

Commercial Solar Thermal Case study

Underground Coal Mining Company
On the Highveld in Mpumalange



The mine, situated on the coal belt next to Witbank, Mpumalanga, required an effective and economical hot water solution to meet the mine's demands.

Facts and Figures

Verified through a secure web-based monitoring system.

Savings as on 1 March 2012:
94%

Flat plate solar contribution
73%

Heat pump contribution
21%

Electrical contribution
6%

Need

The mine's five change houses required 25 000 lt hot water for 120 showers and 5 laundries.

The hot water had to service three shifts with 400 miners per shift.

alt.enerPro team calculated probable electricity consumption, as the installation was a Green Field one, current usage couldn't be monitored.

Solution

The alt.enerPro commercial team developed a solution after the team consulted with the mine.

A combination of products was used to specify a solar thermal energy solution in line with the mine's needs.

Through an engineering consultative process, a combination of the following solar thermal products was installed:

- 5 x 5 000 lt Solahart Heat Store II systems
- 10 Accent 20kW heat pumps
- 200 BT Solahart flat plate solar collectors



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