



Media Release

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Pumped hydro storage could breathe new life into old mines

ARENA is providing \$4 million support towards a feasibility study into the construction of a 330 MW pumped storage hydroelectric power plant at the disused Kidston Gold Mine in North Queensland.

The funding will allow Genex Power Limited to build on preliminary work already underway to examine the technical and commercial viability of its proposed \$282 million power plant.

Acting ARENA CEO Ian Kay said the work could reinvigorate the pumped hydro storage industry in Australia and enable more renewable energy to be used on national grids.

“This feasibility study aims to pave the way for the first new pumped hydro storage development in Australia in more than 40 years,” Mr Kay said.

“Energy storage is becoming increasingly important as more renewables are connected to the Australia’s electricity grids. Pumped hydro storage can provide a cost-effective alternative to large-scale battery storage and concentrating solar thermal storage.

“The proposed plant would take advantage of the Kidston mine’s unique characteristics and the existing infrastructure at the site, minimising its environmental footprint. The novel approach will use the former mining pits as upper and lower water storage reservoirs.

“If the case for pumped hydro storage at disused mine sites is proved, it could give abandoned mines across Australia a new lease on life. Genex has already identified nine sites with similar characteristics to Kidston that could be potential future candidates.”

The proposed plant will operate on an off-peak pumping, peak generation cycle, storing excess electricity during periods of low demand and high generation.

Genex is also exploring the use of variable speed turbines, which can effectively manage grid stability in areas with grid constraints or high levels of renewable energy generation.

Mr Kay said the ARENA-supported feasibility work would generate useful knowledge for the solar and wind renewable industries.

“The project will identify the technical, financial and regulatory roadblocks to the further development of pumped hydro and large-scale storage in Australia, along with any risks involved with using disused or abandoned mine sites for energy storage,” Mr Kay said.

The results of the feasibility study are due in October 2016.

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**For more
information**
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About ARENA

ARENA was established by the Australian Government to make renewable energy technologies more affordable and increase the amount of renewable energy used in Australia. ARENA invests in renewable energy projects, supports research and development activities, boosts job creation and industry development, and increases knowledge about renewable energy. ARENA is currently supporting more than 200 projects and is actively seeking new projects to support.

About Genex Power Limited

Genex Power is a power generation development company listed on the ASX. The Company is focussed on innovative clean energy generation and electricity storage solutions which deliver attractive commercial returns for shareholders. Genex is currently pursuing a number of unique energy development opportunities across Australia.

The Company's current focus is on the development of the 330 MW Kidston hydro pumped storage power generation project located in Northern Queensland. Following acquisition of the Kidston site in June 2014 and completion of the associated pre-feasibility study, the Company has now secured funding in order to undertake a full Bankable Feasibility Study (BFS). The BFS will determine the economic and technical merits of developing its proposed flagship project.

The Company is also progressing a feasibility study for a large-scale solar photovoltaic project at the Kidston site.