



# TRADE AND STORAGE SEGMENT

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The PGNiG Group's activities in the Trade and Storage segment comprise sales of imported natural gas and natural gas produced from the domestic reserves, as well as storage of gas in the underground storage facilities.

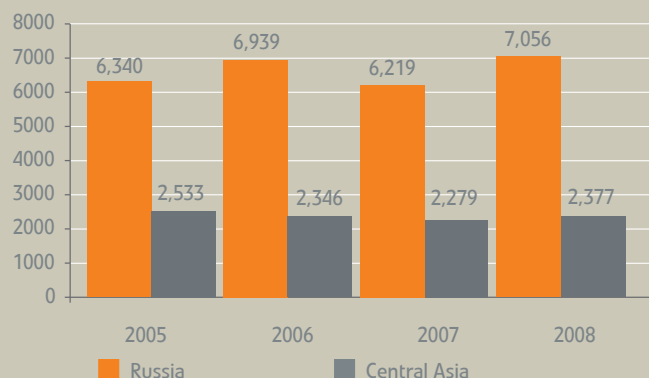
## Imports

PGNiG SA is the largest natural gas importer in Poland. Natural gas imported by the Company is sourced mainly from Russia, but also from Turkmenistan and Uzbekistan, Germany, Ukraine and the Czech Republic. In 2008, PGNiG SA imported natural gas under the following contracts:

- long-term contract (in force until 2022) for supplies of gas from Russia, with OOO Gazexport (which on November 1st 2006 changed its name into OOO Gazprom Export), dated September 25th 1996, referred to as the Yamal contract;
- contract for sales of the Lasów natural gas executed with VNG-Verbundnetz Gas AG, dated August 17th 2006, which will remain in force until October 1st 2016;
- contract for sales of natural gas executed with VNG-Verbundnetz GAS AG/E.ON Ruhrgas AG, dated September 15th 2004, which will remain in force until September 30th 2008;
- contract for sales of natural gas executed with RosUkrEnergo AG, dated November 17th 2006, which will remain in force until January 1st 2010 and may be extended until January 1st 2012;
- contract for sales of the Lasów 2008 natural gas executed with VNG-Verbundnetz Gas AG, dated September 29th 2008, in force from October 1st 2008 to October 1st 2011.

In connection with the expiry on September 30th 2008 of the agreement on gas sales executed with VNG-Verbundnetz Gas AG/E.ON Ruhrgas AG and the change in the volume of gas supplied by VNG-Verbundnetz Gas AG under the contract of August 17th 2006, on September 29th 2008, PGNiG SA and VNG-Verbundnetz Gas AG executed the agreement on sales of the Lasów 2008 natural gas. Under the agreement, the Company will purchase 0.5 bcm of natural gas annually. In 2008, total natural gas imports into Poland amounted to 10.3 bcm.

VOLUME OF NATURAL GAS IMPORTS FROM EASTERN SUPPLIERS IN 2005–2008 [MCM]

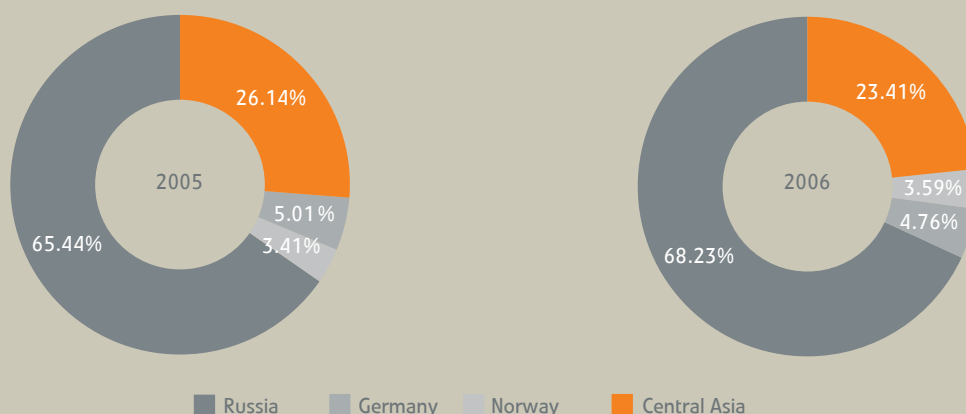


PGNiG SA is also involved in many projects aimed at diversification of the supplies of natural gas to Poland. The Company currently works on increasing the throughput of the gas pipeline on the Polish-German border in Lasów, from the current 1.0 bcm to 1.8 bcm in 2011, and the construction of a gas pipeline connecting Szczecin with the Berlin gas ring. PGNiG SA also actively participates in the Open Season procedures organised by the Polish transmission system operator and its foreign counterparts. The Open Season procedures included, among others, reservation of the transmission capacities of the Baltic Pipe (connecting Poland and Denmark) and of the Nabucco gas pipeline (connection to Baumgarten via the Czech Republic or Slovakia), which is to be constructed in near future.

## Storage

PGNiG SA operates six underground gas storage (UGS) facilities with a working capacity of 1.66 bcm, which represents 11.9% of the annual gas consumption by domestic customers. The facilities are located in various geological structures (in salt caverns or worked out natural gas deposits), and have different gas injection and reception capacity.

SOURCES OF GAS SUPPLIES IN 2005–2008

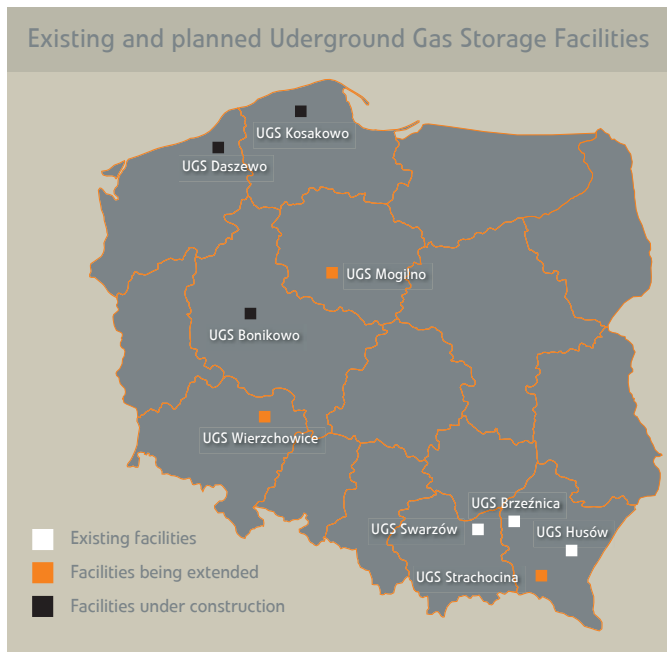


Our UGS facilities allow us to maintain an appropriate level of reserves for periods of short-term disruptions in gas supplies caused by system failures or limited gas availability. These facilities help us meet our obligations to create and maintain mandatory reserves imposed under the Act on Mandatory Reserves. They also reduce our susceptibility to seasonal fluctuations (as they support optimisation of the natural gas supply chain) and sudden short-term changes in demand. Moreover, as the operator of these facilities, we are able to maintain steady production levels throughout the year: in periods of reduced demand, gas is injected to the storage facilities, while in times of peak demand (not coverable with the current production), it is retrieved from the facilities.

The UGS facilities in Wierchowice, Husów and Mogilno allow us to meet the obligation to maintain mandatory reserves imposed under the Act on Reserves of Crude Oil, Petroleum Products and Natural Gas, as well as Rules of procedure to be followed when the state's fuel security is threatened or the petroleum market is disturbed, dated February 16th 2007.

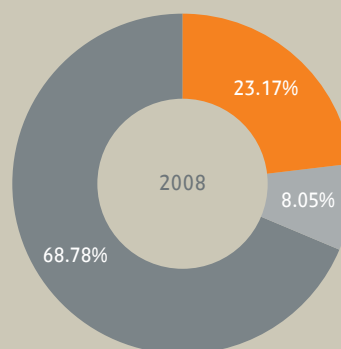
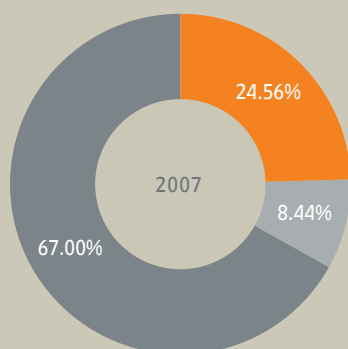
PGNiG SA follows an active policy aimed at increasing its storage capacities. In 2008, the Company's capital expenditure on underground gas storage facilities reached PLN 109m.

- the Bonikowo UGS Facility is designed to store nitrogen-rich gas (Lw). The construction of the facility will contribute to a better utilisation of the production capacities of the deposits and the Grodzisk blending plant and will allow us to intensify our efforts to connect new customers to the gas grid in the Poznań province. In 2008, an agreement was signed to drill the first boreholes and the general contractor for the construction of the surface infrastructure was selected. The project is valued at approx. PLN 160m;
- the Daszewo UGS Facility will also store nitrogen-rich gas (Ls). The construction of the facility will allow us to steadily recover gas from local deposits, while ensuring an appropriate gas composition for our customers. In 2008, an agreement was signed for the execution of construction and assembly work. The project's total value is estimated at approx. PLN 40m;
- the Kosakowo UGS Facility will be constructed in the area of the Gdańsk-Gdynia-Sopot agglomeration. The project involves



the construction of ten storage caverns located in the rock salt deposit and the construction of a leaching unit and pipeline for brine discharge into the Puck Bay. The project's cost will amount to approx. PLN 425m;

- the Mogilno UGS Facility is the only cavern storage facility in Poland. The investment project involves gradual extension of the storage facility by adding new storage caverns as well as a parallel extension of the facility's systems and surface infrastructure. The project's cost is approx. PLN 525m;
- the Strachocina UGS Facility will be extended by adding 0.18 bcm of new working capacity by 2011. At the end of 2007, an agreement was concluded with PNiG Kraków for the drilling of boreholes. The tasks remaining to complete the project include the construction of the surface infrastructure together with a pipeline system. The project will cost PLN 209m;
- the Wierchowice UGS Facility is currently the largest natural gas storage facility in Poland. The facility's working capacity will



■ Russia ■ Germany ■ Central Asia

be increased to 2.0 bcm by 2015. In November 2008, PGNiG SA and a consortium comprising PBG SA, Tecnimont SpA, Société Française d'Etudes et de Réalisations d'Équipements Gaziers „SOFREGAZ”, Plynostav Pardubice Holding AS and Plynostav Regulace Plynu AS signed an agreement for extension of the Wierzchowice UGS Facility's capacity to 1.2 bcm. The work on the project is scheduled to be completed by the end of 2011, and the project's cost will reach approx. PLN 1.3bn.

## Sales

PGNiG SA is the largest seller of natural high-methane and nitrogen-rich gas fed into the transmission and distribution networks. Gas trading is regulated by the Polish Energy Law, with prices established on the basis of tariffs approved by the President of URE. As two types of gas (with different composition and parameters) are distributed:

- high-methane gas – with a nominal calorific value of 34.0 MJ/cubic meters;
- nitrogen-rich gas – with a nominal calorific value 26.0 MJ/cubic meters;

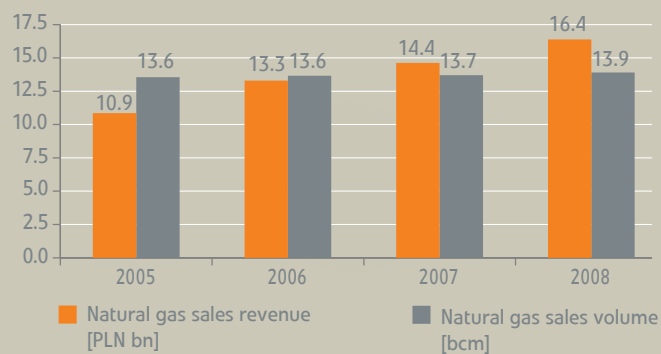
we operate two transmission networks interconnected with an installation for cryogenic separation of methane and nitrogen (located in Odolanów).

The high-methane natural gas transmission network is used for collection of imported gas, gas from southern Poland as well as gas derived from the nitrogen-rich gas at the Odolanów Branch produced from the reserves in western Poland. The nitrogen-rich natural gas transmission networks serve to route the gas from the domestic reserves located in Polish Lowlands.

In 2008, the total natural gas sales were 13.9 bcm, that is 0.2 bcm more than in 2007, 13.3 bcm of which was sold by the Trade and Storage segment. In 2008, 1.4 bcm of nitrogen-rich gas was pumped into the grid, and subsequent to nitrogen elimination the network was fed with 0.9 bcm of high-methane gas, which corresponds to the production levels of the last two years. When the nitrogen removal plant in Grodzisk Wielkopolski is commissioned and when the city of Poznań completes its transition to high-methane gas, then we will increase the output of our nitrogen-removal processes.

In 2008, our main customers receiving natural gas were the che-

NATURAL GAS SALES MEASURED AS HIGH-METHANE GAS EQUIVALENT IN 2005–2007



micals sector, the metallurgic industry and the power sector, as well as households. The latter were identified as the largest customer group (approx. 6.4m), accounting for 97% of the entire PGNiG SA's customer base. They received 3.6 bcm gas. The most prominent share in the natural gas sales was claimed by industrial customers, who received 8 bcm of natural gas.

In 2008, PGNiG SA signed approx. 92 ths. new comprehensive agreements for supply of gaseous fuel, from both transmission and distribution systems, including 90.2 ths. agreements with households.

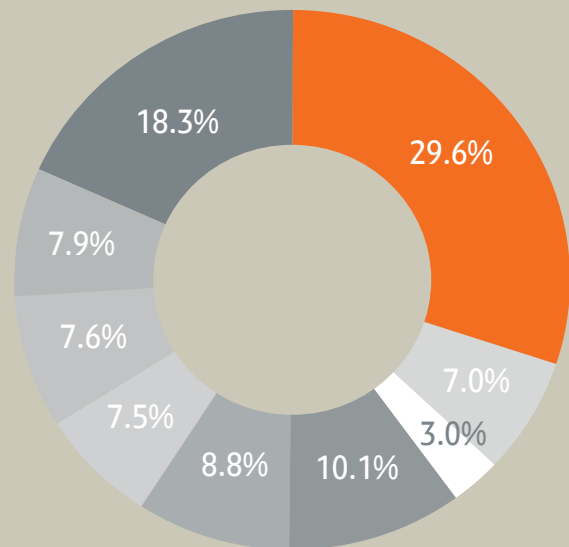
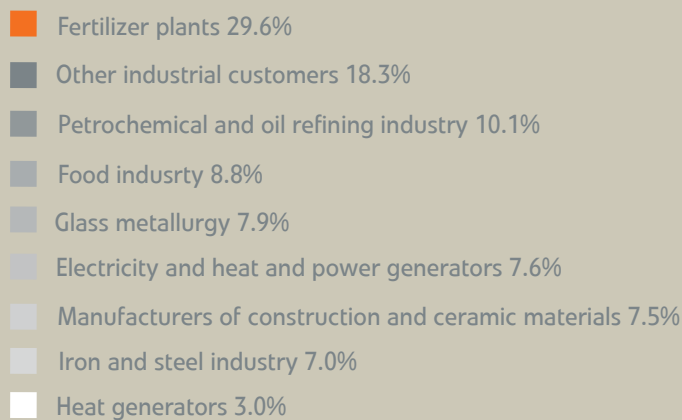
The projected rise in the natural gas sales volume is attributable to development investments of PGNiG SA's strategic customers in the petrochemical, construction and steel sectors. In 2007, PGNiG SA started cooperation concerning possible gaseous fuel supplies with several major prospective customers, including companies operating in the power sector and planning to replace hard coal fired generating units with gas fired ones. Supplies of natural gas for the needs of the upgraded power/CHP plants are planned to commence in 2012-2013.

In addition, PGNiG SA commenced talks with certain electricity suppliers concerning joint electricity and natural gas sales. It is assumed that in 2009 PGNiG SA will develop a cooperation model and undertake first joint implementations.

Facility	Type of project	Working capacity [bcm]	Target capacity [bcm]	Year completed
Bonikowo	construction		0.20	2010
Brzeźnica		0.07	0.07	
Daszewo	construction		0.03	2010
Husów	extension	0.40	0.50	2011
Kosakowo	construction		0.12	2015
Mogilno	extension	0.37	0.61	2015
Strachocina	extension	0.15	0.33	2011
Swarzów		0.09	0.09	
Wierzchowice*	extension	0.58	2.00	2015
<b>TOTAL</b>		<b>1.66</b>	<b>3.96</b>	

\* Completion of the extension phase to the capacity of 1.20 bcm in 2012.

## PGNiG'S INDUSTRIAL CUSTOMERS IN 2008



Sales of natural gas directly from reserves as well as sales of other products of the PGNiG Group are conducted by the Exploration and Production segment on market terms, whereby prices are individually negotiated with customers on a case-by-case basis.

The territory of Poland is an important section in an over 4 ths. km gas pipeline used for transmission of natural gas from the Yamal Peninsula to Germany and other countries of Western Europe. In Poland, the pipeline's diameter is 1,400 mm, and the section's length is 682 km. It is owned by SGT EuRoPol GAZ SA, in which PGNiG SA holds 48% of shares. Natural gas is collected in two interconnector terminal points in Włocławek and Lwówek Wielkopolski. In 2008, SGT EuRoPol GAZ SA transmitted nearly 33.0 bcm of natural gas.

### LNG

The interest in liquefied natural gas (LNG) has been growing on the global fuel markets. Imports of LNG to Poland will be an important source of supply necessary to meet the growing demand for gas. Importing LNG to Poland is also one of the elements of the strategy to diversify sources of natural gas supplies. A feasibility study concerning LNG imports to Poland, prepared at the end of 2006 and containing an analysis of the project's technological and economic objectives, was used as a basis for the decision to build an LNG terminal in Świnoujście.

In August 2008, the Council of Ministers adopted a resolution whereby the construction of the LNG terminal was proclaimed a strategic project for Poland, consistent with the natural gas supplies diversification plan and Poland's energy security. At the end of 2008, the company responsible for the project execution - Polskie LNG sp. z o.o. – was sold to the state-owned OGP GAZ-SYSTEM SA. The transaction was valued at PLN 52m.

It is assumed that the initial annual volumes of gas supplies from the LNG terminal to the network will be ca. 2.5 bcm. Depen-

ding on demand for gas, the annual throughput may increase to 7.5 bcm, without the need to extend the LNG terminal area. Two standard tanks of 160 tcm capacity are planned to be constructed at the LNG terminal. The first supplies of liquefied natural gas are planned for 2014.

### CNG

Compressed natural gas (CNG) may be used as engine fuel in vehicles. Such application of CNG is both environment-friendly and economical. Currently, there are around 7.3m CNG fuelled vehicles all over the world, with the number growing extremely fast. Numerous countries have developed various mechanisms supporting the use of natural gas as engine fuel. The number of CNG fuelled vehicles in Poland at the end of 2008 is estimated at 1.5 ths., mostly owned by public transport companies and private road carriers. At the end of 2008, PGNiG SA operated 29 generally-accessible CNG filling stations.

