Media Release

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Redeveloping and expanding Tasmania’s hydro system

The Australian Renewable Energy Agency (ARENA) has today announced feasibility studies to expand two hydro-electric power stations and explore the potential to develop significant pumped hydro energy storage (PHES) in Tasmania currently underway.

On behalf of the Australian Government, ARENA has committed up to $2.5 million, to be matched by Hydro Tasmania, towards Hydro Tasmania’s Battery of the Nation feasibility studies.

Two studies will assess the feasibility of expanding and redeveloping two existing hydro-electric power stations and identify 15 high potential PHES sites across Tasmania.

A third study focusing on expanding Tasmania’s role in supporting the National Electricity Market, through increased pumped hydro energy storage and wind power, is being scoped.

ARENA Chief Executive Officer Ivor Frischknecht said these studies would examine how pumped hydro could play an expanded role in Australia’s energy mix, and help accelerate the nation’s transition to renewable energy. ARENA is already supporting detailed feasibility studies for Snowy Hydro 2.0, and pumped hydro projects in Spencer Gulf and Kidston.

“These feasibility studies are the first step towards significantly upgrading or replacing some of Tasmania’s existing power stations and introducing pumped hydro energy storage.”

“With these projects, we could more than double Tasmania’s hydro capacity and power an additional 500,000 households. Tasmania could play a crucial role in helping to provide secure, reliable - and renewable - electricity for the National Energy Market,” he said.
The CEO of Hydro Tasmania, Steve Davy, said Tasmania is uniquely placed to help lead Australia through its challenging energy transition.

“At the moment, about 80 per cent of Australia’s electricity comes from coal-fired plants that will eventually close. Tasmania currently provides about five per cent of Australia’s electricity.

“By boosting our hydropower system, further developing our world-class wind power, and increasing interconnection, we could grow our contribution significantly,” he said.

“As Australia’s largest generator of renewable energy, Hydro has the skills and experience to drive an energy future that’s clean, reliable and affordable.

**Expanding pumped hydro potential in Tasmania**

This two-stage concept study is exploring the potential for pumped hydro energy storage across Tasmania, which could increase generation capacity by 2.5 gigawatts.

This initial stage - jointly funded with $300,000 from ARENA - has identified high potential pumped hydro sites across Tasmania. Approximately 30 sites are being considered based on technical feasibility and topography, environmental sensitivity, land use constraints, road access and access to grid, proximity to existing renewable energy assets, construction risks and capital costs.

The next stage will involve a full pre-feasibility assessment of 10-15 shortlisted pumped hydro sites across Tasmania.

**Tarraleah and Gordon Power Stations**

With the support of ARENA, Hydro Tasmania is conducting pre-feasibility studies into the redevelopment of the Tarraleah Power Scheme and the augmentation of the Gordon Power Station.

The iconic Tarraleah Power Station in the Derwent Valley is more than 80 years old.

The Tarraleah redevelopment would involve building a new power station, which would cost up to $650 million and increase the energy output by up to 200 gigawatt hours a year.

The augmentation of the 432 MW Gordon Power Station would involve building a new turbine at Tasmania’s largest power station. To manage environmental water flows, one
of the largest turbines is currently being run at very low efficiency. This augmentation would allow more efficient generation from existing environmental water flows to the Gordon River.

The initial stages of these studies, jointly funded by ARENA and Hydro Tasmania at a cost of $1 million, will be completed by the end of the year. Based on the outcomes of the studies, construction on augmentation of the Gordon Power Station could commence in 2018.

For further information, visit arena.gov.au and hydro.com.au/energy/battery-nation/

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