

Hydro storage plant takes step forward

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Genex Power's plan to convert a disused mine in North Queensland into a hydro storage plant has moved forward with the project and design determined as feasible.

Genex has completed its Kidston pumped-storage feasibility study and released details on the optimised design and capacity of the storage project, which would have the potential to power 100,000 homes.

The Australian Renewable Agency (ARENA) is providing up to \$4 million funding to support the feasibility work.

ARENA CEO, Ivor Frischknecht, said the study results showed the project, which would convert the mine into a giant battery, was technically feasible and outlined a best design for the plant.

"With the support of ARENA, projects like Kidston are helping Australia make the transition to a more affordable and reliable renewable energy future," Mr Frischknecht said.

"This is a very positive milestone and a springboard for Genex to develop and finance the full-scale project.

"The favoured design would be capable of rapidly delivering enough electricity into the grid to power over 100,000 homes when it's needed most. Early indications show it could provide low-cost storage that's significantly cheaper than other options such as batteries.

"It comes at a time when cost effective storage options are becoming increasingly important as more large-scale renewable energy generation enters the national electricity market."

The plant is designed to pump water into an upper storage reservoir through the day or overnight when prices are low, then release it into a lower reservoir to generate power during periods of high demand or need.

This approach can provide the same kind of grid support services as a gas or coal fired power plant.

Mr Frischknecht said Queensland was fast adopting renewables and was set to add 300MW of new large-scale solar in 2017.

“This includes a 50MW solar farm being developed by Genex at the Kidston site, with potential to use solar to power the storage plant’s water pumps,” Mr Frischknecht said.

“ARENA also last week announced funding for the Australian National University to map national potential off-river pumped hydro energy storage (STORES), which could uncover more Australian locations for competitive,

environmentally sustainable pumped-hydro storage.

“Genex is now focussed on securing finance for the project and is fast-tracking revenue and contracting negotiations.

“If everything goes to plan, Genex should reach financial close and start construction in 2017, in an achievement that would pave the way for more large pumped hydro storage projects at disused mines to support our energy grids.”