



## Heat from the earth's core

**G**EOTHERMAL energy in Australia is a story of small beginnings but great ambitions.

According to the federal government's Geoscience Australia, electricity generation from geothermal energy is limited at present to a small 80kW power plant located at the remote town of Birdsville in Queensland, accessing 98C groundwater by means of a 1230m bore.

However, the agency adds, this is likely to change soon as the future of hot rock power plants becomes increasingly commercially viable. That change is already happening — and the pace is accelerating rapidly.

The geothermal industry boasts it can get 2200MW of capacity online by 2020. In July, for example, one company (Kuth Energy) said it had enough energy at its Tasmanian geothermal power project to support a 280MW power station, enough to boost the island's supply and also allow Tasmania to export green energy to the mainland through the Basslink cable.

Plans are under way to run the air-

conditioning at a campus of the University of Western Australia from geothermal power, while exploration companies are starting to prove resources and put solid figures on the amount of energy they will be able to generate from deep underground.

Greenearth Energy, for example, believes it has the potential in the Latrobe Valley in Victoria to support a new base-load power station.

Many schemes are based on fracturing hot rocks several kilometres underground, injecting water to be heated and using that to power generating plants on the surface.

Geoscience Australia lists the advantages of geothermal: one, it can provide base-load capacity 24 hours a day; two, there are low carbon dioxide emissions; three, the environmental impacts are low (no acid rain, mine waste, open pits, damming of rivers or radioactivity); and, four, it is indigenous and therefore ensures resource security.

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