeting.

9. Rules governing amendments to the Issuer's Articles of Association

Pursuant to the Commercial Companies Code and the Issuer's Articles of Association, amendments to the Articles of Association are introduced by virtue of resolutions adopted by the General Meeting with the required majority of votes, and must be recorded in the business register. Any amendment to the Articles of Association must be submitted by the Management Board to the registry court within three months from the date on which the General Meeting adopted the resolution introducing the amendment.

The consolidated text of the Articles of Association is drawn up by the Management Board and then approved by the Supervisory Board.

On February 21st 2019, the registration procedure concerning amendments to the Company's Articles of Association made by the Extraordinary General Meeting on January 23rd 2019 was closed.

10. The operation of the General Meeting, its basic powers and description of shareholders' rights, with the procedure for their exercise, in particular the rules stipulated in the Rules of Procedure for the General Meeting

10.1. Description of the operation of the General Meeting

The General Meeting operates in accordance with the provisions of the Commercial Companies Code, the Articles of Association and the Rules of Procedure for the General Meeting. The Rules of Procedure for the General Meeting stipulate, in particular, the rules of conducting meetings and adopting resolutions. The Rules of Procedure for the General Meeting are available on the Issuer's website at www.pgnig.pl. On January 23rd 2019, the Extraordinary General Meeting passed a resolution to amend the Rules of Procedure for the General Meeting.

The General Meeting may be convened as either Annual or Extraordinary, and is held at the Issuer's registered office. The General Meeting may only adopt resolutions on matters included in the detailed agenda, unless the entire share capital is represented at the General Meeting and no one present at the meeting objects to the adoption of a resolution which has not been included on the agenda. The agenda is proposed by the Management Board or by the party convening the General Meeting.

Pursuant to the provisions of the Commercial Companies Code, a shareholder or shareholders representing at least 5% of the share capital may request that certain matters be placed on the agenda of the forthcoming General Meeting. Moreover, the Articles of Association stipulate that the State Treasury, as a Company shareholder, is entitled to submit such a request, irrespective of the percentage of its ownership interest in the share capital. A General Meeting is convened by the Management Board, which in this respect acts:

1. On its own initiative;
2. At the request of a shareholder or shareholders representing at least 5% of the share capital, made in a written or electronic form;
3. At the request of the State Treasury as a Company shareholder, irrespective of the percentage of its ownership interest in the Company's share capital, made in a written or electronic form;
4. At the request of a Supervisory Board member appointed pursuant to Art. 36.1 of the Articles of Association (independent member), made in a written or electronic form,
5. at the written request of the Supervisory Board.

If the Management Board does not convene a General Meeting within two weeks from the date of receiving the relevant request, the registry court may authorise a shareholder or shareholders to convene an Extraordinary General Meeting.

Shareholders representing at least 50% of the share capital or at least 50% of the total voting power may convene an Extraordinary General Meeting.

The Supervisory Board may convene an Annual General Meeting if the Management Board fails to do so within the time limit specified in the Commercial Companies Code or the Articles of Association, or an Extraordinary General Meeting, if the Supervisory Board deems it advisable.

General Meetings are convened by publishing a notice on the Company's website and in any other form prescribed for the purposes of current disclosures under the Act on Public Offering, Conditions Governing the Introduction of Financial Instruments to Organised Trading, and Public Companies.

The notice should be published at least 26 days before the date of the General Meeting.

The Annual General Meeting is convened by the Management Board once a year, no later than within six months following the end of a financial year.

Votes at the General Meeting are cast in an open ballot. A secret ballot is ordered when voting on the election or removal from office of members of the Issuer's governing bodies or on appointment of its liquidator, on bringing members of the Issuer's governing bodies or its liquidator to account, and on personnel matters. Furthermore, a secret ballot is ordered if at least one shareholder present or represented at the General Meeting so demands.

The General Meeting adopts resolutions regardless of the number of shares represented at the meeting, unless the provisions of the Commercial Companies Code or the Articles of Association provide otherwise.

Any shareholder is entitled to object to a resolution of the General Meeting, and in accordance with the Rules of Procedure for the General Meeting, should be given an opportunity to concisely present the reasons for such objection. During the Company's General Meeting, each shareholder may submit draft resolutions concerning items on the agenda.

A General Meeting is opened by the Chairman of the Supervisory Board or the Deputy Chairman of the Supervisory Board, or in the event of their absence, by the President of the Management Board or a person appointed by the Management Board. The person opening the General Meeting should procure that the Chair of the Meeting is immediately elected and should refrain from any decisions on the substance of matters or on procedural issues. The Chair of the General Meeting is elected by secret ballot. The Chair's role is to ensure that the meeting proceeds smoothly and that the rights and interests of all the shareholders are respected. The Chair should not resign from their function without a sound reason, and may not unreasonably delay the signing of the minutes of the General Meeting.

Apart from the shareholders, the following persons are entitled to participate in the General Meeting:

1. Members of the Management Board and Supervisory Board, as well as candidates to the Supervisory Board (if the General Meeting is to deal with the appointment of a member or members of the Supervisory Board). The General Meeting may limit the right of Supervisory Board candidates to speak, to matters related directly to the candidacy;
2. Guests invited by the body convening the General Meeting, as well as experts, including auditors of financial statements and members of the Company's legal support staff, invited to present their opinions on and provide clarification of matters included on the agenda, with the proviso that their right to speak may be limited by the General Meeting to those items on the agenda about which they have been invited;
3. Notaries public drawing up the minutes of the General Meeting.

Short breaks in the meeting (technical breaks), which do not constitute adjournments, may be ordered by the Chair, provided that they are not aimed at hindering the exercise of the shareholders' rights.

10.2. Description of key powers of the General Meeting

The General Meeting is the Issuer's constituent body and has the power to adopt resolutions on the following matters:

1. Review and approval of the financial statements for the preceding financial year and the Directors' Report on the Issuer's operations;
2. Approval of performance of duties by members of the Issuer's governing bodies;
3. Distribution of profit or coverage of loss;
4. Determination of the dividend record date or a decision on payment of dividend in instalments;
5. Appointment and removal of Supervisory Board members;
6. Review and approval of the Group's consolidated financial statements and the Directors' Report on the Group's operations for the preceding financial year;
7. Suspension of members of the Management Board from their duties, or their removal from office;
8. Disposal or lease of the Issuer's business or its organised part, or creation of limited property rights therein;
9. Disposal of non-current assets within the meaning of the Accounting Act of September 29th 1994, classified as intangible assets, property, plant and equipment or long-term investments, including contribution thereof to a company or cooperative, if the market value of such assets exceeds PLN 100,000,000 or 5% of total assets within the meaning of the Accounting Act of September 29th 1994, as determined based on the most recent approved financial statements, as well as granting a third party the right to use such assets for a period of more than 180 days in a calendar year, on the basis of a legal transaction, if the market value of the assets covered by such legal transaction exceeds PLN 100,000,000 or 5% of total assets, with the proviso that if the right to use the assets is granted under:
   a) lease or rental agreements or other agreements for granting rights to use an asset for a consideration by a third party − the market value of the asset is the amount of the consideration for:
   – one year − if the right to use the asset has been granted under an agreement concluded for an indefinite term,
   – the entire term of the agreement − if the right to use the asset has been granted under an agreement concluded for a definite term,
   b) lending agreements or other agreements for granting rights to use an asset free of charge by a third party − the market value of the asset is the amount of the consideration which would have been payable if a lease or rental agreement had been concluded, for:
   – one year − if the right to use the asset is to be granted under an agreement concluded for an indefinite term,
   – the entire term of the agreement − if the right to use the asset has been granted under an agreement concluded for a definite term,
10. Acquisition of non-current assets within the meaning of the Accounting Act of September 29th 1994 if the value of such assets exceeds PLN 100,000,000 or 5% of total assets within the meaning of the Accounting Act of September 29th 1994, as determined based on the most recent approved financial statements,
11. Acquisition of or subscription for shares in another company, if the value of the shares exceeds PLN 20,000,000 or 10% of total assets within the meaning of the Accounting Act of September 29th 1994, as determined based on the most recent approved financial statements, subject to Art. 56.6,
12. Disposal of shares in another company, if the value of the shares exceeds PLN 10,000,000 or 10% of total assets within the meaning of the Accounting Act of September 29th 1994, as determined based on the most recent approved financial statements, subject to Art. 56.6.
13. Conclusion by the Issuer of a loan, borrowing, surety or similar agreements with or for the benefit of a member of the Management or Supervisory Board, a commercial proxy or a liquidator;
14. Increase or reduction of the Issuer's share capital;
15. Issue of convertible bonds or bonds with pre-emptive rights, issue of subscription warrants;

16. Acquisition of the Issuer's own shares for the purpose of offering them to the Issuer's employees or to persons who were employed by the Issuer or its related entities for at least three years;
17. Mandatory buy-back of shares;
18. Creation, use and liquidation of capital reserves;
19. Use of statutory reserve funds;
20. Decisions on claims for redress of any damage caused in connection with the Issuer's formation or the exercise of management or supervisory duties;
21. Merger, transformation or demerger of the Issuer;
22. Relocation of the Issuer's registered office abroad;
23. Establishment of preference on shares;
24. Establishment of an European company (societas Europaea), transformation into or joining such company;
25. Amendments to the Issuer's Articles of Association and changes in its business profile;
26. Dissolution and liquidation of the Issuer;
27. Definition of the rules and amounts of remuneration of Supervisory Board members and the rules of remuneration of Management Board members;
28. Subscription, acquisition or disposal of shares in companies of the PGNiG Group which operate, pursuant to generally applicable laws, as a distribution system operator or storage system operator, including definition of the terms and procedures for the disposal.

10.3. Shareholders' rights at General Meetings and their exercise

Shareholders have the right to participate in General Meetings and to exercise the voting rights attached to their shares.

Each shareholder of the Issuer has the right to participate in General Meetings, with one share conferring the right to one vote.

Only persons who have been the Issuer's shareholders for at least 16 days prior to the date of the General Meeting (the record date for participation in the General Meeting) are entitled to participate in the General Meeting. The record date for participation in the General Meeting is the same for the holders of rights under bearer shares and under registered shares.

Holders of rights under registered shares or provisional certificates as well as pledgees and usufructuaries holding voting rights are entitled to participate in the General Meeting, provided that they are entered in the share register on the record date for participation in the General Meeting.

Bearer shares in certificated form entitle their holders to participate in the General Meeting if the share certificates are submitted with the Company no later than on the record date for participation in the General Meeting and are not collected prior to the end of that day. In place of their shares, a shareholder may submit a document confirming that their shares have been deposited with a notary public, bank or investment firm having its registered office or a branch in the European Union, or in a state which is a party to the treaty on the European Economic Area, as indicated in the notice of the General Meeting. The document should specify the serial numbers of the share certificates and should state that the share certificates will not be released prior to the end of the record date for participation in the General Meeting.

The list of entities entitled to participate in the General Meeting as holders of rights under bearer shares is determined based on the shares submitted with the Company and on a list prepared by Krajowy Depozyt Papierów Wartościowych S.A. (Central Securities Depository of Poland), in accordance with the provisions of the Act on Trading in Financial Instruments.

Shareholders may participate in the General Meetings and exercise their voting rights in person, through a representative or through a proxy. Powers of proxy should be granted in a written or electronic form. A written or electronic document confirming the right to represent a shareholder at the General Meeting is deemed legally valid and needs no other confirmation, unless the Management Board or the Chair of the General Meeting has doubts, prima facie, about its authenticity or validity.

Shareholder(s) representing at least 5% of the Issuer's share capital, as well as the State Treasury (irrespective of the percentage of its ownership interest in the Issuer), may demand that the General Meeting be convened, provided that they submit the request in a written or electronic form. If the Management Board fails to convene a General Meeting at the request of the shareholder(s) within two weeks from the date the request was submitted, the registry court may, after demanding a relevant statement from the Management Board, authorise the shareholder(s) to convene the meeting. Additionally, shareholders representing at least 5% of the Issuer's share capital may request that certain matters be placed on the agenda of the forthcoming General Meeting. The same right is held by the State Treasury, irrespective of the percentage of its ownership interest in the Issuer. Any such request must be made in the Polish language and sent to the Issuer in a written or electronic form. The request should contain the grounds for, or draft resolutions of, the proposed agenda items, and should be submitted to the Management Board no later than 21 days before the scheduled date of the General Meeting. A shareholder or shareholders representing at least 5% of the Issuer's share capital may, before a General Meeting, submit to the Company, in a written or electronic form, draft resolutions on items which have been, or are to be, placed on the agenda of the General Meeting. Any item included on the agenda of the General Meeting may, at the request of the shareholder(s), be removed or abandoned only if a relevant resolution is passed by a majority of three-quarters of votes and if all the shareholders that made the request and attend the meeting consent to such removal or abandonment.

The Company's Articles of Association do not provide for the possibility of participating in the General Meeting by means of electronic communication (including speaking at the General Meeting by means of electronic communication), or of exercising voting rights by postal ballot or by means of electronic communication.

At the request of shareholders representing at least 20% of the share capital, the Supervisory Board is elected by way of block voting. Shareholders at the General Meeting representing that portion of the shares resulting from division of the total number of represented shares by the number of Supervisory Board members, may form a block to elect one member of the Supervisory Board, but do not then participate in the elections of other members. Shareholders that belong to a block may exercise their voting rights exclusively within the block, which means that the shares held by them cannot be divided. The number of Supervisory Board members that may be elected within a block is determined by dividing the number of shares represented by the block by the minimum number of shares necessary to form a block. If a position on the Supervisory Board that should be filled by an appropriate block remains vacant, it is filled by the vote of all shareholders not participating in the block voting.

At the General Meeting, the Management Board is required to provide shareholders – at their request – with information on the Issuer, if such information is needed to assess an item on the Meeting's agenda. The Management Board may refuse to provide information if this could adversely affect the Issuer, its affiliate, or its subsidiary company or cooperative, especially through disclosure of any technical, trade or organisational secrets.

A Management Board member may refuse to provide information if this could lead to their criminal, civil or administrative liability.

In justified cases, the Management Board may provide information in writing within two weeks of being requested to do so at the General Meeting.

An answer is deemed to have been given if the relevant information is available on the Issuer's website in the section dedicated to shareholders' questions and answers to the questions.

Information on the Issuer may also be provided outside the General Meeting. Such information, along with indication of when and to whom it was provided, should be disclosed by the Management Board in writing in the materials to be presented at the next General Meeting. These materials need not include information which has been made publicly available, including by way of current reports issued pursuant to Par. 38.1.12 of the Regulation, or provided at the General Meeting.

A shareholder may require that a list of shareholders be sent to him/her free of charge by email, may inspect the book of minutes or demand to be given copies of the resolutions of the General Meetings certified as true copies by the Management Board.

Moreover, a shareholder may request to be provided with certified copies of proposals to the items included on the agenda one week before a General Meeting. Copies of the Directors' Report on the Company's operations and of the financial statements, along with copies of the Supervisory Board's report and the auditor's opinion, are provided to the shareholders at their request, not later than fifteen days before the Annual General Meeting.

At General Meetings, attending shareholders may propose procedural motions, including motions to change the sequence of items on the agenda, or to order a break. Each shareholder may also request that a matter be voted on by way of secret ballot.

The Issuer has its own website, where the following information is made available from the date of the convening of a General Meeting:

1. Notice of the General Meeting;
2. Information on the total number of Company shares and the number of votes attached to such shares as at the notice date, and on types of shares and the number of votes attached to the shares of each type (if such variety exists);
3. Documents to be presented to the General Meeting;
4. Draft resolutions or – if no resolutions are planned to be adopted – comments by the PGNiG Management or Supervisory Board on matters which have been placed on the agenda or are to be placed on the agenda prior to the General Meeting.

11. Operation of the Company's management, supervisory and administrative bodies and their committees

11.1. Operation of management bodies – Management Board

11.1.1. Composition of the Management Board

Composition of the PGNiG Management Board in 2018:

1. Piotr Woźniak − President of the Management Board
2. Maciej Woźniak – Vice President, Trade
3. Łukasz Kroplewski – Vice President, Development
4. Michał Pietrzyk – Vice President, Finance
5. Radosław Bartosik − Vice President, Chief Operating Officer
6. Magdalena Zegarska – Vice President.

The composition of the Company's Management Board did not change in 2018.

On Januaury 16th 2019, the Supervisory Board removed Mr Radosław Bartosik from the PGNiG Management Board.

11.1.2. Rules governing the operation of the Management Board

The operation of the Management Board is defined in its Rules of Procedure, adopted by the Management Board and approved by the Supervisory Board.

The Rules of Procedure for the Management Board are available on the Issuer's website at www.pgnig.pl/lad-korporacyjny/zarzad/regulamin.

The Management Board is composed of two to seven members. The number of Management Board members is determined by the Supervisory Board, being the body authorised to appoint individual Management Board members, or the entire Management Board. Management Board members are appointed for a joint term of three years. As long as the State Treasury holds Issuer shares and the Issuer's annual average headcount exceeds 500, the Supervisory Board appoints as a Management Board member one person elected by the employees, to serve for the Management Board's term of office.

The Management Board manages the affairs of the Issuer and represents the Issuer in and out of court. The powers and responsibilities of the Management Board involve management of all of the Issuer's affairs, other than those which the law or the Issuer's Articles of Association reserve for the General Meeting or the Supervisory Board. The Management Board is headed by the President of the Management Board.

The responsibilities of the Management Board include in particular:

1. Preparation of business plans, including investment plans, the strategy for the Company and the PGNiG Group, as well as long-term strategic plans, and their submission to the Supervisory Board for approval;
2. Submission, upon each request, of detailed reports on the performance of the activities undertaken with a view to ensuring Poland's energy security to the minister competent for matters pertaining to energy;
3. Submission to the minister competent for matters pertaining to energy, within two months from the closing of the General Meeting approving the financial statements and the Directors' Reports of the Company's subsidiaries and related companies, of annual reports on the matters listed below, with an assessment of their content in the context of Poland's energy security:

   a) Implementation of strategic investment projects or involvement in investment projects that result in a lasting or temporary deterioration of the economic efficiency of such subsidiary or related company but are required for ensuring the energy security of Poland,

   b) Entry by the operator or owner of a distribution system or an interconnection gas pipeline into an obligational relationship with a foreign entity for the planning, analysis, construction, expansion or disposal of a transmission network, distribution network, interconnection gas pipeline or direct gas pipeline, within the meaning of the Energy Law, if the obligational relationship is related to infrastructure with a present value or – in the case of new infrastructure or infrastructure being planned – with an estimated value exceeding the PLN equivalent of EUR 500,000,

   c) Entry by the operator or owner of a storage facility into an obligational relationship with a foreign entity for the planning, analysis, construction, expansion or disposal of a storage facility, within the meaning of the Energy Law, if the obligational relationship is related to infrastructure with a present value or – in the case of new infrastructure or infrastructure being planned – with an estimated value exceeding the PLN equivalent of EUR 500,000,

   d) Entry by the owner of a generation unit or a cogeneration unit into an obligational relationship with a foreign entity for the planning, analysis, construction, expansion or disposal of a generation unit or cogeneration unit, within the meaning of the Energy Law, if the obligational relationship is related to infrastructure with a present value or – in the case of new infrastructure or infrastructure being planned – with an estimated value exceeding the PLN equivalent of EUR 500,000,

   e) Entry into an obligational relationship with a foreign entity for hydrocarbon exploration, appraisal or production, within the meaning of the Polish Geological and Mining Law, if the value of the obligational relationship exceeds the PLN equivalent of EUR 5,000,000,

   - with the proviso that items a) to e) above do not apply to information on credit agreements or maintenance services, including overhauls, geophysical, drilling and well services and projects, nor to services or deliveries under such agreements or projects.

   - item e) does not apply to information on the activities of a foreign subsidiary's contracts and agreements concluded as part of the day-to-day management of the organisational structure, including employment contracts, use of assets where the related liabilities are equal to or less than EUR 5,000,000, and day-to-day administrative expenses.

4. Submission of relevant information to the minister competent for matters pertaining to energy, within 21 days from the closing of the General Meeting of a subsidiary or related company which addressed the following matters:

   a) Strategic investment projects or involvement in investment projects that result in a lasting or temporary deterioration of the economic efficiency of such subsidiary or related company but are required for ensuring the energy security of Poland,

   b) Entry by the operator or owner of a distribution system or an interconnection gas pipeline into an obligational relationship with a foreign entity for the planning, analysis, construction, expansion or disposal of a transmission network, distribution

network, interconnection gas pipeline or direct gas pipeline, within the meaning of the Energy Law, if the obligational relationship is related to infrastructure with a present value or – in the case of new infrastructure or infrastructure being planned – with an estimated value exceeding the PLN equivalent of EUR 500,000,

c) Entry by the operator or owner of a storage facility into an obligational relationship with a foreign entity for the planning, analysis, construction, expansion or disposal of a storage facility, within the meaning of the Energy Law, if the obligational relationship is related to infrastructure with a present value or – in the case of new infrastructure or infrastructure being planned – with an estimated value exceeding the PLN equivalent of EUR 500,000,

d) Entry by the owner of a generation unit or a cogeneration unit into an obligational relationship with a foreign entity for the planning, analysis, construction, expansion or disposal of a generation unit or cogeneration unit, within the meaning of the Energy Law, if the obligational relationship is related to infrastructure with a present value or – in the case of new infrastructure or infrastructure being planned – with an estimated value exceeding the PLN equivalent of EUR 500,000,

e) Entry into an obligational relationship with a foreign entity for hydrocarbon exploration, appraisal or production, within the meaning of the Polish Geological and Mining Law, if the value of the obligational relationship exceeds the PLN equivalent of EUR 5,000,000,

f) Approval of annual budgets, with detailed information on resolutions adopted by the General Meeting of the subsidiary or related company on the matters specified in items a) to f), with an assessment of their implications for the country's energy security,

- the above does not apply to information on credit agreements and maintenance services, including overhauls, geophysical, drilling and well services and projects, as well as services or deliveries under such agreements or projects.

- item e) does not apply to information on the activities of a foreign subsidiary's contracts and agreements concluded as part of the day-to-day management of the organisational structure, including employment contracts, use of assets where the related liabilities are equal to or less than EUR 5,000,000, and day-to-day administrative expenses.

5. preparation of economic and financial reviews of the Company and its subsidiaries acting as distribution or storage system operators in the form defined by the minister competent for matters pertaining to energy, and submission of the same to the minister competent for matters pertaining to energy by the end of the month in which a periodic report was published at the Warsaw Stock Exchange.
6. submission of a report on entertainment expenses, legal costs, marketing costs, public relations and social communication expenses, and costs of management advisory services, along with the Supervisory Board's opinion, to the General Meeting.

The Management Board submits to the Supervisory Board the following documents for assessment: financial statements for the preceding financial year, with the auditor's opinion and report; the Directors' Report on the Issuer's operations in the preceding financial year, and a proposal for distribution of profit or coverage of loss for that financial year. These documents should be submitted without the Management Board being called upon to do so, and with sufficient time for the Supervisory Board to assess them before they are presented to the General Meeting.

Declarations of intent may be made on behalf of the Issuer by two Management Board members acting jointly or one Management Board member acting jointly with a commercial proxy. Any matters which fall beyond the scope of the day-to-day management of the Issuer's affairs require adoption of a resolution.

In particular, the Management Board adopts resolutions on the following matters:

1. Adoption of the Management Board's rules of procedure;
2. Adoption of organisational rules for the Issuer's business;
3. Establishment and closure of branches;
4. Appointment of commercial proxies;
5. Division of powers between the Management Board members, provided that a relevant resolution of the Management Board must be approved by the Supervisory Board;
6. Exercise of rights attached to shares in companies in which the Issuer holds equity interest;
7. Contracting and extending loans and contracting credit facilities, except where the Articles of Association require the Supervisory Board's approval of or opinion on the transaction;
8. Adoption of business plans, including investment plans, subject to their approval by the Supervisory Board;
9. Adoption of the strategy for the Company and the PGNiG Group and long-term strategic plans, subject to the approval of the Supervisory Board;
10. Assumption of contingent liabilities, including extension by the Issuer of guarantees and sureties, as well as issuance of promissory notes, except where the Articles of Association require the Supervisory Board's approval or opinion;
11. Acquisition or disposal of non-current assets, including property, perpetual usufruct rights or interests in property, with a value equal to or higher than the equivalent of PLN 200,000, except where the Articles of Association require the Supervisory Board's approval or a resolution of the General Meeting;
12. Matters to be considered by the Supervisory Board or the General Meeting upon the Management Board's request;
13. Adoption of detailed reports on the performance of tasks undertaken with a view to ensuring the country's energy security, which are submitted, upon each request, to the minister competent for matters pertaining to energy;

14. Formation of another company, subscription for, acquisition or disposal of shares in another company, including definition of the terms and procedures for their disposal, with a proviso that formation of a company with a share capital exceeding the PLN equivalent of EUR 2,000,000, as well as subscription for, acquisition or disposal of shares in another company with a value exceeding the PLN equivalent of EUR 2,000,000, require approval by the Supervisory Board (or an opinion of the same where approval by the General Meeting is required), and with a further proviso that approval by the General Meeting is required for subscription for, acquisition or disposal of shares in companies of the PGNiG Group which, pursuant to generally applicable laws, act as distribution or storage system operators, including definition of the terms and procedure for such disposal;
15. Decision to pay interim dividend to the shareholders;
16. Donations, release of debtors from their debt obligations and entry into other agreements beyond the scope of business defined in the Articles of Association;
17. Execution of sale or purchase transactions and contracts or other disposal agreements, as well as the making of declarations of intent and assumption of liabilities in respect of: gas fuels (including LNG and LNG regasification), crude oil, natural gasoline, other oil and gas derivatives, electricity, heat, emission allowances for greenhouse gases or other substances; property rights under certificates of origin for electricity, hard coal, lignite, biomass, ancillary control services, other derivative rights based on gas fuels or electricity; other financial instruments and commodities, provision of transmission capacities for electricity, performance of balancing and dispatching services or provision of transmission capacities for gas fuels with a value exceeding 20% of the Issuer's share capital (however, in the case of contracts with a value exceeding the PLN equivalent of EUR 100,000,000, an opinion of the Supervisory Board is required, except where the Articles of Association specifically require the Supervisory Board's approval);
18. Entry into legal transactions other than those listed above if their value exceeds the PLN equivalent of EUR 400,000.

In those matters which do not require adoption of a Management Board resolution, each Management Board member attends to the responsibilities assigned to them on an individual basis. During Management Board meetings, each Management Board member has the duty to brief the other Management Board members on their material decisions and the results of their supervisory work, in particular with respect to the Issuer's business units, in accordance with the division of powers between the Management Board members.

Management Board meetings are held as needed. Each Management Board member may submit a request to the President of the Management Board (or acting President) to call a Management Board meeting in connection with matters requiring an urgent decision by the Management Board or for the purpose of presenting information on matters of significance to the Issuer. The Chairman of the Supervisory Board is also entitled to request that a Management Board meeting be called, by providing the President of the Management Board with a written agenda for the meeting. In addition, the Chairman of the Supervisory Board has the right to demand of the President of the Management Board that certain items be placed on the agenda of a Management Board meeting.

In accordance with the Articles of Association of PGNiG, in justified cases votes may be cast by written ballot or by means of remote communication, with the minutes of such voting to be approved at the next meeting of the Management Board.

The Supervisory Board defines the rules and amounts of remuneration for Management Board members, unless applicable mandatory provisions of law state otherwise.

11.1.3. Management Board meetings and resolutions

In 2018, the Management Board held 48 meetings and passed 665 resolutions. 13 resolutions were passed by written ballot or by means of remote communication, as permitted under Art. 21.6 of the Articles of Association of PGNIG and Section 4.10 of the Rules of Procedure for the Management Board. 13 meetings of the Management Board were adjourned.

11.2. Operation of supervisory bodies – Supervisory Board

11.2.1. Composition of the Supervisory Board

Composition of the PGNiG Supervisory Board in 2018:

1. Bartłomiej Nowak – Chairman
2. Piotr Sprzączak – Deputy Chairman
3. Sławomir Borowiec – Secretary
4. Piotr Broda – Member
5. Andrzej Gonet – Member
6. Mieczysław Kawecki – Member
7. Stanisław Sieradzki – Member
8. Grzegorz Tchorek – Member.

In 2018, the composition of the Company's Supervisory Board did not change.

11.2.2. Rules governing the operation of the Supervisory Board

The Supervisory Board operates in accordance with the rules set out in the Commercial Companies Code, the Articles of Association and the Rules of Procedure for the Supervisory Board. The Rules of Procedure for the Supervisory Board have been adopted by a Supervisory Board resolution and are available on the Issuer's website at http://pgnig.pl/lad-korporacyjny/rada-nadzorcza/regulamin.

The Issuer's Supervisory Board is composed of five to nine members appointed by the General Meeting. One Supervisory Board member should meet the independence criteria specified in the Articles of Association. As long as the State Treasury holds Company shares, the State Treasury, represented by the minister competent for matters pertaining to energy, has the right to appoint and remove one member of the Supervisory Board. If the Supervisory Board consists of up to six members, two members are appointed from among persons elected by the Company's employees and employees of all of its subsidiaries. If the Supervisory Board consists of seven to nine members, three members are appointed from among persons elected by the Company's employees and employees of all of its subsidiaries.

Supervisory Board members are appointed for a joint term of office lasting three years.

The Supervisory Board exercises ongoing supervision of the Issuer's activities in all areas of its operations, and presents its opinions on all matters submitted by the Management Board for consideration to the General Meeting. The powers and responsibilities of the Supervisory Board include in particular:

1. Assessment of the Directors' Report on the Issuer's operations and of the financial statements for the preceding financial year, in terms of their consistency with the accounting books, supporting documentation, and the actual state of affairs;
2. Assessment of the Management Board's proposals concerning distribution of profit or coverage of loss;
3. Submission to the General Meeting of written reports on results of the activities referred to in items 1 and 2;
4. Assessment of the consolidated financial statements with respect to their consistency with the accounting books, supporting documentation, and the actual state of affairs, as well as assessment of the Directors' Report on the Group's operations, and reporting to the General Meeting on the results of these assessments;
5. Appointment of an auditor to audit the financial statements;
6. Approval of business plans, including investment plans;
7. Approval of the strategy for the Company and the PGNiG Group and long-term strategic plans;
8. Adoption of detailed rules governing the Supervisory Board's operation;
9. Approval of the consolidated text of the Articles of Association, drawn up by the Issuer's Management Board;
10. Approval of the Rules of Procedure for the Management Board;
11. Approval of the organisational rules for the Issuer's business;
12. Approval of the Management Board's resolution on division of powers between the Management Board members;
13. Giving opinions on all matters submitted by the Management Board for consideration to the General Meeting;
14. Giving opinions on detailed reports on the performance of the activities undertaken with a view to ensuring the energy security of Poland to be submitted by the Management Board to the minister competent for matters pertaining to energy;
15. Giving opinions on requests to be submitted to the shareholder State Treasury, represented by the minister competent for matters pertaining to energy, to approve: 1) any changes to the material provisions of existing trade contracts for import of natural gas to Poland, as well as the execution of new trade contracts, 2) any strategic investment projects or the Company's involvement in investment projects which could, permanently or temporarily, impair the economic efficiency of the Company's business activities, but which are necessary to ensure Poland's energy security;
16. Granting approval to the Management Board for:

    a) Acquisition of non-current assets, including real property, perpetual usufruct rights or interests in real property with a value of PLN 2,000,000 or more, except where such a transaction requires approval by the General Meeting and except for transactions following from business plans, including investment plans, approved by the Supervisory Board;

    b) Disposal of non-current assets within the meaning of the Accounting Act of September 29th 1994, classified as intangible assets, property, plant and equipment or long-term investments, including contribution thereof to a company or cooperative, if the market value of such assets exceeds PLN 20,000,000, but does not exceed PLN 100,000,000, as well as granting another entity the right to use such assets for a period longer than 180 days in a calendar year, on the basis of a legal transaction, if the market value of the assets covered by such legal transaction exceeds PLN 20,000,000, but does not exceed PLN 100,000,000, with the proviso that if the right to use the assets is granted under:

        i) lease or rental agreements or other agreements for granting rights to use an asset for a consideration by a third party − the market value of the asset is the amount of the consideration for:

        – one year − if the right to use the asset has been granted under an agreement concluded for an indefinite term,

        – the entire term of the agreement − if the right to use the asset has been granted under an agreement concluded for a definite term,

        ii) lending agreements or other agreements for granting rights to use an asset free of charge by a third party − the market value of the asset is the amount of the consideration which would have been payable if a lease or rental agreement had been concluded, for:

        – one year − if the right to use the asset is to be granted under an agreement concluded for an indefinite term,

        – the entire term of the agreement − if the right to use the asset has been granted under an agreement concluded for a definite term,

    c) Assumption of other liabilities in an amount exceeding 20% of the Company's share capital, except where the liability has been provided for in the plans referred to in item 6, approved by the Supervisory Board, or agreements for the provision of

gas fuel transmission or distribution services or amendments to gas fuel trading agreements to the extent they refer to the term of such agreements,

d) Entry into any of the following agreements:

1) a donation agreement or any other agreement having a similar effect, with a value exceeding PLN 20,000 or 0.1% of total assets within the meaning of the Accounting Act of September 29th 1994, as determined based on the most recent approved financial statements,
2) an agreement on release from debt or any other agreement having a similar effect, with a value exceeding PLN 50,000 or 0.1% of total assets within the meaning of the Accounting Act of September 29th 1994, as determined based on the most recent approved financial statements,
3) any agreement for the provision of legal services, marketing services, public relations and social communication services, or management consultancy services, if the total fees for the services to be provided under such agreement exceed PLN 500,000, VAT exclusive, per year,
4) any agreement for the provision of legal services, marketing services, public relations and social communication services, or management consultancy services where no maximum fees are specified,
5) any amendments to an agreement for the provision of legal services, marketing services, public relations or other social communication services, or management consultancy services, which would increase the fees under the agreement above the amount specified in item 3);

e) Entry into an obligational relationship with a foreign entity for the planning, analysis, construction, expansion or disposal of a transmission network, distribution network, interconnection gas pipeline or direct gas pipeline, within the meaning of the Energy Law, if the obligational relationship is related to infrastructure with a present value or – in the case of new infrastructure or infrastructure being planned – with an estimated value exceeding the PLN equivalent of EUR 500,000,

f) Entry into an obligational relationship with a foreign entity for the planning, analysis, construction, expansion or disposal of a storage facility, within the meaning of the Energy Law, if the obligational relationship is related to infrastructure with a present value or – in the case of new infrastructure or infrastructure being planned – with an estimated value exceeding the PLN equivalent of EUR 500,000,

g) Entry into an obligational relationship with a foreign entity for the planning, analysis, construction, expansion or disposal of a generation unit or cogeneration unit, within the meaning of the Energy Law, if the obligational relationship is related to infrastructure with a present value or – in the case of new infrastructure or infrastructure being planned – with an estimated value exceeding the PLN equivalent of EUR 500,000,

h) Entry into an obligational relationship with a foreign entity for hydrocarbon exploration, appraisal or production, within the meaning of the Geological and Mining Law, if the value of the obligational relationship exceeds the PLN equivalent of EUR 5,000,000,

- with the proviso that items e) to h) above do not apply to credit agreements or maintenance services, including overhauls, geophysical, drilling and well services and projects, as well as services or deliveries under such agreements or projects,
- Item h) does not additionally apply to the activities of a foreign subsidiary pertaining to contracts and agreements concluded as part of day-to-day management of the organisational structure, including employment contracts, use of assets where the related liabilities are equal to or less than EUR 5,000,000, and day-to-day administrative expenses.

17. Appointment and removal of Management Board members;
18. Definition of rules and amounts of remuneration for Management Board members, unless applicable mandatory provisions of law state otherwise;
19. Suspension of Management Board members from their duties – for valid reasons, and by an absolute majority of votes;
20. Delegation of Supervisory Board members to temporarily replace Management Board members unable to perform their duties;
21. Conduct of the recruitment and selection procedure referred to in Art. 18 of the Act on State Property Management;
22. Granting of permission for establishment and closure of the Issuer's foreign branches;
23. Granting of permission to Management Board members to accept positions in the governing bodies of other companies, where such permission is required by law;
24. Granting of approval for the Company to form another company with a share capital exceeding the PLN equivalent of EUR 2,000,000, or to subscribe for, acquire or dispose of shares in another company with a value exceeding the PLN equivalent of EUR 2,000,000, including definition of the terms and procedure for such disposal. If a transaction requires approval by the General Meeting, the Supervisory Board only issues an opinion concerning the proposal;
25. Monitoring of the Issuer's debt level;
26. Giving opinions on the Management Board recommendations for appointment or removal of the Issuer's representatives on the Management and Supervisory Boards of System Gazociągów Tranzytowych EuRoPol GAZ S.A. and submission of such recommendations for approval to the shareholder State Treasury, represented by the minister competent for matters pertaining to energy;
27. Giving opinions on the exercise of voting rights by the Issuer's representative at the General Meeting of System Gazociągów Tranzytowych EuRoPol GAZ S.A.;

28. Approval of how the Issuer's representative should vote at the General Meetings of the distribution system operators, with respect to approval of the operators' annual budgets;
29. Approval of how the Issuer's representative should vote at the General Meetings of the distribution system operators, with respect to approval of the operators' long-term strategic plans;
30. Approval of how the Issuer's representative should vote at the General Meetings of the distribution system operators, with respect to:

    a) Amendments to the company's articles of association;

    b) Increase or reduction in the company's share capital;

    c) Merger, transformation or demerger of the company;

    d) Sale of company shares;

    e) Sale or lease of, or creation of limited property rights in, the company's business or its organised part;

    f) Dissolution and liquidation of the company;

    g) Entry into an obligational relationship with a foreign entity for the planning, analysis, construction, expansion or disposal of a distribution network, interconnection gas pipeline or direct gas pipeline, within the meaning of the Energy Law, if the obligational relationship is related to infrastructure with a present value or – in the case of new infrastructure or infrastructure being planned – with an estimated value exceeding the PLN equivalent of EUR 500,000, excluding credit agreements and maintenance services, overhauls, well services and projects, as well as services or deliveries under such agreements or projects.

31. Approval of how the Issuer's representative should vote at the General Meetings of the storage system operators, with respect to:

    a) Amendments to the company's articles of association;

    b) Increase or reduction in the company's share capital;

    c) Merger, transformation or demerger of the company;

    d) Sale of company shares;

    e) Sale or lease of, or creation of limited property rights in, the company's business or its organised part;

    f) Dissolution and liquidation of the company;

    g) Entry into an obligational relationship with a foreign entity for the planning, analysis, construction, expansion or disposal of a storage unit, within the meaning of the Energy Law, if the obligational relationship is related to infrastructure with a present value or – in the case of new infrastructure or infrastructure being planned – with an estimated value exceeding the PLN equivalent of EUR 500,000, excluding credit agreements and maintenance services, overhauls, well services and projects, as well as services or deliveries under such agreements or projects.

32. Approval of how the PGNiG representative should vote at the General Meeting of a company in which the Company holds at least a 50% interest, or which owns a transmission network, a distribution network, an interconnection gas pipeline, a direct gas pipeline, a storage facility, or a generation or cogeneration unit (in the case of companies owning generation or cogeneration units – provided they are engaged in energy trading activities within the meaning of the Energy Law), subject to items 30 and 31, with respect to the following matters:

    a) Amendments to the company's articles of association;

    b) Increase or reduction in the company's share capital;

    c) Merger, transformation or demerger of the company;

    d) Sale of company shares;

    e) Sale or lease of, or creation of limited property rights in, the company's business or its organised part;

    f) Dissolution and liquidation of the company;

    g) Creation of pledges or other forms of encumbrance over company shares;

    h) Obligating shareholders to make contributions to equity,

    i) Issue of bonds/notes;

    j) Entry into an obligational relationship with a foreign entity for the planning, analysis, construction, expansion or disposal of a transmission network, distribution network, interconnection gas pipeline or direct gas pipeline, within the meaning of the

Energy Law, if the obligational relationship is related to infrastructure with a present value or – in the case of new infrastructure or infrastructure being planned – with an estimated value exceeding the PLN equivalent of EUR 500,000;

k) Entry into an obligational relationship with a foreign entity in relation for the planning, analysis, construction, expansion or disposal of a storage facility, within the meaning of the Energy Law, if the obligational relationship is related to infrastructure with a present value or – in the case of new infrastructure or infrastructure being planned – with an estimated value exceeding the PLN equivalent of EUR 500,000;

l) Entry into an obligational relationship with a foreign entity for the planning, analysis, construction, expansion or disposal of a generation unit or cogeneration unit, within the meaning of the Energy Law, if the obligational relationship is related to infrastructure with a present value or – in the case of new infrastructure or infrastructure being planned – with an estimated value exceeding the PLN equivalent of EUR 500,000;

m) Entry into an obligational relationship with a foreign entity for hydrocarbon exploration, appraisal or production, within the meaning of the Geological and Mining Law, if the value of the obligational relationship exceeds the PLN equivalent of EUR 5,000,000,

- with the proviso that items j) to m) above do apply to credit agreements or maintenance services, including overhauls, geophysical, drilling and well services and projects, as well as services or deliveries under such agreements or projects,
- Item m) does not additionally apply to a foreign subsidiary's activities pertaining to contracts and agreements concluded as part of the day-to-day management of the organisational structure, including employment contracts, use of assets where the related liabilities are equal to or less than EUR 5,000,000, and day-to-day administrative expenses.

33. Giving opinions on the Management Board proposals for assumption of liabilities in an amount exceeding the PLN equivalent of EUR 100,000,000.
34. Giving opinions on the Management Board's reports on entertainment expenses, legal costs, marketing costs, public relations and social communication expenses, and costs of management advisory services.

Supervisory Board meetings are convened by the Chairman or Deputy Chairman of the Supervisory Board any time the Issuer's interest so requires, but no less frequently than once every two months. Supervisory Board meetings are also convened at the request of a Supervisory Board member, or at the request of the Management Board. The Supervisory Board express its opinions exclusively in the form of resolutions. The Supervisory Board may adopt resolutions if at least 50% of its members are present at a meeting, and all the members have been invited to participate. The Supervisory Board may only adopt resolutions on matters included on the agenda, which however can be amended if all members are present at a meeting and no member objects to the agenda being amended. The Supervisory Board adopts resolutions in an open vote by an absolute majority of votes. A secret ballot is ordered at the request of a Supervisory Board member or when the matter put to vote concerns personnel matters. Members of the Management Board may be invited to participate in Supervisory Board meetings. In order to be valid, a resolution of the Supervisory Board on appointment of an auditor requires a favourable vote from a member of the Supervisory Board who meets the independence criteria defined in the Issuer's Articles of Association. Except as specified in the Rules of Procedure for the Supervisory Board, the Supervisory Board may adopt resolutions by written ballot or by means of remote communication. Adoption of a resolution using any of these methods must be justified, and a draft resolution must be made available to all Supervisory Board members beforehand.

The Chairman of the Supervisory Board is entitled to request that a Management Board meeting be called, by providing the President of the Management Board with a written agenda for the meeting. The Chairman of the Supervisory Board has the right to demand of the President of the Management Board that certain items be placed on the agenda of a Management Board meeting. The Management Board submits to the Supervisory Board the following documents for assessment: financial statements for the preceding financial year, with the auditor's opinion and report; the Directors' Report on the Issuer's operations in the preceding financial year, and a proposal for distribution of profit or coverage of loss for that financial year. These documents should be submitted without the Management Board being called upon to do so, and with sufficient time for the Supervisory Board to assess them before they are presented to the General Meeting.

The Supervisory Board or its members delegated to individually perform certain supervisory functions are authorised to supervise all areas of the Issuer's activity, and in particular to examine all of the Issuer's documents, demand that the Issuer's Management Board and employees produce reports and explanations, or review the Issuer's assets.

The Supervisory Board may appoint standing or ad hoc committees (established as needed), to act as the Supervisory Board's collective advisory and opinion-forming bodies. The Supervisory Board also has the right to seek opinions from legal counsels and to engage experts in relevant fields to provide opinions on matters within the Supervisory Board's range of competence.

The amount of remuneration to be received by Supervisory Board members is set by the General Meeting, pursuant to the Act of June 9th 2016 on Remunerating Persons Who Direct Certain Companies (Dz.U. of 2017, item 2190).

For important reasons, the Supervisory Board may delegate individual members to perform certain supervisory functions independently for a specified term. A Supervisory Board member so delegated must submit written reports to the Supervisory Board on all actions taken.

11.3. Committees

In 2018, there was one committee operating at the Company – the Audit Committee. The Audit Committee is composed of at least three Supervisory Board members, of whom at least one has expertise and competence in accounting or auditing of financial statements.

All members of the Audit Committee submitted statements to the effect that they meet the independence criteria stipulated in Art. 129 of the Polish Act on Statutory Auditors, Audit Firms, and Public Oversight, of May 11th 2017, and Commission Recommendation 2005/162/EC of February 15th 2005. Two members of the Audit Committee have expertise and competence in accounting or auditing of financial statements:

Grzegorz Tchorek, Chairman of the Audit Committee, holds an MA in business management and marketing. He graduated from the Faculty of Management of the University of Warsaw, and holds a PhD in Economics in Management earned at the Faculty of Management of the University of Warsaw.

Piotr Broda, Deputy Chairman of the Audit Committee, is a graduate of the Warsaw School of Economics and holds an MA in economics/ foreign trade, with a specialisation in financial markets.

Bartłomiej Nowak, Member of the Audit Committee, has the expertise and skills required in the industry in which the Company operates. He holds a PhD in law from the Polish Academy Sciences (Institute of Legal Sciences), in business law, and a PhD in law from EUI FLORENCE. He was an adviser to the President of the Energy Regulatory Office (URE) in 2007−2009 and worked for Directorate-General for Transport and Energy of the European Commission in 2007–2008.

In 2018, the Audit Committee held seven meetings and passed 14 resolutions. The Committee adopted one resolution by means of remote communication. At one of its meetings, the Audit Committee met with the auditor and reviewed and assessed the Company's financial reporting system.

Composition of the Audit Committee of the PGNiG Supervisory Board in 2018:

1. Grzegorz Tchorek – Chairman of the Audit Committee
2. Piotr Broda − Deputy Chairman of the Audit Committee
3. Bartłomiej Nowak – Member of the Audit Committee.

In 2018, the composition of the Audit Committee did not change.

11.3.1. Rules governing the operation of the Audit Committee

The Audit Committee operates within the Supervisory Board as a standing committee, advising the Supervisory Board on matters for which the Board is responsible.

In accordance with the Rules of Procedure for the Audit Committee of the Supervisory Board, the Audit Committee is composed of at least three Supervisory Board members, of whom at least one has expertise and competence in accounting or auditing of financial statements.

Most of the Audit Committee members, including its Chair, are independent of the Company, i.e. they meet the independence criteria referred to in Art. 129.3 of the Act of May 11th 2017 on Statutory Auditors, Audit Firms, and Public Oversight.

Audit Committee members should have expertise and skills specific to the industry in which the Company operates. This requirement is deemed satisfied if at least one Audit Committee member has expertise and skills specific to that industry, or individual members have expertise and skills specific to different aspects of that industry.

Members of the Audit Committee are appointed by the Supervisory Board from among its members on a rotational basis, so as to avoid attaching importance to the presence of any particular persons.

Meetings of the Audit Committee are held as needed, but at least once every six months, and are convened by the Chair of the Committee.

The Chair of the Audit Committee may invite other members of the Supervisory Board to an Audit Committee meeting, as well as members of the Issuer's Management Board, the Issuer's employees, or other persons whose participation in a given meeting is considered important to the performance of the Committee's duties. The Audit Committee may adopt resolutions if at least a half of its members are present at a meeting and all the members have been properly invited. The Committee may adopt its resolutions by written ballot or by means of remote communication. Resolutions of the Audit Committee are adopted by a simple majority of votes cast. In the event of a tied vote, the Chair of the Audit Committee has the casting vote.

Every six months, the Audit Committee submits reports on its activities to the Supervisory Board. Each report is made available to the Issuer's shareholders at the next General Meeting.

The Audit Committee's responsibilities include in particular those set out in Art. 130 of the Act on Statutory Auditors, Audit Firms, and Public Oversight, of May 11th 2017, e.g.

a) monitoring of:

- the financial reporting process;
- effectiveness of the internal control and risk management systems and the internal audit function, including with regard to financial reporting,
- performance of financial audit tasks, including the audit of financial statements performed by an audit firm, with account taken of all conclusions and findings from an inspection of the audit firm by the Polish Audit Oversight Commission;

b) oversight and monitoring of the statutory auditor's and the audit firm's independence in the context of fee caps on permitted non-audit services provided to the audited Company;
c) informing the Supervisory Board or other supervisory or control body of the Company of the audit findings and explaining how the audit contributed to the reliability of the Company's financial reporting and what role the Audit Committee played in the audit;
d) assessing the auditor's independence and approving the provision of permitted non-audit services by the auditor;
e) developing a policy for selection of an audit firm to perform audits;
f) developing a policy for the provision of permitted non-audit services by the audit firm, its related entities, or members of its network;
g) establishing an audit firm selection procedure for the Company;
h) submitting to the Supervisory Board or other supervisory or control body, or the governing body referred to in Art. 66. 4 of the Accounting Act of September 29th 1994, a recommendation referred to in Art. 16.2 of Regulation (EU) No 537/2014, in accordance with the policies referred to in items e and f;
The recommendation on the selection of an auditor should name the audit firm recommended for appointment and include a statement that the recommendation is free from influence by a third party and that the audited public interest entity has not entered into any agreements including clauses referred to in Art. 66.5a of the Accounting Act of September 29th 1994;
i) submitting recommendations to ensure the reliability of the financial reporting process at the Company.

11.4. Rules for cooperation with audit firm

Following a selection made by the PGNiG Supervisory Board on February 10th 2016, Deloitte Polska Sp. z o.o. Sp.k. was appointed as the entity qualified to audit and review financial statements of PGNiG S.A. and some of the subsidiaries as well as the consolidated financial statements of the PGNiG Group. The agreement was concluded on May 5th 2016 and covers the years 2016-2018. In 2018, the audit firm provided the following permitted non-audit services to PGNiG:

1. Review of the quarterly separate and consolidated financial statements for the periods ended March 31st 2018 and September 30th 2018.
2. Review of the interim separate and consolidated financial statements for the six months ended June 30th 2018.
3. Review, for the needs of banks providing financing to PGNiG, of agreed procedures concerning financial covenants specified in the credit facility agreements signed by PGNiG, as well as bond subscription agreements and the terms and conditions of such bonds – for the 12 months ended December 31st 2017 and June 30th 2018.
4. Audit of the condensed separate financial statements for the first half of 2018.
5. Assurance service for review of the correctness of information presented in a survey conducted by Deloitte Advisory Sp. z o.o. under an agreement with the WSE. The agreement pertained to inclusion of companies in the RESPECT Index.

All the services were taken into account in the assessment of the audit firm's independence and provision of the services by entities of the PGNiG Group's audit firm network was approved by the Audit Committee of the Supervisory Board. For information on the audit firm's fees, see the Consolidated Financial Statements, Section 8.8.1. - Auditor fees.

On December 20th 2018, the Audit Committee submitted a recommendation to the PGNiG Supervisory Board concerning selection of an audit firm to perform audits for PGNiG and selected companies of the PGNiG Group for 2019–2020; the recommendation met the conditions set forth in Art. 130.2. of the Act on Statutory Auditors, i.e.:

1. The Audit Committee named the audit firm which it proposed to appoint to perform the statutory audit;
2. The Audit Committee declared that its recommendation was free from any third-party influence;
3. The Audit Committee declared that PGNiG had not entered into any agreements including clauses referred to in Art. 66.5a of the Accounting Act of September 29th 1994;

The Audit Committee also stated that the recommendation had been prepared following the procedure to select an audit firm, carried out by PGNiG in accordance with the provisions of the Public Procurement Law of January 29th 2004 (consolidated text: Dz. U. of 2018, item 1986), and the procedure meets the criteria set out in Art. 130.3 of the Act on Statutory Auditors, Audit Firms, and Public Oversight of May 11th 2017 (Dz. U. of 2017, item 1089).

The purpose of the policy to select an audit firm to perform the audit and of the policy for provision of permitted non-audit services by the audit firm and entities of its network is to strengthen the independence, objectivity, accountability, transparency and reliability of the audit firm conducting the statutory audit of the Issuer's financial statements. The implemented policies are also intended to introduce an additional mechanism securing the audit firm against threats such as a conflict of interest, acting in its own interest, acting in a third party's interest, and personal relationship with or excessive trust in the principal. Strengthening of the auditor's independence is in PGNiG's interest, as it mitigates the risk that an audit of financial statements may be found invalid should any of the conditions referred to in Art. 66.6. of the Accounting Act be met.

11. PGNiG Group's non-financial statement

This consolidated non-financial statement has been prepared in accordance with Art. 49b and Art. 55 of the Accounting Act, which requires public-interest entities to disclose their non-financial data.

This statement covers selected indicators of the GRI Standard Global Reporting Initiative and the PGNiG Group's own indicators.

11.1. Key information − business model

Polskie Górnictwo Naftowe i Gazownictwo SA (PGNiG) is the leader of the natural gas market in Poland and one of the largest companies listed on the WSE. PGNiG's business comprises exploration for and production of natural gas and crude oil. Through its key companies, PGNiG is also active in the area of import, storage, sale and distribution of gas and liquid fuels, as well as heat and electricity generation and distribution.

The PGNiG Group (the Group) plays a key role on the Polish gas market, and as the market leader takes responsibility for maintaining Poland's energy security. Therefore, 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. The fuel is transported into Poland via an extensive transmission network and the President Lech Kaczyński LNG Terminal in Świnoujście. Gas is delivered to end users mainly 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.

PGNiG has foreign branches and representative offices in Pakistan, the United Kingdom, Russia, Belgium, Belarus and Ukraine, and holds equity interests in some 30 companies, including providers of specialist geophysical, drilling and well services, highly valued on international markets.

PGNiG is the sole owner of PGNiG Upstream Norway (PUN), engaged in upstream activities on the Norwegian Continental Shelf and the Norwegian Sea, and PGNiG Supply & Trading, which sells gas to wholesale customers abroad. In addition, PST trades on the global LNG market through its London branch.

This statement contains information on PGNiG (the parent) and its 24 subsidiaries. For a detailed description of the PGNiG Group's business model and business segments, see the following sections of this Directors' Report on the operations of PGNiG and the PGNiG Group.

Business model > For more information, see Section 2.1. of the Directors' Report on the operations of PGNiG and the PGNiG Group in 2018.

PGNiG Group > For more information, see Section 2.2. and Section 6 of the Directors' Report on the operations of PGNiG and the PGNiG Group in 2018.

11.1.1. Business segments

Exploration and Production

The segment's principal business activity is extraction of hydrocarbons from deposits and preparation of produced hydrocarbons for sale. This involves exploring for and extracting natural gas and crude oil from deposits, and includes geological surveys, analysis of geophysical data, drilling, and development of and production of hydrocarbons from gas and oil fields. The work is conducted based on PGNiG's own resources or jointly with partners, under joint operations agreements, in Poland and abroad. 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. In crude refining, crude condensate, sulfur and propane-butane are obtained. The segment relies on storage capacities available at the Daszewo and Bonikowo Underground Gas Storage Facilities.

The segment includes, among others, the following companies: PGNiG, PGNiG Upstream Norway AS, PGNiG Upstream North Africa B.V., Geofizyka Toruń Sp. z o.o., and EXALO Drilling S.A.

Trade and Storage

The principal activity of the segment is trade in natural gas in Poland and abroad. The segment specialises in selling natural gas produced from domestic fields or imported. The PGNiG Group is the largest supplier of natural gas in Poland. It is rapidly increasing its presence in foreign markets as a wholesaler and end user supplier by expanding the operations of its subsidiaries. The segment also trades in electricity, certificates of origin for electricity, and CO_2 emission allowances. PGNiG is the leader of natural gas trading on the Polish Power Exchange. Trade and Storage operates seven underground gas storage facilities (Brzeźnica, Husów, Mogilno, Strachocina, Swarzów, Wierzchowice and Kosakowo).

The segment includes the following companies: PGNiG, PGNiG Obrót Detaliczny Sp. z o.o. (PGNiG OD), PGNiG Sales and Trading GmbH, PST Europe Sales GmbH, and Gas Storage Poland.

Distribution

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. Gas distribution services are provided by Polska Spółka Gazownictwa Sp. z o.o. (PSG), a subsidiary with a dominant share in the market. As the Distribution System Operator, PSG conducts its business in all provinces of Poland.

Generation

The segment's activities consist in generation of electricity, heat, cooling and compressed air, and distribution of heat. The segment carries out major power engineering projects relying on natural gas. PGNiG TERMIKA is the Group's competence centre for heat and electricity generation as well as execution of heat and power projects.

The segment's companies are PGNiG Termika S.A. and PGNiG Termika Energetyka Przemysłowa S.A.

Business segments > For more information, see Section 5 of the Directors' Report on the operations of PGNiG and the PGNiG Group in 2018.

11.2. PGNiG Group Sustainable Development Strategy for 2017-2022

Corporate social responsibility and sustainable development initiatives are taken on the basis of the PGNiG Group Sustainable Development Strategy for 2017–2022 (the CSR Strategy), which supports and supplements the business objectives defined in the PGNiG Group Strategy for 2017–2022, including by focusing on key areas, namely: society, environment and economy, as well as development directions envisaged in the PGNiG Group's mission and vision.

PGNiG's mission statement underscores the Company's responsibility for ensuring Poland's energy security and focus on both retail and corporate customers with their different needs.

The awareness of our environmental impact and responsibility for energy security are the cornerstone of the Group's activities. Considering energy security-related issues and innovation, the PGNiG Group members, striving to live up to the expectations of their stakeholders, commit themselves to meeting the highest standards in organisational culture, relations with employees and customers, corporate citizenship, and pro-environmental initiatives.

At present, as part of the CSR Strategy, the Group is implementing in a number of projects and initiatives. These include the 'To Be Like Ignacy' educational programme and the 'We Warm Up Polish Hearts' history education programmes, acting as the titular sponsor of the Handball Super League, and providing ongoing support for Polish innovation as part of InnVento projects and other initiatives pursued by the Group. Internship opportunities provided as part of the PGNiG Youth Academy, such as GeoTalent and Deposits of Career, are equally important.

11.3. Key areas of the CSR strategy

11.3.1. National energy security

The PGNiG Group's business directly affects Poland's energy security, which – in the context of sustainable development – is reflected in our 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 continuous pursuit by the PGNiG Group of development in the area of natural gas and crude oil production and gas storage, as well as ensuring diversified sources of supply for customers. In this context, the importance of the key business projects involving gas exploration and production or procurement, or the day-to-day business of electricity and heat generation pursued by the PGNiG TERMIKA Group companies, can be seen.

The PGNIG Group constantly strives to increase its reserves and production of natural gas and crude oil and to ensure their uninterrupted supplies to customers. To this end, the Group pursues a policy to diversify natural gas imports to Poland and implements exploration and production projects.

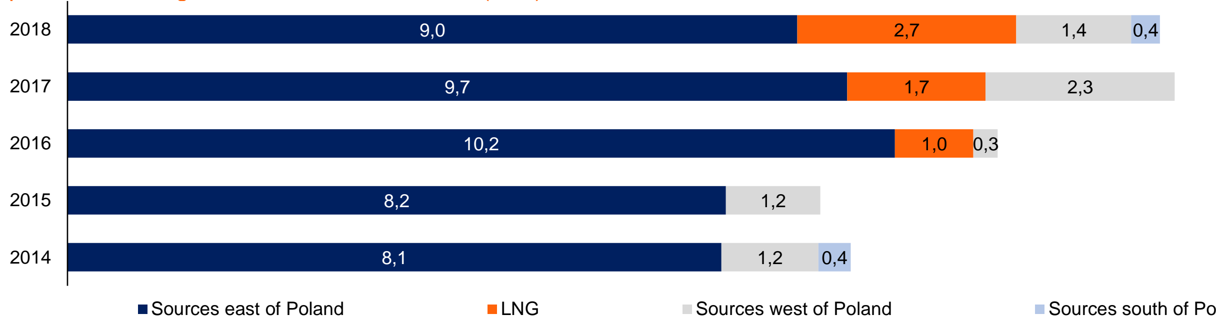
Natural gas procurement portfolio

In 2018, PGNiG purchased natural gas mainly under:

- 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 for sale of liquefied natural gas, dated June 29th 2009, effective until 2034 (the Qatar contract), and supplementary agreement to the long-term contract of March 2017 (effective from the beginning of 2018 to June 2034).

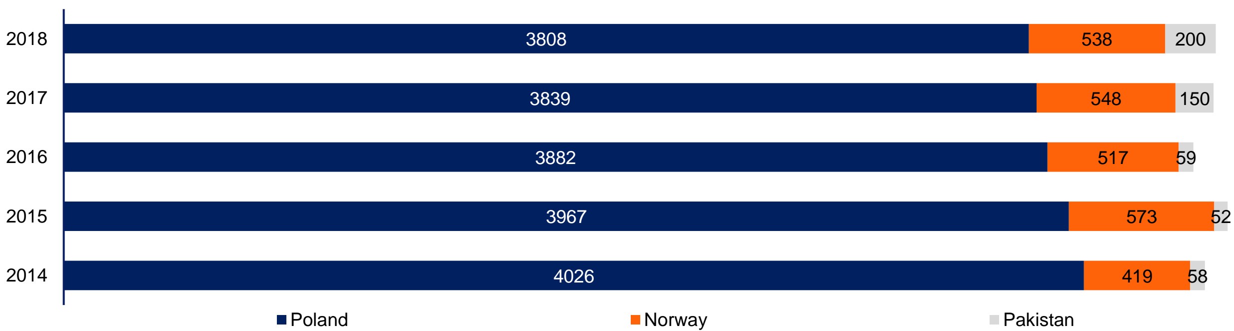
PGNiG also received gas under medium- and short-term contracts for grid deliveries and LNG supply (e.g. the five-year contract for nine liquefied natural gas shipments from Centrica LNG Company Limited).

Imports of natural gas to Poland in 2014–2018 (bcm):



In 2018, the imported gas volume was 13.5 bcm. Gas purchases from the Eastern direction fell by more than 0.7 bcm compared with 2017. LNG deliveries increased significantly, from 1.7bcm in 2017 to 2.7 bcm 2018.

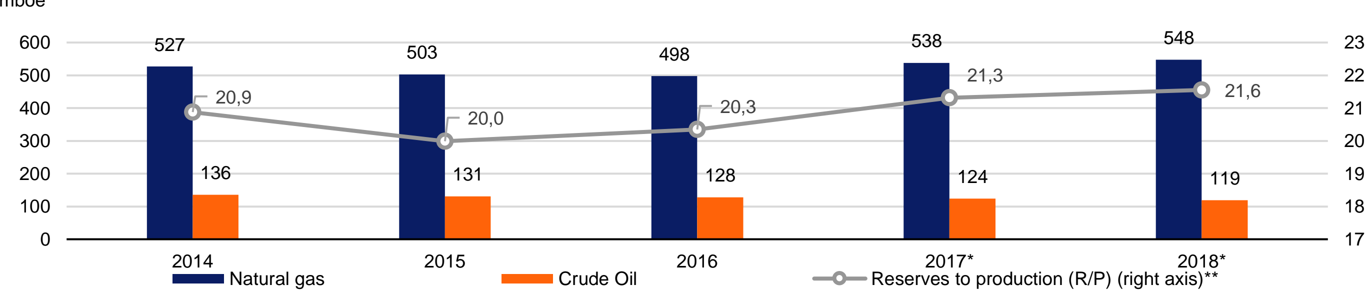
Natural gas production by the PGNiG Group (mcm):



Volume and type of estimated reserves

Poland

Recoverable reserves documented by PGNiG in Poland in 2014−2018



** Also included are reserve increases specified in the documentation approved by the Commission for Mineral Resources, without the decision of the Minister of the Environment.*

*** R/P ratio based on total reserves of hydrocarbons to the production level*

Norway

In 2018, PGNiG UN recorded an increase in its Norwegian reserves, from 83 mboe at the beginning of the year to 142 mboe at the end of 2018. The increase was mainly attributable to the acquisition of an interest in the PL044 licence, covering the Tommeliten Alpha field.

Pakistan

Natural (nitrogen-rich) gas reserves attributable to PGNiG: 35.7 mboe in the Rehman field and 13.7 mboe in the Rizq field.

11.3.2. Environmental protection

The PGNiG Group has been taking steps to minimise any adverse impacts of its activities on the environment. To support this goal, we develop technical standards for our operations based on applicable legal requirements and best oil and gas industry practices. We undertake preventive steps in exploration and production, analyse environmental risks and monitor the impact of our activities on the environment. We use technologies to mitigate negative environmental impacts and management systems to improve environmental performance.

The PGNiG Group companies strive to minimise the negative impact of their operations and undertake pro-environmental measures in key areas related to their business activities. Strong commitment and dedication on the part of the management staff and appropriate preparation of the workforce translate into improved environmental performance of the PGNIG Group, as well as higher quality of its products and services, in compliance with international standards.

Well and extraction pit abandonment

Wells and boreholes intended for abandonment are plugged and abandoned in accordance with the provisions of the Geological and Mining Law and the secondary legislation issued under it. Abandoned wells are permanently marked in the field, in accordance with the Regulation of the Minister of Economy of April 25th 2014 on specific requirements for the operation of mining facilities producing minerals through wells, the Regulation of the Minister of Economy of June 12th 2002 on mining rescue, and with the 'Mine Operations Manager Guidelines on securing, temporary plugging and abandonment of boreholes and wells'.

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.

Land restoration and surveying of non-productive assets

The Regulation of the Minister of the Environment concerning the procedure of assessing soil contamination necessitated a new approach towards remediation of the soil-water environment on non-producing assets where municipal gas production from hard coal in the past caused changes in the environment and local pollution. As part of a remediation plan, priority must be given to tests assessing the state of the environment as well as development of cheaper and more effective methods of removing pollutants.

Underground gas storage facilities

In recent years, environmental monitoring was carried out in and around the Mogilno CGSF and Kosakowo CGSF. The aim of the monitoring was to identify possible changes related to the discharge of salt brine into the Puck Bay in the case of the Kosakowo CGSF and operation of the onshore part of the facility in the case of the Kosakowo CGSF and Mogilno CGSF. Results of the environmental monitoring indicate that activities consisting in the construction and operation of underground gas storage facilities have no adverse effects on individual components of the natural environment.

At the Mogilno CGSF, monitoring of the terrestrial environment was continued, covering surface and underground waters, the ground and tightness of the storage reservoir, in which wells and continuous monitoring probes installed inside them (in the vicinity of the caverns) have proved particularly useful.

In the case of the Kosakowo CGSF, environmental monitoring was carried out in the onshore and offshore part of the facility. In the onshore part, the monitoring covered underground and surface waters, the ground, ground sinking and tightness of the storage reservoir. An important document enabling the monitoring is the concept of a network of fixed data for monitoring of ground sinking in the area of the Kosakowo CGSF. On the other hand, monitoring in the offshore part includes a series of biological and hydrological surveys and measurements, as well as operational parameters of the discharge unit.

In 2018, GSP adopted the *Policy for an integrated quality, environmental, and occupational health and safety management system at GSP Sp. z o.o.*, under which the company committed to implement measures based on the principles of sustainable development and corporate social responsibility, and to continuously improve its integrated quality, environmental and OHS management system compliant with the ISO 9001:2015, ISO 14001:2015 and OHSAS 18001:2017 standards.

The Geo-Metan project

The aim of the Geo-Metan project is to achieve a reduction of CH4 emissions into the atmosphere. It involves extraction of methane before hard coal extraction, which is ultimately expected to lead to lower emissions of methane during mining operations. In addition, the methane can be effectively used by PGNiG as one of unconventional sources of natural gas. The research and demonstration part of the project has been planned to take ten years.

Raw materials and consumables used (GRI 301-1)

Consumption of natural gas, hard coal and lignite at the PGNiG Group in 2016−2018

Total raw materials and consumables used	2018		2017		2016	
	[mcm]	[million Mg]	[mcm]	[million Mg]	[mcm]	[million Mg]
Natural gas	323.4		376.5	-	152.8	-
including PGNiG	292.1		*270.2*	-	*56.4*	-
Hard coal		2.9	-	2.9	-	2.9
Lignite	-	-	-	-		

Non-renewable resources are the main materials used in the production of electricity and heat at the PGNiG Group. Coal is used to produce electricity and heat mainly in the 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 industrial processes as a fuel for oil heaters in desulfurization and desalination, fuel for boilers, gas compression engines, gas turbines, and post-combustion of waste gases.

In 2018, PGNiG's gas consumption rose due to its flaring in the course of extraction activities. Most of the companies try to reduce gas consumption by modernising their heating installations.

Energy consumption at the PGNiG Group in 2016–2018 (GRI 302-1)

In 2018, the majority of the PGNiG Group companies consumed mainly energy generated internally on the basis of non-renewable

Energy consumption		2018		2017		2016
		PGNiG Group	PGNiG	PGNiG Group	PGNiG	PGNiG Group
Generated internally from non-renewable sources	Electricity [GWh]	837	1	894	74	838
	Heat [MJ]	3,974,234,394	3,494,348,115	4,890,062,269	4,478,730,220	3,961,884,022
	Steam [MJ]	4,652,289	285,289	43,096,683	37,480,683	38,745,305
	Cooling [MJ]	2,180,298		2,193,088	-	2,220,960
Generated internally from renewable sources	Electricity [GWh]	21.9		27.0	-	19.2
	Heat [MJ]	10,264,389		3.5	-	2.9
	Steam [MJ]			-	-	-
	Cooling [MJ]			-	-	-
Purchased from the grid	Electricity [GWh]	16,706		4.6		2.7

resources. The other Group members have signed contracts with energy companies. The volume of energy used is correlated with the Group's growth. The PGNiG Group implements pro-environmental solutions, such as cogeneration and trigeneration plants owned and operated by some of the companies, and photovoltaic systems. At Norway-based PUN all of the energy consumed is generated by zero-emission hydroelectric power plants.

Water withdrawal at the PGNiG Group in 2016–2018, by source (GRI 303-1)

Water (mcm)	2018		2017		2016
	PGNiG Group	PGNiG	PGNiG Group	PGNiG	PGNiG Group
surface water withdrawn from own intake points	158.3		156.2	-	159.5
ground water withdrawn from own intake points	0.3	0.3	0.3	0.2	0.3
rainwater			-	-	-
purchased from the mains, surface and ground water intakes	2.0	0.1	1.6	0.1	1.7

Impact on biodiversity (GRI 304-2)

In 2018, 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.

Direct CO_2 emissions from the PGNiG Group installations participating in EU ETS in 2017–2018 (GRI 305-1)

EU ETS installation	National Allocation Plan (KPRU) No.	2018			2017		
		Emission allowances ['000 Mg]	Emissions in 2017 ['000 Mg]	Surplus/(Deficit) ['000 Mg]	Emission allowances ['000 Mg]	Emissions in 2017 ['000 Mg]	Surplus/(Deficit) ['000 Mg]
Mogilno CGSF	PL-0898-08	4.3	10.4	(6.1)	5.1	14.0	(8.9)
Odolanów I (boiler house)	0562-05	15.3	28.2	(12.9)	18.1	30.9	(12.8)
Odolanów II (compressor station)	0950-08			0.0			
Lubiatów Oil and Gas Production Facility, Central Facility	PL-1070-13	40.8	61.8	(21.0)	41.6	55.4	(13.85)
Wierzchowice UGSF	PL-1072-13	0.0	54.7	(54.7)	-	42.6	(42.6)
Kosakowo CGSF	PL-1076-13	3.5	4.3	(0.8)	-	2.9	(2.9)
Dębno Oil and Gas Production Facility, Central Facility	PL-0563-05	25.3	32.6	(7.3)	25.8	29.7	(3.9)
Pruszków CHPP	PL-0026-05	32.4	127.7	(95.3)	37.7	133.4	(95.7)
Siekierki CHPP	PL-0027-05	959.5	3127.6	(2168.1)	1,059.3	3,047.2	(1,987.9)
Żerań CHPP	PL-0028-05	703.5	2224.9	(1521.4)	782.8	2,339.0	(1,556.2)
Kawęczyn CHPP	PL-0124-05	31.4	94	(62.6)	37.1	95.7	(58.6)
Wola HP	PL-0125-05	2.4	4.4	(2.0)	0.7	8.6	(7.9)
CM Racibórz	0297-05	13.1	47.4	(34.3)	17.5	50.0	(32.5)
CM Wodzisław Śląski	0298-05	8.5	33.95	(25.4)	11.7	34.7	(23.0)
CM Żory	0299-05	10.5	35.16	(24.6)	13.6	34.6	(21.0)
PTEP S.A. Moszczenica CHPP	0083-05	41.5	66.5	(25.0)	49.7	77.3	(27.6)
PTEP S.A. Zofiówka CHPP	0084-05	176.4	216.01	(39.6)	147.1	235.2	(88.1)
PTEP S.A. Pniówek CHPP	0085-05	26.7	80.02	(53.4)	30.5	77.4	(46.9)
PTEP S.A. Suszec CHPP	0086-05	11.2	35	(23.8)	12.4	34.7	(22.3)
Total		**2,106.2**	**6,287.1**	**(4,180.8)**	**2,290.7**	**6,343.3**	**(4,052.5)**

Currently, 18 installations of the PGNiG Group are included in the EU ETS. In 2018, the volume of carbon dioxide emissions amounted to 6,284,707 Mg and was slightly lower than in previous years (down 1%). As free allowances of CO_2 emission rights decrease year by year, there is a need to purchase additional emission rights.

Reduction of greenhouse gas (GHG) emissions (GRI 305-1)

The PGNiG Group places great emphasis on reducing gas and particulate matter emissions into the air. It has been steadily reducing the amount of pollutants generated by transportation, combustion processes in heat sources, fuel reloading and industrial processes (gas combustion at flares, gas venting, emissions from compressor stations and compressors). The methods of reducing emissions of pollutants into the air include using gas as a low-emission fuel, monitoring fuel consumption, reducing the energy intensity of industrial processes and modernising or replacing heat sources used for the Group's own needs.

NOx, SOx, and other significant air emissions (GRI 305-7)

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 (SO_2, NOx, CO, CO_2, CH_4), particulate matter, hydrocarbons, aldehydes, alcohols, acids, heavy metals, metallic and non-metallic elements.

In 2018, air emissions of pollutants other than CO and CO_2 were mostly on decline as a result of using more advanced coal combustion technologies.

Air pollutants emitted by the PGNiG Group in 2016−2018

Emissions of gases, particulates and substances (Mg)	2018		2017		2016
	PGNiG Group	PGNiG	PGNiG Group	PGNiG	PGNiG Group
CO_2	6,557,509	377,573	6,577,924	338,122	6,411,274
CO_2 biomass combustion	227,901	-	293,710	-	240,323
CH4	12,693	10,437	14,424	9,586	18,911
SO2	10,757	1,733	12,452	1,725	14,152
NO_X/NO_2	6,339	445	6,377	355	6,782
CO	2,094	316	2,216	361	2,100
Total particulates	672	4	786	2	1,099
Total hydrocarbons	261	193	260	198	264
H_2S	0.2	0.2	-	-	-
Total	6,818,226	390,701	6,908,149	350,349	6,694,905

Total water discharge by quality and destination in 2016−2018 (GRI 306-1)

Wastewater	2018		2017		2016
	PGNiG Group	PGNiG	PGNiG Group	PGNiG	PGNiG Group
Domestic [m^3]	361,021	268	348,342	262	276,655
Municipal [m^3]	116,844	89,200	108,113	90,955	104,183
Industrial [m^3]	6,448,565	10,879	6,652,290	15,248	6,311,583
Rainwater and snowmelt [m^3]	1,381,540	320,007	1,497,638	288,197	1,209,936
Other [m^3]	151,742,533	-	149,839,142	-	154,527,215

Wastewater generated by the PGNiG Group companies is discharged into 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.

Waste management (GRI 306-2)

The production of hazardous and non-hazardous waste is unavoidable in activities related to extraction and processing of crude oil and natural gas. In 2018, all the PGNiG Group companies reported decreases in the volumes of generated waste, an effect mainly of the introduction of new technologies and use of environment-friendly materials and products. The PGNiG Group companies also run programmes raising the awareness of the need to sort waste. The other waste is recycled by specialised external operators.

Waste management methods used at the PGNiG Group in 2016−2018

Other waste excluding municipal waste		Recovered		Disposed of [Mg]	Stored [Mg]
		Recycled[Mg]	Recovered by other means [Mg]		
		2018			
Hazardous waste	PGNiG Group	417.8	809.3	757.5	8.8
	PGNiG	70.2	65.7	604.8	8.8
Non-hazardous waste	PGNiG Group	516,823.3	2,951.9	3,194.2	177.3
	PGNiG	1,042.4	18.1	2,856.5	171.4
		2017			
Hazardous waste	PGNiG Group	282.0	468.7	4,510.6	-
	PGNiG	39.6	402.5	3,020.8	-
Non-hazardous waste	PGNiG Group	572,134.6	3,286.9	1,235.7	22.6
	PGNiG	1,139.7	2,961.0	937.4	-
		2016			
Hazardous waste	PGNiG Group	1,646.2	690.9	584.1	49.0
	PGNiG	1,061.9	15.2	521.4	49.0
Non-hazardous waste	PGNiG Group	565,664.6	5,615.1	1,905.4	389.7
	PGNiG	4,998.3	7.8	1,763.6	353.4

Method of drilling waste management in 2016–2018

Drilling waste		Stored in waste disposal facilities [Mg]	Recovered [Mg]	Disposed of [Mg]	Reused [Mg]	Stored [Mg]	Stored in rock mass [Mg]
			2018				
Hazardous waste	PGNiG Group	-	1,189.19	1,134.23	-	-	-
	PGNiG		1,189.19	499.32	-	-	-
Non-hazardous waste	PGNiG Group	1,884.58	66,786.92	7,827.23	-	120.91	6,092.36
	PGNiG		54,575.68	7,796.03	-	120.91	6,092.36
			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

Environmental protection expenditure at the PGNiG Group in 2016−2018

	2018	2017	2016
expenditure on environmental projects (including upgrades and repairs) (PLNm)	1,328.8	1,003.5	139.5
including PGNiG	1.5	3.9	3.5

The PGNiG Group's environmental protection expenditure in 2018 rose compared with the previous year. Boiler houses were modernised and buildings were thermo-modernised, which directly contributes to air protection. Expenditure was also incurred on water protection and waste management.

The PGNiG TERMIKA Group companies planned their environmental expenditure to reach PLN 1,445.6 in 2019–2021, in view of the entry into force of stricter environmental requirements resulting from the BAT Conclusions. A major part of that amount is earmarked for the construction of new generation units (CCGT unit, two gas-fired peak-load boiler houses at the Żerań CHPP, and construction of new sources at the Pruszków CHPP) to replace the obsolete ones which do not comply with BAT requirements. The planned investment in existing sources will be made mainly to construct equipment reducing pollutant emissions (NOx reduction, desulfurisation and particle collection solutions) to the levels compliant with BAT.

A significant amount of funds was spent on environmental protection training and campaigns. The costs of certification, environmental software and mandatory environmental measurements were also incurred. Several awareness-raising meetings for employees were held, dealing with sustainable transport, waste sorting and mitigation of the industry's potential adverse environmental impact.

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.

Another important environmental aspect is air pollutant emissions. Emissions of particulates and gases, such as nitrogen oxides, sulfur oxides and carbon oxides, are especially relevant to PGNiG TERMIKA, which produces electricity and heat from coal, natural gas and biomass. Emissions of natural gas, including gas containing sulfur compounds, may occur in emergency situations, such as leaking wellheads or pipelines, and outbursts.

Most of the industrial processes involve noise emissions into the environment, and in the case of Geofizyka Toruń – also vibrations.

Contaminated soil and groundwater are another identified 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 processes, operation of machinery and equipment, or leaks from storage tanks or pipelines.

11.3.3. Social capital and CSR activity

The nature and scale of the PGNiG Group's operations and the presence of its exploration, production, storage and distribution infrastructure in the lives of local communities make the Group deeply committed to building partnering relations with its social environment, local governments, suppliers and contractors, with the ultimate goal of pursing joint objectives.

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

The Group's influence on local communities comes also from its charitable activities, carried out mainly by the PGNiG Ignacy Łukasiewicz Foundation.

The Foundation's principal mission is to support projects designed to preserve and develop national heritage and culture, as well as promote knowledge and education in the field of fundamental/technical sciences and sports. The Foundation also seeks to promote the history of Poland, build national identity and commemorate Polish heroes.

The Foundation's activity is based on cooperation with programme partners and implementation of its own projects, which helps it effectively use its potential and reach those who most need support, irrespective of where they are in Poland.

In 2018, the PGNiG Foundation focused on three proprietary programmes: 'To Be Like Ignacy', 'We Warm Up Polish Hearts' and 'Air without Rubbish'.

'To Be Like Ignacy'

The programme promotes science among primary school pupils, giving them an opportunity to learn about the patron of the Foundation and other distinguished Polish scientists. The main element of the programme is a website featuring an interactive comic strip and educational videos showing scientific experiments.

'To Be Like Ignacy' is addressed to all those who are passionate about science and its history. The materials are in accessible form, encouraging kids to gain knowledge and learn from the inspiring histories of our ancestors, and creating an atmosphere of learning while playing.

As part of the programme, the Foundation holds a competition called 'Ignacy's School of Science'. As at the end of 2018, more than 1,250 schools from all over Poland enrolled in its third edition. The competition judges will select 16 schools (one from each province) which 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 plans for 0−3 and 4−6 forms. The number of schools participating in the project's previous edition was over 650. The project was summarised in June 2018 at an official gala event, during

which the winning schools were presented. 'To Be Like Ignacy' is run under the honorary patronage of the Ministry of National Education and the Polish Radio is its media patron.

'We Warm Up Polish Hearts'

As part of the programme, the Foundation supports educational and film making projects, initiatives to aid war veterans, and a variety of cultural activities. The Foundation supports the memory of so-called Cursed Soldiers, heroes of the anti-communist underground.

In March 2018, the first pilgrimage of Cursed Soldiers, initiated by the Foundation, arrived at the Jasna Góra Monastery. During the ceremony, Piotr Woźniak, President of the PGNiG Management Board, unveiled a memorial plaque to the Cursed Soldiers.

The programme also features the 'Debt of Gratitude' project run in association with PGNiG Obrót Detaliczny. In addition to Warsaw Uprising veterans, the project also supports miners who went on the historical strike at the Wujek coal mine. Polish heroes receive direct financial support of up to PLN 900 a year to pay their gas bills, which in many cases fully covers the charge.

In 2018, as part of the 'We Warm Up Polish Hearts' project, support was also extended to the Foundation for Civic Space and Social Affairs in connection with its 'Recovering Forgotten History' programme that has been run for many years with the aim of correcting the content of historical books and publications issued around the world and devoted to the history of Poland and Central and Eastern Europe.

'Air without Rubbish'

The Foundation joined in efforts to tackle the problem of smog in Poland and launched, at the end of 2017, together with the PGNiG companies, the 'Air without Rubbish' educational programme. One arm of the programme was a campaign to raise Poles' awareness of smog through advertising, social media and a website. The other arm were two competitions carried out in 2018 – one where residents could vote to win a science playground for construction in their area, and the other, addressed to children from primary school forms 1 to 3, was where pupils could win equipment for a biology laboratory. Teachers conducted a series of lessons about smog and presented a special report based on these lessons. In 2018, over 170 municipalities and nearly 1,000 schools entered the programme. Lesson plans were created based on the core curriculum in cooperation with a methodologist. Through this initiative, the Company runs a proprietary educational campaign supporting local communities and NGOs in their projects aimed at air quality improvement.

The project focused on air pollution, with a particular emphasis on 'low-stack emissions'. Dedicated to families, the programme was focused on promoting healthy habits for future generations.

Other activities of the Foundation

Another initiative of the Foundation was the establishment of an Educational Apiary - Energy from Honey. The project combines environmental protection with education, as educational workshops on bees and urban beekeeping are held there in spring and summer. The apiary, set up in 2017, currently numbers 24 hives.

A financial donation was made to the Ignacy Łukasiewicz Museum of Oil and Gas Industry Foundation in Bóbrka to support the museum's activities. Being one of its main sponsors, PGNiG supports the cradle of the oil industry − the oldest petroleum production site, as well as the heritage of the magnificent Polish inventor and philanthropist Ignacy Łukasiewicz.

Scholarships

The 'We Encourage Learning' scholarship programme was launched in 2009 by PGNiG Termika to support the most talented third- and fourth-grade students of secondary schools. In 2018, the PGNiG Ignacy Łukasiewicz Foundation granted ten one-off scholarships: three for third-grade students of an energy technician class, four for fourth-grade students of an energy technician class, and three for fourth-grade students of an electrical technician class.

The Foundation also funded scholarships for children of tragically deceased employees of the PGNiG Group. Currently, the number of the Foundation's scholarship holders is 13.

Other CSR activities

Key projects carried out in 2018 in pursuit of the sustainable development strategy included:

- Health Day – the second edition of a programme of preventive medical examinations for employees of the PGNiG Head Office, including free cardiology and cancer tests and anti-stress workshops. In 2018, the campaign covered 300 people.
- A Drop of Energy – in 2018, the PGNiG Head Office held two blood donation sessions, and in autumn the Company participated in the national blood donation session of the energy industry 'A Drop of Energy for Independent Poland'. Moreover, blood donation sessions for employees were also organised by the PGNiG Branches in Zielona Góra and Sanok, along with other Group companies.
- 'Oil Miner in School and Kindergarten' – a volunteer educational project in which employees of the PGNiG Zielona Góra Branch and PGNiG Geology and Hydrocarbon Production Branch are involved. The aim is to promote the profession of an oil miner through structured presentations in schools and kindergartens during dedicated events or St. Barbara's Day, the

patron saint of miners, falling on December 4th. In 2018, over 160 volunteer miners visited 243 schools and kindergartens, having met with more than 18 thousand children.

Gas Industry Museum

The Gas Industry Museum in Warsaw, located on the premises of the Wola Gas Works, which today houses the headquarters of PGNiG, is one of the most prominent examples of industrial architecture from the late 19th and early 20th centuries. In 2018, the museum was visited by nearly four thousand people, including more than 30 school groups taking part in museums classes, 20 groups of children and teenagers under the Summer and Winter in the City programme, and more than 20 organised groups of adults (including senior students of the University of the Third Age and tourist groups). The museum also participated in the Long Night of Museums, attracting more than 900 people to its historical space during a single evening.

RESPECT Index

In 2018, PGNiG passed its twelfth successful assessment for inclusion in the index of socially responsible companies. Since the very inception of RESPECT, PGNiG has been a member of this elite group of socially responsible companies listed on the Warsaw Stock Exchange.

To be included in the index, companies undergo a three-stage evaluation process by the WSE and the Polish Association of Listed Companies. Another essential condition for inclusion in the index is social responsibility towards the environment, local communities and employees, which is assessed through a survey reviewed by Deloitte, the project auditor.

An analysis of RESPECT performance reveals that stocks making up the index offer higher returns compared with the average reflected by the WIG index. Between November 2009 and December 2018, i.e. over the nine years of the index's existence, its value rose 70%. To compare, the broad market index WIG grew 47% while WIG20 lost 4% over the same period.

Sponsorship

For many years, PGNiG has been involved in sponsorship activities leading to the development of social capital, with sport, culture and education as the three focal areas of the Group's sponsorship activity. In 2018, particular importance was also attached to the celebration of the 100th anniversary of Poland's independence.

Sports sponsorship

Sports sponsorship of is an important part of PGNiG's marketing efforts. For many years, the organisation's comprehensive support has focused on one professional sports discipline – handball, which is based on strategic thinking, unlocking the players' potential and dynamic action, which perfectly reflects the Company's nature.

The level of national and international tournaments, the players' engagement and unique atmosphere in the stands translate into growing interest in handball among Poles, creating an excellent opportunity for PGNiG to further promote itself as a modern and dynamic brand. In 2018, PGNiG supported the following initiatives:

- The Polish Handball Association – PGNiG has been the strategic sponsor of Polish handball since 2010. Currently, support is provided to senior and junior national women's and men's teams. In addition, celebrations of the hundred years' anniversary of Polish handball were organised.
- Superliga sp. z o.o. – the Company is also a title sponsor of the men's league. PGNiG Superliga is the operator of Poland's top-class handball league. The name PGNiG Superliga stands for league games among 16 clubs, which compete for the title of the Polish Champion. The tournament is also an opportunity to organise a number of CSR events for fans and local communities: The Pink Ribbon Match (March 7th 2018) – promoting preventive medical checkups among women; the Bone Marrow Donor's Match (October 13th 2018) – a campaign run jointly with the DKMS Foundation; Movember – encouraging men to perform regular medical ultrasound examinations.
- I Love Handball at 'Orlik' − a series of handball tournaments held in 16 provinces with the support of local sports enthusiasts at modern sports facilities built in recent years under the Polish government-sponsored 'Orlik' project. The project is a response to the need to encourage children to take part in outdoor activities rather than spend their time in front of computer screens, and an attempt to instil in them a passion for sports. It is supported by the Ministry of Sports and Tourism.

Celebrations of the hundredth anniversary of Poland's independence

PGNiG also took part in a number of patriotic initiatives in connection with the hundredth anniversary of the restoration of Poland's independence. In 2018, the Group launched its special logo highlighting Poland's national colours, which was used until the end of the year.

As far as cultural and patriotic events are concerned, the Company lent its support to:

- Concert to Celebrate the Hundredth Anniversary of the Restoration of Poland's Independence – the project was designed to be a part of the centenary celebrations in the Kingdom of Denmark.

- Tenth anniversary of Poland's membership in the International Energy Agency; the Hundredth Anniversary of the Restoration of Poland's Independence – in October 2018, the tenth anniversary of Poland's admission to the International Energy Agency was celebrated in the Polish Embassy in Paris. By becoming a member of IEA, Poland gained a say in this assembly, which is currently the only global energy forum. Another aspect of the cooperation was related to the promotion of Poland on the occassion of the hundredth anniversary of its regaining independence, through a concert of classical and patriotic music referring to historical events from the first few years after the restoration of Poland's independence. The concert was held at the OECD headquarters.
- Special reception to celebrate the hundredth anniversary of the restoration of Poland's independence in Washington, DC – over 800 guests took part in the reception hosted on November 13th by the United States Institute of Peace.
- Concert: The 18th century classics masters performed by Capella Cracoviensis – on December 18th 2018 PGNiG, jointly with the Polish Institute in Moscow, helped organise a concert at the Catholic Cathedral in Moscow, to mark the closing of celebrations of the hundredth anniversary of Poland's independence and the thirtieth anniversary of the Polish Institute in Moscow.
- New Year Concert of Christmas Carols – PGNiG joined in the celebrations of the centenary of Poland's independence by participating in the promotion of the 'Peace to the world, joy to the people' concert of Christmas carols by the Polish Army Artistic Group.

Other sponsorship activities

- Television Theatre – patronage of the Television Theatre by the Company is a great example of its cooperation with the Polish national television operator Telewizja Polska S.A., with implications far beyond just providing support to Polish arts.
- 'Gintrowski – We will leave something to this world, after all', the third edition, a concert in homage to Przemysław Gintrowski.
- 22nd International Gospel Music Festival – Camp Meeting Gniew 2018.

Education

- Subscription of the *wSieci Historii* monthly devoted to history – as a partner, PGNiG supports the subscription of 12 consecutive issues of the *wSieci Historii* monthly magazine, which is distributed to 3,000 school libraries throughout Poland. By financing the subscription, the Company is making its contribution to building the historical memory and identity of the young generation of Poles.
- Festivals of science are events organised independently in many Polish cities, in cooperation with local universities or other partners. The Company takes a responsible approach to its engagement with local communities, particularly in the areas of its operations, but not only. Therefore, the Company takes special care to ensure that its support to initiatives in science, arts and education contributes to the overall promotion of knowledge and learning in Poland.

Social capital in numbers

In 2018, over 75 thousand primary and secondary school students and more than 500 university students were direct recipients or beneficiaries of CSR projects run by the PGNiG Ignacy Łukasiewicz Foundation and other PGNiG Group entities (including, in particular, PGNiG, PGNiG OD, Termika and PSG).

In 2018, the PGNiG Group companies and the PGNiG Foundation provided support to over 400 initiatives and events, compared with over 300 in 2017.

11.3.4. Development of the offering

Care for the customers and their satisfaction is one of the key areas of focus for the PGNiG Group companies. Retaining the existing customers and ensuring their satisfaction, as well as acquiring new ones, is possible thanks to the implementation of projects designed to ensure professional and friendly customer service and tailoring the offering to diverse needs. 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.

Number of new customers for electricity, CNG, LNG in 2018

Company	Number of new customers - electricity (in thousands)	Number of new CNG customers	Number of new LNG customers
PGNiG OD	54.9	33	7
PSG	-	-	756
PST	8.6	-	

Volume of electricity sold to end users (MWh)

Company	Volume of electricity sold to end users (2018)	Volume of electricity sold to end users (2017)	Y/y change (%)
PGNiG OD	486,311.17 MWh	397,903.24 MWh	122.22%
PST	166,352.42 MWh	160,731.83 MWh	103.50%

Information about gas distribution in 2018

Company	Gas network roll-out in Poland	Number of new connections	Natural gas distribution volume	Increase in the number of active connections to end users
PSG	60.9%	60,750	124.70 TWh	96 820

Volume of gas sold via new connections (2018)

Company	Volume of gas sold via new connections (2017)
PSG	0.995 TWh

Change in gas distribution volume (%) in Poland, PSG data

Year	Volume of distributed gas
2017	123.44 TWh
2018	124.70 TWh
Change (%):	1.02%

Number of CNG/LNG stations

Company	Number of CNG stations		Number of LNG stations	
	2018	2017	2018	2017
PGNiG OD	20	20	-	-
PSG	-	-	25	7

Customer satisfaction and customer awareness

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

At the same time, efforts are 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. The campaigns are targeted at natural gas and electricity consumers, as a response to signals about some traders' activities that have certain characteristics of unfair competition. The aim is to warn PGNiG's customers against dishonest competitor vendors who want to pass for PGNiG employees, and to educate customers about their consumer rights.

In addition, on September 19th 2018, PSG and the PGNiG Foundation launched a nationwide educational campaign under the slogan 'Natural gas - reliable and safe'. Its main objective is to disseminate knowledge about natural gas and to raise awareness of how to use gas-fuelled appliances at home responsibly. Communication with consumers takes place via the gazpewnieibezpiecznie.pl website. The website features a video blog with short films presenting the rules of safe use of gas-fuelled appliances, curiosities, facts and myths about natural gas and interviews with gas industry experts. In dedicated animated films and instruction classes organised in schools throughout Poland, the campaign's mascot, a dog named Rurek, teaches kids about how to safely operate gas-fuelled appliances. The campaign enjoys the patronage of the Ministry of Energy, Ministry of the Environment and Ministry of National Education.

On top of the activities discussed above, it also important to mention the implementation of the MIGAM sign language system at the PGNiG Customer Service Offices. The MIGAM system enables the hearing impaired to establish a video connection with a sign language interpreter from a web browser, a mobile application or any other device that has a camera (the person communicates with the interpreter via a video connection). The purpose of the MIGAM system is to make it easier for hearing impaired persons to function on the consumer market thanks to the use of new communication technologies.

Committed to supporting Group-wide efforts to tackle the problem of air pollution (smog) affecting local communities in Poland, PGNiG OD has launched a sales programme entitled 'Subsidised Furnace Replacement', which is dedicated to helping customers replace their solid fuel furnaces with more environment-friendly gas-fired boilers. Subsidies granted by PGNiG for the purchase of a new boiler amounted to PLN 1,000 or, for Large Family Card holders, up to PLN 3,000.

11.3.5. Employees

Employees are the asset determining the Group's value and its successful development. Accordingly, the Group strives to provide its employees with stable employment and rewarding career opportunities in a safe and friendly working environment.

The PGNiG Group's ambition is to build an effective organisation based on the unique competences and qualifications of its employees. An integral part of pursuing this ambition is a coherent organisational culture based on business ethics and corporate values. The CSR Strategy contributes to building a culture of employee engagement in the organisation's operations and growth. Key aspects of care for employees include intergenerational management, management of employee relations, improvement of intra-Group communication and strengthening the competencies of the management staff.

The PGNiG Group is one of the largest employers in Poland, its workforce largely comprised of highly-qualified professionals with extensive experience. At the same time, it can boast being the first employer for many young people.

Employment at the PGNiG Group and PGNiG by segment

	2018		2017		2016*	2015	2014
	PGNiG Group	PGNiG	PGNiG Group	PGNiG	PGNiG Group	PGNiG Group	PGNiG Group
Exploration and Production	6,847	3,735	6,998	3,738	7,720	8,903	10,221
Trade and Storage	3,051	312	2,961	304	3,520	3,462	3,929
Distribution	11,542	-	11,114	-	10,846	10,678	12,173
Generation	1,813	-	1,785	-	1,870	1,071	1,068
Other Activities	1,510	622	1,836	662	1,315	1,305	1,605
TOTAL	24,763	4,669	24,694	4,704	25,271	25,419	28,996

** Data for 2016 as restated in line with the reclassification of the PGNiG Group's activities in 2017, when some of the employees were transferred from the Trade and Storage segment to the Other Activities segment.*

As at December 31st 2018, the PGNiG Group employed 24,763 staff, 69 (0.3%) more than as at December 31st 2017.

In the Exploration and Production segment, a drop in employment was recorded. Relative to December 31st 2017, the number of employees fell by 151 (or 2%), which was mainly attributable to:

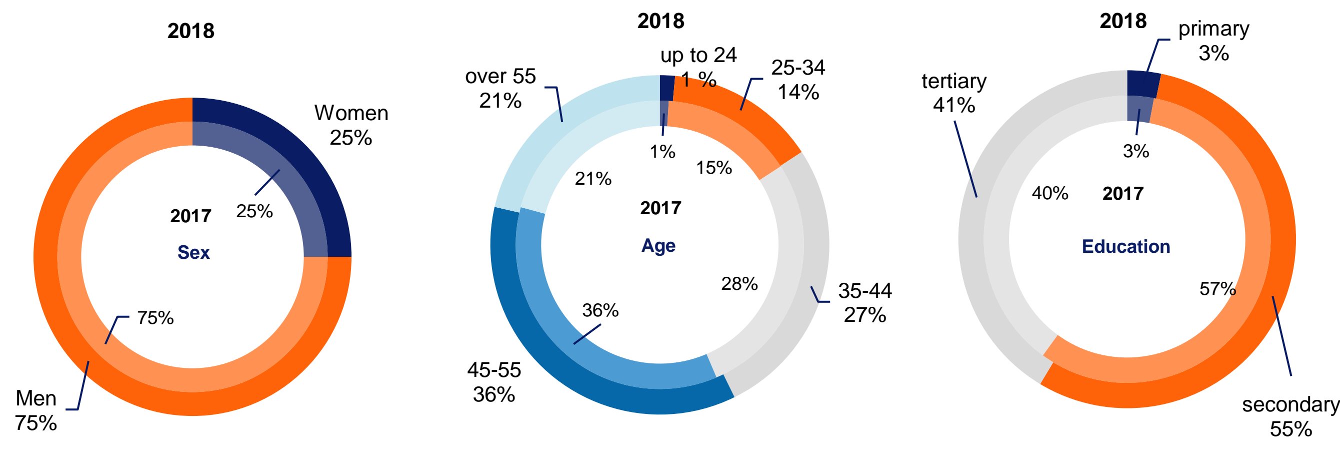
- 109 headcount reduction at Geofizyka Toruń (11% of its total headcount) following completion of certain operations that required contingent staffing, a standard practice at the company due to the nature of its business.

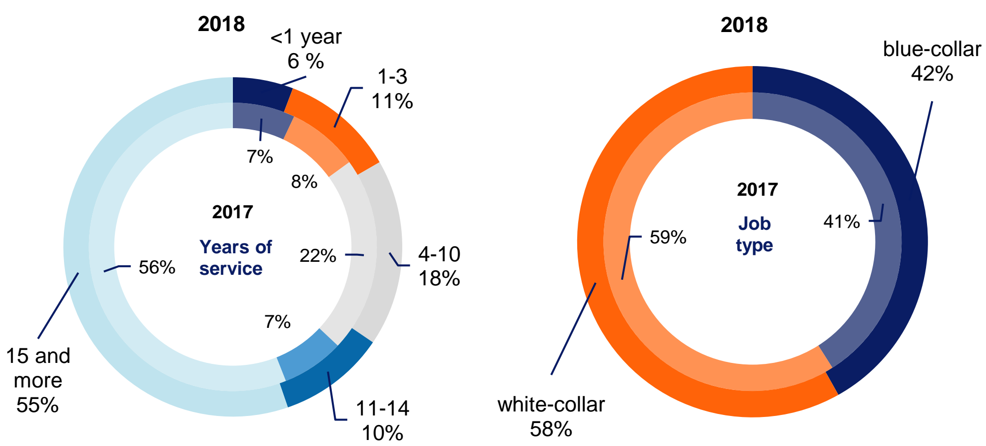
Relative to December 31st 2017, headcount at the Distribution Segment went up by 428 (or 4%). The increase in employment resulted from the acquisition of a spun-off business of PGNiG Technologie by PSG. As part of the merger, PSG established a new Infrastructure Development and Maintenance Branch in Krosno, which hired 278 former PGNiG Technologie employees. The remaining increase was a consequence of defining new business needs and investment processes at PSG, as well as implementing an age management policy that ensures optimal age of staff and an appropriately high level of qualifications.

Relative to December 31st 2017, the number of employees in the Other Activities segment decreased by 326 (or 18%) due to a number of changes in individual companies of the segment. Key developments affecting the segment's headcount include:

- 302 headcount reduction at PGNiG Technologie (56% of its total headcount), chiefly due to the completion of the 'Krosno Technology' project in 2018. As part of the project, a section of the company's business was spun off and transferred to PSG together with 278 staff in compliance with Art. 23[1] of the Polish Labour Code. Furthermore, as part of the 'New Records' project, PGNiG Serwis took over 11 employees;
- workforce restructuring at Geovita S.A., as a result of which 42 employees (or 18%) were made redundant. The reduction in headcount was achieved primarily through the expiry of fixed-term contracts.
- recruitment of 48 new personnel by PGNiG Serwis (20% of its total headcount) mainly to keep up with the development of its services, in particular security services, and meet the requirements of the 'New Records' project, carried out in partnership with PGNiG Technologie;
- transfer by the PGNIG Head Office of 27 employees from field ICT units to PGNiG OD, the Trade and Storage segment.

Workforce structure at the PGNiG Group (no. of persons, as at the end of 2018) by gender, age, level of education, length of service, and type of work performed





Management Boards of PGNiG Group companies by gender (%) in 2018

Organisational unit	Women	Men
PGNiG	17%	83%
PGNiG Group	15%	85%

Supervisory Boards of PGNiG Group companies by gender (%) in 2018

Organisational unit	Women	Men
PGNiG	0%	100%
PGNiG Group	17%	83%

Workforce turnover – new hires/departures (by age and gender, as at the end of 2018)

Age (years)	Number of new hires		Number of departures	
	Women	Men	Women	Men
up to 24 years	42	159	17	39
25-34	314	443	118	231
35-44	231	335	182	274
45-55	78	270	56	310
over 55 years	18	127	143	490
TOTAL	683	1,334	516	1,344

Employee turnover at the PGNiG Group in 2017–2018

Organisational unit	New hires in 2018 as percentage of total workforce	New hires in 2017 as percentage of total workforce	Departures in 2018 as percentage of total workforce	Departures in 2017 as percentage of total workforce
PGNiG	3.90%	4.02%	4.41%	3.21%
PGNiG Group	8.05%	6.91%	7.29%	6.13%

Parental leaves

PGNiG Group employees on parenting-related leaves (maternity/paternity and parental leave) in 2017–2018

Organisational unit	Total (percentage of total workforce)		Women (percentage of all employees on parental leave)		Men (percentage of all employees on parental leave)	
	2018	2017	2018	2017	2018	2017
PGNiG	1.84%	3.13%	95.35%	97.28%	4.65%	2.72%
PGNiG Group	2.39%	3.30%	71.40%	72.30%	28.60%	27.70%

In 2018, the rate of return to work after parenting-related leave at the PGNiG Group was 87.2% (2017: 91.5%).

In 2018, the rate of return to work after parenting-related leave at PGNiG was 92.1% (2017: 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.

Remuneration policy

The key internal document governing the remuneration policy at PGNiG is the Collective Bargaining Agreement concluded with trade unions on July 15th 2009. The remuneration system is additionally governed by internal rules in place at individual organisational units and by 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:

- 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.

Incentive scheme

At PGNiG, a bonus scheme is in place whose key components include:

- MBO (Management By Objectives) bonus, which applies to management positions responsible for achieving PGNiG's key objectives. The amount of an MBO bonus depends on the quality and progress in the achievement of allocated objectives.
- Discretionary periodic bonus, which covers the remaining employees and is granted on a quarterly basis, based on discretionary assessment of an employee's performance by their superior;
- Discretionary task bonus, earmarked for employees excelling in their work for the Company (a special account placed at the disposal of the PGNiG Management Board);
- Discretionary project bonus, earmarked for employees who have been involved in the execution of project work; the bonus amount depends on the quality and progress in the execution of specific projects.

Another HR solution which must deemed part of the incentive scheme is a system of retention of PGNiG's key personnel. The system is designed to prevent departures of employees whose expertise, experience and access to PGNiG's sensitive information might be exploited by competitors.

An element supporting the incentive scheme is also the miner's titles and industry badges as well as related financial rewards given on the occasion of the Miners' Day. The titles and badges are awarded for long service as well as for special merits and achievements at work.

Employee development – employee potential management – training and development programmes

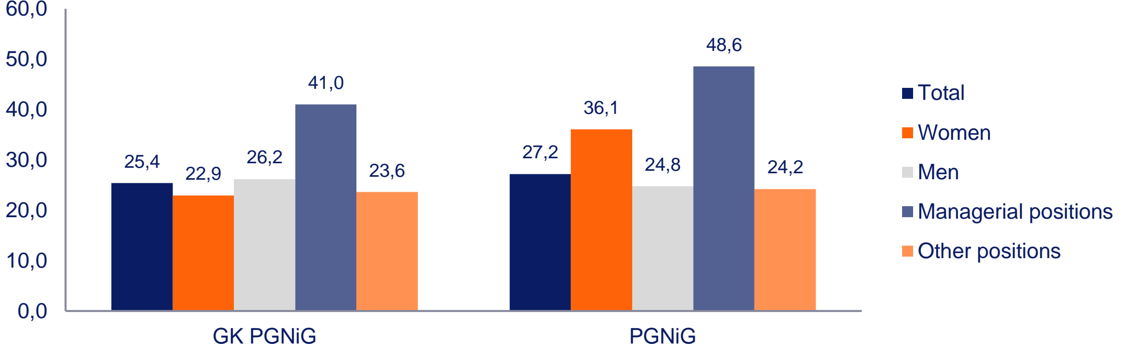
As the PGNiG Group's subsidiaries are engaged in a wide range of business activities, it is up to each of them to determine the type and extent of their staff training. The training management system in place is a vital tool in developing the competencies of our human resources. Our employees are given opportunities to improve their professional qualifications through a range of postgraduate university programmes, industry conferences, seminars and symposia, and also through occupational training.

Depending on their respective responsibilities and individual needs, employees can participate in a variety of training courses covering all aspects of a modern business, including risk management, legal environment analysis and customer service.

Average number of training hours per employee

Organisational unit	2018	2017
PGNiG	27 h	32 h
PGNiG Group	25 h	24 h

Average number of training hours per employee by category:



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 2018, 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. GeoTalent comprises workshops, competitions for students, the Mentoring Programme, the Ambassadorial Programme, the Summer Internship Programme, and other similar initiatives. A total of 38 interns completed paid placements with PGNiG in 2018.

Energy for the Future

It is an internship programme run by the Company jointly with two other groups under the Ministry of Energy's patronage, aimed at finding 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. The number of interns enrolled in the third edition of the programme was 23.

EU co-financed internship programmes

In 2018, PGNiG offered paid internships for participants in the internship programme run by the Adam Mickiewicz University of Poznań and co-financed with EU aid funds under the Knowledge−Education−Development Operational Programme. In 2018, there were three interns enrolled.

Deposits of Career

The 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 and stable company. Its participants can complete an internship and take part in educational events to support career building. In 2018, 19 trainees were admitted under the programme, 13 of whom stayed with PGNiG as interns or employees working under other arrangements. The programme also addresses staffing needs in areas not directly related to the oil and gas industry. 'Deposits of Career' is an important source of employee recruitment. The Company has hired 15 of the participants in the four editions of the programme held to date.

Internships are also offered by PGNiG outside the programmes discussed above. In 2018, a total of 253 persons were covered by the internship and work placement opportunities.

Number of internship and work placement participants in the PGNIG Group in 2017–2018

Organisational unit	Number of internship and work placement participants in 2018		Number of internship and work placement participants in 2017	
	Secondary school students	University students	Secondary school students	University students
PGNiG Group	279	502	225	258
PGNiG	36	217	7	109

PGNiG Polskie Innowacje

This project is addressed to students of Polish universities, with the aim of promoting the Company as an innovative enterprise supporting new solutions for the industry. During regular meetings, students have the opportunity to learn more about the Company's activities and talk to experts about innovation in the oil and gas industry. For more information, see: www.facebook.com/PGNiGPolskieinnowacje/.

Performance assessment

Once or twice a year, PGNiG employees are evaluated based on the Performance Assessment System and MBO system in place. In the process, particular emphasis is placed on targets assigned to individual employees, which are linked to strategic objectives of the Company. It allows employees to discuss the needs and challenges associated with their positions, and is a source of feedback on both their achievements and potential issues in their professional development.

Percentage of employees subject to the performance assessment process:

Organisational unit	Employees covered by performance assessment (%)	
	2018	2017
PGNiG Group	82%	80.5%
PGNiG	100%	100%

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 its existing employees.

Cooperation with trade unions

There are a number of trade unions active at PGNiG. PGNiG strives to ensure that social dialogue is based on the independence of all parties, legal compliance, as well as trust, willingness to compromise, and adherence to rules.

Employees covered by the Collective Bargaining Agreement

Organisational unit	2018	2017
PGNiG	100.00%	100.00%
PGNiG Group	96.55%	96.20%

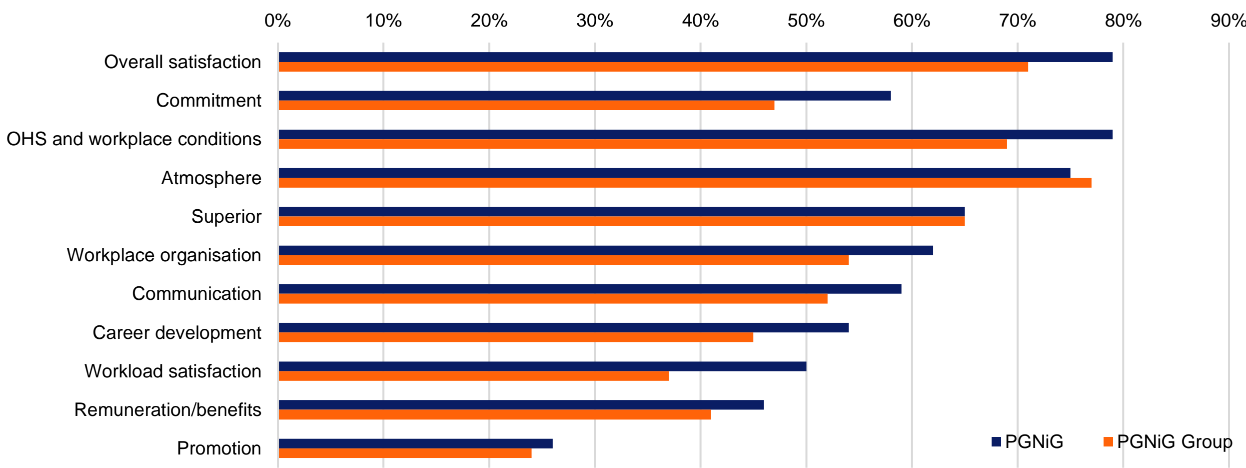
There were no collective redundancies or disputes at PGNiG in 2018.

Employee satisfaction and commitment survey

In 2018, employee satisfaction and commitment were surveyed at the ten largest PGNiG Group companies, i.e. PGNiG, PGNiG OD, PGNiG Termika, PGNiG Termika Energetyka Przemysłowa, Exalo, PGNiG Technologie, Geofizyka, GSP, PSG, and PGNiG Serwis. The survey asked employees mainly for their opinions on those key workplace aspects that may affect their loyalty and satisfaction, including:

- people (superiors, colleagues),
- work (workplace organisation, atmosphere, workload),
- career development opportunities (training, promotion, recognition, remuneration),
- communication,
- OHS conditions.

The survey was completed by 40% of the total workforce of these companies; at PGNiG, the participation rate was 54%, 7% higher than in the 2017 pilot survey. The key survey indicators, i.e. overall satisfaction and commitment, or employee loyalty, were 71% and 48%, respectively (at PGNiG: 79% and 58%, respectively).



11.3.6. Occupational health and safety

The PGNiG Group companies manage the areas of quality, environmental protection as well as occupational health and safety on the basis of the Group-wide QHSE (Quality, Health, Safety, Environment) Policy. The QHSE Policy defines the goals and directions of the Group companies' activities in those areas and embodies their commitment to ensuring that products and services satisfy relevant quality requirements, building positive relations with customers, operating in compliance with applicable laws, and continuously enhancing the effectiveness of the quality, environmental protection, and OHS management systems. It is also the Company's commitment to take pro-active measures to prevent injuries and occupational diseases as well as environmental damage.

The PGNiG Group performs its tasks on a systemic basis, in accordance with the best standards defined in the international ISO 9001:2015,14001:2015 and OHSAS 18001:2007 standards, taking account of good industry practice. The tasks performed result from the commitments made by the Company's Management Board in the QHSE Policy and from the need to implement and maintain the Company's Quality, Environment, and OHS Management System.

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, their frequency depending 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.

PGNiG builds a safe work culture among employees, which translates into their appropriate behaviour, attitudes and actions. We undertake measures aimed at continuous improvement of safety of all persons staying on our premises, including visitors.

Work safety metrics

Safety-related activities are monitored continuously by way of:

- proactive monitoring, which consists in monitoring the effective implementation of procedures and measures designed to eliminate or minimise risks, defined at the planning phase. Its purpose is to assess the effectiveness of preventive measures.
- reactive monitoring, which 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 PGNiG Group.

Number of accidents at work at the PGNiG Group

In the PGNiG Group, the number of accidents at work fell by 3.4% in relation to 2017. The number of persons who were injured in accidents at work decreased by 0.5%. 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 2018

Organisational unit	Total accidents	Casualties	including persons injured:		Number of group accidents in total number of accidents		Type of injury			Days lost	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		incidence rate per 1,000 employees	severity rate (days of absence per accident)
PGNiG	**16**	**16**	**15**	**1**	**-**	**-**	**-**	**-**	**16**	**616**	**3.4**	**39**
GEOFIZYKA Toruń	7	7	7	0	0	0	0	0	7	407	7.7	58.1
Exalo Drilling	29	29	29	0	0	0	0	0	29	2,633	15.9	90.8
PGNiG Technologie	5	5	5	0	0	0	0	0	5	188	16.0	37.6
PSG	130	137	136	1	5	12	1	1	135	6,873	12.0	52.9
PGNiG Serwis	1	1	1	0	0	0	0	0	1	10	3.6	10.0
Geovita	2	2	2	0	0	0	0	0	2	31	10.1	15.5
PGNiG Termika	6	6	6	0	0	0	0	0	6	186	5.3	31.0
PGNiG OD	2	2	2	0	0	0	0	0	2	84	0.8	42.0
GSP	0	0	0	0	0	0	0	0	0	0	0.0	0.0
Polski Gaz TUW	0	0	0	0	0	0	0	0	0	0	0.0	0.0
TOTAL PGNiG GROUP	**197**	**209**	**203**	**6**	**7**	**19**	**1**	**1**	**207**	**11,337**	**8.4**	**58**

F, SR, LDR, IR for the PGNiG Group in 2018

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	**5.0**	**4.1**	**4.3**	**46.8**	**46.1**	**46.3**	**30.2**	**22.3**	**23.9**	**0.6**	**0.5**	**0.5**
GEOFIZYKA Toruń	-	8.7	7.7	-	58.1	58.1	-	59.0	52.5	-	1.0	0.9
Exalo Drilling	4.7	17.4	15.9	6.0	93.8	90.8	3.6	193.7	173.0	0.6	2.1	1.9
PGNiG Technologie	-	18.1	16.0	-	37.6	37.6	-	76.4	68.6	-	2.0	1.8
Polska Spółka Gazownictwa	3.2	14.4	12.0	70.5	43.5	45.0	29.0	84.3	65.6	0.4	1.9	1.6
PGNiG Serwis	7.9	-	3.6	10.0	-	10.0	10.6	-	4.6	1.1	-	0.5
GEOVITA	12.7	-	10.1	15.5	-	15.5	24.0	-	19.0	1.6	-	1.2
PGNiG Termika	10.4	4.3	5.3	20.5	36.3	31.0	1.4	1.0	1.1	1.4	0.6	0.7
PGNiG Obrót Detaliczny	0.6	1.1	0.8	22.0	62.0	42.0	1.7	8.3	4.1	0.1	0.1	0.1
Gas Storage Poland	-	-	-	-	-	-	-	-	-	-	-	-
Polski Gaz TUW	-	-	-	-	-	-	-	-	-	-	-	-
PGNiG Group	**3.3**	**10.8**	**8.9**	**45.4**	**51.5**	**50.9**	**19.4**	**71.7**	**58.3**	**0.4**	**1.4**	**1.2**

W – women
M – men

Diagnosed occupational diseases at the PGNiG Group in 2018

Organisational unit	Total number of diseases	Occupational disease certificates issued by the National Sanitary Inspectorate			
		Occupational loss of hearing	Vibration syndrome	Pneumoconiosis	Other
PGNiG	**2**	**1**	**-**	**-**	**1**
GEOFIZYKA Toruń	-	-	-	-	-
Exalo Drilling	2	2	-	-	-
PGNiG Technologie	1	1	-	-	-
Polska Spółka Gazownictwa	-	-	-	-	-
PGNiG Serwis	-	-	-	-	-
GEOVITA	-	-	-	-	-
PGNiG Termika	-	-	-	-	-
PGNiG Obrót Detaliczny	-	-	-	-	-
Gas Storage Poland	-	-	-	-	-
Polski Gaz TUW	-	-	-	-	-
PGNiG Group	**5**	**4**	**-**	**-**	**1**

OHS-related initiatives (e.g. number of employees who received OHS training) in 2018

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	**210**	**2,613**	**282**	**171**	**3,276**	**70**
GEOFIZYKA Toruń	50	329	394	228	1,001	ad hoc
Exalo Drilling	233	1251	77	2	1,563	12
PGNiG Technologie	10	97	-	-	107	-
Polska Spółka Gazownictwa	772	8288	763	-	9,823	143
PGNiG Serwis	70	96	11	-	177	5
GEOVITA	61	63	1	1	126	-
PGNiG Termika	149	716	5	10	880	38
PGNiG Obrót Detaliczny	331	393	-	1	725	-
Gas Storage Poland	8	22	-	2	32	23
Polski Gaz TUW	8	20	-	-	28	-
PGNiG Group	**1,902**	**13,888**	**1,533**	**415**	**17,738**	**291**

11.3.7. Innovation for development

The PGNiG Group is looking for new technology solutions and supports the work and development of innovators. 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 the foundation of knowledge, education and R&D activities can trigger the growth of an organisation. One of the PGNiG Group's priorities is to further develop cooperation with the world of science, as well as to support and initiate the development of start-ups and of small and medium-sized enterprises.

At the end of 2018, the Innovation and Business Development Department supervised or monitored 132 projects, including 74 projects under development (63 at the PGNiG Group and 11 directly implemented or funded by PGNiG):

- 11 projects implemented and/ or funded by the Innovation and Development Department of PGNiG: InnVento Startup Centre, SORGE, Norwegian Funds, VPP Power, KELVIN, Flara, Digital Field, Microcoiled Tubing ¼", Trigonostoma, Automatic Foaming Stick Injector, Concept for the Development and Construction of a Mobile LNG Sampling Facility.
- 63 projects implemented and funded by PGNiG Group companies (including Chemkop – 2 projects, Exalo – 13 projects, Gas Storage Poland – 12 projects, Gas Trading – 1 project, Geofizyka Toruń – 3 projects, PGNiG OD – 11 projects, PGNiG Technologie – 1 project, PGNiG Termika – 9 projects, PSG – 11 projects).

In 2018, 58 projects were completed (including 53 at the PGNiG Group and 5 at PGNiG). The table below presents details of selected innovative projects implemented at the PGNiG Group:

No.	Project	Executor	Brief project description	Target group
1.	InnVento	PGNiG	The initiative, addressed to young entrepreneurs and scientists, is dedicated to innovative solutions for the energy sector. InnVento is an office space equipped with the latest equipment and offering access to the PGNiG Group's mentors and experts. For more information, see: innvento.pl/. In recognition of the project and cooperation with start-ups, PGNiG was distinguished in the 'Polish Radio Business Awards', receiving the main prize in the 'Breakthrough Solution' category.	start-ups at an early stage of development
2.	GEO METAN II	PGNiG - Geology and Hydrocarbon Production Branch	The project is designed to enable pre-mining extraction of coal bed methane and examine the impact of hydraulic fracturing on future mining production. Its implementation will contribute to safer coal production, strengthening the Polish hard coal mining industry, and to lower methane emissions into the atmosphere. In 2018, based on the established criteria, potential drilling locations were identified for the project. The next stage will involve vertical and horizontal drilling, hydraulic fracturing, and launching of methane inflow tests. The project is described in the government document entitled 'Programme for the Hard Coal Mining Sector in Poland'.	Ministry of Energy, National Fund for Environmental Protection and Water Management, National Centre for Research and Development, Polish Geological Institute − National Research Institute, Jastrzębska Spółka Węglowa S.A., Polska Grupa Górnicza Sp. z o.o., Tauron Polska Energia S.A., Tauron Wydobycie S.A., State Mining Authority
3.	Mobile refuelling service for L-CNG units	PGNiG OD	The purpose of the project is to provide short-term vehicle refuelling services in the event of a technical failure or maintenance work from a mobile CNG filling station, or as a transition service until a new CNG station is built. The project is of key importance for the performance of a contract to supply CNG for MZA Warszawa buses, under a tender won for the construction of a CNG station, including delivery of 54.1m Nm³ of CNG.	CNG customers, municipal transport operators and municipal services providers
4.	LNG bunkering services	PGNiG OD	The purpose of the project is to include into the portfolio of PGNiG OD the bunkering of liquefied natural gas (LNG) based on the truck-to-ship (TTS) technology, which is a novelty on the Polish market. Its final product will be an offering providing ship owners with access to an alternative bunker fuel (LNG). Initially, the offering will only involve the truck-to-ship method, but other project deliverables will allow the company to further develop the service.	Ship owners
5.	Off-grid CNG supply system	PGNiG OD	Provision of the virtual pipeline service based on the CNG technology; the service could be provided in areas close to PGNiG OD's CNG stations located on transmission pipelines. The project is currently put on hold, awaiting a decision to be resumed.	PGNiG OD's customers (business and CNG customers)
6.	Mobile LNG regasification station	PGNiG OD	Provision of a new service to customers involving temporary (short-term) gas supply to a customer's existing gas infrastructure. The project demonstrated that the station was fully functional, and gas was regasified automatically in accordance with pre-determined parameters.	All existing or prospective business customers of PGNiG OD and PSG
7.	Solutions 4 Tomorrow: autonomous drones	PGNiG OD	The purpose of the project is to develop a tool for effective measurement of air pollution concentrations in cities/towns with up to 100,000 inhabitants. The new system will collect pollution data from the air and then create an air pollution map based on analytical tools.	Local government units
8.	Launch of alternative vehicle supply sources at service stations	PSG	The project assumes deployment of an alternative fuel infrastructure development model outlined in the Act on Electromobility and Alternative Fuels of January 11th 2018 (Dz. U. of 2018, item 317) (the EPA Act), and will contribute to achievement of the Polish government's objectives to develop alternative fuel infrastructure, set down in the Electromobility Development Plan for Poland and the National Framework Policy for Development of Alternative Fuel Infrastructure until 2025.	PSG/Customers for natural gas
9.	DSI/ACI (Dry Sorbent Injection/Activated Carbon Injection) - a pilot study of dry flue gas desulfurisation and Hg, HF, and HCl compounds removal systems	PGNiG TERMIKA	Tests of dry sodium injection systems for desulfurisation, capture of hydrogen fluorides and chlorides, and activated carbon injection for the purpose of mercury capture. The project was carried out as part of preparation of the Kawęczyn HP for the BAT Conclusions. Its purpose was to investigate the viability and effectiveness of the proposed innovation in practice. In 2018, a decision was made to implement the DSI/ACI technology on fluidised bed boilers at the Żerań CHPP. Further analyses are under way.	PGNIG TERMIKA / PGNIG TERMIKA ENERGETYKA PRZEMYSŁOWA
10.	MIT Enterprise Forum Poland Acceleration Programme	PGNiG Head Office	Implementation of acceleration paths: Energy, Health, Commodities and Fin-Tech sectors. The accelerator programme is based on a proven acceleration pattern, supported with the individual approach of those behind the Polish version of the programme. The programme is co-financed by the Polish Agency for Enterprise Development (PART) under the ScaleUP programme, which is part of the Start in Poland programme.	Technology start-ups
11	Młodzi Innowacyjni dla PGNiG (Young Innovators for PGNiG)	PGNiG	The fourth edition of the competition for young scientists preparing research and development projects for the PGNiG Group. Launched in 2015, the project delivers highly innovative solutions. Its purpose is to look for innovative R&D projects within the scope of the PGNiG Group's operations, especially in hydrocarbon exploration and production, gas fuel distribution, power generation, new applications of natural gas, environmental protection, services for customers and natural gas users (including security of gas supplies), and promotion of the PGNiG brand.	PGNiG Group, young scientists, university students and PhD students
12	Annual assessment of PGNIG TERMIKA's impact on air quality in the Warsaw agglomeration	PGNiG TERMIKA	The aim of the project is to show PGNiG TERMIKA's impact of on air quality in Warsaw.	PGNiG TERMIKA
13	Bank Inicjatyw (Bank of Initiatives)	PGNiG TERMIKA	The main goal of the Bank of Initiatives is to search for and implement innovative ideas of employees. In 2018, 75 innovative ideas were proposed, of which 28 were recommended for deployment.	PGNiG TERMIKA
14	Pomysł na Innowacje (Innovative Idea)	PSG	PSG employees submit innovative ideas, which are then evaluated by experts, and the best ones are implemented at the company. The key business goal of the project is to develop and implement a solution which would support the creation of corporate culture and a climate favourable for the development of innovation within PSG. This is expected to enhance the innovativeness of technological solutions as well as process-related and organisational solutions applicable at the company.	PSG employees

11.3.8. The value system as a basis for action

As a responsible organisation, PGNiG aims to maintain ethical standards and to consciously follow them in its business activities. In 2018, the ethics programme management was reorganised and is currently governed by the PGNiG Group's Compliance Policy.

The persons responsible for ethics and compliance at the PGNiG Group are the first points of contact for employees in the event of a breach of ethical standards, applicable laws, customary market norms, industry standards or good market practice. In the event of any doubts, employees may contact such ethics and compliance officers and receive relevant explanations.

At the PGNiG level, ethical conduct is within the remit of the Ethics and Compliance Coordinator, who is responsible for reviewing the breaches of ethical standards reported by staff and decides whether to investigate such breaches or refer them to the PGNiG Group Ethics Committee. At the Group level, PGNiG has appointed the Ethics Committee and Ethics Officer.

The Company has in place a Code of Ethics, complemented by other internal regulations such as the PGNiG Group Compliance Policy and the recently adopted Transparency Policy for Managers, setting out the core values and benchmarks for conduct of both employees and managers.

The PGNiG Code of Ethics consists of the Statement of Values and the Ethical Standards Code. The Statement of Values sets out the moral principles and ethical ideals to foster development of an ethical environment and mutual trust at PGNiG. The Ethical Standards Code spells out specific rules of conduct for PGNiG employees, which are in line with declared corporate values and best industry practices from around the world.

As stipulated in the ethics programme, the presented values and ethical principles must be fully upheld by every PGNiG employee in the course of their professional duties. The Code allows the Group companies to further improve their best practices and ethical standards based on their own judgement, in accordance with the specific nature of relevant market sectors, conditions in which they operate in various countries, and prior experience.

The PGNiG Group has appointed 11 persons to act as ethics and compliance coordinators, supported by the Ethics Committee and Ethics Officer at the PGNiG Group level.

The PGNiG Group Ethics Officer, together with the Ethics and Compliance Coordinator at PGNiG and the Compliance Department at PGNiG, promoted knowledge of internal ethics-related regulations in newsletters and official releases, as well as in an internal magazine for employees.

The PGNiG Group provided training in ethics-related regulations for ethics and compliance coordinators at individual Group companies. Additionally, such coordinators organised ethics training for employees, managers and directors, covering:

- Employee motivation, constructive feedback, and building mutual trust;
- Anti-corruption and gift policy;
- Preventing workplace bullying and discrimination;
- Presentation of the code of ethics for new employees.

At the PGNiG Group, more than 1,000 employees, mostly managers and new employees, participated in training related to ethical conduct.

No breaches of ethics were reported at PGNiG; the same applies to most Group companies which have appointed their own ethics coordinators. At PSG, a PGNiG Group company with the highest headcount, 18 incidents were reported in 2018. In accordance with the applicable policies and the Code of Ethics, the reported incidents were examined directly by ethics managers or by the appointed Ethics Committees, depending on the nature and scope of reported issues.

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).

11.4. Description of policies

11.4.1. Compliance policy

Acting in the best interests of its shareholders, customers, employees and associates, PGNiG makes every effort to be a reliable and transparent partner, promoting company growth and value in keeping with the principles of sustainable development. Ethics is the cornerstone of an effective compliance risk management system, and a system of identification and prevention of any breaches in this area, which is why in order to consolidate and standardise the principles of ethics applicable at the PGNiG Group, the functions of ethics and compliance have been combined and reorganised across the Group, and will fall within the remit of compliance officers or other designated persons at Group companies. At the Group companies which were yet to address their ethics and compliance matters, structural changes were made by appointing persons responsible for compliance and ethical conduct, adherence to standards and its ongoing monitoring.

In 2018, a Compliance Policy was implemented across the Group. The Policy sets out:

- the rules and standards of conduct applicable at the PGNiG Group, as well as the behaviour and ethical values expected from employees;
- remits of the respective bodies responsible for managing ethics and compliance at the PGNiG Group;
- the manner of coordination and exchange of information on any breaches of applicable laws, customary market norms, industry standards, good market practice, or standards of ethical conduct at the PGNiG Group;
- responsibilities of the PGNiG Group companies in the management of ethics and compliance risks.

The compliance policy provides for certain exemptions for PSG sp. z o.o. and GSP sp. z o.o. with respect to the practices related to independence of the Distribution System Operator and independence of the Storage System Operator mandated or prohibited under the Energy Law of April 10th 1997 and a programme ensuring non-discriminatory treatment of infrastructure users. Given the scope of its business operations, the above exemptions will also extend to PGNiG OD and PGNiG Termika. Both companies, together with their operators, are considered key companies in the holding agreement. The purpose of this arrangement is to create an appropriate ethics and compliance framework so as to ensure the integrity and transparency of wholesale energy markets.

At the same time, the approach to compliance risk management is focused on building relationships both within the organisation and with its external stakeholders in a way that reflects its respect for human rights in the broad sense of the term.

The Compliance Risk Management System defined in the PGNiG Compliance Programme was implemented in 2015.

Its deployment has helped reduce business risk and enhance the Company's competitiveness and market position as a result of introducing transparent rules for cooperation and facilitating contacts with other business operators. Ensuring compliance of the entire organisation with the national and international legal and regulatory frameworks is an essential element of any modern business.

In accordance with the approach to compliance risk management adopted by PGNiG, organisational and procedural solutions will be put in place to support ongoing identification of relevant laws and regulations, assessment of the level of compliance risk, definition and application of solutions ensuring compliance with identified requirements, taking steps aimed at identifying cases of non-compliance, as well as periodic reporting within the organisation.

The Company defines compliance risk as the risk of potential legal sanctions, financial losses or loss of reputation or credibility as a result of any failure by PGNiG, its employees or entities acting on its behalf to comply with the law or the internal regulations or standards of conduct, including ethical norms, adopted by PGNiG.

The Compliance Programme provides for regular obligations, such as periodic reporting on compliance standards, compliance risks (and their assessment in terms of materiality/consequences and probability of occurrence), and risk response (risk management method and cost of response). Moreover, the programme imposes certain permanent obligations, which consist mainly in monitoring changes in compliance standards and reporting material risks.

Each employee, trading partner or external stakeholder can report any suspected irregularity/misconduct through the 'compliance line' established under the programme.

11.4.2. Anti-corruption policy

One of the overriding principles of the PGNiG Group's policy is to act in a fair and ethical manner. PGNiG and the PGNiG Group companies are respected for their fairness, both in their management practices and in dealings with trading partners and customers.

The Group companies require their employees to adhere to the standards of ethics, honesty and integrity in any activities they undertake, including in business transactions and in relations with any persons or organisations.

The anti-corruption policy of the PGNiG Group imposes a strict requirement to observe any and all applicable anti-corruption laws and regulations, including international ones and those effective in the countries where the PGNiG Group is present, including (where applicable) the US Foreign Corrupt Practices Act (FCPA).

Each employee, regardless of their position, is required to act in accordance with local, national and international laws, including any anti-corruption regulations, also those contained in the Code of Ethics applicable at the Group.

The purpose of the PGNiG Group's Anti-Corruption and Gift Policy is to define the obligations of PGNiG and the other Group companies, as well as of their employees and contractors, with regard to preventing corrupt practices, and to provide the employees and contractors with information and guidelines on how to identify corrupt practices and what to do in the event of identifying such practices.

11.4.3. Transparency Policy for Managers

On October 1st 2018, the PGNiG Management Board introduced the Transparency Policy for Managers, to be implemented across the Group. The document is meant to take the standards of corporate culture to a higher level so as to ensure transparent operations of the PGNiG Group companies, including their contractual relationships with other entities, and to eliminate corruption. The purpose of the document is also to raise legal awareness and ensure the highest possible standards of customer service at the PGNiG Group.

Certain situations may also arise at the PGNiG Group companies leading to potential or actual conflicts of interest. The new policy introduces the highest standards, values and rules of conduct shared by all companies across the PGNiG Group to prevent conflicts of interests faced by managers (members of the governing bodies and senior management staff), with a view to safeguarding the best interests of the Group companies.

Subject to the necessary modifications based on the requirements and prohibitions concerning independence of the Distribution System Operator and independence of the Storage System Operator, the policy has been adopted in its entirety by individual Group companies. The policy is currently being implemented in all companies and entities of the PGNiG Group.

The scope of the policy is as follows:

- definition of conflicts of interest;
- rules for prevention of conflicts of interest;
- measures for prevention of conflicts of interest;
- disclosure requirements towards the company;
- rules of conduct towards family members and other close persons;
- sanctions for breach of the policy.

11.4.4. QHSE (Quality, Health, Safety, Environment) Policy and operation of the QHSE Management System at the PGNiG Group

The QHSE Policy, which defines objectives and directions of operations and ensures the highest standards of quality, health, safety and environmental protection in order to meet the requirements and expectations of our stakeholders.

The policy is reviewed periodically to evaluate its usefulness and relevance. At PGNiG, the QHSE Policy is implemented through the ISO 9001:2015, ISO 14001:2015 and OHSAS 18001:2007-compliant QHSE Management System, as well as through good HSE practices.

Objectives of the QHSE Policy:

- to identify, supervise and ensure the effectiveness of the QHSE processes;
- to build lasting relationships with PGNiG customers;
- to identify and ensure compliance with applicable laws and other requirements;
- to implement norms and standards that follow from good practices, to promote safe solutions;
- to identify various risks, including near misses, in order to prevent accidents at work, occupational diseases, incidents and failures;
- to identify and mitigate environmental impacts;
- to build a competent, informed and committed workforce.

Most of the PGNiG Group companies carry out activities related to quality, environmental protection and occupational health and safety based on the QHSE Policy.

Organisational unit	System (IMS, EMS, QCS, OHSMS, EMAS etc.)	Certified (Yes/No)	Date		Certifying entity
			Certification date	recertyfikacji	
PGNiG	QMS – ISO: 9001:2015 EMS – ISO:14001:2015 OHSMS – BS OHSAS:18001:2007	YES	Jul 20 2018	Jan 19 2021 Mar 11 2018	BSI
PGNiG Central Measurement and Testing Laboratory*	MS compliant with PN-EN ISO/ IEC 17025:2005+Ap 1:2007, PN-EN ISO/IEC 17065:2013	YES			PCA
Exalo Drilling	QMS – ISO: 9001:2015 EMS – ISO:14001:2015 OHSMS – BS OHSAS:18001:2007	YES	Jun 20 2018 Mar 13 2017	Jan 26 2020	TÜV SÜD
GEOFIZYKA Toruń	IMS QHSE	YES	Mar 18 2011 Mar 18 2017	Mar 17 2020	LRQA
PGNiG OD		NO			
PGNiG Technologie	IMS	YES	2013	2018	UDT
PGNiG TERMIKA	OHSMS EMS	YES YES	Oct 22 2007 Dec 5 2007	Sep 23 2016 Sep 23 2016	PCBC
PSG	IMS – ISO: 14001:2015	YES	Feb 1 2017	Jan 1 2020	TÜV NORD
GSP	QMS – ISO: 9001:2015 EMS – ISO:14001:2015 OHSMS – BS OHSAS:18001:2007	YES	Sep 3 2018	Sep 3 2021	DQS

** As the QHSE Management System is planned to be certified in June 2018, some branches that already operate their own management systems have separately carried out surveillance/recertification audits to ensure continuity of certification.*
The Central Measurement and Testing Laboratory has in place a documented quality management system that is certified by the Polish Centre for Accreditation for compliance with the international and European standards PN-EN ISO/IEC 17025: 2005.

Activities aimed at ensuring compliance with the PGNiG Group QHSE Policy

The PGNiG Group QHSE Policy regarding quality was implemented at the Group companies through the following measures:

- Ensuring quality, continuity and timeliness of delivery of natural gas, crude oil and other products and storage services to PGNiG customers
- Process identification, supervision and monitoring
- Using feedback from employees, customers and other stakeholders for process improvements
- Raising employee awareness and qualifications
- Identifying and ensuring compliance with applicable laws and other requirements
- Setting and pursuing improvement goals relating, for instance, to the application of state-of-the-art technology
- Conducting audits and implementing corrective measures
- Managing risks and opportunities across business processes
- Implementing employee support programmes (new employee mentoring, Trainer Academy internal training programmes).

The PGNiG Group QHSE Policy regarding environmental protection was implemented through the following measures:

- Identifying, supervising and monitoring of environmental aspects
- Identifying and ensuring compliance with applicable laws and other requirements
- Setting and pursuing improvement goals to minimise external and environmental impacts and keep a balance between business growth and environmental protection
- Applying environmentally-friendly technologies
- Monitoring the environmental impacts of operations
- Using fuels and natural resources in an efficient way
- Implementing remediation and reclamation measures
- Supervising contractor operations
- Constantly raising employee awareness and qualifications in the area of environmental protection.

The PGNiG Group QHSE Policy regarding health and safety was implemented through the following measures:

- Identifying hazards and conducting job and workplace risk assessments
- Identifying and ensuring compliance with applicable laws and other requirements
- Setting improvement goals
- Implementing corrective measures
- Applying state-of-the-art safeguards and process solutions designed to prevent accidents, mechanical failures and occupational diseases
- Building relationships with contractors
- Identifying and reporting near misses
- Promoting and implementing safety improvement and safe behaviour awareness programmes.

Best practice in promoting and improving the management system:

- Organisation of competitions on occupational health and safety, fire protection and first aid for employees,
- Organisation of consultation meetings of the PGNiG Group's staff responsible for environmental protection and OHS issues,
- Organisation of and participation in technical conferences and seminars on environmental protection and work safety,
- Publication of information materials on management systems, including leaflets for visitors at facilities, as well as information in trade magazines and newsletters,

11.4.5. Corporate governance

The PGNiG Group takes care to comply with corporate governance standards. The Group is honest and fair to all of its shareholders, treats them all on equal terms and makes every effort to establish and maintain the best possible relations between PGNiG S.A.'s investors and governing bodies.

As a listed company, PGNiG S.A. is also required to comply with the Best Practices. Each year PGNiG S.A. prepares a Statement of Compliance with Corporate Governance Principles and presents it to its current and future shareholders. PGNiG's Statement of Compliance with Corporate Governance Principles for 2018 is available on the Company's website in the Corporate Governance/Best Practices section.

> For more information, see Section 10.4. Directors' Report on the operations of PGNiG and the PGNiG Group in 2018.

11.5. Risks identified in key strategic areas of the PGNiG Group's sustainable development from social perspective

Area	Risks	Risk management measures taken by the PGNiG Group
NATIONAL ENERGY SECURITY	Delay in exploration and production operations	• Ongoing monitoring of project progress • Taking necessary corrective action by the licence operator
	Disruptions to gas supplies	• 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	• 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
SOCIETY	Risks related to relations with local communities	• Ongoing communication of 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	• 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
EMPLOYEES	Departures of highly qualified staff	• 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
	Occupational health and safety risk	• OHS 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	• 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)	• Training for employees and management staff • Compliance policy • Code of Ethics with examples of ethical behaviour • Ethics managers at the PGNiG Group, including the Group Ethics Officer
	Risk of corruption	• 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
	Risk of irregularities in public procurement processes	• 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	• 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

12. Representation of the PGNiG Management Board and authorisation of the report

The Management Board of PGNiG represents that to the best of its knowledge this Directors' Report on the operations of PGNiG S.A. and the PGNiG Group gives a fair view of the Company's and the Group's condition and includes a description of key threats and risks.

PGNiG Management Board:

President of the Management Board	Piotr Woźniak	....
Vice President of the Management Board	Łukasz Kroplewski	....
Vice President of the Management Board	Michał Pietrzyk	....
Vice President of the Management Board	Maciej Woźniak	....
Vice President of the Management Board	Magdalena Zegarska	....

Warsaw, March 13th 2019

Translation

This document is an English version of the original Polish version. In case of any discrepancies between the Polish and English version, the Polish version shall prevail.

Representation of the Management Board on reliability of the full-year consolidated financial statements of the PGNiG Group for 2018

The Management Board of of PGNiG S.A. represents that, to the best of its knowledge, these full-year consolidated financial statements of the PGNiG Group prepared as at December 31st 2018 and the comparative data have been prepared in compliance with the applicable accounting policies and give a true, clear and fair view of the assets, financial condition and financial performance of the PGNiG Group.

PGNiG Management Board:

President of the Management Board	Piotr Woźniak	....
Vice President of the Management Board	Łukasz Kroplewski	....
Vice President of the Management Board	Michał Pietrzyk	....
Vice President of the Management Board	Maciej Woźniak	....
Vice President of the Management Board	Magdalena Zegarska	....

Warsaw, March 13th 2019

Representation by the Supervisory Board of PGNiG S.A. on the auditor of full-year separate financial statements of PGNiG S.A. and consolidated financial statements of the PGNiG Group for 2018

Acting pursuant to Par. 70.1.7 and Par. 71.1.7 of the Minister of Finance's Regulation of March 29th 2018 on current and periodic information to be published by issuers of securities and conditions for recognition as equivalent of information whose disclosure is required under the laws of a non-member state (Dz.U. of 2018, item 757), the Supervisory Board of PGNiG S.A. represents that:

a) Deloitte Polska Spółka z ograniczoną odpowiedzialnością Sp.k., the auditor of the full-year separate financial statements PGNiG S.A. and full-year consolidated financial statements of the PGNiG Group prepared as at December 31st 2018 was appointed in accordance with the law;
b) the audit firm and the members of the audit team met all conditions necessary to issue an impartial and independent audit report on the full-year separate financial statements of PGNIG S.A. and consolidated financial statements of the PGNiG Group in accordance with applicable laws, professional standards, and principles of professional ethics;
c) the company complies with all applicable laws governing the rotation of audit firms and lead auditors and observes the mandatory cooling-off periods;
d) the company has policies in place governing the selection of an audit firm and provision of non-audit services by an audit firm, its affiliates and members of its network, including conditionally permitted services.

Supervisory Board of PGNiG S.A.:

Chairman of the Supervisory Board	Bartłomiej Nowak	....
Deputy Chairman of the Supervisory Board	Piotr Sprzączak	....
Secretary of the Supervisory Board	Sławomir Borowiec	....
Member of the Supervisory Board	Andrzej Gonet	....
Member of the Supervisory Board	Grzegorz Tchorek,	....
Member of the Supervisory Board	Piotr Broda,	....
Member of the Supervisory Board	Mieczysław Kawecki	....
Member of the Supervisory Board	Stanisław Sieradzki	....

Warsaw, March 13th 2019

Representation by the Supervisory Board of PGNIG S.A. on the Audit Committee of the Supervisory Board of PGNiG S.A. for 2018

Acting pursuant to Par. 70.1.8 and Par. 71.1.8 of the Minister of Finance's Regulation of March 29th 2018 on current and periodic information to be published by issuers of securities and conditions for recognition as equivalent of information whose disclosure is required under the laws of a non-member state (Dz.U. of 2018, item 757), the Supervisory Board of PGNiG S.A. represents that:

a) regulations governing the appointment, composition, and operation of the Audit Committee – including those requiring members to meet independence criteria and have the knowledge and skills required in the industry in which the company operates and the knowledge and skills in the field of accounting or auditing – are complied with;
b) the Audit Committee performed the duties of audit committees specified in applicable laws.

Supervisory Board of PGNiG S.A.

Chairman of the Supervisory Board	Bartłomiej Nowak	....
Deputy Chairman of the Supervisory Board	Piotr Sprzączak	....
Secretary of the Supervisory Board	Sławomir Borowiec	....
Member of the Supervisory Board	Andrzej Gonet	....
Member of the Supervisory Board	Grzegorz Tchorek,	....
Member of the Supervisory Board	Piotr Broda,	....
Member of the Supervisory Board	Mieczysław Kawecki	....
Member of the Supervisory Board	Stanisław Sieradzki	....

Warsaw, March 13th 2019

Representation by the Supervisory Board of PGNiG S.A. on the assessment of separate financial statements of PGNiG S.A., consolidated financial statements of the PGNiG Group and Directors' Report on the operations of PGNiG S.A. and the PGNiG Group in 2018.

Acting pursuant to Par. 70.1.14 and Par. 71.1.12 of the Minister of Finance's Regulation of March 29th 2018 on current and periodic information to be published by issuers of securities and conditions for recognition as equivalent of information whose disclosure is required under the laws of a non-member state (Dz.U. of 2018, item 757), Art. 382.3 of the Commercial Companies Code and Art. 33.1.1 and Art. 33.1.4 of the Articles of Association of PGNiG S.A., the Supervisory Board of PGNiG S.A. made an assessment of the following documents submitted by the Management Board of PGNiG S.A.:

a) separate financial statements of PGNiG S.A. for 2018,
b) consolidated financial statements of the PGNiG Group for 2018, and
c) Directors' Report on the operations of PGNiG S.A. and the PGNiG Group in 2018.

The Supervisory Board determined that the financial statements and the Directors' Report present accurately and clearly all information necessary for and relevant to the assessment of the Company's and the Group's assets and financial condition as at December 31st 2018 and that they are consistent with the accounting records, documents and facts.

The Supervisory Board issued a positive assessment of the separate financial statements of PGNiG S.A. for 2018, consolidated financial statements of the PGNiG Group for 2018 and Directors' Report on the operations of PGNiG S.A. and the PGNiG Group in 2018 based on:

- contents of the financial statements and Directors' Report submitted by the Company's Management Board,
- reports of the statutory auditor Deloitte Polska Spółka z ograniczoną odpowiedzialnością Sp.k. on the audit of the separate financial statements of PGNIG S.A. and the consolidated financial statements of the PGNiG Group for 2018,
- additional report to the Audit Committee, prepared pursuant to Art. 11 of Regulation (EU) No 537/2014 of the European Parliament and of the Council of 16 April 2014 on specific requirements regarding statutory audit of public-interest entities and repealing Commission Decision 2005/909/EC, and in accordance with the Act on Statutory Auditors, Audit Firms, and Public Oversight of May 11th 2017,
- meetings with representatives of the audit firm, including the lead auditor,
- information provided by the Supervisory Board's Audit Committee regarding the course and results of the audit and its relevance to reliability of the Company's financial reporting, as well as the Audit Committee's role in the audit,
- results of other checks performed in the selected financial and operating areas.

Supervisory Board of PGNiG S.A.:

Chairman of the Supervisory Board	Bartłomiej Nowak	....
Deputy Chairman of the Supervisory Board	Piotr Sprzączak	....
Secretary of the Supervisory Board	Sławomir Borowiec	....

Member of the Supervisory Board	Andrzej Gonet	....
Member of the Supervisory Board	Grzegorz Tchorek,	....
Member of the Supervisory Board	Piotr Broda,	....
Member of the Supervisory Board	Mieczysław Kawecki	....
Member of the Supervisory Board	Stanisław Sieradzki	....

Warsaw, March 13th 2019