

Genex adds wind project to its Kidston renewables hub in North Queensland

Mark Ludlow

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Listed energy company Genex Power is exploring the option of building a new 150 megawatt wind farm alongside its Kidston pumped hydro and solar project in North Queensland, in a bid to overcome intermittency issues which have plagued renewable projects in the past.

As the Turnbull government pushes AGL Energy to extend the life of its Liddell coal-fired power station in NSW beyond 2022 or sell it to a competitor, the Genex announcement is further evidence new investment in the energy sector in Australia is flowing to renewable projects rather than traditional fuel sources such as coal.

If the wind farm goes ahead, the \$1 billion Kidston renewable hub will be the first pumped hydro/solar/wind project in the world with the potential to run 24 hours a day - overcoming the biggest hurdle for intermittent renewable energy of not being able to produce energy when the wind is not blowing or the sun not shining.

The \$300 million 250 megawatt pumped hydro project - which will be built in an old gold mine, 400 kilometres west of Townsville - has been likened to a giant battery which will have a 1500 megawatt hours storage capacity.

Genex managing director Michael Addison said while the company was focusing on securing project financing for the pumped hydro and \$420 million 270 megawatt solar project, the binding heads of agreement with local landholders to develop the 150 megawatt wind farm would give the project an extra edge.

The wind project also made sense because of the topography of the region with the wind turbines to be situated along a 21 kilometre ridge line. The project will be connected to the National Electricity Market via a proposed new 275KV transmission line being developed for the solar and pumped hydro projects.

"The proposed wind farm should give us diversity across three renewable energy sources at the one site and would be a world first development of integrated solar, wind and pumped hydro technology - potentially allowing Genex to provide firm renewable clean energy 24 hours a day, seven days a week," Mr Addison said in a statement to the Australian Securities Exchange.

Genex will conduct a feasibility study on the new wind farm proposal - which is expected to cost up to \$300 million - while it is targeting financial close for the second solar project and pumped hydro by the end of the year. The \$115 million 50 megawatt wind farm is already in operation, under-pinned by a 20 year power purchasing agreement from the Queensland government.

Genex executive director Simon Kidston said the proposed wind farm tied in nicely with the pumped hydro and solar aspect of the renewables hub.

Two solar projects are also part of Genex's Kidston renewable energy hub.

Two solar projects are also part of Genex's Kidston renewable energy hub. Supplied

"This is the holy grail for renewables to deal with intermittent generation and having an inverse correlation between wind and solar allows us to deal with that and effectively produce a base-load renewable energy project," Mr Kidston said.

Pumped hydro storage technology is not new - it is more than 100 years old - but it has been modernised through using the neighbouring solar plant to power the turbines.

Prime Minister Malcolm Turnbull has also embraced pumped hydro as part of his "Snowy 2.0" project to expand the existing scheme by 2000 megawatts. A new pumped hydro project is expected to cost up to \$5 billion.

The Kidston project would be one of only a handful of pumped hydro projects in Australia and the first time an old underground mine has been used.

Genex, which has already received almost \$8.9 million from the federal government's Australian Renewable Energy Agency for the first 50 megawatt solar project at Kidston and a further \$9 million towards the pumped hydro and second solar stage of the project.

Genex has also applied to funding from the \$5 billion Northern Australia Infrastructure Facility - aimed to get big infrastructure projects off the ground in the country's north - and is currently being assessed by the independent NAIF board.