
Harnessing the heat below

[Technology](#) [1]

[Technology](#) [1] [Alternative energy](#) [2] [Earth science](#) [3] [Geothermal energy](#) [4] [Norway](#) [5] [Forskning.no](#) [6]

The deeper you drill, the hotter it gets. This video shows an example of how to recover geothermal energy from hot bedrock.

In some places, like Iceland and Tuscany in Italy, hot groundwater can be used directly to make electricity or district heating.

But even in Norway, radioactive elements heat the rock from within. If you could descend in an elevator, you would feel the heat rise around 25 degrees Celsius per kilometre down.

At a depth of five kilometres, the temperature can be over one hundred degrees, some places more.

Drilling at these depths is costly and demanding. Thanks to Norway's offshore activities, the country has the technology and knowhow that is needed.

But shallower geothermal plants can be even more profitable in the short run. In the high tech suburb Nydalen in Norway's capital Oslo, surplus heat from cooling units is stored 200 metres down in the summer.

When winter comes, this stored heat is brought up again through circulating water and used in radiators and underfloor heating.

This video explain the basics of both shallow and deep geothermal energy. This is one of the renewable energy sources that promise to give us an almost limitless energy supply for the future.

 [deepHeat03.jpg](#) [7]

[When electricity converts to heat ? and the reverse](#) [8] [Global warming won't make plants grow any faster](#) [9]

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```
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Links:

[1] <http://sciencenordic.com/category/section/technology>

- [2] <http://sciencenordic.com/alternative-energy>
- [3] <http://sciencenordic.com/earth-science>
- [4] <http://sciencenordic.com/geothermal-energy>
- [5] <http://sciencenordic.com/category/countries/norway>
- [6] <http://sciencenordic.com/category/publisher/forskningno>
- [7] <http://sciencenordic.com/sites/default/files/deepHeat03.jpg>
- [8] <http://sciencenordic.com/when-electricity-converts-heat-%E2%80%93-and-reverse>
- [9] <http://sciencenordic.com/global-warming-wont-make-plants-grow-any-faster>
- [10] <http://sciencenordic.com/content/byhring>
- [11] <http://sciencenordic.com/content/arnfinn-christensen>