

PROJECT GEOTERM

Ecologically clean and stable energy

Project Geoterm in brief



Pipeline Ďurkov – Tepláreň Košice



Project Geoterm in brief

Geothermal reservoir in the Košice basin is considered based on complex geological and technical findings from the last 20+ years as one of the most abundant and important geothermal reservoir in Central Europe.

Pursuant to economic rentability it is possible to utilize up to 200 MW of heat output (realistic is up to 100 MW for heat delivery to Košice for heating purposes).

There are 3 geothermal sites owned by GEOTERM:

- Svinica Ďurkov (this site will be developed for delivery of hot geothermal water to the heating plan in Košice in the 1st stage of the project)
- Olšovany
- Bídovce



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WELLS:

- 3 wells already drilled (GTD-1, GTD-2 a GTD-3), location: Ďurkov, depth approx. 3 200 m, fully functional and in good technical condition
- Extraction (production) of geothermal water is permitted and approved by the Ministry of Environment in category B from well GTD-2 with the following parameters:
 - Temperature: 135 °C
 - Production Yield (flow rate): 55 l/s
 - Heat and energy potential of the well GTD-2 is <u>15-20 MW</u> based on the heat gradient.

	Well GTD-1	Well GTD-2	Well GTD-3
Type of well	Reinjection vertical well	Production diverted well	Reinjection diverted well
Flow rate (I/s)	55	55	55
Temperature at wellhead (°C)	125	135	125
Depth (m)	3210	3084	2246

If there has been a pipeline connecting Ďurkov with the heat plant in Košice – a delivery of 15 MW could be done immediately



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CAPEX EXPENDITURES IN THE COMPANY (in mill. EUR):

Wells GTD1, GTD2 a GTD3	10,07
Seismic works	1,08
Geological works	2,78
Engineering and acquisition of land	1,64
Hydrodynamic tests in 2012 and 2016	0,83
Other investments and assets	0,70

In total, GEOTERM owns tangible and non-tangible assets with value more than 17 mill. EUR – it is already a company with substance.

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PERMISSIONS:

 Project has a valid EIA – decision about the assessment of the impact on the environment

LAND:

 Company has a legal title to all the land for the planned 3 geothermal sites in Svinica-Ďurkov, Olšovany and Bidovce

BUILDING PERMITS

• All the relevant building permits (water buildings, building objects, roads) are valid at least until the end of year 2023/2024.



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The primary goal of GEOTERM has been since the beginning the delivery of heat to the heating system of the city of Košice through Tepláreň Košice, a.s. (TEKO).

Project Geoterm:

- Will allow TEKO to increase the share of RES in its heat portfolio (by 2030 GEOTERM shall deliver 176 GWh geothermal heat to TEKO and its share will be around 30% of heat delivered by TEKO) through a source which is stable (not variable) and is without emissions, while it will provide TEKO flexible usage of the source within agreed business terms.
- Will contribute to the fulfillment of the climate protection and energy usage targets of Slovak Republic (support of RES, energy efficiency), including the decrease of emissions of greenhouse gases in Košice region.
- Will help to maintain stable and competitive heat prices of TEKO (it is becoming evident in the last few months when the prices of fossil fuels have been increasing expressively and are very volatile)
- Is planned and possible to be concluded by the end of Q1 in 2026



CAPEX of the Project and the duration of the construction

Heat load	15 MW	30 MW	45 MW
Number of wells necessary	3	6	9
Number of new wells to be drilled	0	3	6

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Total initial additional CAPEX for the delivery of hot geothermal water to TEKO (in 000 EUR)		
1. New wells with equipping	18 327	
2. Geothermal circuit and cooling circuit	3 730	
3. Other investments (including hydrodynamic/well testing, control system, project management, etc.)	3 120	

Expected time of construction:

Assuming the execution of public tendering, the expected duration of the building of the geothermal site is approx. <u>1-1,5 year</u>, mainly depending on the availability of the driling rig of the winner of the public tender.



THANK YOU FOR YOUR ATTENTION

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