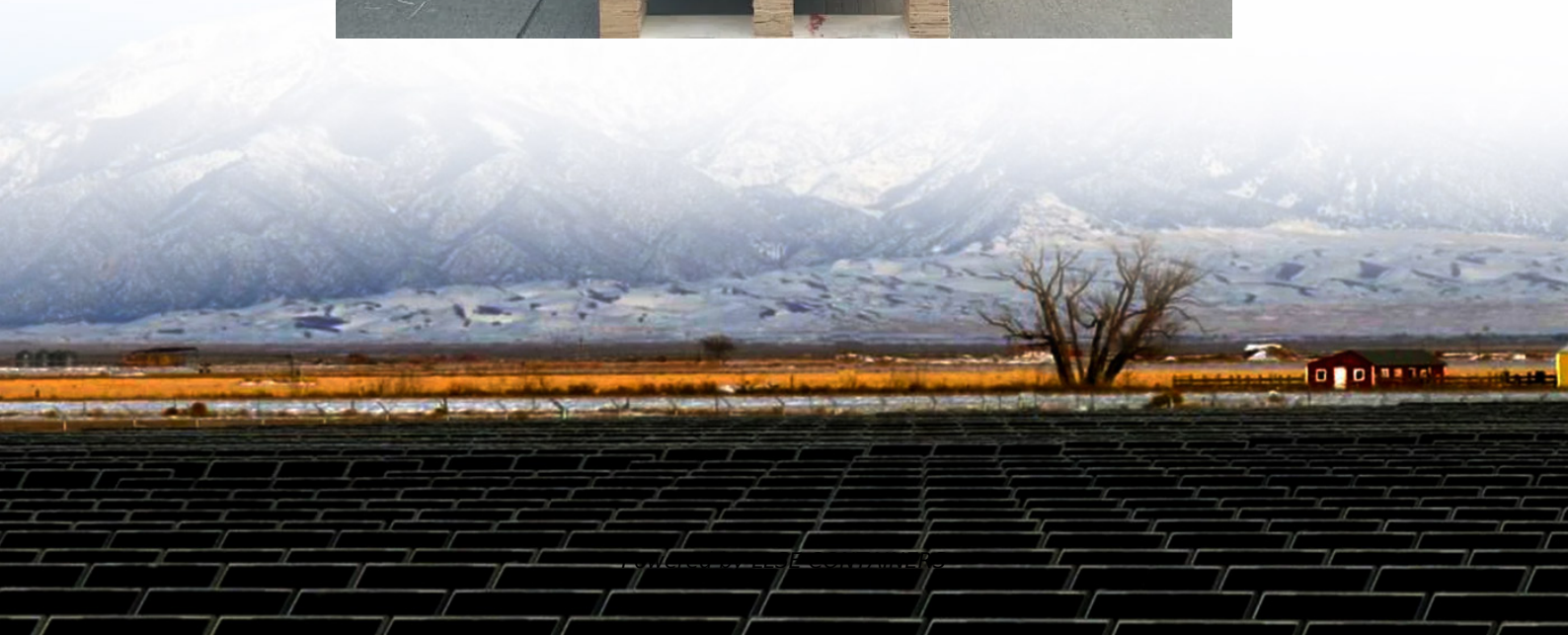


Solar-coal hybrid power station





Overview

Could a coal-fired power plant be hybridised with a solar system?

As part of investigations into the possible hybridising of some existing coal-fired power stations in order to extend their working lives, a feasibility study was undertaken in 2015 for the 180 MW Collinsville power plant in Queensland. This considered the plant's conversion to gas firing integrated with a 30 MW solar system.

What is a coal-solar hybrid?

Potentially, a coal-solar hybrid is an elegant solution. Such a partnership can offer the environmental benefits of solar power, but with the advantage of shared costs of major plant equipment. This significantly lowers the lifetime cost of energy of the solar component.

Can solar power be used in a coal-fired power station?

The incorporation of solar energy into an existing coal-fired power station has the potential to increase overall plant efficiency, reduce coal demand and CO₂ emissions, plus minimise the problem of solar power's variability.

Can solar power be integrated into coal-fired power plants?

The main aim was to demonstrate the potential for integrating solar power into large scale coal-fired power plants in order to increase plant efficiency, reduce the amount of coal required and hence, reduce conventional plant emissions and CO₂, and to test the commercial viability of combining the two technologies.



Solar-coal hybrid power station



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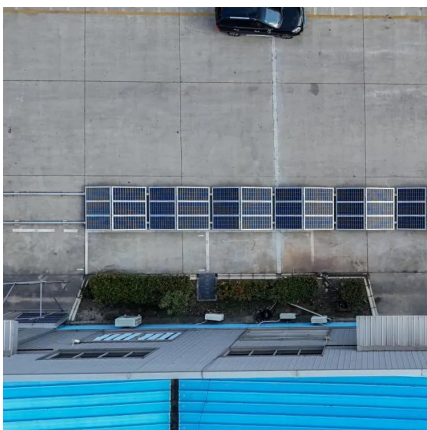
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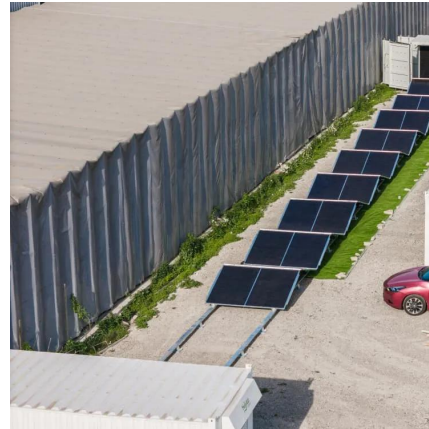
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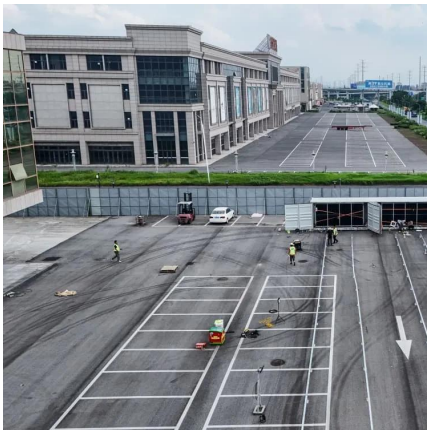
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