Tribute pumped hydro potential



Coal is retiring, and new sources of renewable energy like wind and solar are cheap and becoming more plentiful. But they are variable so energy storage is needed to help fill the gaps and maintain the reliability and stability of our electricity supply. That's where Tasmania can help!

Hydro Tasmania's studies have found significant pumped hydro development potential in the state. We have been looking at 14 options that represent ~4800 megawatts of reliable, cost effective capacity.

Lake Cethana, Lake Rowallan and Tribute pumped hydro opportunities are now in the next stage of assessment and we're taking a closer look at their potential. The outcome will be a preferred project that could be ready to operate when 1200MW of additional Bass Strait interconnection comes online.

What's being investigated near Tribute?



The potential pumped hydro development near Tribute uses two existing storages – Lake Plimsoll as the upper storage and Lake Murchison as the lower storage. This option involves:

Assessing Tasmania's pumped hydro potential



- New underground water conveyance tunnels linking the two existing lakes. No new water storages are required.
- A new underground pumped hydro power station at the lower end of the water conveyance tunnels and adjacent to the existing underground power station.
- Upgraded transmission line connection from the proposed Tribute switchyard to Farrell Substation, with an upgraded transmission line connection to Sheffield Substation as required. Existing easements will be used where possible.

| Key facts and estimates – Tribute option* | |
|---|------------------------|
| Capacity | 500MW |
| Duration | 31 hours |
| Upper storage area | Existing Lake Plimsoll |
| Water conveyance tunnel length | 7,100 metres |
| Tunnel diameter | Up to 8.5 metres |
| Cost per MW to build | \$1.83M/MW* |
| Construction cost estimate | \$915M* |

^{*}Estimates are from pre-feasibility assessments and include contingency. These estimates are subject to further investigation and assessment through the feasibility study.

What's next?

The feasibility study is about gathering detailed information that lets us select the first site that can progress. The studies undertaken during the feasibility stage include:

- Geological and geotechnical studies
- Environmental and heritage investigations
- Stakeholder and community consultation on potential project impacts, benefits and mitigation measures
- Engineering design and constructability
- Transmission and connection studies.

Three sites will be investigated initially and one of those sites will be selected during 2020 to proceed into a development stage. Any site that is selected to proceed to development stage will be subject to statutory approvals processes and comprehensive community consultation during the advanced feasibility and development approvals stage.

Contact us

We welcome views from the Tasmanian community and will continue to keep you informed as studies progress. You can reach us on 1300 360 441 or pumpedhydro@hydro.com.au

The latest information is available at www.hydro.com.au/clean-energy/battery-of-the-nation.

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