Agenda

1. PGNiG Capital Group
2. PGNiG Segments of Activity
3. Upstream Activities
4. PGNiG Shale Gas Activities
PGNiG Capital Group
Poland’s leading integrated gas and oil company

- Leader gas and growing oil producer
- Leader gas importer to Poland and owner of gas storages
- Robust domestic gas distribution business

- Domestic production of
  - natural gas: 4.3 bcm;
  - crude oil: approx. 470 ths. tons
- 10.9 bcm of imported natural gas;
- 1.83 bcm of working storage capacity;
- 6.6 million of end-customers.
- 119 ths km of distribution network;
- 8.8 bcm of distributed gas.

*All data for 2011.*
PGNiG’s Shareholders

One of the biggest companies in Poland

- On Stock Exchange since September 2005
- The 6th biggest Polish company on the Stock Exchange*
- Market Capitalization of EUR 5.7 billion**
- Significant share in WIG 20 index

- PGNiG’s public offer was the biggest IPO of 2005.
- The shares of the Polish Oil and Gas Company were quoted on the Warsaw Stock Exchange on 23rd September 2005 at the rate exceeding the sales price by nearly 35%.
- PGNiG’s share in WIG20 index amounts to approx. 4%.
- The State Treasury in June 2008 sold a single share of PGNiG SA, clearing the way for it to distribute a 12.71% stake to the employees of the Company. The shares had two years lock-up period, which ended July 1st, 2010.

* In terms of market capitalisation
** PGNiG = 3.97 PLN; EUR/PLN = 4.1 as at March 28th, 2012
Gas Market in Poland

- Poland is consuming 14.4 bcm per annum (comparable to Romania and three times less than Spain, France or the Netherlands);
- Gas share in Polish energy market is much lower than an average in the EU (14% against 26%);
- It is a consequence of the extensive usage of coal (hard/brown) as the source of primary energy.

EU natural gas sales by sector in 2010**

- Residential and Commercial: 40%
- Industry: 28%
- Power Plants: 29%
- Others: 2%

Primary energy consumption by fuel in 2010*

- Natural Gas: 27%
- Coal: 38%
- Nuclear Energy: 12%
- Renewables: 4%
- Other: 5%

PGNiG natural gas sales breakdown in 2011

- Residential and commercial: 36%
- Industry: 51%
- Power plants and heat plants: 10%
- Others: 3%

** Source: EuroGas Statistical Report 2011
PGNiG Segments of Activity
The leading Polish onshore E&P player
- PGNiG is a leader producer of gas and oil in Poland

Strong resource potential
- proved gas reserves 578 mboe (91.9 bcm)
- proved oil reserves 155 mboe (21.1 m tons)

RRR and R/P ratios – average for years 2006-2010:
- RRR = 0.9
- R/P = 25

PGNiG has 96 oil & gas exploration concessions and 224 oil & gas production concessions.

### Natural gas production outlook (bcm)

<table>
<thead>
<tr>
<th>Year</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2015</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>4.3</td>
<td>4.7</td>
<td>4.9</td>
<td>6.2</td>
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</table>

### Crude oil production outlook (m tons)

<table>
<thead>
<tr>
<th>Year</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2015</th>
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<tbody>
<tr>
<td></td>
<td>0.5</td>
<td>0.7</td>
<td>1.2</td>
<td>1.8</td>
</tr>
</tbody>
</table>
There are accumulations in Poland which may produce unconventional gas such as tight gas and shale gas. Initial estimates put shale gas resources at 1.5 – 5 trillion cubic metres. Polish Geological Institute points to max. 1.9 trillion cubic meters.

The concessionary system in Poland provides for low fees for exploration concessions and low royalty.

PGNiG has 15 standalone exploration concessions with perspectives for shale gas and another at least 6 concessions with perspectives for tight gas.

At present, work is carried on various exploration concessions and the initial results should be known in 2012.

Opportunities
- Potentially enormous natural gas resources;
- PGNiG could become independent from external gas supplies;
- Development of the PGNiG Group, incl. drilling companies

Risks
- Different geological setup than in the US (incl. reservoir depth)
- Unrecognized geology;
- Urbanization of the area;
- Restrictive regulations on environmental protection, a large number of environmentally protected areas and objects.
Completed works

- Closing the purchase of 12% share in the Skarv field on the NCS from ExxonMobil and Mobil Development Norway (X 2007).
- Completion of 16 production, injection and exploration wells on Skarv field and neighbouring prospects (drilling started in December 2009).
- Termination of construction of FPSO (Floating Production, Storage and Offloading Unit).

Production forecast

- Estimated annual production for PGNiG from the NCS fields will reach:
  - 0.4 bcm of natural gas;
  - 0.4 million tons of crude oil and NGL.

New discovery

- License partners have discovered new gas deposits on the concession – Snadd North;
- The size of the Snadd North deposit is estimated at 9-16bn cubic metres of natural gas (from 57m to 100m boe);
- Its development started in 2011.

Basic data

<table>
<thead>
<tr>
<th>Item</th>
<th>Value</th>
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</thead>
<tbody>
<tr>
<td>Cost of the licences</td>
<td>USD 360m</td>
</tr>
<tr>
<td>Planned CAPEX (PGNiG only)</td>
<td>~USD 600m</td>
</tr>
<tr>
<td>Reserves of the licences (2P)</td>
<td>70.9 mboe</td>
</tr>
</tbody>
</table>

Share in Skarv field:

- PGNiG Norway A/S: 11.92%
- BP Norge A/S (operator): 23.84%
- E.ON Ruhrgas Norge A/S: 28.08%
- Statoil Petroleum A/S: 36.17%

* Source: Norwegian Petroleum Directorate.
# PGNiG’s Licences Norway

<table>
<thead>
<tr>
<th>Licence</th>
<th>PL212E</th>
<th>PL350 and 350B</th>
<th>PL521</th>
<th>PL558</th>
<th>PL599</th>
<th>PL600</th>
<th>PL646</th>
<th>PL648S</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Share</strong></td>
<td>BP Norge AS (30% - operator)</td>
<td>E.ON E&amp;P Norge AS (40% - operator)</td>
<td>Statoil Petroleum AS (40%)</td>
<td>E.ON E&amp;P Norge AS (30%)</td>
<td>BG Norge A/S (40% - operator)</td>
<td>Dana Petroleum Norway AS (70% - operator)</td>
<td>Wintershall Norge ASA (40% - operator)</td>
<td>PGNiG Norway AS (50% - operator)</td>
</tr>
<tr>
<td>PGNiG Norway AS (15%)</td>
<td>PGNiG Norway AS (30%)</td>
<td>PGNiG Norway AS (35%)</td>
<td>PGNiG Norway AS (30%)</td>
<td>PGNiG Norway AS (30%)</td>
<td>PGNiG Norway AS (20%)</td>
<td>PGNiG Norway AS (30%)</td>
<td>PGNiG Norway AS (20%)</td>
<td>OMV Norge AS (50%)</td>
</tr>
<tr>
<td>Statoil Petroleum AS (30%)</td>
<td>PGNiG Norway AS (30%)</td>
<td>Svenska Petroleum Exploration A/S (25%)</td>
<td>Petoro AS (20%)</td>
<td>Det norske oljeselskap ASA (20%)</td>
<td>Idemitsu Petroleum Norge AS (20%)</td>
<td>Lundin Norway AS (20%)</td>
<td>Norwegian Energy Company ASA (30%)</td>
<td>PGNiG Norway AS (50%)</td>
</tr>
<tr>
<td><strong>Location</strong></td>
<td>Near Skarv Field (around 10 km to the N)</td>
<td>Near Skarv Field (around 10 km to the E)</td>
<td>Helgeland basin</td>
<td>Near the Skarv Field (bordering to the E)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Exploration Works Worldwide

### Egypt

**Bahariya concession**

- **Agreement:** 17 May 2009
- **Opening of unit:** 27 July 2009
- **Shares:** PGNiG SA 100%
- **Area:** 4,414.4 km²
- **Location:** Western Desert oil province
- **Obligations under concession:** 1,350 km² of 2D seismic studies, 2 boreholes
- **Estimated reserves:** 22.0 m tons of crude oil

Force majeure since Feb. 2011

### Libya

**Ghadames/Murzuq concession**

- **Agreement:** 25 February 2008
- **Opening of unit:** 1 June 2008
- **Shares:** PGNiG SA 100%
- **Area:** 5,494.0 km²
- **Location:** Awbari province, Murzuq Basin
- **Obligations under concession:** 3,000 km² of 2D, 1,500 km² of 3D, 8 boreholes
- **Estimated reserves:** 146 bcm of nat gas, 15 m tonnes of condensate

### Denmark

**Concession 1/05**

- **Agreement:** 14 December 2007
- **Opening of unit:** May 2008
- **Shares:** PGNiG SA 80% Nordsøfonden 20%
- **Area:** 2,000 km²
- **Location:** South Jutland – Rotliegende basin
- **Obligations under concession:** 1 well up to 50 m below Zechstein
- **Estimated reserves:** 3.9 m tons of crude oil
- **EWT planned for 2012**

### Pakistan

**Kirthar concession**

- **Agreement:** 18 May 2005
- **Shares:** PGNiG SA 70% Pakistan Petroleum 30%
- **Area:** 956 km²
- **Location:** Province Sindh, Folded belt Kirthar
- **Obligations under concession:** 1 well, 100 km 2D (fulfilled)
- **Estimated reserves:** app. 11.6 bcm of gas
- **EWT planned for 2012**
Expansion of Underground Gas Storage Facilities

2011 - 2012
- Extension of UGS Strachocina (from 150 to 330 mcm) – accomplished.
- I phase of extension of UGS Wierzchowice (from 0.58 to 1.2 bcm).

2013 - 2014
- I and II phase of construction of CUGS Kosakowo (50 - 100 mcm);
- I phase of extension of CUGS Mogilno (from 378 to 535 mcm);

2020
- II phase of extension of UGS Wierzchowice (from 1.2 to 2 bcm);
- III phase of construction of CUGS Kosakowo (from 100 to 250 mcm);
- II phase of extension of CUGS Mogilno (from 535 to 800 mcm);
- Extension of UGS Brzeznica and UGS Husów.

Strategic gas reserves
- from 1st Oct. 2010 until 30th Sep. 2012: 20 days of daily average import (approx. 530 mcm);
- from 1st Oct. 2012 onward: 30 days of daily average import;

Basic data
- No. of storage facilities in 2015: 9
- Current working capacity: 1.83 bcm
- Target working capacity: ca. 3 bcm
- Current storage capacity meets domestic demand for*: 46 days

* Based on natural gas demand level in Poland in 2011 (14.4 bcm)
Regional Gas Companies are responsible for supplying natural gas to households, industrial and wholesale customers, but also for operation, maintenance and development of gas pipelines.

In 2011 Gas Companies distributed 8.8 bcm of natural gas to 6.7 million customers through 119 ths km of distribution network.

Number of customers and volume of distributed gas by RGC in 2011

<table>
<thead>
<tr>
<th>Region</th>
<th>bcm</th>
<th>mn users</th>
</tr>
</thead>
<tbody>
<tr>
<td>Greater Poland GC</td>
<td>15.9</td>
<td>9.8</td>
</tr>
<tr>
<td>Pomeranian GC</td>
<td>5.8</td>
<td>1.7</td>
</tr>
<tr>
<td>Mazovian GC</td>
<td>4.8</td>
<td>1.7</td>
</tr>
<tr>
<td>Carpathian GC</td>
<td>4.5</td>
<td>1.4</td>
</tr>
<tr>
<td>Lower Silesian GC</td>
<td>7.8</td>
<td>1.5</td>
</tr>
<tr>
<td>Upper Silesian GC</td>
<td>20.9</td>
<td>1.6</td>
</tr>
</tbody>
</table>

6 RGC – 100% owned by PGNiG
PGNiG's strategy assumes that in 2015 the Group will have at least 1,300 MW of its own production capacity.

In December 2009 PGNiG Energia was established, a fully owned subsidiary of PGNiG SA. PGNiG Energia is involved in projects connected with the construction of energy blocks, investments in co-generative installations powered by natural gas, and pilot biogas projects.

EC Stalowa Wola Power Plant (2015)

- In March 2011 PGNiG, Tauron and their subsidiaries signed three agreements:
  - Agreement on the Operation of Elektrociepłownia Stalowa Wola SA, concluded for 25 years, as part of the "Construction of a CCGT Unit in Stalowa Wola" project. Total estimated cost: PLN 1.95bn (of which PGNiG Group will bear 50%);
  - Master Agreement for Supply of Gaseous Fuel reaching 540 mcm per annum, signed for 14 years (worth PLN 9.66bn);
  - Agreement for Sale of Electricity, signed for 14 years (worth PLN 6.79bn for each side).

- PGNiG will ensure natural gas deliveries for the project and will use 50% of the unit’s capacity;
- Total power output: 400 MWₑ and 240MWₜ.

* Source: PSE Operator SA.
Upstream Activities
Knowledge - Experience - Opportunities
1813 - Józef Hecker experiments with petroleum distillation and in 1817 delivers products for street illumination in Drohobycz, barracks in Sambor and salt works in Truskawiec.

1853 - The first use of a constructed by Ignacy Łukasiewicz kerosene lamp as a light source for the operating theatre in Lviv Hospital. This event marks the birth of Poland’s and world’s petroleum industry.

1854 - Ignacy Łukasiewicz opens the first petroleum production plant in Bóbrka - today - the Museum of the Petroleum Industry. The following year the first Petroleum Company ‘Łukasiewicz-Trzecieski-Klobassa’ is established.

1856 - The first crude oil distillery is constructed by Ignacy Łukasiewicz in Ulaszowice, near Jasło. Soon after, next distilleries and refineries are being opened: in Klęczany, Polanka, Chorkówka, Ropianka, Libusza and Drohobycz.

1860 - "Franek", the oldest preserved oil well is duged in Bóbrka.

1879 - As Ignacy Łukasiewicz initiative the National Petroleum Association is established.

1883 - William Henry MacGarvey establishes the Factory of Drilling Tools and Machinery in Glinik Mariampolski and introduces the cable-tool drilling rigs. The same time, Węgłówka, Grabownica, Wietrznie, Równe, Schodnica oil fields and many others in the Carpathians are discovered.

1886 - Opening of the oil refinery in Glinik Mariampolski - the first crude oil industrial processing plant.

1895 - Carpathian Oil Society of Galicia is established.

1896 - W. H. MacGarvey discovers, at the depth of 1000 meters below ground level, the Borysław and Tustanowice fields - the largest oil fields in the eastern Galicia.

1924 - State Mining Authority is established.

1928 - Establishment of "Małopolska" oil company in Borysław and geophysical company "Pionier" in Lviv.
The milestones

1955 - the Central Petroleum Office is established, transformed in 1959 into the Union of the Oil Industry.

1955 - 1960 - numerous discoveries of high-methane gas fields in the Carpathian Foredeep, including the largest one Przemyśl (initial recoverable reserves - 1.1 TCF)

1960 - discovery of the Tarnów oil field - the greatest oil field in Carpathian Foreland (Mesozoic) (initial recoverable reserves 0.35 MMbbl)

1961 - discovery of the Rybaki oil field (initial recoverable reserves 1.01 MMbbl) the first field in the Polish Lowland - the beginning of the exploration and production activities in Polish Lowland

1961 - discovery of the Tarnów gas field (initial recoverable reserves 239.7 BCF) the greatest gas field in the Carpathian Foreland (Mesozoic)

1993 - discovery of the Barnówko – Mostno – Buszewo field - the largest oil field in Poland. Production from the field starts in December 1999 as part of the most modern crude oil and gas development project „Dębno” (initial recoverable reserves 90.6 MMbbl of oil and 1.06 TCF of gas)


2001 - discovery of a new significant petroleum-bearing region in Poland: near Międzychód.

2003 - discovery of two new oil fields in Lubiatów and Grotów.
PGNiG’s (POGC) Areas of Activity

PGNiG S.A. is the leading company on the Polish gas market. The basic areas of activity are:

- **Upstream**
  - exploration and production of oil and gas in Poland and abroad

- **Midstream**
  - bulk gas trade and gas storage
  - desulfurization and denitrogenization facilities

- **Downstream**
  - gas trade and distribution to the clients
  - LNG terminal (under construction)
  - oil and gas pipeline construction


PGNiG Upstream Activity

PGNiG owns

- exploration concessions
  - production concessions
  - shares in E&P concessions
    - shares in concessions of other companies
    - other companies have shares in PGNiG’s concessions
  - shares in petroleum companies
  - shares in discovered but undeveloped fields as owner and/or shareholder
PGNiG Production Activity

- **PGNiG is the biggest petroleum exploration and production company in Poland**
  - PGNiG provides nearly 100% of gas production in Poland
  - PGNiG provides close to 60% of oil production in Poland

- **PGNiG produces from fields:**
  - in Poland (2011)
    - 151.9 BCF (4.3 BCM) of gas
    - 4.0 MMbbl (0.5 MM metric tons) of oil
  - and abroad
    - Norwegian Shelf - start in 2012
    - Pakistan – start in 2012

*1 converted into high methane gas (39.4 MJ/m³; 1000 BTU/CF)
Oil and Gas Fields in Poland

**Discovered:**

- 110 oil fields
- 231 gas fields
- 8 oil and gas fields within
- 5 Petroleum Provinces

Main Exploration Targets

![Map of Poland with identified Petroleum Provinces and exploration targets](image-url)
Opportunities of PGNiG Upstream Activity

PGNiG dependent companies perform

**Drilling services**
- mud services
- deviation services
- DST services

**Geophysical services**
- 2D & 3D seismic and well data acquisition
- well wirelogs
- processing and interpretation

**Workover and servicing of wells**
- servicing of wells with coiled tubing units
- well completion jobs
- wireline operations
- logging and hydrodynamical testing of wells
- design and performance of well stimulation jobs (nitrogen units, acidizing, perforations, fracturing)
- laboratory services including geochemical and non-destructive tests
Norway, Denmark, Latvia, Germany, Netherlands, Ukraine, Hungary, Czech Republic, Poland

Yemen, Kazakhstan

Libya, Egypt, Mauritania, Morocco, Algeria, Tunisia

Pakistan, India, Thailand

Uganda
PGNiG Dependent Companies Activity in World

- Germany
- Czech Republic
- Spain
- Russia
- Ukraine
- Libya
- Egypt
- Kazakhstan
- Pakistan
- India
- Uganda
- Mozambique

Activities:
- Drilling
- Geophysics
- Services
PGNiG Activity in the World...

Drilling Companies

- **12 rigs & 1 testing rigs**
  - experience in:
    - in Poland
    - in Germany
    - in Libya
    - in Ukraine
  - office in:
    - in Libya

- **15 rigs & 1 testing rigs**
  - experience in:
    - in Poland
    - in Kazakhstan
    - in Latvia
    - in Pakistan
    - in Ukraine
    - in Uganda
  - offices in:
    - in Czech Republic
    - in Kazakhstan
    - in Pakistan
    - in Yemen

- **13 rigs & 1 testing rigs**
  - experience in:
    - in Poland
    - in Egypt
    - in Hungary
    - in India
  - office in:
    - in Egypt
    - in Hungary
    - in Pakistan
Geophysical Companies

- Potential 7 seismic crews
  - in Czech Republic
  - in Slovakia
  - in Libya
  - in Pakistan

- Seismic data acquisition
  - data processing
  - interpretation
- Well logging
- Downhole seismic services

- Potential 8 seismic crews
  - in India
  - in Iran
  - in Syria
  - in Yemen
  - in United Arab Emirates
Well Service Companies

- well workover and servicing
- design and performance of well treatment
- well services with coiled tubing
- wireline operations
- well logging and hydrodynamical tests
- well completion
- laboratory services
- geochemical tests
- drilling monitoring

3 rigs & 2 testing rigs

17 testing rigs
PGNiG SA - shale gas activity
Shale Gas/Oil Prospective Areas in Poland (acc. to PGI; March 2012)

<table>
<thead>
<tr>
<th>Concession</th>
<th>area km²</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Wejherowo</td>
<td>729.99</td>
</tr>
<tr>
<td>2 Kartuzy - Szemud</td>
<td>782.61</td>
</tr>
<tr>
<td>3 Stara Kiszewa</td>
<td>1 178.14</td>
</tr>
<tr>
<td>4 Bartoszyce</td>
<td>669.36</td>
</tr>
<tr>
<td>5 Górowo Iławeckie</td>
<td>1 094.39</td>
</tr>
<tr>
<td>6 Blok 172</td>
<td>936.79</td>
</tr>
<tr>
<td>7 Blok 173</td>
<td>936.69</td>
</tr>
<tr>
<td>8 Blok 192</td>
<td>921.87</td>
</tr>
<tr>
<td>9 Blok 193</td>
<td>942.03</td>
</tr>
<tr>
<td>10 Kock - Tarkawica</td>
<td>1 028.64</td>
</tr>
<tr>
<td>11 Ryki - Żyrzyn</td>
<td>426.86</td>
</tr>
<tr>
<td>12 Pionki-Kazimierz</td>
<td>532.00</td>
</tr>
<tr>
<td>13 Warka-Ursynów</td>
<td>734.42</td>
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<tr>
<td>14 Tomaszów Lubelski</td>
<td>745.76</td>
</tr>
<tr>
<td>15 Wisznów-Tarnowszyn</td>
<td>1 106.55</td>
</tr>
<tr>
<td>Sum</td>
<td>12 766.10</td>
</tr>
</tbody>
</table>

PGNiG SA concessions

Gas prone areas within the Lower Paleozoic shale formations

Oil prone areas within the Lower Paleozoic shale formations
The main objectives for Shale Gas are the Ordovician and Lower Silurian formations,

Geological analyses of the Silurian and the Ordovician shales are being carried out,

At the end of 2010 geophysical survey was completed – magnetotelluric and gravimetric survey (phase I),

Works on seismic survey will be continued next year (phase II),

Wells are planned to be drilled after completion of seismic survey.
The main objectives for Shale Gas are the Ordovician and Lower Silurian, Devonian and Carboniferous formations,

Geological analyses of these shales are being carried out. Magnetotelluric and gravimetric surveys were completed in 2011,

Seismic survey on concessions in the Lublin Petroleum Province is scheduled for 2012,

Other plans: exploration well (planned to depth 4300 m) on Tomaszów Lubelski concession, spudded on March 26th 2012.
• The main targets for Shale Gas are the Ordovician and Lower Silurian formations,

• PGNiG SA drilled the first exploration well (Lubocino-1) at Block 29 - Wejherowo concession; the drilling had been preceded by seismic survey,

• Simultaneously in the Wejherowo concession 2D seismic survey was carried out. It resulted in time and depth maps of prospective horizons. After Lubocino-1 well and seismic data studies the horizontal well from cluster of Lubocino and another vertical exploration well will be drilled,

• Consecutive steps for 2012-2015: drilling works on Kartuzy-Szemud and Stara Kiszewa concessions.
The first vertical exploration well, Lubocino – 1, was drilled at the beginning of 2011. The well ended up in Cambrian deposits and drilled 1843.5 m of Silurian and 63 m of Ordovician strata. 800 m of core was recovered, which was further analyzed to examine geochemical, petrophysical and geomechanical parameters of the rocks. Wide spectrum of wireline logging measurements was also applied. The results of combination of both, laboratory and geophysical analysis, turned out to be very promising and confirmed the presence of unconventional gas within the Ordovician and Silurian strata.

The 13 m vertical section in the Ordovician interval was hydraulically fractured and the gas flow was recorded. In 2012 the hydraulic fracturing will be performed in Silurian intervals to test their prospectivity for shale gas. Currently the 3D seismic survey is being acquired in the area of Lubocino-1 well in order to recognize in detail the pattern of faults and fractures in the region and allow to optimize the horizontal well trajectories in the future.

The horizontal Lubocino-2H well will be drilled this year from the same drilling pad as vertical Lubocino-1 well.
Future
Thank you