



ASX / MEDIA ANNOUNCEMENT

30 APRIL 2021

ACTIVITIES REPORT FOR THE MARCH 2021 QUARTER

Global Energy Ventures Ltd (ASX: **GEV**, the **Company**), a leading developer of global integrated shipping projects for compressed natural gas (CNG) and compressed hydrogen (C-H₂), is pleased to provide the following update on the Company's development activities for the quarter ended 31 March 2021.

COMPRESSED HYDROGEN (C-H₂)

- Approval in Principle received for the C-H₂ Ship's compressed hydrogen containment system from the American Bureau of Shipping (ABS).
- Successful completion of a C-H₂ Scoping Study to establish a competitive and emission free hydrogen export supply chain.
- MOU with Ballard Power to develop fuel cell powered C-H₂ ship.
- MOU with Pacific Hydro to explore the export of green hydrogen from the Ord Hydrogen Project, located in WA, using a C-H₂ supply chain.
- Commenced discussions with global parties for a review of the suitability of C-H₂ on hydrogen export projects under development in the regions of Australia and Europe.
- Commenced site identification and screening in the NW of Australia for GEV to develop its own pilot scale renewable hydrogen production project, integrated with a C-H₂ export shipping solution.

CNG OPTIMUM (CNG)

Brazil CNG

- GEV submitted its response to a Request for Information (RFI) for a marine CNG solution from a second operator of multiple offshore oil and gas projects. Favourable response on economic and construction schedule for CNG was received. Further scenarios were requested by the operator, to which GEV will respond in the June quarter.
- The Commercialisation Plan dated April 2020 for the first operator received general acceptance of the technical, construction schedule and commercial feasibility for GEV's marine CNG commercialisation plans. However, a decision by the operator to progress with CNG is not expected in 2021.

US CNG Export

- Overall, an improvement in sentiment resulting from stable energy prices and outlook post-pandemic has provided a catalyst for our counterparties to re-engage and start moving forward on our proposals.
- Preferred gas supplier chosen subject to finalisation of key terms, which will be progressed in the June quarter.
- The Key Terms Agreement with Kinetica for pipeline capacity to GEV's preferred CNG export terminal site has been extended to 30 September 2021.
- Discussions aimed at securing gas markets in the Yucatan and Central American regions are continuing.

Other Regions

- For regions outside of Brazil and US, GEV continues to receive requests for marine CNG analysis, for which GEV has provided proposals that are now being considered.
- GEV executed an extension of its Heads of Agreement with the Indian Oil Corporation Limited through to 13 September 2022.

Maurice Brand, Executive Chairman and CEO commented: *"The March 2021 quarter has been very productive for the Company in building the foundations for the marine transport of Hydrogen. GEV expects that momentum will materially increase during the next two quarters and we will keep shareholders updated with each material step. Importantly for the Company's CNG Optimum plans, overall sentiment has markedly improved, and counterparties have been addressing their requirements post-pandemic, which continue to be focussed on gas as a transition fuel to a greener future energy mix."*

GEV is uniquely placed to participate in both segments of the energy mix with its CNG Optimum and C-H₂ ships with the company fully funded for its development program into 2022."

COMPRESSED HYDROGEN SHIP (C-H2) & SUPPLY CHAIN

In early January, GEV and Pacific Hydro Australia Developments Pty Ltd (Pacific Hydro) executed a Memorandum of Understanding (MOU) to explore opportunities regarding the production, storage, loading, ground and marine transportation of green hydrogen produced by Pacific Hydro's Ord Hydrogen Project.

Pacific Hydro operate the Ord Hydro Plant, located at Lake Argyle, Western Australia, which has the capacity to supply 30MW of renewable power. Pacific Hydro has completed a feasibility study utilising electricity generated by the Ord Hydro Plant to produce green hydrogen via the process of electrolysis, and market offtake to domestic and future export markets.

The location provides a unique opportunity for hydrogen production, utilising low cost, high availability, dispatchable renewable generation and abundant access to water. The Ord Hydrogen Project has received funding support from the Western Australia Renewable Hydrogen Fund, and ideally is located near two ports in northern Australia with export potential for green hydrogen to Asian markets.

GEV is now working with Pacific Hydro on an agreed business plan and the timing for commencement of a Feasibility for the loading, ground and marine transportation for export of green hydrogen, employing GEV's C-H2 supply chain.

For more details, refer to the company's ASX release on 19 January 2021.

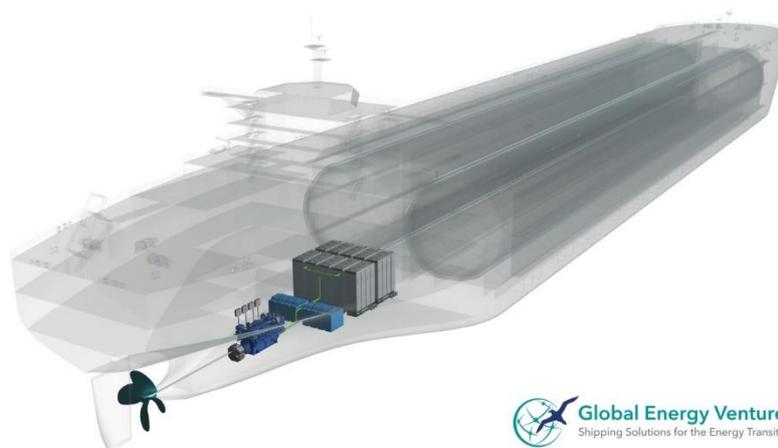
In early February, GEV and Ballard Power Systems Inc. (Ballard) executed a Memorandum of Understanding (MOU) to design and develop a hydrogen fuel cell system for GEV's C-H2 Ship.

GEV and Ballard will work to power the C-H2 Ship using Compressed Hydrogen from its storage tanks, providing a zero-emission marine transport supply chain. Ballard will be responsible for the design of the fuel cell system (FC System), utilising its FC Wave™ Technology and to assist GEV with the integration of the FC System into the design of the C-H2 Ship.

Both parties will work collaboratively to complete a final design and procure all necessary approvals, and full costing for the C-H2 Ship, utilising a Ballard FC System.

The MOU delivered positive impact to the profile of GEV given the global recognition of Ballard in the hydrogen value chain and leading provider of fuel cell systems for many downstream mobility solutions. Listed on the TSX and NASDAQ with a market cap of USD 6 billion, Ballard is headquartered in Toronto, and is a global leader in the development of clean energy products that includes fuel cell systems.

Figure 1: GEV's C-H2 Ship fuelled by Hydrogen Fuel Cells (Illustrative example)



For more details, refer to the company's ASX release on 4 February 2021.

In early March, GEV successfully completed a Scoping Study that confirms it can deliver a competitive an emission free compressed hydrogen (C-H2) supply chain.

The Scoping Study evaluated exporting green hydrogen volumes of 50,000; 200,000; and 400,000 tonnes per annum, to market distances of 2,000; 4,000; and 6,000 nautical miles, via C-H2, LH2 and NH3 supply chains. To put the studied export volumes in context, it would require very large-scale renewable energy generation such as those in the world’s top 10 hydrogen projects.

The work provided an extensive and detailed scoping study on the C-H2 supply chain, with the key conclusions highlighting:

- 1. C-H2 supply chain is very competitive for a distance of 2,000 nautical miles** (3,700 kms, NW Australia to Singapore) against Liquefaction (LH2) and Ammonia (NH3) and **remains competitive to 4,500 nautical miles** (8,300 kms, Australia to Japan, South Korea and China). Refer Figure 3.
- 2. C-H2 provides a simple, efficient, zero emission supply chain** for marine transport of 100% green hydrogen, considered to be the holy grail for a net-zero future.
- 3. C-H2 has minimal technical barriers for commercialisation** to meet hydrogen demand and export market timelines.
- 4. C-H2 was seen as the ideal solution to “load follow” a variable renewable generation** profile for the production of green hydrogen, whereas LH2 and NH3 could not.
- 5. C-H2 can be the solution of choice for those customers and markets that require pure hydrogen gas.**

Figure 3 illustrates the Levelised Cost of Hydrogen for transporting a volume of 200,000 tpa over a distance of 2,000 and 4,000 nautical miles.

The development of a C-H2 supply chain benefits from being a simple and energy efficient process along with having minimal technical barriers for commercialisation in the next five years. In summary, the simplicity of the process as illustrated in Figure 2.

Figure 2: C-H2 Supply Chain Developed by GEV



Source: GEV

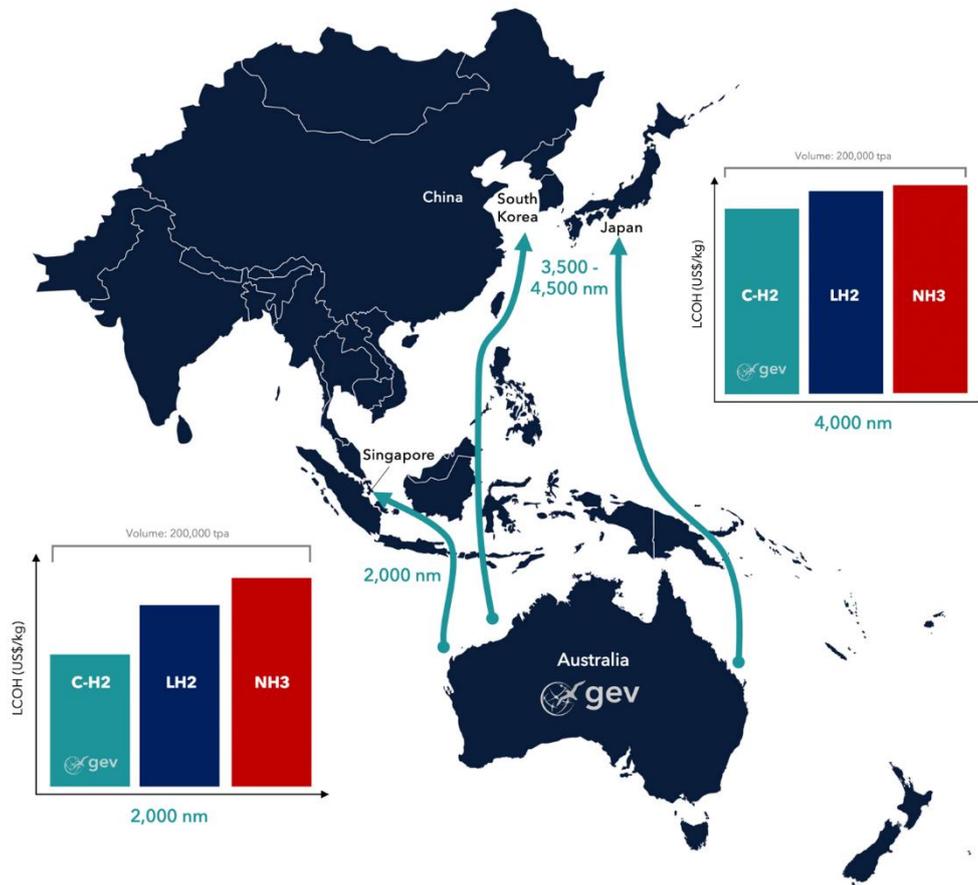
It is expected regional markets with high demand for hydrogen, including Europe, South Korea, Japan, and Singapore, will experience significant infrastructure, natural resource and development constraints to produce a sufficient security of supply of green hydrogen. Therefore, key supplier hubs such as Australia will meet this demand more effectively by supplying large volumes of green hydrogen rather than it being producing locally.

The conclusions of the Scoping Study confirm that the C-H2 supply chain is very competitive as a marine transport solution for green hydrogen to markets at 2,000 nautical miles and remains competitive at 4,500 nautical miles. GEV’s focus will be on those export project locations from the mid-west of Western Australia (Geraldton), up to Northern Territory, and across to Queensland (Gladstone).

The illustrative map in Figure 3 outlines the possible locations for export of green hydrogen along with the key markets available within a 2,000 nautical mile and 4,500 nautical mile range.

The market for shipping hydrogen globally will be developed over the next decade and could match the scale of LNG with over 600 vessels now in operation.

Figure 3: Levelised Cost of Hydrogen (LCOH) and illustrative example of hydrogen customers within 2,000 to 4,500 nautical mile range of Australia



Source: GEV

The C-H2 supply chain is considered to have a lower technical risk, with final ship design and classification approvals being key.

- > The C-H2 supply chain consists of compressors, pipework, loading infrastructure and C-H2 Ship Fleet.
- > Hydrogen compressors (designed for pressure as high as 700 bar) have been in operation for decades with the associated piping and loading equipment having already been developed for various onshore applications.
- > The only material barrier is for GEV to achieve American Bureau of Shipping (ABS) C-H2 Ship approvals, with Approval in Principle expected in the 1H 2021.

For more details on the C-H2 Scoping Study and the assumptions, refer to the company's ASX release on 1 March 2021.

In mid-March, Approval in Principle was received in March for the C-H2 Ship's compressed hydrogen containment systems from American Bureau of Shipping (ABS), based on a cargo capacity of 2,000 tonnes of hydrogen.

The engineering review undertaken by ABS confirmed that the C-H2 Ship can meet the high standards of safety required by shipping classification societies. This included extensive HAZID scenarios were also assessed with ABS concluding "That there were no unresolvable or unmitigable risks identified during the HAZID that would prevent further successful development of the compressed hydrogen ship design".

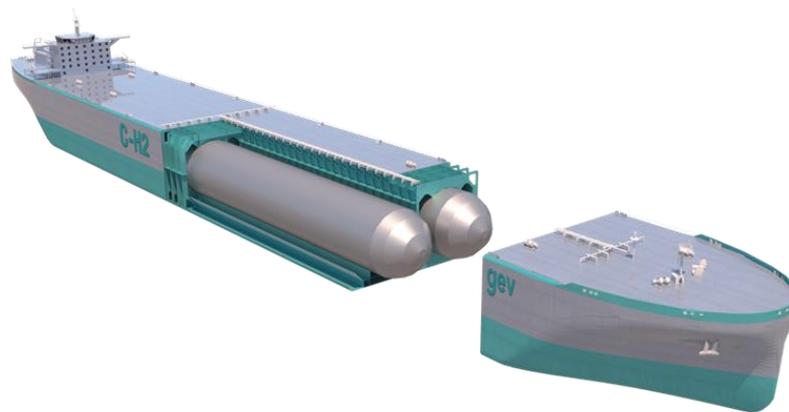
The receipt of AIP and accompanying road map to Full Class Approval has materially de-risked the path forward technically and commercially. The program was delivered within budget and ahead of schedule.

GEV will now progress with confidence through to final detailed engineering design and testing to obtain Full Class Approval for the construction of the C-H2 Ship. A program is being developed with a target completion of this milestone for the end of 2022.

The focus of the program will also involve the development of a 430-tonne capacity ship to progress a number of identified pilot scale hydrogen shipping projects. The design basis of the 430-tonne ship is a scaled version of the 2,000-tonne capacity ship, with similar dimensions to the CNG Optimum ship.

For more details on the AIP approval, refer to the company's ASX release on 19 March 2021.

Figure 4: Illustrative ship design - C-H2 Ship containment system



Source: GEV

GEV is now assessing renewable green hydrogen projects for the application of the C-H2 supply chain as a preferred or alternative for the transport of hydrogen. Project locations for export of hydrogen under consideration are in Europe and Australia, with various discussion now underway.

GEV IS EVALUATING OPPORTUNITIES TO ESTABLISH A C-H2 SUPPLY CHAIN FOR HYDROGEN EXPORT IN AUSTRALIA

1. Focus Area: Mid-Northern Australia
2. Discussion with Partners with existing projects to review C-H2 (Pilot or Commercial Scale).
3. Identification of GEV's own renewable hydrogen production site in Australia for a fully integrated supply chain (Phase 1: Pilot scale of 10,000 - 20,000 tpa).
4. Evaluation with various strategic technical partners for their offerings across the full value chain.



The Company is very encouraged with the number of opportunities already under review or in a screening phase, with a number of inbound enquiries now being received.

GEV will continue to keep shareholders informed as each of these commercial activities progress to a stage available for public announcement.

CNG OPTIMUM - BRAZIL PRE SALT

As previously reported to shareholders, GEV has been working with two operators of offshore assets in the Pre-salt Brazil seeking an alternative to re-injection or new pipelines. Under confidentiality, neither party can be named.

The Company has continued to engage with the first operator of the completed Commercialisation Plan in April 2020, with general acceptance of the technical and commercial feasibility of GEV's marine CNG proposal. The Company has been advised a decision by the operator to further progress with CNG is not expected in 2021.

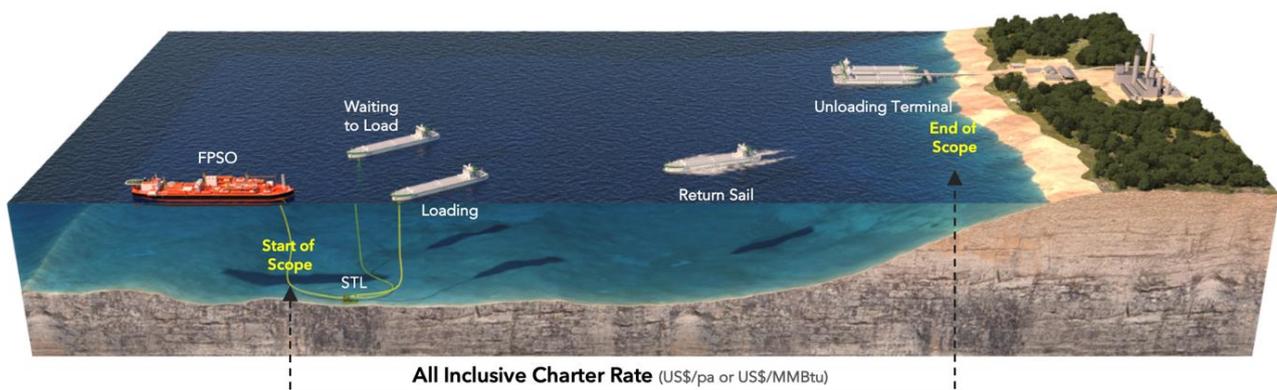
During the quarter, the Company submitted its technical and economic report in response to a Request for Information (RFI) from a second operator in the offshore Brazil region. The report was based on the information supplied to GEV for the evaluation of multiple marine CNG cases. The scale of the opportunity remains significant, with the possible requirement for a large fleet of CNG ships, over a period of up to 20 years.

The report leveraged from the Commercialisation Plan GEV undertook in early 2020 for the first Pre-salt Brazil operator, which involved extensive in-house and third-party engineering to establish the technical viability of continuous gas export utilising a dual STL system, fleet of CNG Optimum ships and dedicated CNG unloading terminal.

Following a review period by the second operator, a favourable response on economic and construction schedule for CNG was received. This has led to further scenarios for CNG requested by the operator, to which GEV will respond in the June quarter.

For more details, refer to the company's ASX release on 11 December 2020.

Figure 5: CNG Brazil Scope of Work



CNG OPTIMUM - US EXPORT PROJECT

An improvement in sentiment resulting from stable energy prices and outlook post-pandemic has provided a catalyst for our counterparties to start moving forward in 2021. During the March quarter, the focus for the proposed US CNG Export Project has continued to be on gas supply, pipeline capacity to GEV's preferred CNG export site, and securing gas markets.

In regard to gas supply, GEV has now selected its preferred supplier and has been advised to expect the finalisation of all key terms in the June quarter. The selection of a partner for gas supply will support GEV's ongoing discussions for gas markets.

The Key Terms Agreement with Kinetica was extended to 30 September 2021. This will provide sufficient time for the parties to complete and execute a Precedent Agreement for pipeline capacity from Port Sulphur to GEV's preferred offshore export site, via Kinetica's existing pipeline network.

GEV continues to be in discussions aimed at securing gas markets in the Yucatan and Central American region. Progress is expected in the June quarter to qualify new bankable parties with demand for gas and progress key terms.

CNG- OTHER REGIONS

For regions outside of Brazil and US, GEV continues to receive requests for marine CNG analysis on proven resources which may now be considered stranded for LNG or pipelines, for which GEV has provided proposals that are now being considered.

GEV executed an extension of the Heads of Agreement with the Indian Oil Company through to 13 September 2022.

CORPORATE

Cash on 31 March 2021 was \$7.2 million (vs \$2.1 million 31 December 2020). Refer to the separately announced Appendix 4C for further details. Cash expenditure during the quarter was in line with guidance with total operational cash outflows of \$949,000, including project costs of \$291,000 for the C-H2 development program. The cash position provides the Company with sufficient runway for development and corporate activity into 2022.

The aggregate amount of payments to related parties and their associates included in item 6.1. In the Company's ASX Appendix 4C for the quarter ended 31 March 2021 of \$309,000 comprises fees, salaries and superannuation paid to directors.

During the quarter, the Company made a variation to the terms of the Employment Agreement between GEV and Martin Carolan (Executive Director), dated 30 March 2021, as follows: a base salary reinstated to \$250,000 per annum. The change returns the base salary to that previously paid up to June 2020 after a period of cash management initiatives put into place from 1 July 2020. Various staff and management who took voluntary salary reductions during the period July 2020 to March 2021 to preserve cash during the uncertainty of COVID-19 have resumed to their agreed salaries.

On 28 January 2021, the Company announced changes to the Board's Non-Executive Directors with the appointment of Andrew Pickering to the Board as of 1 February 2021, following the resignations of both Thomas Soderberg and Paul Garner as of 31 January 2021.

On 17 February 2021, the Company announced the completion of a \$6.3 million capital raising by way of a private placement, with 63 million shares were issued at \$0.10 per share. The placement introduced several new high net worth and institutional shareholders to the register. The total Ordinary Shares on issue (GEV.ASX) is now 450 million. The placement was managed by PAC Partners and KG Capital.

The Company has been active in its Investor Relations program in the quarter, presenting to several webinars that cover hydrogen industry events and retail investor events. You can view a selection of recordings for these at our shareholder investor site www.gev.com/company-presentations.

- END -

This ASX announcement has been authorised by the Board of GEV.

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ABOUT GLOBAL ENERGY VENTURES LTD

Global Energy Ventures Ltd was founded in late 2016, with the Company's mission to create shareholder value through the delivery of integrated compressed shipping solutions transporting energy to regional markets. The business model is to build, own and operate integrated energy transport projects for either natural gas or hydrogen.

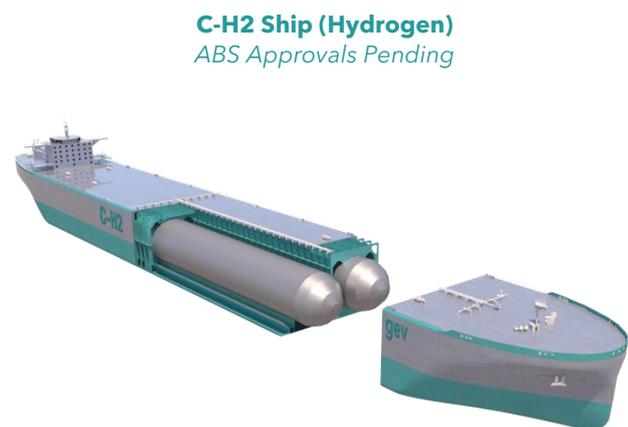
The primary focus is the development of integrated Compressed Natural Gas (CNG) marine transport solutions with the Company's construction ready **CNG Optimum ship**. CNG is a well proven gas transport solution with design and commercial advantages along with being safe and a 'lower emission' solution for the transport of gas than in the form of liquefied natural gas (LNG).

With the world's focus on Energy Transition to zero-carbon fuels, the Company has also introduced the world's first large-scale **Compressed H2 Ship (C-H2 Ship)** design that will support the transport of hydrogen as a green energy fuel of the future. Hydrogen's role in the future energy mix will greatly assist governments and corporations with their respective 'net-zero carbon' targets through the decarbonisation of heavy emitting industries.

Value creation for shareholders will be achieved by:

- Continue to maintain global leadership in marine pressure vessel designs and intellectual property.
- Pursue a portfolio of CNG Optimum projects to improve and mitigate against binary outcomes and offer CNG project stakeholders' flexible commercial arrangements.
- Advance the future transport of green energy through the development of the C-H2 Ship.
- Employ world class management and staff that are leaders in their chosen discipline.
- Maintain the highest standards of efficiency, safety and environmental responsibility.

For more details on the Company please visit www.gev.com



Disclaimer: This announcement may contain forward looking statements concerning projected costs, approval timelines, construction timelines, earnings, revenue, growth, outlook or other matters ("Projections"). You should not place undue reliance on any Projections, which are based only on current expectations and the information available to GEV. The expectations reflected in such Projections are currently considered by GEV to be reasonable, but they may be affected by a range of variables that could cause actual results or trends to differ materially, including but not limited to: price and currency fluctuations, the ability to obtain reliable gas supply, gas reserve estimates, the ability to locate markets for CNG, fluctuations in gas and CNG prices, project site latent conditions, approvals and cost estimates, development progress, operating results, legislative, fiscal and regulatory developments, and economic and financial markets conditions, including availability of financing. GEV undertakes no obligation to update any Projections for events or circumstances that occur subsequent to the date of this announcement or to keep current any of the information provided, except to the extent required by law. You should consult your own advisors as to legal, tax, financial and related matters and conduct your own investigations, enquiries and analysis concerning any transaction or investment or other decision in relation to GEV.

\$ refers to Australian Dollars unless otherwise indicated.