OIL AND GAS IN POLAND
LICENSING ROUNDS, TENDER BLOCKS, INFORMATION AND OPPORTUNITIES IN 2019

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HOW TO GET THE LICENSE IN POLAND?

**TENDER PROCEDURE**

E&P COMPANY NEEDS TO UNDERGO THE QUALIFICATION PROCEDURE

▼

SELECTION OF THE TENDER AREAS
by the Ministry of the Environment and the PGI-NRI

▼

PREPARATION OF THE TENDER AREA INFORMATION PACKAGES
by the PGI-NRI and the Ministry of the Environment

▼

REQUIREMENTS IN THE CASE OF AN ONSHORE TENDER AREAS
- approval by the Ministry of Energy
- opinion of the Head of the local administration by the Ministry of the Environment

▼

PUBLICATION OF A TENDER NOTICE
IN THE OFFICIAL JOURNAL OF EU
by the Ministry of the Environment

▼

TIME FOR PREPARATION AND SUBMISSION OF AN OFFER

▼

EVALUATION AND SELECTION OF THE MOST FAVOURABLE OFFER
by the Ministry of the Environment

▼

THE GRANTING OF A CONCESSION,
ESTABLISHMENT OF THE MINING USUFRUCT
by the Ministry of the Environment

▼

TIME TO EXPLORE!

**OPEN DOOR PROCEDURE**

E&P COMPANY NEEDS TO UNDERGO THE QUALIFICATION PROCEDURE

▼

SUBMISSION OF A CONCESSION AREA AND EXPLORATION WORKS OFFER

▼

ANNOUNCEMENT OF THE CONCESSION AREA OFFER
IN THE OFFICIAL JOURNAL OF EU
by the Ministry of the Environment

▼

TIME FOR PREPARATION AND SUBMISSION OF A POSSIBLE COMPETITIVE OFFERS

▼

EVALUATION AND SELECTION OF THE MOST FAVOURABLE OFFER
by the Ministry of the Environment

▼

REQUIREMENTS IN THE CASE OF AN ONSHORE CONCESSION AREAS
- approval by the Ministry of Energy
- opinion of the Head of the local administration by the Ministry of the Environment

▼

REQUIREMENTS IN THE CASE OF AN OFFSHORE CONCESSION AREAS
- different approvals required

▼

THE GRANTING OF A CONCESSION,
ESTABLISHMENT OF THE MINING USUFRUCT
by the Ministry of the Environment

▼

TIME TO EXPLORE!
OIL AND GAS IN POLAND – RESOURCES, DEPOSITS, PRODUCTION AND DEMAND

Figure generated at: https://thetruesize.com
OIL AND GAS IN POLAND – RESOURCES, DEPOSITS, PRODUCTION AND DEMAND

**OIL and GAS DEPOSITS in POLAND**

**RESOURCES:**
- Oil- and gas-bearing rocks of the Carpathian foredeep
- Oil- and gas-bearing rocks of the flysch Carpathians
- Permian (Zechstein & Rotliegend)
- Carboniferous oil- and gas-bearing formations
- Pre-Carboniferous oil- and gas bearing formations
- Areas without prospective oil and gas occurrences
OIL AND GAS IN POLAND – RESOURCES, DEPOSITS, PRODUCTION AND DEMAND

GAS IN POLAND
1990-2017

DEMAND in 2017 = ~19 bn m³
PRODUCTION in 2017 = ~5 bn m³
275 GAS FIELDS IN PRODUCTION

OIL AND GAS IN POLAND – RESOURCES, DEPOSITS, PRODUCTION AND DEMAND


DEMAND in 2017 = ~28 000 kt
PRODUCTION in 2017 = ~939 kt
OIL AND GAS IN POLAND – CURRENT WORKS

24 BOREHOLES FINISHED
7 BOREHOLES IN PROGRESS
as of 31-01-2019

- LOWER PALEOZOIC
- OR PALEOZOIC AND MESOZOIC
- UPPER PALEOZOIC
- OR PALEOZOIC AND MESOZOIC
- MIOCENE (CARPATHIAN FOREDEEP)
- CARPATHIAN BASEMENT
- CARPATHIAN FLYSCH
- AP. FOR HYDROCARBON CONCESSIONS
- TENDER AREAS (II, III rounds)
- TENDER AREAS (IV round)

MAP OF HYDROCARBON CONCESSIONS
DIVIDED ACCORDING TO THE EXPLORATORY TARGET AS OF 31-01-2019
WHERE TO PROSPECT AND EXPLORE FOR HYDROCARBONS IN POLAND?

<table>
<thead>
<tr>
<th>TENDER AREA</th>
<th>TARGET</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bestwina-Czechowice</td>
<td>conventional and unconventional/hybrid: Carpathian Foredeep, Carpathian Paleozoic basement (Devonian and Carboniferous)</td>
</tr>
<tr>
<td>Krołówka</td>
<td>conventional and unconventional/hybrid: Carpathians, Carpathian Foredeep, Carpathian Paleozoic basement</td>
</tr>
<tr>
<td>Pyrzyce</td>
<td>conventional and unconventional: Permian (Rotliegend and Zechstein/Weissliegend and Main Dolomite)</td>
</tr>
<tr>
<td>Żłoczew</td>
<td>conventional: Carboniferous and Permian (Rotliegend and Zechstein/Z. Limestone and Main Dolomite)</td>
</tr>
<tr>
<td>Żabowo</td>
<td>conventional: Permian (Rotliegend and Zechstein/Main Dolomite)</td>
</tr>
</tbody>
</table>

IVth LICENSING ROUND

5 TENDER AREAS

IV LICENSING ROUND

START: 2019/2020

NEW OPEN DOOR POLICY

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POPRAWA, P. 2010. RECONSTRUCTION OF THE PETROLEUM PLAYS IN OUTER CARPATHIANS. PGI-NRI, WARSAW.
CARPATHIANS

CARPATHIANS - BESTWINA-CZECHOWICE
- ACREAGE: 83.25 km²
- 20,571 ACRES
- 7 deep wells
- 18 seismic lines 2D (~388 km)

CARPATHIANS - KRÓLÓWKA
- ACREAGE: 188.75 km²
- 46,641 ACRES
- 52 deep wells
- 101 seismic lines 2D
- (~1437 km)
- 3D seismic survey
Rotliegend Sandstones Target

Polish Geological Institute
National Research Institute

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ZECHSTEIN – MAIN DOLOMITE TARGET

PALAEOGEOGRAPHY OF THE ZECHSTEIN / MAIN DOLOMITE (Ca2) IN POLAND
Ryszard WAGNER 2012
Miroslaw Strowekiewicz, Arkadiusz Bunka, Jan Turczykowski

A. Land
- low-relief land
- hilly land
- presumed direction of terrigenous material transport

B. Platform/isolated carbonate platform (shallow shelf)
- carbonate platform
- cold-encrusted shelf-edge barrier
- cold-encrusted shoal within carbonate platform
- high-energy carbonate platform
- low-energy carbonate platform
- lagoon

C. Subaerial part of carbonate platform
- sulfate-carbonate sabkha
- sulfate-siliciclastic sabkha

D. Slope of carbonate platform/isolated carbonate platform
- gentle slope
- steep slope
- zone of gravity flows

E. Basin plain (deep shelf)
- shallow part
- deep part
- shoal

- carbonate platform edge
- paleo-epiclastics in m
- pre-erosional range of Ca2
- range of complete erosion of Ca2 and PZ2
- range of partial erosion of Ca2

TENDER BLOCKS:

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ROTLEGEND AND ZECHSTEIN / MAIN DOLOMITE TARGET - PYRZYCE
- ACREAGE: 1172.72 km²
- 289,538 ACRES
- 21 deep wells
- 28 seismic lines 2D (~288 km)

ROTLEGEND AND ZECHSTEIN / MAIN DOLOMITE TARGET- ŻABOWO
- ACREAGE: 990.32 km²
- 14 deep wells
- 99 seismic lines 2D (~1370 km)
ROTLEGEND AND ZECHSTEIN / MAIN DOLOMITE TARGET - ZŁOCZEW

- ACREAGE: 702.48 km²
- 173,586 ACRES
- 23 deep wells
- 77 seismic lines 2D (~1039 km)
- 3D seismic survey (120 km²)
**OIL AND GAS IN POLAND – OPPORTUNITIES**

- **Lublewo LEP-1ST1H well**: Sasino Fm (Ordovician) wet gas + condensate AVG. 11013-14239 Nm³/d + 23 toe (AVG. 396-512 MSCF/d + 157 b/d)

- **Łebień LE-2H well**: Sasino Fm (Ordovician) wet gas AVG. 8500-11124 Nm³/d (AVG. 305-400 MSCF/d)

- **Gapowo B-1A well**: Jantar Mb (Silurian) dry gas AVG. 5562-11124 Nm³/d (AVG. 200-400 MSCF/d)

- **E&P companies involved in shale oil and gas exploration in 2010-2015**: ExxonMobil, Chevron, Conoco Phillips, Marathon Oil, Talisman Energy, ENI, BNK Petroleum, Lane Energy, 3Legs Resources, Total, Cuadrilla, San Leon Energy, PGNiG, Orlen Upstream, Lotos Petrobaltic and others

- **66** wells drilled within the lower Paleozoic basin at the East European Craton (2010-2015)

- **14** horizontal and directional well sections were hydraulically fractured in the whole lower Paleozoic Basin

- Best average initial natural gas flow tests around **11000+ Nm³/d (400 MSCF/d)** reported by the E&P companies in the Baltic Basin
OIL AND GAS IN POLAND

LICENSING ROUNDS, TENDER BLOCKS,
INFORMATION AND OPPORTUNITIES
IN 2019

https://bip.mos.gov.pl/koncesje-geologiczne/

https://www.pgi.gov.pl/obszary-przetargowe.html

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