



Media Release

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Energy Australia, MEI and Arup Group assessing pumped hydro storage plant in South Australia

EnergyAustralia, one of Australia's leading energy retailers, today briefed the federal government on the potential for a pumped hydroelectric storage project in South Australia to support delivery of cleaner, reliable and affordable supplies of energy.

Managing Director Catherine Tanna and Executive – Energy Mark Collette updated the Cabinet Energy Committee in Sydney on the progress that EnergyAustralia and partners Melbourne Energy Institute and Arup Group have made in the past 12 months investigating a pumped hydro project using seawater.

Located in the Spencer Gulf of South Australia, the proposed project would have the capacity to produce 100-200 megawatts (MW) of electricity with six-to-eight hours of storage. That's the equivalent of installing 100,000 home battery storage systems, but at a fifth of the cost.

The site on the Northern end of the Spencer Gulf has 300m of elevation within 2km of the coast close to high voltage transmission lines. "It's the ideal site for pumped hydro energy storage with seawater in South Australia," said Dr Roger Dargaville, Deputy Director of the Melbourne Energy Institute at the University of Melbourne.

"Pumped hydro storage using seawater is just one of the innovations we're looking at to increase Australia's supplies of cleaner energy," said EnergyAustralia Managing Director Catherine Tanna. "The technology works like a giant battery and its great advantage lies in being a source of reliable, cheaper, renewable power.

"On hot days, when demand spikes, a pumped hydro plant can be brought into action in minutes, keeping the lights on and costs down. We're really excited by its potential," she said.

Ms Tanna said pumped hydro, a form of hydroelectricity that does not rely on rivers or flowing water, was an example of the innovation needed to secure Australia's energy future. While some proposed projects, like interconnectors tend to shift reliability issues, energy storage actually solves the problem, whether in the form of pumped hydro or batteries.

The technology has been used for decades in countries including the United States, Japan and China. "But using seawater will be a major innovation. To date only one

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other pumped hydro project anywhere in the world has used seawater,” added Dr Dargaville.

With conventional pumped hydro, water is pumped from a lower reservoir to a higher one when energy is cheap. Then, when demand for power is high and prices rise, the water is run down again and put through a turbine to generate electricity. By using the sea as the lower reservoir, the requirements for access to freshwater are removed.

EnergyAustralia is aiming to have a feasibility study done on the project by the middle of 2017. If the project is viable, detailed engineering design work, environmental impact statements, consultation with stakeholders and applications for government approval will follow.

Construction would take around two years, which means the project could be providing peak power to the grid by the summer of 2020/21.

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