



## **SCOPENERGY AND SNOWY HYDRO ENTER INTO LONG TERM CONTRACT FOR RENEWABLE GEOTHERMAL POWER**

**8 November 2005** - Scopenergy Limited (Scopenergy) and Snowy Hydro Limited (Snowy Hydro) today announced they have entered into a long-term Power Purchase Agreement (PPA) for 40MW of electricity to be generated from Scopenergy's Limestone Coast Geothermal Project in the South East of South Australia.

The 40MW is contracted from Scopenergy's planned Stage 1 50MW conventional geothermal power station. Scopenergy will build the \$160 million Stage 1 power station if its reservoir proving program is successful during 2006.

Scopenergy is a new entrant into the Australian renewable energy sector through its Limestone Coast Geothermal Project in the south east of South Australia, near Millicent. Scopenergy's focus is on proving and commercialising its potentially large scale, baseload geothermal power project.

The Company has secured a first mover advantage in the Limestone Coast region of the Otway Basin in South Australia with 2,634 square kilometres of Geothermal Exploration Licences (leases) in what it believes is Australia's most prospective region for conventional geothermal power. Its leases are located close to customers and the regional power transmission network. The Company expects this will reduce capital costs, transmission losses, development lead times and risks of its Stage 1 development.

Scopenergy's leases have large generating potential. The world's largest geothermal consultancy, US based GeothermEx, has estimated the generating potential of these leases at more than 1,500MW. The Company's aim is to be generating 50MW by 2009 and thereafter to expand its generating capacity to 250 MW in the medium term. Production costs (including capital amortisation) are potentially comparable to the cost of new combined cycle gas fired electricity generation.

Scopenergy Managing Director, Roger Massy-Greene said the contract would be important in underpinning development of the Project, which has the potential to generate large supplies of reliable baseload power into the South Australian and National Electricity Markets.

He also noted that the Company would strive to be a "good neighbour" in the Millicent region. The proposed power station is quite unlike conventional power stations", he said. "It's much smaller, more like the size of a few large chook sheds. The station will use water from 4km deep, and return all of the water to the reservoir

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after extracting the heat. There won't be any emissions of anything to the atmosphere, and the station won't disturb its neighbours."

"The PPA demonstrates the strong demand for reliable, baseload supplies of renewable energy and provides a sound platform for development of the Limestone Coast Geothermal Project," Mr Massy-Greene said.

Snowy Hydro Managing Director, Mr Terry Charlton said, "Snowy Hydro has a long history with renewable electricity generation and is pleased to be involved with this new renewable project."

Scopenergy expects the PPA to underwrite approximately half the revenue from its initial 50MW power station, with the balance expected to be derived largely through non-contracted power sales and the sale of Renewable Energy Certificates (RECs) and other carbon credits.

The Company expects to deliver into the contract from January 2009 until termination of the contract in 2020.

**For further information:**

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## **About Scopenergy**

Scopenergy is a new entrant into Australia's growing energy market. It was established in January 2001 and is focused on proving and commercialising its potentially large scale, baseload conventional power project, the Limestone Coast Geothermal Project in the South East of South Australia.

## **About Snowy Hydro**

Snowy Hydro Limited is the leading provider of peak, renewable electricity to the National Electricity Market. It owns and operates the 3756MW Snowy Mountains Scheme, an integrated water and hydro-electric project located in Australia's southern Alps and the 300MW gas fired Valley Power Station located in Victoria.

## **About geothermal power**

Conventional geothermal power is derived from naturally occurring sources of hot water and is capable of delivering reliable and renewable baseload energy with no emissions and a low environmental impact. There are currently around 250 conventional geothermal electricity plants worldwide producing 8,900MW.

## **GEOTHERMAL POWER**

### What is geothermal heat?

- Geothermal heat is a naturally occurring, sustainable source of energy.
- Almost all rocks in the earth's crust contain water
- This water is heated through residence in hot and porous rocks.
- Geothermal heat is harnessed by extraction of the hot water which may then be used in a variety of processes from direct space heating to the generation of electricity.
- For a conventional geothermal reservoir to exist, a rock formation with suitable porosity and permeability must be located close to a natural source of heat.
- Most reservoirs around the world are hosted in fractured volcanic rocks eg New Zealand, USA and Japan.
- Some conventional geothermal reservoirs are hosted in sedimentary rocks, like the Limestone Coast Geothermal Project.

### Global geothermal electricity generation

- The first geothermal power was generated over 100 years ago at Larderello in Italy.
- Geothermal power is well established in many countries, with over 8,900 MW of installed capacity from more than 250 plants worldwide.
- This is more than twice the total currently installed power generating capacity of South Australia, where the Project is located.
- New Zealand currently produces some 7% of its total power from geothermal sources. Recent estimates are that geothermal could become the source of up to 15% of New Zealand's electricity supply in the future.

### Geothermal power generation in Australia

- There is currently no geothermal power generation in Australia.
- Recent exploration and development activity in Australia by companies other than Scopenergy has focussed mainly on the potential for generation of electricity from "Hot Fractured Rock" or HFR sources.

### Conventional geothermal vs Hot Fractured Rock (HFR) / Hot Dry Rock (HDR) geothermal

- Conventional geothermal electricity generation relies on the extraction of hot water hosted in naturally permeable geological formations.
- This naturally occurring water is used to generate electricity using proven power generating technology.
- The key requirements for a conventional geothermal power project are the existence of hot fluids contained within rock formations with high porosity and permeability at commercially accessible depth.
- HFR / HDR process relies upon artificially creating an underground heat exchanger to extract heat from high temperature, low permeability rocks by hydro-fracturing the rocks and then circulating injected water.
- This process allows natural ground stress to extend pre-existing cracks and develop new cracks which provide water circulation paths.
- HFR/HDR is not yet a source of commercial production of electricity

### Uses of geothermal heat

- Geothermal heat can be categorised into direct use and electric power generation.
- Direct use geothermal applications include space heating, spas, heated swimming pools, heat pumps, domestic hot water, greenhouses, soil warming and fish farming.