

## KIDSTON UPDATE: STORAGE CAPACITY BOOSTED, EPC NAMED

Genex Power has announced design changes to its pumped hydro project that will boost storage capacity by more than 500MWh.

The 250MW Kidston Pumped Storage Project, located in North Queensland, is part of the Kidston Stage 2 project (K2-Hydro), which includes a co-located 270MW solar PV project.

Genex completed a technical feasibility study (TFS) for the K2-Hydro project in November 2016, which was managed by specialist power and water consulting firm, Entura, in conjunction with project partner HydroChina.

The TFS concluded that the K2-Hydro project was technically feasible and all the key risks identified would be appropriately addressed through detailed design augmentation and optimisation.

Genex has recently been working with Mott MacDonald, a global engineering firm that has specialist skills in hydropower including pumped storage hydro projects, on the optimisation of the K2-Hydro project design.

The optimisation process focused on taking into account recent shifts in the energy market dynamics, as well as feedback from potential energy offtake parties.

Following a detailed review of the studies undertaken to date, it was concluded that an augmented design utilising the two existing mine pits as the upper (Wises pit) and lower (Eldridge pit) reservoirs, was the optimal choice for 250MW of installed capacity, in place of the Turkey's Nest design under the TFS.

The TFS Optimisation determined several other key changes to the original design, including an increase of upper reservoir volume from six hours to eight hours of continuous generation; a proposed adoption of variable speed pump-generator turbines that provide significant operational flexibility.

Construction is estimated to take less than three years.

Genex Power has selected a joint venture between McConnell Dowell Constructors and Downer EDI as a preferred EPC contractor for its pumped hydro project.

Genex will work with the preferred EPC contractor as part of the early contractor involvement (ECI) process to complete final design optimisation and the full EPC and O&M contracting process for the project.

This will include a competitive tender process to secure the electro-mechanical equipment package, which will be held in November 2017 with invitations extended to a number of Tier 1 hydro turbine suppliers.

"The McConnell Dowell/Downer JV is a very strong partner to deliver the Kidston Pumped Storage Hydro Project," Genex Power managing director Michael Addison said.

"As a combined force, the JV has a complementary skill set and a long track record of delivering hydro projects around the world, a strong balance sheet and proven project delivery capabilities – factors which are likely to materially contribute to the bankability and successful implementation of the project." 