

Polluters to build world's biggest solar system in the bush

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A proposal to build the world's biggest solar power station in the outback within three years has been backed by some of the nation's biggest polluters, including BHP Billiton, Rio Tinto and Woodside Petroleum.

The solar thermal plant would generate 250 megawatts of electricity at peak times, enough to power about 100,000 households, at a start-up cost of almost \$1 billion.

Despite the ambitious timeline, a site for the giant plant is yet to be selected.

The consultancy group WorleyParsons is looking at desert areas in western NSW, Western Australia, South Australia and Queensland as part of a feasibility study, with a firm decision expected by the end of the year.

"When you take into account carbon permits and future energy needs, it really makes sense," said Peter Meurs, managing director of the sustainability branch of WorleyParsons.

"There's a lot of tangible activity going on in terms of the study and the interest coming from all the parties. With that interest we're confident that things will go ahead. We've got two players that very much want to move into bankable feasibility immediately and we've been encouraged by that."

High temperatures and near-cloudless skies at Geraldton in Western Australia make it the most likely site, but Mr Meurs insisted there had been strong interest from other states, including NSW.

Along with BHP, Woodside and Rio, the study is being funded by Delta Electricity, Fortescue Metals, Wesfarmers Resources, Verve Energy, Western Power and the Water Corporation of WA.

WorleyParsons said a string of up to 33 plants of comparable size could be built around the country by 2020, the date by which the Federal Government plans to source one-fifth of Australia's electricity from renewable sources.

On that scale, solar power would provide 10pc of Australia's energy needs. At the moment, less than 1pc is generated by solar means.

The optimism is based on the use of solar thermal technology in other countries.

Parabolic troughs, or curved mirrors, concentrate sunlight to heat oil pipes to 400 degrees.

The heated oil is used to boil water, generating steam that would spin turbines.

Energy can be saved for a rainy day by storing heat in molten salt, though WorleyParsons is planning for stations that mainly supply power at peak daylight times and rely on coal for baseload power.

The first plant would cover a field two kilometres by three (600 hectares) with mirrors.

A range of industry experts and stakeholders said the proposal was achievable but its profitability would rely on the Federal Government's commitment to a renewable energy target and the introduction of carbon trading by 2010.

"Three years does sound very ambitious, and it will depend on the renewable energy target," said Irena Bukhshtaber, a spokeswoman for the Clean Energy Council.

"It's actually a reflection of the fact that there has been such a long stagnation of these issues that there are so many new competitors suddenly coming in now."

The Greens said the plans showed "Australia can be the Saudi Arabia of solar".

They also renewed their calls for government funding to be directed towards renewable energy rather than "clean coal", or carbon sequestration.