Overview of the 2019 Geothermal Market Report

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Thomas Garabetian, Senior Policy Advisor
Overview

Some key figures

• 130 Geothermal electricity plant, with sustained deployment driven by the Turkish Market

• The EU passes the 2 GWth threshold for geothermal district heating

• More than 2 million geothermal heat pumps in Europe at the end of 2019
Geothermal electricity production
Geothermal electricity: new in 2019

- Continued deployment in Turkey
- Slow EU Market marked by the stop & go effect of energy policies
- Overall renewed interest driven by geothermal specific services (flexibility, cogeneration, mineral extraction...)

5 TURKEY
150 MWe

1 ICELAND
5 MWe

1 GERMANY
3.38 MWe
Most countries are far behind on their 2020 objectives for geothermal electricity.

Stop & go policies have hindered new developments (example of Italy where there is no defined support framework for two years, and long licensing process).

Progress towards 2020 objective

Geothermal electricity
Geothermal power plants: wells

- Clear distinction between high & low temperature countries regarding MWe/well (with the exception of Croatia)
- More drilling needed to scale up power production in low temperatures area
Geothermal power plants: Wells

- Behind average figures, there are wide differences in depth of wells for power plants (notably reinjection/production)
Consolidation of leading suppliers in the Turkish market

New entrant (flash turbine in Iceland)

Continued dominance of binary systems

Turbine manufacturers

Number of turbines installed per manufacturer
Geothermal district heating & cooling
Overview of 2019 additions

Number of new geothermal DH inaugurated in 2019, and additional capacity in MWth

- **SPAIN**: 1 new plant, 2 MW
- **GREECE**: 1 new plant, 14.64 MW
- **NETHERLANDS**: 6 new plants, 100 MW
- **ITALY**: 3 new plants, 12.7 MW
Geothermal district heating & cooling

![Bar chart showing the number of plants for different countries.](image-url)
Geothermal district heating & cooling

- Wide disparity in the average depth of geothermal district heating and cooling wells from one country to another

![Graph showing the average depth in meters for different countries in Europe. The countries include BE, DK, FR, GR, HU, PL, RS, and SI. The graph indicates a range of depths with a minimum and maximum for each country.](image-url)
Geothermal district heating: market dynamics

- Stabilisation of the market in the past three years, carried by a few key markets
- Expecting a rapid acceleration of new development considering the ongoing project pipeline
Policies for geothermal district heating

- EU countries far behind on their NECPs objectives
- Stop & go effect has an adverse effect in developments in the past few years
- Need for adequate policy framework for a successful uptake
Geothermal heat pumps
Geothermal heat pumps
Geothermal heat pumps policies

- Most Member States are lagging behind on their 2020 objectives for the deployment of geothermal heat pump systems
- The examples of Sweden, which exceeds its objective by far shows that a mainstreaming of geothermal heat pump is possible in the market
- Stop & go policies have had a very negative impact in many markets, notably Germany and France