

Pilot analyses and evaluation of the possibilities and the perspectives for application of Ground Source Heat Pumps (GSHP) in Bulgaria.

A study has been conducted on the possible use of thermal pumping systems, in particular ones that cater on underground heat sources and thus make it possible to harness the Earth's warmth in heating buildings and providing hot water for household purposes. The same systems use the Earth as heat recipient in summertime, when buildings are being cooled. The energy intake for heating and cooling purposes is appreciably lower compared to conventional heating/cooling systems of the same capacity.

The pilot study refers to a two-story building with a total floor area of 220 m², heat load 18 kWt, heat load for household water 9 kWt and cold load in summertime 12 kWt..