Change to Government policy drives improved returns for Stage One of Waroona Renewable Energy Project

Frontier Energy Limited (ASX: FHE; OTCQB: FRHYF) (**Frontier** or the **Company**) is pleased to provide an update of the strategy and key targets for 1H 2024 as the Company advances the development of its Stage One Waroona Renewable Energy Project (**Project**) in Southwest WA, towards a Final Investment Decision (FID) and construction during 2024.

HIGHLIGHTS

- **Stage One of the Project will consist of a 120MWdc solar facility with an integrated four-hour 80MW battery. A Definitive Feasibility Study (DFS) is on track for February 2024**
- **The inclusion of a battery follows a major change in WA Government policy regarding Battery Energy Storage System (BESS)[1] that makes development of a BESS financially more attractive**
    - *Energy Policy WA's Coordinator of Energy has now adopted a 4-hour BESS as the reference technology for Benchmark Reserve Capacity (BRCP), a change from the current reference technology of an open-cycle gas turbine (OCGT)*
    - *Reserve Capacity Payments (RCP) for an 80MW 4-hour battery are forecast to generate ~$24 million in revenue in 2026/27 (excluding RCPs from solar)*
- **The Company selected this strategy following a detailed assessment of various value adding alternatives and facilities of various sizes. This analysis indicated this combination provided the strongest financial returns with the lowest capital commitment, whilst also offering a lower technical risk compared to alternatives**
    - *Integrating battery capacity enhances the Project's returns (compared to solar alone) through increased revenue from RCP, energy storage arbitrage (shifting of energy sales from the midday low to early evening peak prices) and reducing curtailment*
- **Frontier has commenced preliminary debt financing work. More information regarding this process will be released prior to the DFS**
- **Frontier continues to advance its dual fuel green hydrogen peaking power plant Study due for release in 2Q 2024**
    - *Following discussions with suppliers the Company is also assessing a leasing option which could minimise upfront capital costs*
- **Frontier continues to assess additional opportunities to both produce and sell green hydrogen as part of its renewable energy strategy**
- **Frontier is fully funded through to Stage One FID with a cash balance of $12.3m[2]**

CEO Adam Kiley commented: *"Renewable energy is the most dynamic industry in Australia.*

Both the Federal and State governments are continuously updating regulations and policies, while also providing new financial incentives for industry to align with these changes. These

[1] *See section titled "Changes to the BRCP reference technology" on page 3*
[2] *Unaudited, as at 13 Dec 2023*

changes in policy aim to ensure Australia not only meets its decarbonisation targets, but also support growing electricity demand as the result of decarbonisation as part of this major energy transition.

In the last few months alone, the Federal Government has announced the $67 billion Capacity Investment Scheme[3] (CIS). In WA, the Australian Energy Market Operator (AEMO) changed the technology for BRCP from a gas-fuelled peaking power plant to a 4-hour battery.

Frontier has and will continue to assess these ongoing changes by Government to ensure the Company is best positioned to leverage its strategy to enhance its returns for investors.

Batteries have always been considered by the Company, as it is logical to store solar energy generated during low priced periods (middle of the day) for dispatch during higher priced periods (early evening). Including this at the Project now makes financial sense, given changes to BRCP payments, whilst capital costs and efficiency of batteries have also improved significantly. Inclusion of a battery sees minimal delay in the release of our DFS, which will be announced in February.

The Company has also commenced implementation of its funding strategy, with further details to be announced in the coming weeks.

Finally, while we were disappointed not to advance to the next stage of the Federal Government's Hydrogen Headstart program, as we believe we have the potential to be a major green hydrogen project in Australia, given the existing infrastructure and industry surrounding the Project, we remain committed to this sector in the long term and will continue to assess future opportunities to add further renewable energy capability to the Project."

120MW solar facility and 80MW battery provides the optimal outcome for Waroona Stage One development

In late 2023, Energy Policy WA issued a consultation paper[4] on the potential change in the reference technology for BRCP to a BESS from an OCGT (further information on these changes is highlighted below).

Following this announcement, Frontier proactively engaged SpringCity Pty Ltd (a Perth based engineering consultancy in the electricity, power and energy industry) to evaluate the potential and approach that should be used in integrating a battery.

After reviewing the preliminary results of this work, compared to a range of alternative strategies , including an assessment of:

- Maturity of respective technologies and potential for future improvements;
- Current Government policies and incentives;

[3] *https://www.dcceew.gov.au/energy/renewable/capacity-investment-scheme*

[4] *https://www.wa.gov.au/government/announcements/brcp-reference-technology-review-consultation-paper*

- A range of different sized facilities;
- Forecast market demand and market prices for energy sales and other revenue opportunities; and
- Indicative total capital costs

Frontier concluded that the optimal strategy for a Stage One development consists of a 120MW solar facility and an 80MW battery. A DC coupled battery integrated in the solar facility, sharing the solar inverters, will have a lower capital cost and will also provide a greater efficiency compared to an AC coupled, separate BESS facility.

Initial results indicated this strategy provides the strongest potential financial returns with least risk, driven by:

- Lowest relative capital investment;
- Relatively low technical risk given the maturity of the respective technologies and implementation in Australia;
- Arbitrage opportunity created by batteries that allows for shift from low energy priced period (midday) to high price in demand period (early evening);
- Guaranteed revenues through substantial, fixed RCP revenues compared to solar only option (also allowing significant debt leverage); and
- Upside exposure to the WA Wholesale Electricity Market (WEM), which is forecast by AEMO to remain in deficit over the next decade.

Revision of the solar farm design and inclusion of a BESS, which is anticipated to have significantly better economics than solar alone, will be released during February 2024.

In addition, the Company has commenced preliminary work regarding project financing with strong interest shown by a range of local and international financial institutions for debt financing, as well as strong interest in equity participation at both corporate and project levels. The Company will provide further information regarding this in the coming weeks.

Key drivers for including a battery in the Stage One development

Changes to the BRCP reference technology imply significant fixed annual revenue

The Reserve Capacity Mechanism (RCM) in the Wholesale Electricity Market (WEM) is designed to ensure that there is adequate generation capacity available to meet forecast peak electricity demand. The RCM is unique to Western Australia and not available in other Australian states.

Under the RCM, electricity generation plants are certified and allocated capacity credits based on the size of the facility capacity. The benchmark price has increased over the past

number of years, with the latest BRCP increasing to $230,000 per MW for the 2026/27 year[5]. When the market is forecast to be in deficit, an additional 30% premium is applied to this price. AMEO has forecast the WEM to be in deficit for the next decade[6].

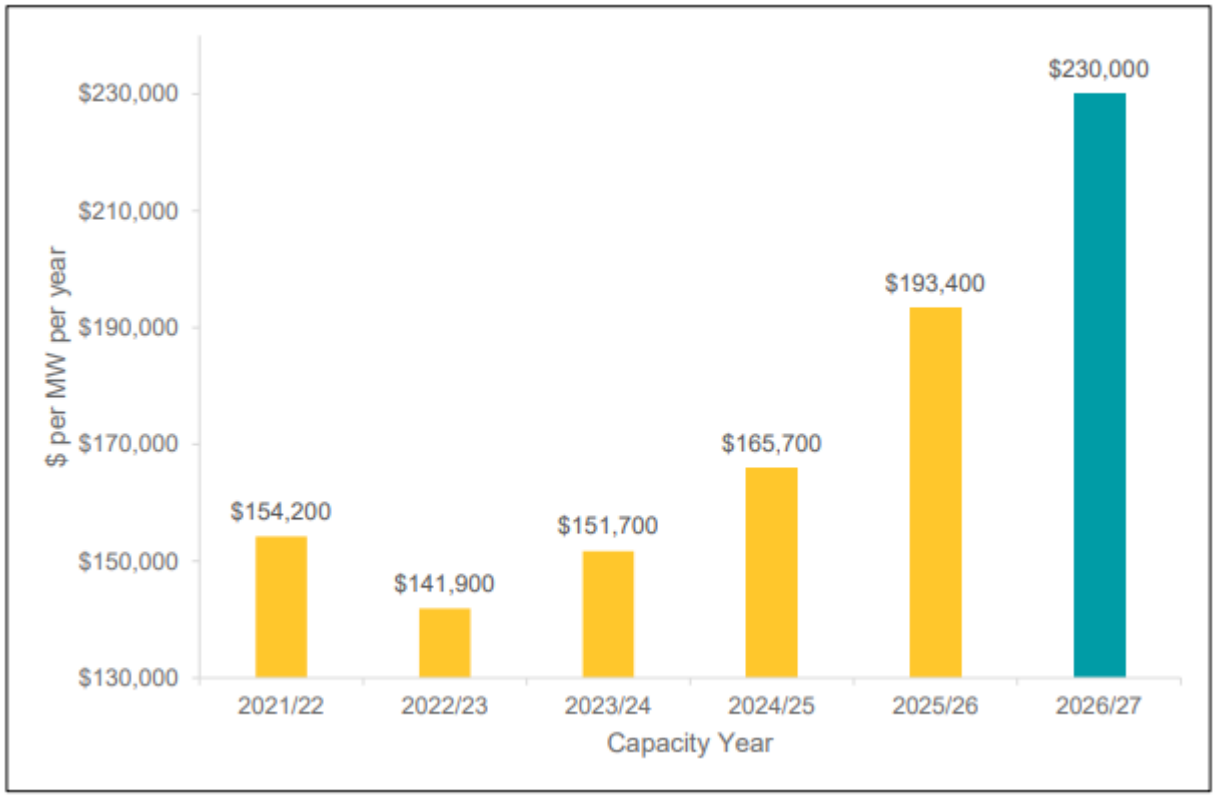

Figure 1: BRCP from 2021/22 by capacity year including 2024 BRCP determination[7]

The WA Government announced a package of WEM reform initiatives[8] aimed at enhancing investment certainty for renewable and storage proponents in the South West Interconnected System (SWIS). Reforms under consideration include:

- Lengthening the period of reserve capacity price guarantee from five years to ten years;
- Increasing the BRCP premium during a deficit market from 30% potentially up to 80%, depending on the size of the deficit
- Introducing emissions thresholds of maximum 0.55t CO_2e / MWh; and
- Changing the reference technology.

Subsequent to this initial announcement, the Government confirmed a 200MW / 800MWh lithium-ion BESS (4-hour battery), with a 330kV connection was selected as the new benchmark technology[9] in the future. This change will allow for a 4-hour battery to receive 100% of the RCP.

[5] *https://www.erawa.com.au/cproot/23833/2/2024-benchmark-reserve-capacity-price-for-the-202627-capacity-year.PDF*
[6] *https://aemo.com.au/-/media/files/electricity/wem/planning_and_forecasting/esoo/2023/2023-wholesale-electricity-market-electricity-statement-of-opportunities-wem-esoo.pdf*
[7] *https://www.erawa.com.au/cproot/23833/2/2024-benchmark-reserve-capacity-price-for-the-202627-capacity-year.PDF*
[8] *https://www.wa.gov.au/system/files/2023-08/reserve_capacity_mechanism_review_-_information_paper_stage_2.pdf.*
[9] *https://www.wa.gov.au/media/43698/download?inline*

Indicatively, based on an 80MW / 320MWh BESS, the 2026/27 BRCP of $230k/MW would generate $18.4m (no deficit market factor), increasing to $23.9m (deficit market factor) per annum in Reserve Capacity payments. It is expected the BRCP will increase in future years as a battery is incorporated into the BRCP calculation.

Battery enables energy arbitrage whilst minimising curtailment

Electricity prices vary significantly not only from month to month but also hour to hour due to supply and demand dynamics. In WA, the large cause for the fluctuation is arguably due to the State's high installation rates of rooftop solar (PV) at 38%[10], one of the highest in the world.

Despite this, the average solar energy price (including curtailment) over the 12 months to September 2023 was $71MW, an increase of 72%, compared to the price two years ago. Despite this significant price increase, curtailment would have been approximately 5% during 2023 (Energy price + Large Generation Certificate>0).

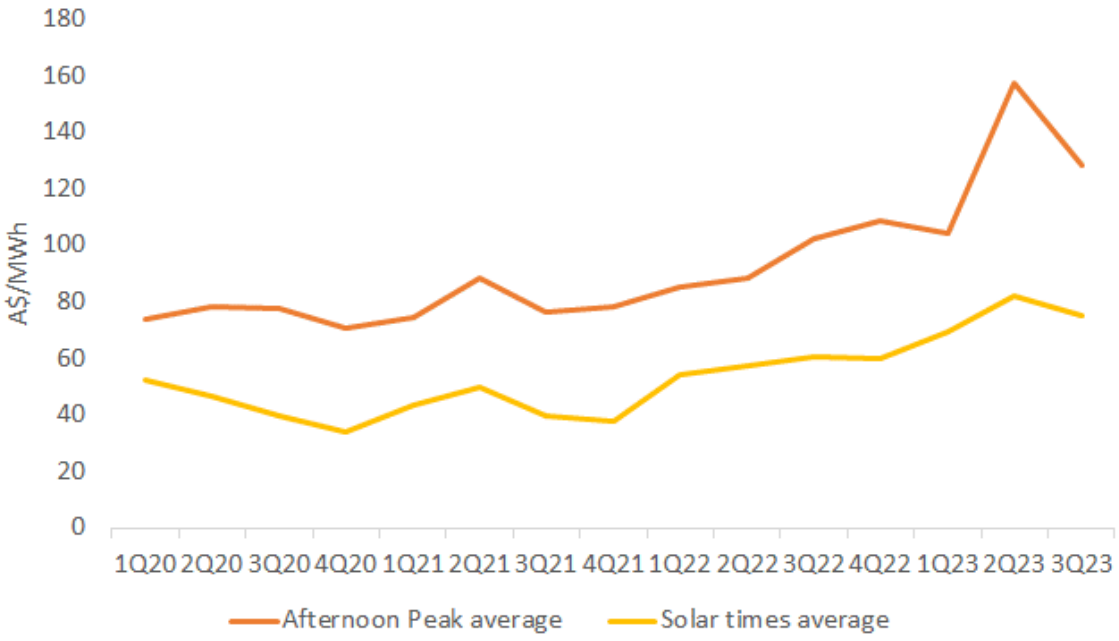

Figure 2: Historical energy price in WA

While solar prices have increased, the price during peak periods between 4pm to 9pm is considerably higher at an average of $124/MWh (TTM), a 61% increase compared to two years ago. The average premium between solar prices and peak prices has ranged between 50% to 90% over the last four quarters however, can be considerably higher on a daily basis.

[10] *https://aemo.com.au/-/media/files/electricity/wem/planning_and_forecasting/esoo/2023/2023-wholesale-electricity-market-electricity-statement-of-opportunities-wem-esoo.pdf?la=en*

The inclusion of a four-hour battery at Waroona allows the Company to store energy during low priced periods, to be sold during higher priced periods. The images below highlight:

- The forecast solar energy generation in a typical summer and winter month;
- The average energy price during those months; and
- How the inclusion of a battery adjusts the period when the Company will sell energy into the market.

A battery will also see a significant reduction in the curtailment period which should ensure increased saleable production, compared to a solar only option.

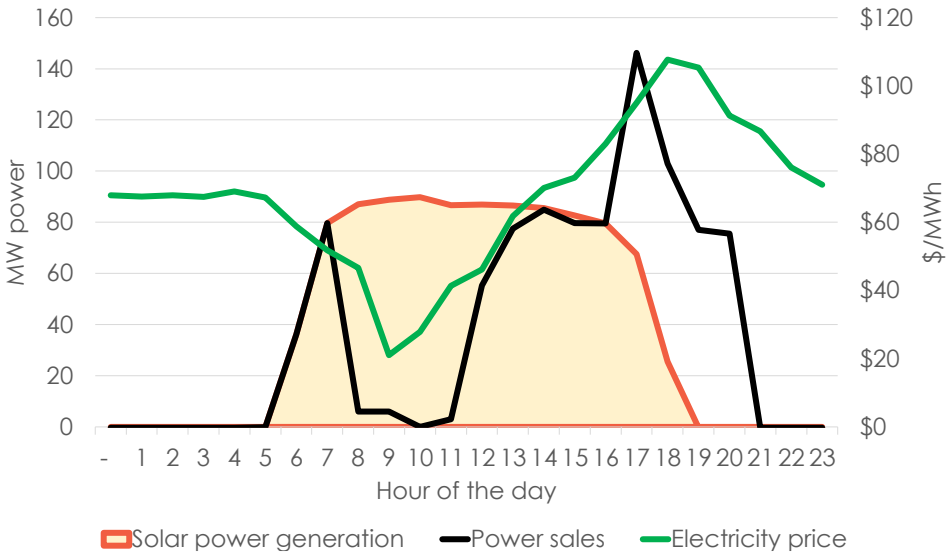

Figure 3: January - Price compared to energy produced and battery

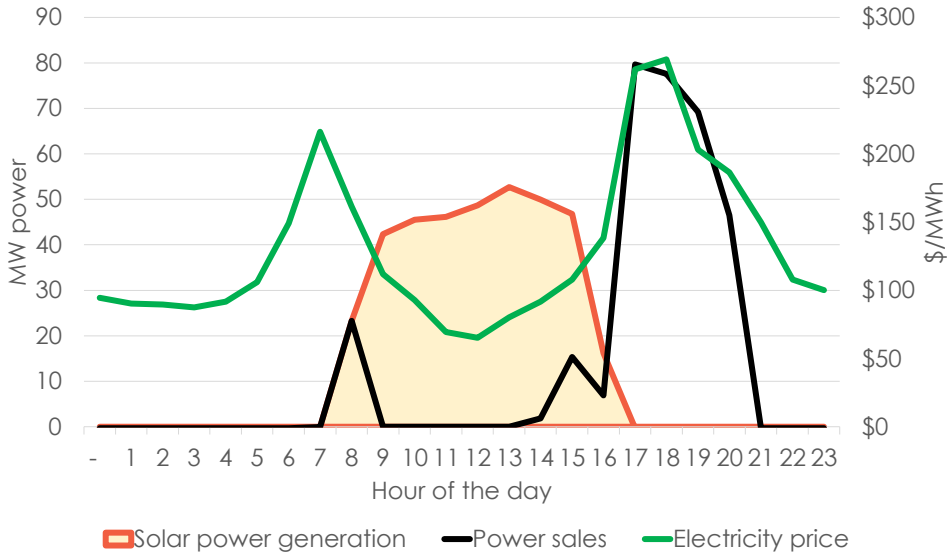

Figure 4: June - Price compared to energy produced and battery

Frontier remains committed to the potential of green hydrogen

Frontier submitted a comprehensive EOI for the Federal Government's $2bn "Hydrogen Headstart" program in November 2023, which was not successful. The Company however remains committed to the green hydrogen industry in the long term and will continue to assess future opportunities. This includes the assessment of a peaking plant that will be powered by green hydrogen.

Frontier has significantly progressed its study of a 120MW hydrogen fuelled dual-fuel peaking power plant ("Study"). Following discussions with suppliers, the final Study will also consider a leasing option, to reduce initial capital cost compared to the owner/build option. The Company will also consider different sized electrolysers as part of this assessment. The Company aims to release the Study in 2Q24.

In addition to this Study, Frontier and the City of Perth have identified and selected a convenient and accessible location for a refuelling station on City of Perth-owned land at Thomas Street, West Perth (2km from Central Perth, near the Mitchell and Kwinana freeway access points). The Company will continue to work through the various approval requirements, technical studies and financing options prior to making a FID.

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

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

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FRONTIER ENERGY LTD

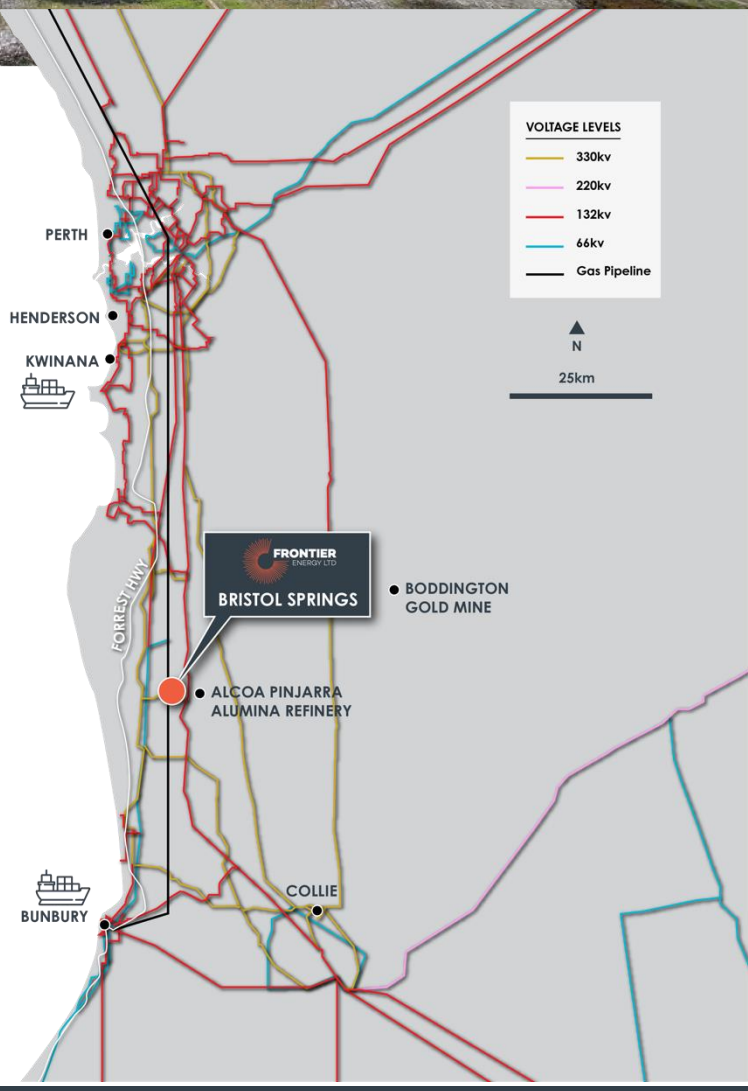
About Frontier Energy

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 owns 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 is rapidly advancing the Stage One development that consists of a 120MW solar farm and 80MW development towards a Final Investment Decision in 2024.

Frontier is fully committed to making it one of WA's major renewable energy hubs, incorporating multiple value-adding 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.