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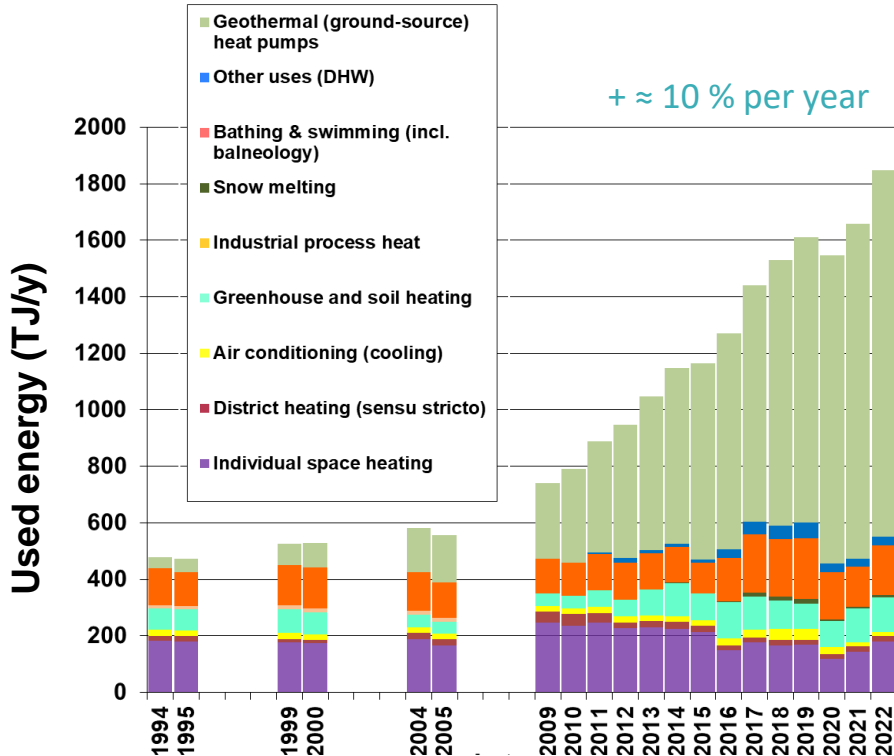


REPUBLIC OF SLOVENIA
MINISTRY OF THE ENVIRONMENT,
CLIMATE AND ENERGY

Slovenia: Country update

Gregor Rome

Geothermal energy use in Slovenia



16,135 GHP: 47% W-W, 21% geoprobes

5 climatization systems

3 greenhouses

1 district heating system

max 77 °C thermal water

Type	Capacity (MWt)	Used (TJ/y)
TW	58,3	551,9
GHP	260,1	1294,7
TOTAL	318,4	1846,6

Geothermal energy legislation

Current legislation (MNVP)

- Water Act (ZV-1) – most thermal water uses
- Mining Act (ZRud-1) – 1 geothermal doublet

NEW !

(MOPE)

Act on the siting of installations for generation of electricity from renewable energy sources (ZUNPEOVE)

Geothermal energy legislation

Act on the siting of installations for generation of electricity from renewable energy sources (ZUNPEOVE)

- Only in case of reinjection of groundwater or closed-loop systems (geoprobe)
- 1st option / Regulative sandbox:

For the purpose of testing new and advanced technologies, products or approaches in the field of electricity generation through the use of RES and its storage, or for a different use of existing technologies, products or approaches, the Government may, under the conditions set out in this Article, grant derogations from specific provisions of the regulations in the field of energy, spatial planning, construction, mining, environmental protection, nature conservation, water management, protection of cultural heritage, and the installation, operation and connection of electricity generation facilities that prevent or make difficult the implementation of the project.

Geothermal energy legislation

Act on the siting of installations for generation of electricity from renewable energy sources (ZUNPEOVE)

- **1st option / Regulative sandbox:**

Allowing for a "geothermal regulatory sandbox" to be granted also for geothermal exploration and exploitation, allowing a certain degree of flexibility in case of deviation from the regulatory framework. The purpose of this is also to identify regulatory obstacles to the development and implementation of geothermal energy projects for electricity generation, in order to provide a basis for expertise and new knowledge to identify which regulations should be amended to ensure that this type of renewable energy exploitation is properly integrated into the legal framework. The petitioner can assess and justify which specific provisions of the regulations prevent or make it more difficult for the project to be carried out; the petitioner can also provide the Commission with a proposal for a Regulation on the use of geothermal energy for electricity generation.

Geothermal energy legislation

- **2nd option / Geothermal exploration concession**
 - Includes the exploration phase, the preparatory phase and the phase of exploratory electricity production, the provisions of the regulations governing water management, mining, environmental protection and nature conservation shall apply, and the provisions of the regulations governing spatial planning, construction and the protection of cultural heritage shall also apply to the exploratory exploitation of geothermal energy.
 - The basic condition is that the State does not have data on the geothermal potential at the depths in question, and it is therefore also stipulated that the acquisition of the data is in the public interest.
 - The Government is given the discretion, taking into account all the circumstances of the case and the purpose of this Chapter, to grant or not to grant the concession; therefore, even if the petitioner fulfilled all the required conditions, he would not be entitled to obtain the concession.

Geothermal energy legislation

- **2nd option / Geothermal exploration concession**
 - Some basic technical parameters are set: that the systems are closed or reinjection systems, with a minimum depth of 2000 metres, to ensure that shallower aquifers already exploited for drinking water extraction or for the exploitation of thermo-mineral water for heating or agricultural heating are not disturbed.
 - The opinion of the Ministry responsible for water is explicitly foreseen, both in the first (exploratory) phase and in the phase of exploratory electricity production.
 - The initiative and the granting of an exploratory geothermal concession, the government will decide on the granting of an exploratory geothermal concession by means of a decision.

Conclusion

Research (geophysics and drilling)

Improvement in legislation is already achieved for electricity

Need for regulation of data provision to reduce geological risk

Need for rise of interest in reworking of district heating systems with geothermal

Need for successful demo projects in reinjection in sandstone reservoirs for heating sector



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Thank you!