BEST PRACTICE

RENEWABLES NETWORKING PLATFORM

with the support of

Pioneering a deep geothermal energy network

Mol and Dessel, Belgium - 45 600 inhabitants

Deep geothermal – Heating network– public private partnership

© VITO

In September 2015 Vito (The Flemish Institute for Technological Research) launched a deep geothermal pilot project in Mol. Two wells (one at 3 610 m and the other 4 341 m deep) were drilled in 2016. The pumping test showed that the flow and temperature of the water was sufficient to achieve the project's aims, so the green light was given to begin building a deep geothermal power plant on the site.

Project in a Nutshell

The project sees the cooperation of the grid operator Eandis, VITO, Kempens Heat Company and the two municipalities of Mol and Dessel. The heat network will cover approximately 30 kilometres and run from the geothermal energy plant to the Bocholt-Herentals canal and Mol and Dessel. This also includes drilling horizontally under the canal, to avoid disturbing inland navigation. The project foresees different construction phases, during which more and more private and public buildings will be connected. Before every new construction phase, communication with local residents and traders will take place.

Impact & Next steps

Construction works will start in April-May 2018. Once the project is fully realised, 1 800 buildings will be connected. This heat network will eventually save about 22 600 tons of CO_2 per year, comparable to a forest of 112 500 trees; it will be the first deep geothermal power plant in the Benelux to generate green heat and electricity.

Replicability: Challenges & Success Factors

Evaluate the financial feasibility and yield of deep geothermal energy requires significant initial investment but in return, operating costs are low. The new deep geothermal power plant will allow VITO to investigate in real conditions the technical issues, economic feasibility and potential of geothermal energy in Flanders.

Share & learn more!

ww.vito.be
geert.demeyer@vito.be