

Australia backs \$2.7bn of big batteries to narrow gap to 100 pct renewables

Giles Parkinson and Amalyah Hart (https://reneweconomy.com.au/author/giles-parkinson-and-amalyah-

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Neoen's Victorian big Battery. (Supplied).





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Australia is to fund eight big batteries with a combined 4.2 gigawatt hours of storage capacity in a new funding round designed to close the gap to 100 per cent renewable energy.

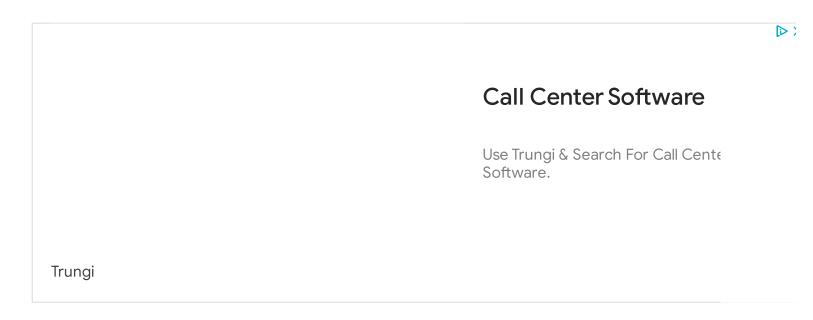
The \$176 million of funding from the Australian Renewable Energy Agency focuses on advanced grid forming inverters which are capable of providing most, if not all, of the crucial grid services currently delivered by the big coal fired power stations expected to close over the coming decade.

Plans for the Large Scale Battery Storage Funding Round were <u>first revealed by RenewEconomy more than a year ago in November, 2021, (https://reneweconomy.com.au/new-arena-fund-to-help-plug-one-of-last-gaps-to-100-pct-renewables-grid/)</u> and formally announced by previous energy minister Angus Taylor on Christmas Eve last year.

ARENA has expanded that funding envelope to \$176 million and chosen eight big batteries to install grid-forming inverter technology that allows them to stabilise the energy grid and prevent blackouts – roles that would typically be performed by coal and gas-fired power stations.

According to ARENA, the sum value of the projects is \$2.7 billion and the eight batteries will with the sum value of the projects is \$2.7 billion and the eight batteries will storage capacity of 2.0GW, or 4.2GWh, marking a ten-fold increase in grid-forming electricity in the NEM.

Only one of the them, the Victoria Big Battery, which is the largest in the country, is a retrofit. Its size of 300MW/450MWh will be trumped by some of the winning battery projects in this tender.







(https://reneweconomy.com.au/wp-content/uploads/2022/12/arena-battery-map-scaled.jpg)

The projects selected for support are:

- A 250MW/500MWh battery in Liddell, NSW, operated by AGL, which will partially replace the coal fired power plant that is to close next year.
- A 250MW/550MWh battery in Gnarwarre, VIC, operated by Saudi owned developer FRV
- Energy company Neoen has won funding to retrofit the 300MW/450MWh Victorian Big Battery in Moorabool, VIC, to enable grid-forming capability
- Neoen has also won funding for two new 200MW/400MWh batteries in Hopeland, QLD, and Blyth, SA, the latter which is part of its landmark deal to provide 24/7 renewable power to BHP's Olympic Dam mine.
- A 300MW/900MWh battery in Mortlake, VIC, operated by Origin Energy.
- A 200MW/400MWh battery in Bungama, SA, operated by Risen
- And a 300MW/600MWh battery in Mount Fox, QLD, to be operated by TagEnergy.

The projects, all of which are expected to be operational by 2025, will join a small group of existing grid-forming battery projects already under construction, or fired-up, across Australia. They were chosen from a shortlist of 12 projects. A total of 54 expressions of interest were received.

ARENA has previously provided \$81 million in funding for eight grid scale batteries, including five with grid-forming capability – Hornsdale, Broken Hill, Dalrymple North, Darlington Point, and Wallgrove, where the program will be formally announced on Saturday.



AGL's soon to be completed <u>Torrens Island battery is (https://reneweconomy.com.au/agl-begins-process-of-powering-up-torrens-island-battery-biggest-in-south-australia/)</u>touted to be one of the largest grid-forming batteries of its kind in the world at 250MW/250MWh.

ARENA CEO Darren Miller says the funding envelope was expanded, according to ARENA, in recognition of the high quality of applications received.

"Battery storage is an essential technology in the transition to renewable energy, allowing us to smooth out variable generation and store electricity for when it's needed," Miller said.

"These next generation grid scale batteries will underpin this transition, with inverter technology that can maintain grid stability without the need for coal and gas generators. This pipeline of grid-forming projects will help move us closer to an electricity grid that can support 100 per cent renewable energy in the NEM.

"With the high quality of proposals we received, ARENA and the Government saw an opportunity to deliver a step change in grid-forming capability across the NEM, which we've backed with additional funding."

"These batteries will help stabilise the grid and deliver the cleanest, cheapest form of energy for Australian businesses and households," said federal climate and energy minister Chris Bowen.

"The successful projects will deliver the eight largest grid-forming batteries in Australia. This investment looks to deliver around 2GW of dispatchable power, to ensure Australian households and businesses can count on the increasingly renewable energy they use being available when they need it."

ARENA says the previous projects have highlighted the potential of grid-forming batteries and the need to support further projects at a larger scale to build experience with the technology, de-risk investment and drive further innovation from inverter manufacturers.

It says the funding round will also help to overcome current commercial and regulatory barriers to large scale deployment. All the batteries are expected to reach financial close in 2023 and be operational by 2025.

See RenewEconomy's <u>Big Battery Storage Map of Australia</u>
(https://reneweconomy.com.au/big-battery-storage-map-of-australia/)

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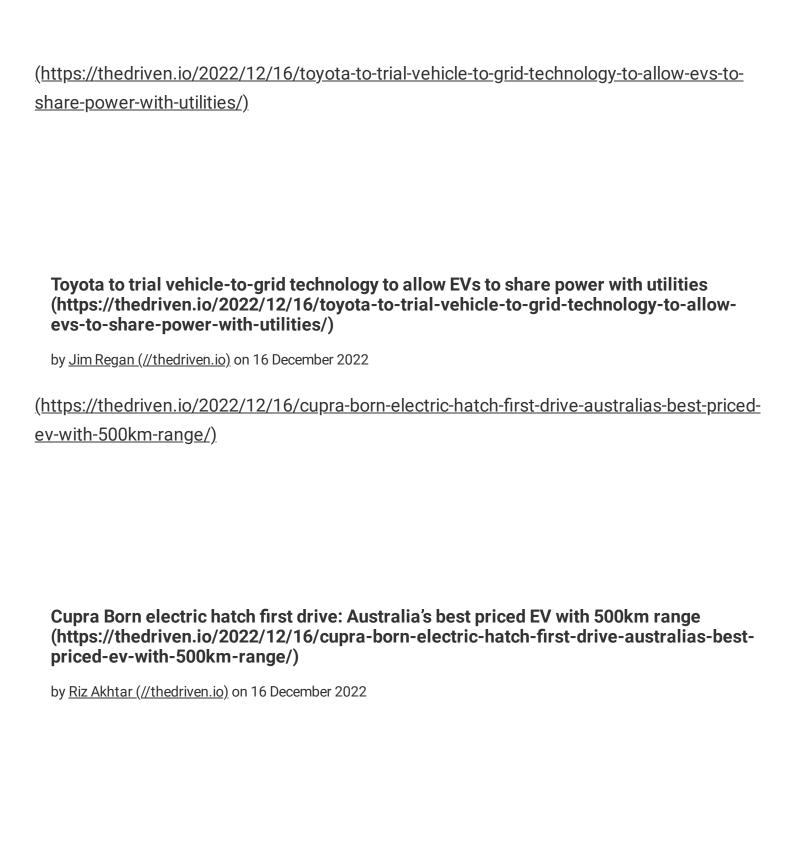
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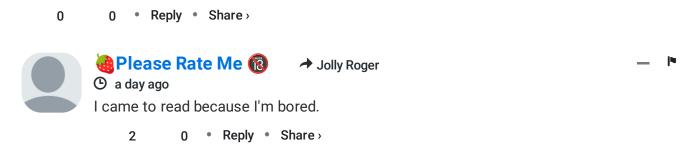


Jolly Roger

(C) a day ago

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It seems the politicians are either confused or deliberately muddying the waters on this one. It looks like they want more grid services from these batteries like the Hornsdale battery supplies and not long duration storage, so more fast lithium batteries, but they talk about storage and supply which they aint gonna get from these projects. If they want storage and supply they would be better off with loads of flow batteries. I suppose this will get sorted in a few years when the difference between grid services and storage and supply are better understood or acknowledged.





Rod → Jolly Roger ⑤ a day ago It. Is. Not. A. Problem

And won't be until we get somewhere around 70% VRE

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