

West Australia to build 100MW big battery – the first on state’s main grid

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The West Australia government says it plans to build a 100MW big battery with two hours storage to ease the pressure off the state’s ageing coal and gas generators as the share of renewable energy grows.

The state Labor government made the announcement late Friday, issuing a request for information on its tenders page for what it is calling the Synergy Big Battery, which will be a 100MW/200MWh facility built at a decommissioned power station Kwinana.

Synergy is the main state owned generator and retailer and says the new battery is part of its “commitment to harnessing the full potential of renewable energy for all Western Australians.”

Premier Mark McGowan says the battery would likely be the second biggest in Australia once complete in 2022z, although it would largely depend on the status of other big battery projects elsewhere, including the mooted replacement for the Liddell coal generator in NSW.

The ACT Labor government has committed to a 200MW big battery if it is re-elected this month, although it has not revealed how many hours storage it was looking at, while AGL is looking at a 150MW initial battery at Liddell, again without the hours of storage specified, and Neoen and Mondo have proposed a 600MW big battery in Victoria to help upgrade the operating capacity of the main link to NSW.

Expected to be Australia’s second biggest battery, the proposed 100 megawatt big battery will be bigger than 20 tennis courts, side-by-side, and have the capacity to power 160,000 homes for two hours, and to be housed at the decommissioned Kwinana Power Station.

“WA’s energy sector is experiencing a rapid transformation, with a major uptake of large scale renewables and rooftop solar,” the government said in a statement.

“One in three households has rooftop solar panels and this is expected to rise to 50 per cent of households by 2030. Increased pressure on WA’s electricity system and inaction could result in significant blackouts in coming years.

“The big battery will support integration of more renewable energy and improve grid security. It can be charged during the day, when the sun is shining and energy is plentiful, and discharge this energy when it is most needed during the afternoon and evening peak.”

It said the battery would be operated by Synergy and would reduce “wear and tear” on existing generation plants that are not designed to fluctuate in response to high levels of renewable energy in the grid.

The W.A. government says it has secured \$15 million in funds from the Commonwealth government for the project and is talking to the Commonwealth Government about further funding. Submissions from suppliers are due at the end of October and a final decision on the big battery will be made later this year.

W.A. already has one big battery – a 30MW/11MWh battery at the Mt Newman power station that has proved enormously successful, both in terms of performance, reliability and economics, and more are planned to help supply the big iron ore mines in the Pilbara.

The state’s main network companies, Western Power and Horizon, have also been installing many smaller batteries in local communities to smooth out rooftop solar output and to provide back-up power in remote and off grid locations.

“It’s important we support the rapid electricity transformation that’s happening right now and energy storage systems, like this big battery, have a crucial role to play in providing better energy and job outcomes for the WA community,” McGowan said.

Energy Minister Bill Johnston said the big battery would help address the so-called ‘duck curve’ by absorbing surplus energy in the middle of the day, when solar generation is high, and discharging energy during peak times.

“Battery storage is proving to be a versatile solution to network challenges; this big battery will complement Western Power’s roll-out of community batteries, which are providing additional support and improved power quality to local homes and businesses.”