

Waroona Energy Inc. advances its Waroona Solar Energy Project towards a shovel ready position

Frontier Energy Limited (ASX: FHE; OTCQB: FRHYF (Frontier or the Company) is pleased to announce that Waroona Energy Inc. (TSXV: WHE) (Waroona) continues to advance the development of its Solar Project as it prepares for it to be in a "shovel ready" position before the end of 2023, with all major permits, approvals and a connection to the WA electricity network (213MWac DSOC) in place.

A preferred Engineering, Procurement and Construction contractor will be selected and tasked with finalising the design, size and technology for the Project. This will result in a fixed priced capital cost estimate for Project construction.

Frontier is the major shareholder of Waroona with a 20% interest in that company. Further details of this announcement are attached or can be found at Waroona's website https://waroonaenergy.com/

Given the shared boundaries of Waroona's Renewable Energy Project and Frontier's Project, Frontier and Waroona have entered into a Collaboration Agreement (see ASX announcement – 6th October 2022). The key areas of collaboration include:

- Shared discussions with stakeholders
- Shared services and shared IP (through Study works); and
- Long term potential for capital cost savings by sharing infrastructure

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:

Sam Lee Mohan Managing Director +61 8 9200 3428 sam.leemohan@frontierhe.com



About Frontier Energy

Frontier Energy Ltd (ASX: FHE; OTCQB: FRHYF) is developing the Bristol Springs Green Hydrogen Project (the Project) located 120km from Perth in Western Australia. The Company recently completed a Definitive Feasibility Study¹ that outlined the Project's potential to be both an earlier mover and one of the lowest cost green hydrogen assets in Australia.

The Project benefits from its unique location surrounded by major infrastructure. This reduces operating and capital costs compared to more remote hydrogen projects, whilst also being surrounded by likely early adopters into the hydrogen industry in the transition from fossil fuels.

¹ASX Announcement 20th March 2023

Directors and Management

Mr Sam Lee Mohan Managing Director

Mr Grant Davey Executive Chairman

Mr Chris Bath Executive Director

Ms Dixie Marshall Non-Executive Director

Ms Amanda Reid Non-Executive Director

Registered Office

Level 20, 140 St Georges Terrace Perth WA 6000

Share Registry

Automic Registry Services Level 5, 126 Philip Street Sydney NSW 2000

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.



Advancing the Waroona Solar Energy Project towards a shovel ready position

Waroona Energy Inc. (TSXV: WHE) ("Waroona" or the "Company") is pleased to provide an update on the Company's flagship Waroona Solar Energy Project (the "Project") in Western Australia. The Project is significantly advanced with all major permits and approvals in place.

The Company aims to finalise all outstanding aspects for the Project's development in the coming months, including a fixed price capital cost estimate, to put the Project in a "shovel ready" position before the end of 2023.

HIGHLIGHTS

- The Company continues to advance the development of its Solar Project as it prepares for it to be in a "shovel ready" position before the end of 2023
 - All major permits, approvals and a connection to the WA electricity network (213MWac DSOC) are in place
- A preferred EPC contractor will be selected and tasked with finalising the design, size and technology for the Project. This will result in a fixed priced capital cost estimate for Project construction
- Modelling¹ has indicated the average solar price the Project would have received in the past 12 months was approximately A\$66/MWh (38% increase compared to the previous year). This price excludes revenue from Large Generation Certificates (LGC) and from reserve capacity payments
 - LGCs are essentially Australian carbon credits and currently trade at approximately A\$55 each
 - Reserve capacity payments are payments made by the Market Operator (AEMO)_to electricity generators to ensure there is sufficient generation capacity available in the South West Interconnected System ("SWIS"). The benchmark reserve capacity price for 2025/26 onwards is currently A\$193,400 per MW

Adam Kiley, President and CEO, said: While the Company continues to progress the Green Hydrogen Peaking Plant Study, the development of our Solar Project is by far the most critical asset in the Company. Without this, neither the potential for green hydrogen (which requires renewable energy) nor the Peaking Plant (requires hydrogen) are possible.

Importantly, all key permits, approvals and most importantly, a grid connection for the Solar Project are already in place, which have taken years to finalise. The design, size and technology selection for the Solar farm will be finalised over the coming months with a preferred EPC contractor. This will include a final capital cost estimate for the Project's development. This will mean all aspects for the development of the Project will be in place allowing for construction to commence in 2024.

^{1 -} Dynamic modelling (10 years of historical solar data for the region * 12 month historical energy price for WA - Source – AMEO)





Advancing the Solar Project towards a shovel ready position

The Waroona Solar Project is located 120km south of Perth, and 7 km from the town of Waroona in Western Australia. The Solar Project is located on 300 hectares of freehold land, which is flat and predominantly cleared, meaning limited cost barriers for earthworks preparation will be required prior to construction.



Image 1: Northeast boundary of the Project with adjacent Landwehr power terminal

The Project is close to all essential major existing infrastructure (Image 2), most notably the Dampier to Bunbury Natural Gas Pipeline (DBNGP) and the Landwehr Terminal, the major connection point into the Western Australia electricity network (South West interconnected System - SWIS). Both are less than 500m from the Project boundary.

Connection to the WA Electricity Market

The Company holds both an executed Electricity Transfer Access Contract (ETAC) and Interconnection Works Contract (IWC) with Western Power. This means that once constructed, the Project will be connected to the SWIS and electricity can be delivered into the Wholesale Energy Market (WEM).





Image 2: Project location in relation to key infrastructure

All major permits and approvals in place

All major approvals to commence constructing and operating the Project are in place. These include:

- Development Approval in accordance with WA Planning and Development Act 2005;
- Referral of a Proposed Action (Not a controlled action) in accordance with Commonwealth Environmental Protection and Biodiversity Conservation Act 1999 (Commonwealth);
- Native Vegetation Clearing Permit in accordance with WA Environmental Protection Act 1986; and
- No Native Title as the property is freehold land. A desktop heritage assessment was undertaken during the Development Assessment approval process and no known Registered Aboriginal Heritage Sites were identified within the Project area.

Final preparation for a shovel ready project – Early Works

The Company is in the process of finalising an EPC contractor to complete the early works for the Project. This will put the Project in a shovel ready position prior to the end of this year. This work will include:

- Topographic survey;
- Geotechnical investigations (including Soil Thermal Resistivity Tests);
- Dynamic Penetration Test (PANDA);
- Hydrology Study;
- Corrosion Study;
- Pile Load Test;
- Conceptual Engineering; and

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• Draft Construction Program.

At the completion of this work, the EPC contractor would also provide a fixed price contract for the construction of the Project.

Previous studies estimated the Project would generate 241MWdc, utilising all of the current landholding (300 hectares). This however did not allow for the construction of a dual fuel green hydrogen peaking plant (Peaking Plant) nor a green hydrogen production facility (electrolyser). Both will ideally be located on existing landholding, due to its proximity to essential infrastructure. This update in the Project size will be incorporated into the early works program. A layout of the proposed site is highlighted below.



Image 3: Proposed Waroona solar farm, peaking plant and hydrogen facility layout



Electricity Market Update

Pricing Mechanisms and current market prices

The Wholesale Electricity Market (WEM) in Western Australia consists of two key components:

- Wholesale market where market participants interact to supply and purchase electricity. The average electricity price on the WEM has increased significantly during the past 12 months (from an average price of A\$57/MWh to A\$85/MWh², annualised basis).
 - **Solar** Based on market data the average energy price received during the past 12 months for solar generation would have been A\$66/MWh. This is a 38% increase compared to the previous 12 months (A\$48/MWh).
 - Peaking Plant Peak periods (4pm 9pm) the Company aims to dispatch energy during high price periods through its proposed Peaking Plant. During peak periods the average price increased to A\$122/MWh over the past year, a 48% increase compared to the previous 12 months (A\$82/MWh).
- Reserve Capacity Credits³ capacity payments are payments made by the Energy Market Operator to electricity generators to ensure there is sufficient generation capacity in the SWIS. The benchmark reserve capacity price for 2025/26 is currently A\$193,400/MW⁴ and can be secured for five years, which can support prospective debt financing (fixed price and term). As solar energy is intermittent, it is probable a discount factor of around 25% would be applied to this amount. However, with availability of a peaking plant, no discount factor would be applied.

In addition, renewable energy producers in Australia with accredited power plants may create LGCs. This is effectively a government backed carbon credit. One LGC can be created per MWh of eligible electricity generated by a power station. The price of an LGC is currently around A\$55 per unit and ranged between A\$40 and A\$68 over the past 12 months.

Figure 4 below compares the most recent quarter's electricity prices to previous June quarters (to remove seasonality effects), as well as the March 2023 quarter (to demonstrate the most recent trend).

² http://data.wa.aemo.com.au/#balancing-summary

³ https://www.erawa.com.au/cproot/23061/2/Notice---Benchmark-Reserve-Capacity-Price-2025-26---Publication-of-Final-determination.pdf

⁴ https://www.erawa.com.au/cproot/23058/2/-BRCP.2023---2023-benchmark-reserve-cap_e-for-the-2025-26-capacity-year---Final-Determination---for-publication-clean-.PDF





Image 4: Average quarterly wholesale power price (\$/MWh), in each half hour interval⁵

As shown, the June 2023 quarter significantly outperformed all other quarters by some margin. This was not only driven by both peak time pricing, which reached \$150/MWh during the morning peak and above \$200/MWh during the afternoon peak - both unprecedented levels; but also a major increase in pricing in off-peak times, as prices did not dip below \$60/MWh in any single half hour interval during the quarter, again unprecedented.

ON BEHALF OF THE BOARD

For further information, contact:

Adam Kiley President & CEO +61 8 9200 3428 (Australia) contact@waroonaenergy.com Tony Wonnacott Chairman +1 416.953.5879 (North America) <u>contact@waroonaenergy.com</u>

Website: www.waroonaenergy.com



Cautionary Note Regarding Forward-Looking Statements

Certain statements contained in this news release constitute forward-looking statements within the

Certain statements contained in this news release constitute forward-looking statements within the meaning of Canadian securities legislation. All statements included herein, other than statements of historical fact, are forward-looking statements and include, without limitation, statements about the Company's development plans for the Project and the studies on a potential Green Hydrogen Peaking Plant. Often, but not always, these forward looking statements can be identified by the use of words such as "estimate", "estimates", "estimated", "potential", "open", "future", "assumed", "projected", "used", "detailed", "has been", "gain", "upgraded", "offset", "limited", "contained", "reflecting", "containing", "remaining", "to be", "periodically", or statements that events, "could" or "should" occur or be achieved and similar expressions, including negative variations.

Forward-looking statements involve known and unknown risks, uncertainties and other factors which may cause the actual results, performance or achievements of the Company to be materially different from any results, performance or achievements expressed or implied by forward-looking statements. Such uncertainties and factors include, among others, the uncertainties inherent in the estimated economics of the Project, and whether the Company will arrange any offtake related financing; whether exploration and development of the Company's properties will proceed as planned; changes in general economic conditions and financial markets; the Company or any joint venture partner not having the financial ability to meet its exploration and development goals; risks associated with the results of exploration and development activities, estimation of mineral resources and the geology, grade and continuity of mineral deposits; unanticipated costs and expenses; risks associated with COVID-19 including adverse impacts on the world economy, exploration and development efforts and the availability of personnel; and such other risks detailed from time to time in the Company's quarterly and annual filings with securities regulators and available under the Company's profile on SEDAR at www.sedar.com. Although the Company has attempted to identify important factors that could cause actual actions, events or results to differ materially from those described in forward-looking statements, there may be other factors that cause actions, events or results to differ from those anticipated, estimated or intended.

Forward-looking statements contained herein are based on the assumptions, beliefs, expectations and opinions of management, including but not limited to: the accuracy of the estimated economics of the Project; that the Company will arrange offtake related financing; that the Company's stated goals and planned exploration and development activities will be achieved; that there will be no material adverse change affecting the Company or its properties; and such other assumptions as set out herein. Forward-looking statements are made as of the date hereof and the Company disclaims any obligation to update any forward-looking statements, whether as a result of new information, future events or results or otherwise, except as required by law. There can be no assurance that forward-looking statements and future events could differ materially from those anticipated in such statements. Accordingly, investors should not place undue reliance on forward-looking statements.