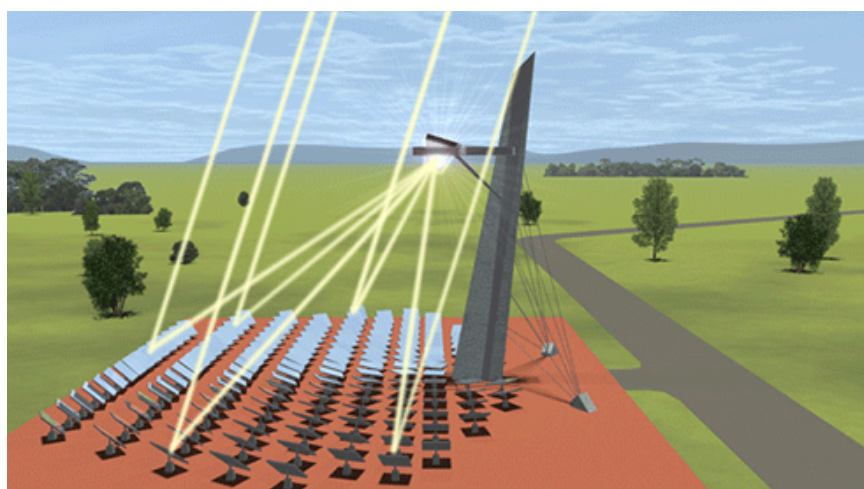


India warms to Australian solar-and-gas hybrid energy solution

An Australian-Indian technology collaboration will leverage an innovative solar/natural gas energy solution to provide high-efficiency electricity, improved energy and food security, new jobs and cleaner transport fuels.



Credit: CSIRO

CSIRO researchers have been developing the technology, which concentrates the sun's rays to drive a reaction between water and natural gas, storing the solar energy in the form of chemical bonds.

The resulting **SolarGas™** can then be used to produce high-efficiency electricity in a gas engine or turbine.

It can also be used to produce pure hydrogen for industrial use (for example, fertiliser production, petrochemical processing, steel making and hydrogen fuel cells used in transportation or stationary energy), as well as providing cleaner transport fuels.

A study, funded by the Australian Government in collaboration with the Solar Energy Commission of India, identified that SolarGas technology has the potential to provide a sustainable and cost-effective alternative for hydrogen production in some of India's most important industries.

It's hoped that deploying SolarGas in India will lead to job creation through local manufacturing and operation of the technology. It could also help energy and food security, because less natural gas would be needed for hydrogen production, the cost of and carbon emissions from making fertiliser would reduce, and there would be less pressure on future gas prices.

In particular, there's strong potential to roll out the technology in Gujarat and Rajasthan, because both states have solar resources and natural gas infrastructure, as well as being major industrial users of hydrogen.

'Energy and energy security are critical issues for Australia and India, and we have much to offer each other by sharing our renewable technology expertise and technology,' said Australia's High Commissioner to India, Patrick Suckling.

'SolarGas could provide both our countries with an exciting new commercial opportunity, and I hope this technology

can play a part in India's drive towards energy security.'

CSIRO plans to start a pilot project in India, using the study's findings to develop a concept design for a pilot-scale SolarGas facility and find an appropriate site.

Source: CSIRO

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