Solar-thermal is 'best mix'

Rob Black 503 words 4 June 2011 The Observer (Gladstone) APNOBG Main 22 English

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TOMORROW is World Environment Day and the future is so bright in Australia, according to solar advocate Dennis Abbott it's time to put aside the doom and gloom and start planning.

Mr Abbott will be raising the awareness of visitors to Tondoon Botanic Gardens tomorrow of the potential and long-term viability of solar-thermal energy as the saviour of the planet.

"The reason we are going to be at Ecofest is really about letting people know about solar-thermal energy as the alternative energy source that is already proven and able to be implemented straight away," he said.

"Here in Australia we receive enough solar energy to be able to power the entire world, not just Australia.

"It (solar-thermal systems) has been working in the US and Spain very successfully for more than 20 years, powering whole towns and they get a lot less sun than we do."

Mr Abbott's brother, Professor **Derek Abbott** of the University of **Adelaide**, has been delivering papers and talks on the advantages of solar-thermal energy all around the world for a number of years and is garnering interest from some big companies ready to back the scheme.

Yet in one of the most solar-rich continents – Australia – we are steadfastly sticking with traditional energy sources as we are rich in stores of fossil fuels such as coal.

Professor Abbott was unable to attend Ecofest due to other commitments overseas, but is backing his brother's stand on informing the people of the Gladstone region of the only truly sustainable energy source available for future generations, he said.

In his paper Keeping the Energy Debate Clean: How do we supply the world's energy needs?, Prof Abbott points out that no other energy source is scalable, i.e., able to be used on a huge scale for extended periods of time.

And while solar power is the answer, the building of solar panels is not, as the world will quickly run out of materials to build the panels.

The answer lies Prof Abbott says, not in some wonder technology yet to be discovered, but in technologies and programs readily available today and easily sustainable into the future.

By concentrating solar energy, sunlight, on to a system or farm of mirrors the heat generated can easily boil water and drive steam turbines to power the world.

"Low-tech solar collecting dishes, driving steam turbines, can survive higher temperatures... reflectors can focus sun to 3000 degrees Cel and even higher," Prof Abbott said in his paper.

Dennis Abbott said the system was already in place in several sites around the world, with the most famous being at Kramer Junction in California's Mojave Desert, which has been generating more than 350 megawatts of power for more than 20 years without malfunction.

A similar set-up in north-western Queensland could power the entire country – forever.

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