

## The concession granting policy for prospecting, exploration and production of hydrocarbons in Poland

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Business activities referring to the prospecting, exploration and production of hydrocarbons in Poland are conducted in certain areas of the Polish Lowland, the Carpathians, the Carpathian Foredeep, as well as in the Baltic Sea.

As of December 31<sup>st</sup> 2006, 258 natural gas fields have been documented in Poland, 180 of which are already developed. The recoverable reserves of natural gas amount to approximately 143 BCM (5.0 TCF), with the annual production of 5.26 BCM (185.78 BCF), which constitutes 40% of Poland's annual demand.

Regarding crude oil, Poland is less rich and at the present time there are 82 documented fields, with recoverable reserves of 23.95 MMt (189.20 MMbbl), and with the annual production of 0.78 MMt (6.18 MMbbl) which constitutes 4.4% of the Poland's annual demand.

Following the development of the recently discovered fields have been completed, the situation is bound to change and in Poland shall be observed an increased production of hydrocarbons.

In compliance with the provisions of the Geological and Mining Law, the prospecting, exploration and production of hydrocarbons is conducted based on concessions granted by the Polish Minister of the Environment. On behalf of the Minister, all matters connected with the process of granting such concessions are subject to the authority of the Department of Geology and Geological Concessions, which is situated within the Ministry of the Environment. Any legal entity may apply for a concession provided they comply with the legal requirements, and in particular with the Law of Freedom of Business Activity and the Geological and Mining Law.

The process of granting a concession for the prospecting, exploration or production of hydrocarbons requires two types of legal documents: a mining usufruct agreement and a concession. A mining usufruct agreement is signed between the State Treasury (represented by the Minister of the Environment) and a company. This agreement defines rights and obligations with regard to activities within a strictly defined area of the subsurface. It also stipulates the amount and the method of payment of the mining usufruct fee, which constitutes the State Treasury income. A second indispensable title document is a concession itself — an administrative decision, which establishes and defines the type and method of the activity, the area within which it shall be conducted, the time limit for which it was granted, the date it comes into effect, the aim, scope, type and time schedule for geological works, as well as other requirements, especially in regards to environmental protection.

Due to the implementation of the EU law into the Polish legal system, a provision was introduced in January 2001 stating that obtaining the mining usufruct rights shall be preceded by an obligatory tender procedure. This provision was further amended in 2005, enabling the licensing authority, in certain cases defined by law, to grant mining usufruct without a tender procedure (at a company's request). In order to apply this procedure, the Minister of the Environment is required to publish information about the areas to which this "open door" policy applies in the Official Journal of the EU. Finally, after more than a year of consultations, the European Council concluded the procedure of verification of the relevant legislation to insure its compliance with EU regulations, and a map defining areas with mandatory tenders was published in the Official Journal of the EU 2006/C 98/7 on 26<sup>th</sup> April, 2006. In practice this means that in those predefined areas the Minister of the Environment may now grant mining usufruct rights for the prospecting and exploration of hydrocarbons and coal-bed methane upon request (see *Map of the Geological Concession Areas, where Mining Usufruct for Oil and Natural Gas Prospecting and Exploration is Established as a result of Obligatory Tenders* at [www.mos.gov.pl/dgikg/english](http://www.mos.gov.pl/dgikg/english)).

A concession may be granted to a company registered in Poland (in compliance with the provisions of the Law of Freedom of Business Activity), which meets the requirements defined by the provisions included in the Geological and Mining Law.

To obtain a concession for the prospecting and exploration of hydrocarbons in the areas not reserved for obligatory tenders, a company shall submit a concession application, together with the geological work programme. According to the Geological and Mining Law, for the purpose of preparing a concession application, a company has the right to access, free of charge, a relevant geological information in the possession of the State Treasury. A concession for the prospecting and exploration of oil and gas is typically granted for the period of 3 to 6 years. The concession payment is calculated by multiplying the payment rate (at present PLN 203.00) by the number of square kilometers of the area in question. The second type of payment is connected with establishing the mining usufruct for the prospecting and exploration and its amount depends on size of concession area. While a single concession cannot cover an area exceeding 1,200 sq km, there is no limit as to the number of concessions one entity can hold. If a concession holder has discovered and documented a hydrocarbons accumulation, they will have exclusive right to apply for a production concession for this area. This title expires after two years from the date the geological documentation was accepted in writing by the Minister of the Environment. After this period, the concession authorities may put the documented field to tender.

A concession for production of hydrocarbons is generally granted for the period of 25 to 30 years. The operator is obliged to pay the royalty which is calculated by multi-

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plying the amount of produced hydrocarbons by the current royalty rate (the rate for high-methane natural gas is at present PLN 5.39 per 1 thousand m<sup>3</sup>; for other natural gas — PLN 4.48 per 1 thousand m<sup>3</sup>; crude oil — PLN 32.00 per ton; coal-bed methane — a zero-rate). The second type of payment is connected with establishing the mining usufruct for production and its amount depends on the recoverable reserves. Granting the concession for the production of hydrocarbons is subject to receiving the approval from the minister responsible for the economy, the President of the State Mining Authority, and relevant local authorities.

Additionally, in compliance with the Environment Protection Law, before a concession is granted, in certain cases defined by law, an environmental impact assessment (EIA) procedure may be required to evaluate the impact of the planned activities on the environment. As a result of this procedure a so called “environmental decision” will be issued, which will be attached to the concession application. The environmental impact assessment is mandatory in the case when the planned geological works may have a significant impact on the Nature 2000 protected areas.

The concession granting policy is not limited to a passive analysis and registry of concession applications. A wide range of promotional activities is undertaken to attract international companies for investment in E&P projects in Poland. This includes a variety of publications as well as participation in international conferences, such as AAPG, APPEX, EAGE etc.

The changes in the political system which took place in the early 1990s resulted in Poland becoming open to foreign investment. Licensing rounds organized by the new democratic government were met with great interest from the international oil industry. The first 8 oil and gas concessions were granted to a company with foreign capital at the end of 1995. Between 1995 and 1998, international companies were granted the total of 106 concessions, including 78 in 1998 alone. Since 1999, the number of granted concessions has started to decrease. It rose again in 2001 when 32 concessions were granted. This was caused by the anticipated change in law according to which exploration and production licences were going to be issued exclusively within licensing rounds. After the introduction of further amendments to the Geological and Mining Law in 2005 and following the publication of the already mentioned map of mandatory tender and non tender areas in the Official Journal of the EU, the number of companies interested in oil and gas E&P projects in Poland has significantly increased. Enquiries have been made by operators already active in our country as well as newcomers. Clearly, the dramatic rise of crude oil prices on the world markets over the last year was also a major contributing factor.

A recent campaign promoting coal-bed methane projects in the Upper Silesia has also been a success. This area explored previously by the *Amoco* and *Texaco* companies, was put to tender, which unfortunately was not successful. Therefore, the Department of Geology and Geological Concessions developed promotional materials for this region, including the selection of the most potential areas. The exploitation rate was established at a zero-rate. Such initiatives, coupled with a sudden movement on the world markets, also in reference to unconventional energy resources, were met with the required effects. As of today there is

1 concession for prospecting, exploration and production of CBM granted to *Karbonia PL*, 1 concession for prospecting and exploration granted to *Pol-Tex Methane* and 1 concession for production of CBM granted to *Metanel S.A.* Moreover, recently the Minister of the Environment granted 2 concessions for prospecting and exploration of CBM in the Upper Silesian (*EurEnergy Resources*) and Lublin (*Lublin Energy Resources*) areas. At present a procedure towards granting a concession within the Upper Silesia Coal Basin and Lublin Coal Basin with the aim to document and then exploit methane-coal deposits. This is particularly important since methane, in addition to providing an alternative source of energy, poses a significant hazard to coal mines and the environment. Therefore the methane management will contribute to the decrease in its negative impact. As this article goes to press it is possible the concession will have been granted, thus signalling the beginning of geological works which for the first time in Poland will apply the cutting-edge technology of obtaining methane from coal deposits.

The Department of Geology and Geological Concessions also organized a licensing round for the prospecting and exploration of hydrocarbons for the perspective areas, i.e. those with obligatory tenders. This was the first licensing round since Poland joined the EU. We filed 24 tenders, submitted by 8 companies for 21 areas. Finally 6 companies were designated to acquire mining usufruct rights for the prospecting and exploration of oil and natural gas deposits in Poland for 14 concession areas.

Valid concessions for prospecting, exploration or production of hydrocarbons (as of November 15<sup>th</sup>, 2007) are as follows (see Fig. 1 — *Map of Concessions for Prospecting, Exploration and Exploitation of Oil and Gas Fields in Poland*).

**106 concessions for prospecting and exploration of crude oil and natural gas, including:**

- 65 concessions for *PGNiG S.A.*
- 8 concessions for *Petrobaltic S.A.*
- 16 concessions for *FX Energy Poland Sp. z o.o.*
- 2 concessions for *RWE DEA AG Poland*
- 2 concessions for *Energia Zachód Sp. z o.o.*
- 1 concession for *CalEnergy Resources Poland Sp. z o.o.*
- 2 concessions for *Celtique Energie Poland Sp. z o.o.*
- 5 concessions for *Lane Energy Poland Sp. z o.o.*
- 5 concessions for *PKN Orlen S.A.*

**22 joint concessions for prospecting, exploration and production of crude oil and natural gas (all in the prospecting/exploration phase), for companies with foreign capital, including:**

- 8 concessions for *PGNiG S.A.*
- 13 concessions for *RWE DEA AG Poland*
- 1 concession for *FX Energy Poland Sp. z o.o.*

**219 concessions for production of crude oil and natural gas, including:**

- 212 concessions for *PGNiG S.A.*
- 2 concessions for the *Zakład Odmetanowienia Kopalń*
- 4 concessions for *Petrobaltic S.A.*
- 1 concession for *DPV Service Sp. z o.o.*

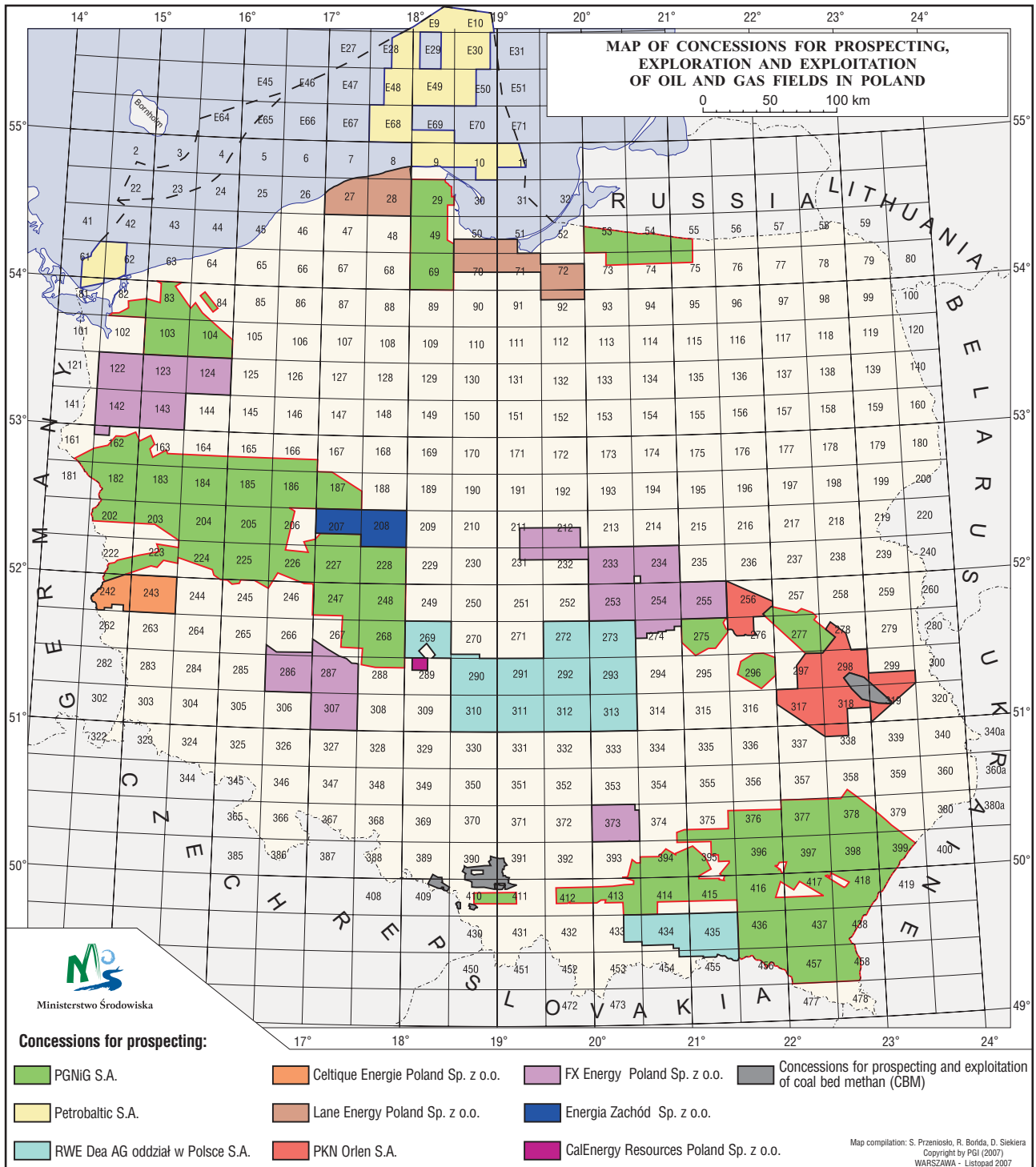


Fig. 1. Map of Concessions for Prospecting, Exploration and Exploitation of Oil and Gas Fields in Poland

**Energia Zachód** holds 2 concessions blocks in the Polish Lowland. After the completion of the seismic programme, the company made a decision about proceeding with the third phase of works, the scope of which involves drilling of the Trzek-1 well on the Rotliegendes “Siekierki” prospect. In July 2007 the rig was released and the well is going to be fraced and tested.

**FX Energy Poland** holds among others 5 concessions near Wrocław, in the Fore-Sudetic Monocline. The company decided to leave 4 concessions within this area. In 2005,

the company took over from the Apache Poland a concession for block no 255, with a natural gas discovery “Wilga” (the Devonian carbonates, estimated reserves of approx. 1 BCM), where a production test is in the process now. According to new granted concessions the company is going to conduct exploration works in the N-W, central and S part of Poland.

**RWE DEA AG Poland** holds 11 concession blocks in central Poland and further 4 blocks in the Carpathians (previously *Medusa Oil & Gas*). They acquired 3D seismic

on 290 and 270 blocks; 2D seismic — 293 and 313 blocks; 434, 435, 454, 455 blocks — magnetotelluric surveys discovered the Zdynianka, Ropa and Pola structures. The company is planning to increase the depth of the Ropa 2 bore-hole and to acquire additional seismic in the Zdynianka — Ropa region. The company is intending to drill well Raj 1 in the central region. In addition *RWE DEA* has made a decision to leave 2 concessions blocks 290 and 310.

**CalEnergy Poland Sp. z o.o.** holds 1 concession on block 289. The company plans to acquire some seismic data and optionally to drill a 2200 meters deep well.

**Celtique Energie Poland Sp. z o.o.** holds 2 concessions on block 242 and 243 (Fore-Sudetic Monocline). The company is planning to acquire some seismic lines and optionally to drill a well.

A significant advantage in the number of concessions granted was gained by the **PGNiG S.A.** a company conducting prospecting and exploiting works in Poland for many years. However, it shall be emphasised that over some part of its concession areas, the PGNiG S.A. cooperates with public companies with foreign capital. An example of such cooperation is the concession for “Śrem-Jarocin” (the Wielkopolska region), where in 2000 *PGNiG S.A.*, in cooperation with *FXEnergy Poland*, discovered the natural gas deposit called “Kłęka E” (recoverable reserves 34.26 MMCM) which is being exploited now. The effect of the co-operation between *PGNiG S.A.*, *FX Energy* and *CalEnergy Polska* was the discovery in 2004 of yet another natural gas field called “Zaniemyśl”. In June 2007 the company announced the Roszkow well, located on trend and approximately 22 km southeast of the Zaniemyśl discovery, flowed gas at a rate of 12.6 million ft.<sup>3</sup> gas per day during production testing.

Since 2004 to August 2007, *PGNiG S.A.* was issued 17 new concessions for the production of oil and natural gas by the Minister of the Environment. Some of those fields are sizable enough to make a significant impact on Poland’s oil and gas production: the Lubiatów oil and accompanying natural gas field (near Gorzów Wielkopolski — Polish Lowland) accumulated in the Main Dolomite limestone has recoverable reserves of 4.4 MMt crude oil and 2.5 MMCM of natural gas. It is located in the vicinity of Międzychód gas field which has recoverable reserves of 4.5 MMCM. Another new significant gas field is Jasionka, located in the south of Poland, near Rzeszów, with recoverable reserves of approx. 1.7 BCM.

Oil and gas exploration and production in Poland is not limited to just onshore. The projects conducted by **Petrobaltic S.A.** in the Polish economic zone of the Baltic Sea resulted in the last few years in the documentation on 3 new hydrocarbons accumulations and in granting a production concessions. These include: the B4 natural gas field with the recoverable reserves of 2 BCM, the B6 natural gas condensate field — 1.8 BCM and the B8 oil and natural gas field, with 750 Mt and 100 MMCM, respectively.

*Petrobaltic SA* currently holds 8 offshore exploration concessions. Based on the geophysical and geochemical surveys a new prospect has been identified within the Gotland concession. Currently *Petrobaltic* is planning to start drilling the first well within this concession.

At present, the only offshore producing field is the B3 (since 1993) on the Łeba block (on-stream since 1993), with oil reserves of 2.43 MMt and 1 BCM gas deposit. The B4, B6 and B8 are in development phase now and production is expected to start in the next couple of years.

The process of granting new concessions for the prospecting, exploration and production of crude oil and natural gas has a positive impact on the state finances due to, among others, fees paid for the mining usufruct rights, concessions fees, and future exploitation fees as well. Both domestic and international companies engage significant financial resources in their *E&P* projects in Poland. As a result of those activities, new geological data is gathered which contributes to the state of knowledge on the geology of Poland. It shall be emphasised at this point that all new geological data obtained during that process will remain the property of the State Treasury. Furthermore, the introduction of foreign companies into the Polish market will result in the creation of new jobs for the Polish citizens resulting from the contracts signed with Polish subcontractors. All the above factors will have a positive impact on the Polish economy, which is undoubtedly the aim of the proactive concession policy conducted by the Minister of the Environment.

Concluding, it should be emphasised that one of the most fundamental priorities for the Minister of the Environment, as a concession granting authority, is to encourage and facilitate business activities undertaken in the field of oil and gas exploration and production in Poland. The development of the petroleum industry involves the intensification of exploration activities onshore and offshore as well as acceleration of the development of recently discovered hydrocarbon accumulations. The access to our own oil and gas reserves is the most important element of the efforts undertaken to gain independence from the external suppliers of energy resources. Analysing figures from the past several years it is evident that here has been a clear and a visible increase in the percentage share in production from country’s own fields.

With that in mind I would like to wish all the companies operating in Poland the best of luck in documenting new fields, as the resources found there will have direct impact on the energy balance of our country.

Good luck with all your efforts!

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Further information regarding the geological and mining legislation, concession procedures and current status of licensing is available at the website of the Department of Geology and Geological Concessions, Ministry of the Environment, at [www.mos.gov.pl/dgikg/english](http://www.mos.gov.pl/dgikg/english)