

# CANBERRA PUMPED HYDRO

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Can pumped hydro energy storage drive the energy transition in Australia? Australia's favourable natural geographical landscape and abundance of retiring mine sites provide a unique opportunity for pumped hydro energy storage (PHES) to play a key role in driving the energy transition in this country.



How many pumped hydro energy storage sites are there in Australia? Australia has many potential sites for pumped hydro energy storage (PHES). The initial survey found about 22,000 sites??? the State and Territory breakdown is shown in the document. Each site has an energy storage potential between 1 and 200 Gigawatt hours (GWh).



How many premium pumped hydro sites are there in Australia? Australia has 300 premium(Class AA) pumped hydro sites listed in the global pumped hydro atlas in the size range 15-5000 GWh. For perspective,5000 GWh is the effective storage in 100 million EV batteries. The key parameters for low-cost premium PHES are explained in our new review paper:



Which pumped hydro projects are best for Queensland? In Queensland,the Pioneer Burdekin and Borumbapumped hydro proposals offer storage energy and storage power of 170 GWh and 7 GW respectively. This is a large fraction of the ultimate storage requirements for Queensland. Victoria has many greenfield and bluefield site options north-east of Melbourne from which to choose.



Can pumped hydro energy storage support high levels of solar and wind energy? Large-scale storage is required to support high levels of solar and wind energy. Many methods of storage are available,and most will find a niche. This paper focuses on pumped hydro energy storage,which currently provides most of the energy storage for the electricity industry.

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What is pumped hydro energy storage? This is the realm of pumped hydro, with its very low energy storage cost and its operational lifetime of a century or more. The long duration energy storage requirements in the 2030s are much larger than current energy storage needs. Pumped hydro energy storage (PHES) constitutes most current energy storage for the global electricity industry.



Find out about our pumped-hydro expansion mega project, Snowy 2.0. See the latest progress of the project and check out the 3m model tunnel boring machine with moving cutterhead. By car ??? located just over an hour drive south of ???



To quit coal and move to renewables, we need large-scale energy storage. That's where pumped hydro comes in. Queensland's ambitious new plan involves shifting from a coal-dominated electricity grid to 80% renewables ???



Pumped hydro potential for Tasmania. Coal is retiring, and new sources of renewable energy like wind and solar are becoming more plentiful. As our energy mix changes, we need to maintain the reliability of the electricity system. ???



With the support of the Australian Renewable Energy Agency (ARENA), we have identified 22,000 potential pumped hydro energy storage (PHES) sites across all states and territories of Australia. PHES can readily be ???

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Nic Seton, head of Parents for Climate, says the LNP needs to confirm it will continue to roll out wind, solar, hydro and batteries at a rate that will allow coal generators to close as soon as



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