

Geothermal website for Lithuania

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ENhanced Geothermal
Innovative Network
for Europe

LITHUANIA
Institute of Geology & Geography

- Geothermal Field of the Baltic Region
- Geothermal data
- Enhanced Geothermal Systems
- Klaipėda Geothermal District Heating Station
- Ongoing research
- Publications
- Publications (Lithuania)

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Geothermal Field of The Baltic Region

- [Data](#)
- [Heat flow distribution and geothermal provinces in the Baltic basin](#)
- [Belarus-Baltic Granulite Province](#)
- [East Lithuanian province](#)
- [West Lithuanian Granulite Province](#)
- [Riga Pluton](#)
- [NE Poland](#)
- [Scandinavia](#)

Hot Dry Rock Concepts

- Geothermal Potential of Hot Granites of Lithuania
- Geothermal Models of Hot Granites of West Lithuania

KRETINGA-3

Geothermal Measurements in Wells

More than 500 deep wells were drilled in Lithuania for oil exploration, geological mapping and gas storage research. Temperatures were measured (after reaching thermal equilibrium) in about 150 wells that provide basic information on underground temperature distribution in the uppermost 0.5-2.5 km zone of the earth's crust. Different methods were used (a) thermal logging; (b) mercury xabsolutex thermometer during the drill stem test; (c) single measurement of water during testing of aquifer; (d) measurement of water temperature pumped up from deep aquifer to surface.

Ongoing research

Project:
OPPORTUNITY STUDY OF TRANSFORMATION OF THE OIL FIELDS TO THE GEOTHERMAL FIELDS IN WEST LITHUANIA

Cambrian

Lower Devonian

Middle Devonian

Capacity of oil fields
MWt

Klaipėda Geothermal District Heating Station

- **Project Name:** Klaipėda Geothermal Demonstration Plant
- **Project Leader** [Companies]: UAB Geoterma
- **Contact Person:** Alfonsas Bickus (director)
- **Country:** Lithuania
- **Location:** Klaipėda

Types of resource [High/Low Enthalpy / EGS etc.]: Low Enthalpy
Main on-site operators [Drilling, Simulation, Monitoring, Power plant etc.]: UAB Geoterma
Number of wells [w. Total Depth pr. well]: 4 wells, depths 1128-1228 m
Type of wells [Exploration, Production, Injection]: 2 production and 2 injection wells
Well configuration [Single well, Doublet, Triplet]: single wells
Distance between well at Depth [Horiz. Dist at Depth]: 3.5 km
Temperature at Total Depth [Single well, Doublet, Triplet]: 38oC
Combination with other energy sources [Biomass, Biogas plants etc.]: natural gas
Geothermal co-operation [Heat, Electricity etc.]: heat

Geothermal potential [MW at Date]: 18 MW
Expected Installed capacity [MW/time at Date]: 18 MW geothermal+23MW from boilers
Expected Running capacity [MW/time at Date]: 13.6 MW geothermal+23MW from boilers

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Heat flow, mW/m2

Heat production, mkW/m3

Publications (adjacent area)

(in English)

- Eihmanis E. 2000. Incorporation of geothermal heat sources in Latvian heat supply systems. Proceedings World Geothermal Congress 2000.

Eihmanis E. 2000. Incorporation of geothermal heat sources in Latvian heat supply systems. Proceedings World Geothermal Congress 2000.
Kreslins A., Dzelzitis E., Skapare I. 2002. Low energy geothermal utilisation for balneological purposes. Pros.4th GAP Engineering Congress, 06.-08.06.2002, Sanliurfa, Turkey, vol.1., p. 155-161.

Publications (Lithuania)

(in English)

- Burba A., Zinevičius F. 1999. Environmental adaptation of energy systems in Lithuania. Proceed. of the 1999 ECEEE summer Study: Energy Efficiency and CO₂ Reduction: The Dimensions of the Social Challenge, 31 May - 4 June. Part 1. Mandelieu, France. P. 8.

Burba A., Zinevičius F. 1999. Environmental adaptation of energy systems in Lithuania. Proceed. of the 1999 ECEEE summer Study: Energy Efficiency and CO₂ Reduction: The Dimensions of the Social Challenge, 31 May - 4 June. Part 1. Mandelieu, France. P. 8.
Čiūraitė K. 2006. Geothermal model of Žemaičių Naumiestis Pluton. Geologijos akiračiai. 3. 1017. (in Lithuanian with English summary).