

Frontier poised to benefit from forecast power generation deficits

Frontier Energy Limited (ASX: FHE; OTCQB: FRHYF) (Frontier or the **Company**) notes the Australian Energy Market Operator's (**AEMO**) 2024 Electricity Statement of Opportunities (**ESOO**) for the WA Wholesale Electricity Market (**WEM**) forecasts a significant shortfall of power generation in WA from 2027 onwards, and a need for new electricity generation and storage to be brought online quickly. The ESOO is an annual report estimating 10-year electricity demand / supply.

HIGHLIGHTS

- Major and growing power deficits are forecast from 2027 for the next decade, as demand increases, and coal-fired generation is expected to be retired
 - The ESOO states that at least 391MW of new capacity is required in the 2027-28 capacity year¹, increasing to 2,880MW by 2033-34
 - By comparison, Frontier's Waroona Renewable Energy Project's Stage One comprises a 120MWdc solar facility with integrated 80MW four-hour battery storage
 - Operational demand is forecast to increase by 57% (Expected Case), with High Case demand increasing by 202%, by 2033/34
- Near term supply challenges are highlighted by a forecast deficit in 2024/25, and unplanned outages of ageing fossil-fuelled generators of up to 19% during peak periods
 - The ESOO forecasts a balanced market in 2026/27, with only 0.6% surplus capacity
 - Achieving balance relies on an additional >1,460MW capacity (a 34% increase), the bulk of which is new utility scale batteries, to be on stream by then
- Stage One of Frontier's Waroona Renewable Energy Project (Waroona Project) is targeting commencement of production in the 2026/27 Capacity Year and is strongly positioned to take advantage of the forecast deficits
- Waroona has potential to expand to help meet forecast supply shortage, including freehold land (Stage One utilises only 303ha of Frontier's 868ha) and potential for more than 1GW network connections

CEO Adam Kiley commented: "Similar to last year's ESOO report, the 2024 version again highlights the urgent need for renewable capacity to be added in the WEM and paints a sobering picture of forecast shortfalls in electricity supply over the next decade, as demand continues to increase while fossil fuelled generation is planned to be retired.

Stage One of the Company's Project, which has 120MWdc renewable solar electricity and 80MW four-hour battery storage, will help address this urgent need, especially as it is located in an unconstrained part of the electricity network. Fortunately for the Company and for the WEM, Waroona's expansion potential is significant at multiples of Stage One capacity. Expansion studies are expected to commence in the second half of this year."

¹ AEMO's capacity years run from 1 October to 30 September



ESOO again highlights need for sustained investment

AEMO, which is responsible for managing the electricity and gas systems and markets across Australia, released its annual WEM ESOO. The primary purpose of the ESOO is to identify the investment in capacity from generation, storage, and demand side management needed to ensure a secure and reliable electricity supply over the coming decade. Full details of the 2024 ESOO Report can be accessed via the Company's website <u>https://frontierhe.com/.</u>

The 2024 WEM ESOO forecasts the Reserve Capacity Target (**RCT**) for each Capacity Year between 2024-25 and 2033-34 and specifically the amount of capacity to be procured through the Reserve Capacity Mechanism (**RCM**) – for the 2026-27 Capacity Year.

The ESOO highlights that, while the near-term supply-demand balance has improved since the 2023 WEM ESOO, substantial and sustained investment in new generation, storage, demand side programs and transmission capacity is still needed, particularly from 2027 onwards.



Image 1: 2024 WEM ESOO Forecast supply / demand balance, Expected Demand scenario

Achieving balance in 2026/27 requires an additional >1,460MW capacity (the bulk of which is new utility scale batteries) to come on stream by then. This is ~34% of current capacity.

This forecast assumes significant growth in home solar PV installations, which are forecast to grow by 9% per annum over the next decade.







Image 2: Forecast existing, committed, and probable Reserve Capacity for 2026-27 (MW)

The report highlights that timely delivery of these committed projects is critical to ensuring the capacity requirement is satisfied. AEMO flags that various factors impact the delivery of planned projects across Australia, including global supply chain and labour constraints. As such, AEMO is monitoring the progress of committed projects and encouraging proponents to take early actions to mitigate any potential delays.

A further challenge to supply is outages of the current fossil fuelled fleet. The ESOO highlights unplanned outages of fossil-fuelled generators above 19% in January – March 2024.

Whilst there are multiple factors highlighted in the Report affecting both supply and demand, the key drivers are:

- Increased business, industrial and electrification (Demand) Demand is forecast to grow significantly due to growth in business electrification, along with growth in cooling load (air-conditioning), electric vehicles, and the expansion of industrial loads. Demand is now forecast to grow at an average annual rate of 4.6% and reach 27.9TWh per annum in 2033-34, a 57% increase over 10 years. In the High Scenario, demand is forecast to grow 11.7% annually or 202% over 10 years.
- Renewable Energy Transition (Supply) the transition to deploy renewable energy has been accelerated significantly over the past 12 months. In September 2022, the Australian Federal Government legislated to lower emissions by 43% by 2030 and achieve net zero emissions by 2050². In WA, the State Government targets are to reduce government emissions by 80%

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² https://www.pm.gov.au/media/australia-legislates-emissions-reduction-targets



below the 2020 level by 2030, and to meet net zero by 2050³. This has seen the WA State Government announce the closure of coal-fired power generation in WA by 2029.

The ESOO identifies that substantial and sustained investment in new capacity will be required beyond existing and committed capacity, with 391 MW required in 2027-28 increasing to 2,880 MW by 2033-34.

Frontier is well positioned to capitalise on forecast shortfall

The Stage One development of the Waroona Project is targeting commencement of production in the 2026/27 capacity year, immediately prior to the significant deficits that are forecast in the ESOO – see Image 1. The Stage One development comprises a 120MWdc solar farm and an integrated 80MW 4-hour battery.

To ensure commercial production in the 2026/27 capacity year, the Company recently signed key contracts with Western Power⁴ to begin detailed design and procurement of long-lead items for the interconnection works. These are a critical path item to ensure construction of Stage One is completed in mid-2026.

With the Company's landholding of 868 hectares (Stage One utilises only 303 hectares), there is scope to expand beyond Stage One, with potential for more than 1GW of network connections. The scale of deficits forecast in the ESOO highlight the opportunity for the Company's Waroona Project expansion stages. Studies for a Stage Two expansion are expected to commence shortly after a Final Investment Decision for Stage One has been taken.

Authorised for release by Frontier Energy's Board of Directors.

To learn more about the Company, please visit <u>www.frontierhe.com</u>, or contact:

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³ https://www.wa.gov.au/service/environment/business-and-community-assistance/government-emissions-interim-target

⁴ ASX announcement 18 June 2024



About Frontier Energy

Frontier Energy Ltd (ASX: FHE; OTCQB: FRHYF) is developing the Waroona Renewable Energy Project (the Project) located 120km from Perth in Western Australia.

Waroona has potential to become one Australia's largest standalone renewable energy projects, as the Company controls 868ha of adjoining freehold land whilst also having approvals in place for a connection onto the WA electricity network (SWIS) with a terminal adjacent to the Project.

The Company released a highly positive DFS on Stage One development that consists of a 120MW solar farm and 80MW 4-hour battery which is now advancing towards a Final Investment Decision in 2024.

Frontier is fully committed to making the Project one of WA's major renewable energy hubs, incorporating multiple valueadding initiatives including batteries and green hydrogen, with full renewable energy potential of more than 1GW based on connection capacity.



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For a comprehensive view of information that has been lodged on the ASX online lodgement system and the Company website, please visit asx.com.au and frontierhe.com, respectively.