



# FACT SHEET

## Geothermal energy

### What is geothermal energy?

Geothermal energy is heat energy created by nuclear reactions occurring deep within the Earth. Some of this heat finds its way to the surface in the form of hot springs or geysers. Other schemes tap the heat energy by pumping water through zones of hot dry rocks several kilometres beneath the Earth's surface.

### How is it used?

In some locations, concentrated and accessible geothermal energy makes it possible to use this energy source in a cost effective way. Geothermal energy is commercially used for the generation of electricity and for space and water heating in a small number of countries.

### Challenge

Only concentrated and accessible geothermal energy makes it possible to use this alternative energy source in a cost effective way.

In Australia, the best reserves of geothermal energy are very deep and far from population centres, and the technical difficulty of extraction has not yet justified the

construction of large-scale plants and of grid expansion to transport the generated electricity.

Source: CSIRO CarbonKids Curriculum Unit, Sustainable Energy for All, pages 25-32

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*The Future Sparks educational materials project is being undertaken by CSIRO Education for Green Cross Australia.*

*These educational resources are designed to introduce teachers and students to Australia's use of 'clean energy' as one of the carbon dioxide mitigation options available for achieving significant reductions in atmospheric carbon dioxide emissions. Whilst not an exhaustive educational resource, it is intended to raise the awareness of school-aged students about our changing climate, clean energy practices and applications and the other alternative energy technologies that reduce greenhouse gas emissions.*

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