

## Trade and Storage



Our 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.



## Trade and Storage

PGNiG is the largest Polish importer of gas under long-term contracts from Russia, from the countries of Central Asia (Turkmenistan and Uzbekistan) as well as from Germany, Ukraine and the Czech Republic. In 2007, imports totalled 9.3 billion cu. m (10.0 billion cu. m in 2006) and accounted for 68% of PGNiG's supplies of natural gas.

In 2007, our portfolio of gas import contracts included:

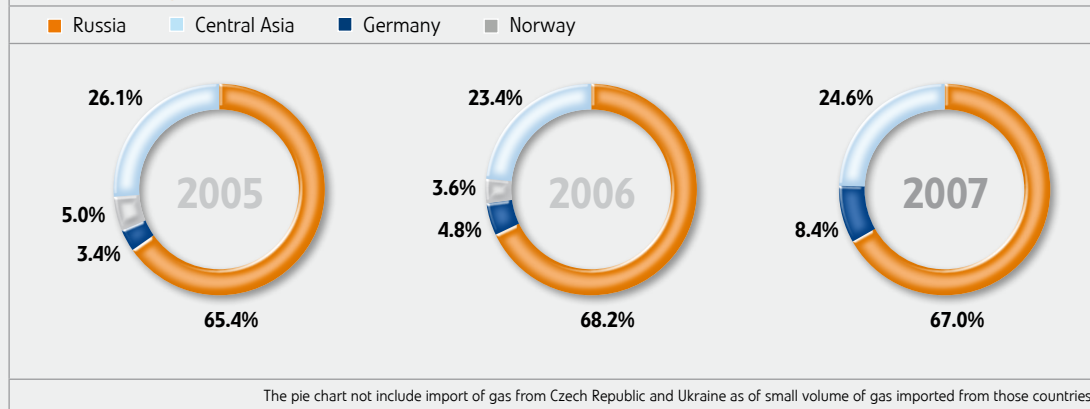
- » Long-term contract (in force until 2022) for supplies of gas from Russia, with OOO Gazexport (which on November 1st 2006 changed its name into OOO Gazprom Export), dated September 25th 1996, referred to as the Yamal contract;
- » Contract for imports of gas executed with VNG-Verbundnetz GAS AG, dated 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 for two years.

### » Operating profit of the Trade and Storage segment in 2005–2007

[PLN m]		
2005		531
2006		259
2007		1,196

In Q1 2007, PGNiG and DONG Energy A/S signed a Protocol, in which they expressed intention to continue their cooperation. In their future cooperation, the parties will take into account the European gas markets environment, and will carry out infrastructural projects in the Baltic Sea basin to ensure security of supplies. Moreover, PGNiG and Total E&P Norge A/S signed the General Terms of Natural Gas Sales, which act as a framework agreement and provide basis for execution of natural gas supply contracts. Under the General Terms of Natural Gas Sales, PGNiG is granted access to Norwegian gas terminals in Europe, thus being able to purchase natural gas in the periods of greater demand for the product and resell the surplus, if any.

### » Sources of gas supplies in 2005–2007



### Gas transmission

In Poland, two types of gas with different composition and parameters are transmitted via the gas transmission network:

- » high-methane gas – with a nominal calorific value of 34.0 MJ/m<sup>3</sup>;
- » nitrogen-rich gas – with a nominal calorific value 26.0 MJ/m<sup>3</sup>.

The high-methane natural gas transmission networks 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 Poland, gas transmission services are provided by OGP GAZ-SYSTEM SA. In 2005, PGNiG and OGP GAZ-SYSTEM SA executed a long-term operating lease agreement, whereby we are obliged to gradually sell certain components of the transmission network to OGP GAZ-SYSTEM SA. The agreement remains in force until 2022 (interest rates based on 3M WIBOR plus margin).

In July 2007, we executed an annex to the agreement whereby the distribution assets, whose total value amounts to PLN 852m, were excluded from the lease (in accordance with the Natural Gas Industry Policy of March 20th 2007 adopted by the Council of Ministers, aimed to enhance efficiency of the transmission and distribution networks). In line with the policy, the currently leased gas system had to be divided into transmission and distribution components, and subsequently, following the exclusion of distribution assets from lease, the gas system was transferred for use by the distribution system operators.

On October 1st 2007, PGNiG and OGP GAZ-SYSTEM SA entered into further two transmission agreements, one of which contemplates provision of high-methane gas transmission services and stipulates the terms of supply of gaseous fuel to and its collection

from the transmission system. The other one relates to provision of nitrogen-rich gas transmission services and stipulates the terms of supply of gaseous fuel to and its collection from the transmission system. The agreements are effective until December 31st 2010, and their value is c.a. PLN 5.6bn, VAT inclusive.

The territory of Poland is an important section in an over-four-thousand-kilometre 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, in which PGNiG holds 48% of shares. Natural gas is collected in two interconnector terminal points in Włocławek and Lwówek Wielkopolski. In 2007, SGT EuRoPol GAZ transmitted nearly 30.8 bcm of natural gas.

### » Interest and principal instalment under lease agreement in 2005–2007

[PLN m]	Interest payment	Principal payment	
Q3 05	73	60	133
Q4 05	72	59	131
Q1 06	77	59	136
Q2 06	69	59	129
Q3 06	66	57	124
Q4 06	56	49	105
Q1 07	56	50	106
Q2 07	57	50	107
Q3 07	59	50	110
Q4 07	47	38	85



## Natural gas sales

The core business of the Trade and Storage segment comprises sales of 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 Energy Laboratory Office.

In 2007, the aggregate gas sales volume, measured as high-methane gas equivalent, was 13.7 billion cu. m, slightly above the 2006 figure. As two different types of gas are distributed, we operate two transmission networks interconnected with an installation for cryogenic separation of methane and nitrogen, located in Odolanów. In 2007, 1.4 billion cu. m of nitrogen-rich gas was processed in Odolanów, with 0.9 billion cu. m of high-methane gas fed into the network subsequent to nitrogen elimination, which corresponds to the 2006 production levels.

In 2007, sales of gas to gas companies, end customers and Distribution System Operators accounted for 58% of total gas sales. As a result of the legal separation of distribution and trade functions in the mid 2007, the Gas Companies were transformed into Distribution System Operators and the trading activities were taken over by PGNiG. Therefore, in H2 2007 we sold gas to end-customers, while the Distribution System Operators purchased gas for their own needs. Our main customers receiving

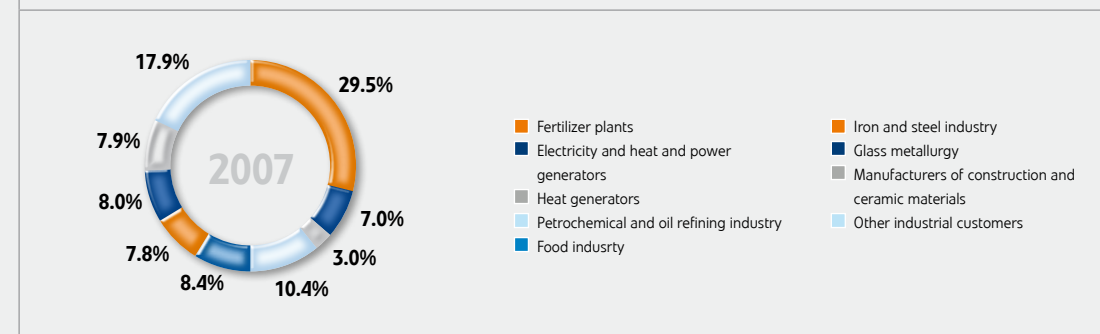
### » Natural gas sales volume measured as high-methane gas equivalent in 2005–2007

		Natural gas sales revenue [PLN bn]	Natural gas sales volume [bcm]
2005		10.9	13.6
2006		13.3	13.7
2007		14.4	13.7

gas from the distribution and transmission network primarily included companies from chemicals sector, the metallurgic industry and the power sector, as well as households. The latter were identified as the largest customer group, accounting for 99.6% of the entire PGNiG's customer base, with a 28.1% share in the sales volume. The most prominent share in the natural gas sales was claimed by industrial customers (60.5%), with the dominating position of nitrogen plants and companies from the refining and petrochemical sectors.

A future increase in natural gas volumes sold will be driven by development-oriented projects undertaken by our strategic customers, i.e. companies operating in the petrochemical, construction and metallurgical industries. In 2007, we started

### » PGNiG's industrial customers in 2007



cooperation with several large potential customers. Some of them are companies operating in the power sector, with plans to partially replace hard-coal fired generating units with gas fired ones. The start of natural gas supplies to modernised power plants and CHP plants is planned for 2011–2012. Moreover, in 2007, we commenced negotiations with electricity suppliers concerning combined sales of electricity and natural gas. The preparation of a co-operation model and first joint implementations are expected 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.

## Storage

We currently own and operate six underground gas storage facilities (UGS) with a working capacity of 1.66 billion cu. m, which represents 13.5% of the annual gas consumption by our customers. The facilities are located in various geological structures (in salt caverns in Mogilno, and in worked out natural gas deposits at the other UGS facilities), and have different gas injection and reception capacity.

The table below sets forth the basic profiles of individual UGS facilities.

Currently, the storage facilities are suitable for storage of high-methane gas only. The two new storage facilities planned to be launched in Daszewo and Bonikowo in 2009 will be used for storage of nitrogen-rich gas. This will enable the supplies of natural gas in the natural gas sub-system to be optimised and the demand for nitrogen-rich gas to be met in the vicinity of these facilities.

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 also help us meet our obligations to create and maintain mandatory reserves, and they reduce our susceptibility to seasonal fluctuations sudden short-term changes in demand for gas (as they support optimisation of the natural gas supply chain). 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.

Facility	Type of project	Working capacity [bcm]	Target capacity [bcm]	Year completed
Wierzchowice	extension	0.58	1.20	2012
Husów		0.40	0.40	
Mogilno	extension	0.37	0.44	2012
Strachocina	extension	0.15	0.33	2012
Swarzów		0.09	0.09	
Brzeźnica		0.07	0.07	
Bonikowo	construction		0.20	2009
Kosakowo	construction		0.05	2012
Daszewo	construction		0.03	2009
<b>Total</b>		<b>1.66</b>	<b>2.81</b>	



The capacity of the currently used UGS facilities represents the average consumption of natural gas over 49 days. The facilities provide as with means to duly perform our gas sales contracts.

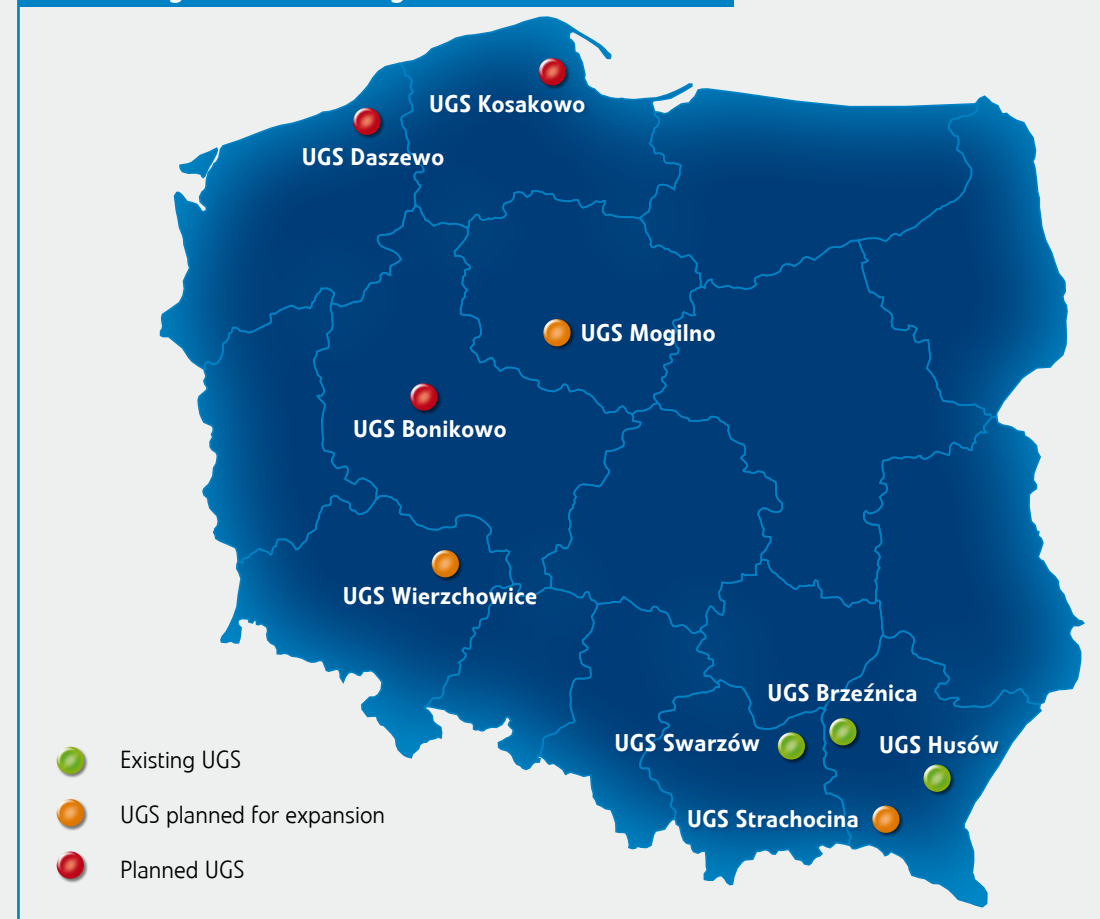
We follow an active policy of expanding the storage volumes of the facilities. In 2007, the related capital expenditure was PLN 61m. The most important tasks in this area in 2007 included:

- » Underground Gas Storage facility in Wierzychowice – opening of the tender for construction of the facility's surface infrastructure;
- » Underground Gas Storage facility in Kosakowo – execution of the contract for preparation of construction design for surface infrastructure

(and obtaining relevant building permits); and preparation of construction and building design for the leaching unit and pipeline for brine discharge into the Puck Bay (and obtaining relevant building permits). Execution of the contract for delivery of leaching pumps, and the contract with INVESTGAS SA for construction of the leaching unit and the brine pipeline;

- » Underground Gas Storage facility in Strachocina – execution of the contract for preparation of construction design (and obtaining relevant building permits) for the facility's surface infrastructure. Conclusion of the tender for drilling of wells.

#### Underground Gas Storage facilities in Poland



### LNG

Given the continuous increase in crude oil prices, 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 in December 2006 and containing an analysis of the project's technological and economic objectives, was used by the Management Board of PGNiG as a basis for the decision to build an LNG terminal in Świnoujście. It is assumed that the initial annual volumes of gas supplies from the LNG terminal to the network will be ca. 2.5 billion cu. m. Depending on demand for gas, the annual throughput may increase to 5.0 billion cu. m, with the target throughput of 7.5 billion cu. m annually. The first supplies of liquefied natural gas are planned for 2012.

In 2007, the implementation stage of the project of regasification terminal construction was executed, and included the following tasks:

- » OGP GAZ-SYSTEM SA defined the conditions for connecting the terminal to the transmission system; negotiations of the relevant connection agreement commenced;
- » Polskie LNG Sp. z o.o. was established; the company's main objective is to conduct regasification operations, and in particular unloading, reloading and regasification of LNG at the LNG terminal;
- » An agreement was executed with the Nature Conservation Office in Szczecin for preparation of an environmental impact study for the project;
- » A lease agreement was executed with Zarząd Morskich Portów Szczecin i Świnoujście SA (Port Authority) concerning real estate to be used for the purpose of the LNG Project, and the local zoning plan for Świnoujście was amended.

Concurrently with design and implementation work, development actions were carried out with view to concluding a long-term contract for LNG supplies.

Another major step was the execution of a contract between Polskie LNG and SNC Lavalin Services Ltd. in the early 2008. Under the contract, the Canadian company will prepare the design of and obtain a building permit for the project. The contract, with a value of PLN 26m, is expected to be completed within nine months.

### 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 7.3 million 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 2007 is estimated at 1.3 thousand, mostly owned by public transport companies and private road carriers.

As at the end of 2007, we owned 28 CNG filling stations. Funds for construction of further new stations are earmarked in the 2008 budget. On March 28th 2008, the President of Energy Regulatory Office issued a decision whereby PGNiG is released from the obligation to submit CNG tariffs for approval. Thus development of the CNG market will become significantly easier.

#### » Number of CNG service stations in Poland in 2006–2008

2006	<div style="width: 23%;"></div>	23
2007	<div style="width: 28%;"></div>	28
2008	<div style="width: 33%;"></div>	33

