



Global Energy Ventures Ltd (ASX: **GEV**, the **Company**) is pleased to provide the following update on the Company's development activities for the quarter ended 31 December 2021.

HIGHLIGHTS

HYENERGY EXPORT PROJECT

- Commenced the HyEnergy Hydrogen Export Study to demonstrate compressed hydrogen is a preferred export carrier to the HyEnergy Project partners. Key consultants have been engaged and underway for completion of the feasibility study in the June 2022 quarter.
- Executed the financial contract and delivered the first milestone as part of the \$300,000 grant fund provided by the WA Government's Renewable Hydrogen Fund. Milestone payment #1 was received in January 2022.

TIWI GREEN HYDROGEN EXPORT PROJECT

- Announced the development of a 2.8 GW green hydrogen export project on the Tiwi Islands, Northern Territory.
- GEV strategically transitioned from a midstream shipping company into a fully integrated green hydrogen producer and exporter of renewable energy to regional Asian markets.

SHIP ENGINEERING AND APPROVALS

- American Bureau of Shipping (ABS) issued its Approval in Principle (AIP) for GEV's pilot compressed hydrogen ship with a 430-tonne cargo capacity.
- Launch of the 2022 compressed hydrogen ship development program, with Capilano Maritime and Wärtsilä awarded the Contract Design Package due for completion scheduled mid-2022.

CORPORATE

- Board changes with the appointment of global shipping executive David Palmer as Non-Executive Director. Upon retirement of Maurice Brand as Chairman at the November AGM, current Non-Executive Director Andrew Pickering was announced as Chairman.
- Completion of a \$10.5M capital raising by way of a placement and SPP. Cash balance at quarter end was \$14.6M.

Martin Carolan, Managing Director and CEO commented: *"The December quarter delivered a transformational shift in the Company's strategy to become an innovative and fully integrated developer of green hydrogen projects, with the launch of the 2.8 GW Tiwi Hydrogen Export Project. Moving into the upstream production of green hydrogen can accelerate the demonstration of compressed hydrogen's simplicity and efficiency for the bulk scale marine transport of hydrogen from Australia. It has also positioned GEV to benefit from a first-mover advantage in the delivery of a pure, gaseous, green hydrogen within the Asia-Pacific."*

The Company continues to receive strong interest from project developers and end customers to understand our IP and business model. 2021 was a foundation building year for our business model and technical design and we expect to deliver measurable commercial outcomes for shareholders in the year ahead."

TIWI GREEN HYDROGEN EXPORT PROJECT

GEV acknowledges that its proposed Tiwi Islands Green Hydrogen Export Project is located on the traditional lands of the Munupi people. It is a privilege to have the support and such a close working relationship with the Tiwi Land Council and Munupi Landowners.

During October, GEV announced the development of a green hydrogen export project located on the Tiwi Islands, Northern Territory, with a phased solar generation capacity up to 2.8 GW (the **Tiwi Hydrogen Project**), producing up to 100,000 tonnes per annum of green hydrogen for export into the Asia-Pacific region.

The Tiwi Hydrogen Project will transition GEV into a fully integrated green hydrogen production and export company, with the Tiwi Hydrogen Project to advance the development of a fleet of GEV's 430t compressed hydrogen ships.

Selection of the Tiwi Islands location provides a brownfield site that can reduce development time and cost, as well as access to one of the closest available export locations to the future demand markets in the Asia-Pacific region from Australia.

Figure 1: Tiwi Hydrogen Project strategic location and proximity to Asia Pacific includes Singapore, Korea & Japan



Northern Territory Government Minister for Renewables and Energy, Hon Eva Lawler commented:

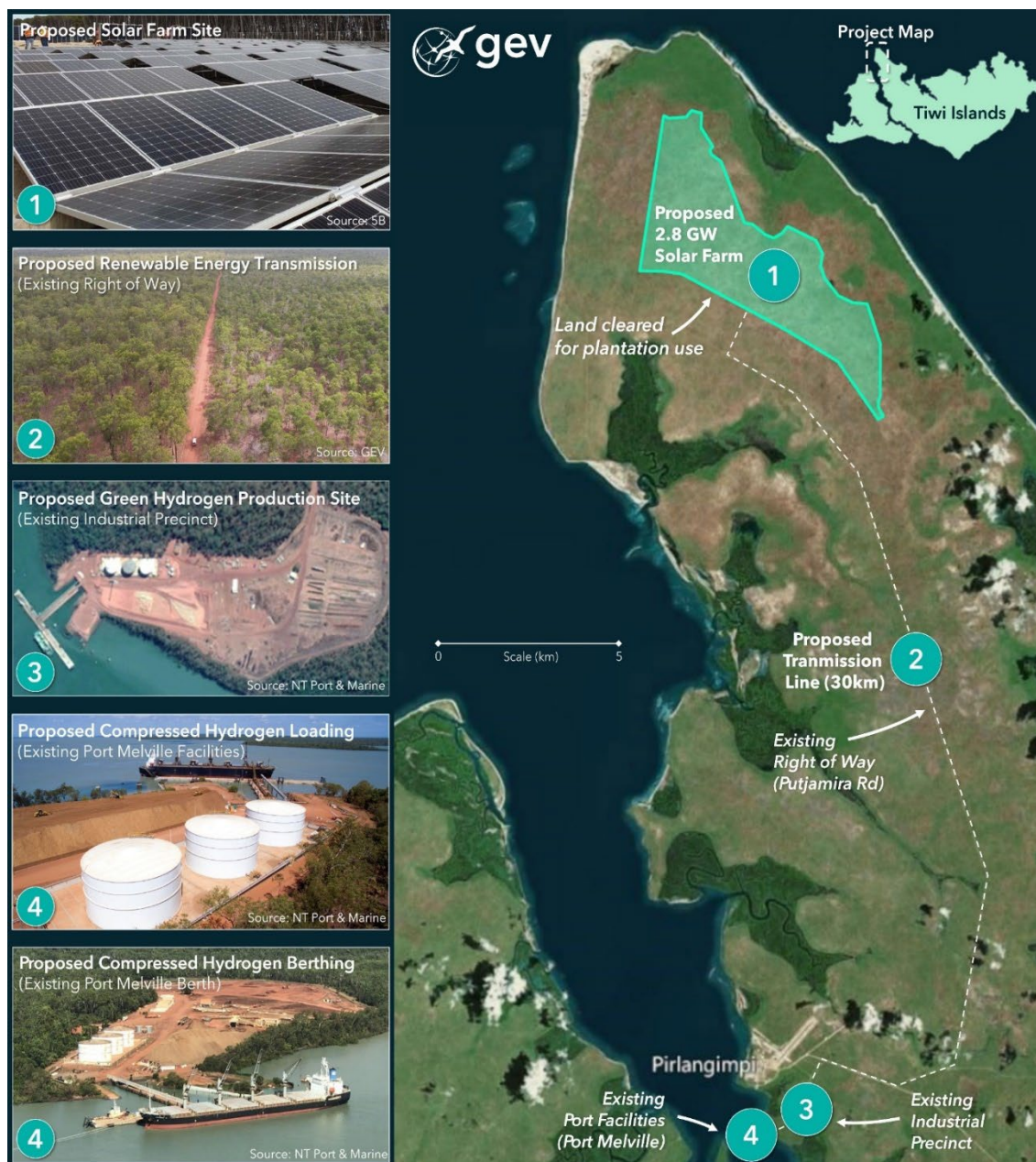
"I welcome GEV's announcement that it has selected the Tiwi Islands for its renewable hydrogen project and that it is working closely with the Tiwi Land Council and the Traditional Owners of the land. With our world-class solar resources and our proximity to key export markets, the Northern Territory is an ideal place to generate renewable hydrogen to meet the future demand within our region. We look forward to supporting GEV through our investment facilitation team to progress the project through to operation."

The integration of GEV's innovative compressed hydrogen shipping solution enables a phased development and construction timeframe, thereby benefiting from the continued decline of the capital and operating costs for solar generation, electrolyzers and shipping. Refer to Figure 2.

Development milestones of the Tiwi Hydrogen Project will run in parallel to GEV's ship engineering and class approval program, with a financial investment decision targeted for 2023 for the initial phase being 0.5 GW, allowing first hydrogen export to commence in 2026, subject to all commercial and regulatory approvals and customer offtake.

During the quarter, the Company commenced the development of a work program that will see initial focus on the preparation of the Environmental Referral for submission in the June quarter 2022, with full environmental approvals targeted for 2023.

Figure 2: Overview of the Tiwi Hydrogen Project



GEV will pursue a low environmental footprint for the Tiwi Hydrogen Project, with the proposed solar site planned to be constructed on existing plantation land, and the hydrogen production, compression and loading facilities proposed to be built at an existing industrial precinct and port area. For the Referral submission to reflect this view, consultants have now been engaged to undertake engineering studies for the key components, being the transmission line route and water desalination. Refer to Figure 1 for an overview of the proposed project layout.

The Tiwi Hydrogen Project has the support of key stakeholders and is working closely with the Tiwi Land Council, Munupi Landowners and the Tiwi Plantation Corporation for land access requirements to support the project, including the solar site and transmission corridor. The Northern Territory Government has appointed a Case Manager to the Tiwi Hydrogen Project to support GEV's interface and requirements with relevant government agencies.

GEV has commenced discussions with suitable groups to support the detailed engineering of the solar generation and electrolysis for the production of green hydrogen. Appointments will be made during the March and June

quarters 2022 to commence detailed engineering, including experienced renewable project resources and prospective project partners, to support the target of financial close (of the initial phase) by mid-2023.

Management also commenced preliminary marketing activities of green hydrogen from the Tiwi Hydrogen Project which will increase in the March quarter, with a number of strategies to identify potential offtake partners in the markets of Singapore, Japan, Korea and Indonesia. The target date for hydrogen export in 2026 provides many customers with an option for early delivery of a gaseous green hydrogen to meet decarbonisation goals going into 2030.

For more details on the launch of the Tiwi Hydrogen Export Project refer to the company's [ASX release on 27 October 2021](#).

HYENERGY EXPORT PROJECT, GASCOYNE, WESTERN AUSTRALIA

GEV has entered into a non-binding Memorandum of Understanding with Province Resources (ASX:PRL, Province) and Total Eren (together the HyEnergy Project partners) to support a technical and commercial feasibility study on exporting green hydrogen from the HyEnergy Project, located in the Gascoyne region, Western Australia, to nominated markets in the Asia-Pacific region. Refer to Figure 2 for an illustration of the project scope.

During the December quarter, WSP, in its role as project lead for the overarching technical and commercial assessment, completed the project design phase (project plan, controls and delivery schedule) and has since commenced the facilities integration engineering workstreams. There are four workstreams in total, with completion scheduled for the June quarter 2022.

The HyExport Export study team consists of consultant specialists: WSP, ERM, Oropesa and Turner & Townsend.



GEV has made the additional appointment of Turner & Townsend to evaluate labour workforces and job creation, being both a key strategic driver for the WA Government and a critical element for the long-lead planning of a mega scale project.

The feasibility funding contract with the WA Government, via the WA Renewable Hydrogen Fund (Round 2), for \$300,000 was executed with the Department of JSTI during the quarter, with GEV submitting its first milestone in December. Payment was received in early in January 2022.

For more details on this grant, refer to the company's [ASX release on 8 September 2021](#)

For more details on the MOU with HyEnergy Project refer to the company's [ASX release on 9 August 2021](#).

HYDROGEN BUSINESS DEVELOPMENT

Management continues to screen further opportunities for the development of a Compressed Hydrogen supply chain in the regions of Asia, Europe and North America. The level of interest in GEV's proprietary shipping solution and its approach to hydrogen export supply chain using compression, has continued to increase quarter-on-quarter since March 2020. Multiple interactions with end-users of hydrogen seeking to secure non-fossil energy supply to achieve decarbonisation reduction goals by 2030, continue to mature.

Discussions with market participants has highlighted GEV's market opportunity is global in scale and the leading industry applications of green hydrogen include:

- Utilities for generation via fuel cells or hybrid fuelled turbines;
- Steel mills for new direct reduced iron plants (DRI);
- Data centre operators for new facilities being planned for the continued growth in cloud services; and
- Grid pipeline blending.

The Company will continue to update shareholders as each opportunity moves to an agreement required for public disclosure.

SHIP ENGINEERING AND CLASS APPROVALS

During the quarter, the American Bureau of Shipping (ABS) issued its Approval in Principle (AIP) for GEV's compressed hydrogen ship with a 430-tonne cargo capacity. Successful AIP demonstrates GEV's high standards of design and adherence to international standards and certification rules for bulk gas carriers. **The receipt of AIP and accompanying road map to Approval for Construction has materially de-risked the path forward to a construction ready milestone.**

This is the second of GEV's compressed hydrogen capacity designs to achieve this milestone, to again demonstrate the ship is a safe, energy efficient and cost competitive hydrogen carrier to advance the commercialisation of multiple hydrogen greenfield export projects proposed or under development.

Late in the quarter, GEV appointed Capilano Maritime and Wärtsilä to advance the previously completed concept design to a detailed Contract Design Package (CDP). The CDP, alongside ABS Approval in Principle, will enable GEV to mature discussions with shipyards of interest and engage in effective discussions and negotiations with regards to design features, cost and construction schedule.

GEV is targeting final engineering and detailed design in Q3, 2022 which will run in parallel with a two-stage testing program to achieve Approval for Construction from ABS in the first half of 2023.

For more details, refer to the company's [ASX release on 6 October 2021](#).

CNG OPTIMUM DEVELOPMENT

Brazil: Management is encouraged to report there has been a renewal of contact with a previously qualified opportunity with an operator of oil and gas assets in Brazil, who in 2021, completed preliminary due diligence on CNG Optimum in the form of a Request for Information (RFI) which included ship engineering and economic models. During December 2021, the operator has made a subsequent RFI with regard to specific areas of the CNG solution, which will be responded to in the March 2022 quarter. While CNG offers a unique solution to the Brazil market, discussions are still preliminary in nature and may not lead to a definitive agreement.

US Gulf Coast: During the December quarter, the gas markets globally witnessed unprecedented volatility, resulting in record highs for global gas spot pricing. Whilst that has translated to significant activity for US Gulf LNG projects signing offtake with Asian buyers of long-term LNG, this has not translated to any material change in the progress for regional offtake for gas from the proposed US CNG export site in the US Gulf Coast. Management will now consider

what other actions are available to revive demand in the region before allocating further resources to extend the project.

CORPORATE

The Company continued to restructure the Board with the appointment of global shipping executive David Palmer as Non-Executive Director.

The Company held its Annual General Meeting on 25 November 2021, which included the retirement of Maurice Brand from the Board. We thank Maurice for his leadership and service to the Company since 2016. Current Non-Executive Director Andrew Pickering was announced as Chairman.

The Company continues to canvass the Australian business community for highly credentialed board candidates to further develop the composition and wider range of skills and experience that fits with our strategic direction.

Cash balance on 31 December 2021 was \$14.6 million.

The Company completed a successful Placement of \$10 million in November to institutional and sophisticated clients of Canaccord Genuity who acted as Sole Lead Manager and Evolution Capital as Co-Manager. A further \$538,750 was raised from a Share Purchase Plan which closed on 22 November 2021.

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 \$1 million, including project costs for the ship engineering and approvals to achieve the AIP milestone.

The aggregate amount for payments to related parties and their associates included in item 6.1 in the Company's ASX Appendix 4C for the quarter ended 31 December 2021 is \$203,000, comprising of fees, salaries and superannuation paid to Directors, including Executive Directors.

- END -

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

For more details on the Company and subscribe to our news, please visit www.gev.com

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ABOUT GLOBAL ENERGY VENTURES LTD

Global Energy Ventures (ASX: GEV) Global Energy Ventures (GEV) is enabling the development of a trillion-dollar hydrogen market through the simple and efficient delivery of compressed green hydrogen.

Our mission is to become a leading developer for the production, storage, and transport of green hydrogen.

In 2020, GEV introduced the world's first large-scale Compressed Hydrogen ship and positioned the company as an early mover to fast track the marine transport of Hydrogen. The engineering and design of the Compressed Hydrogen ship has benefited from the Company's long-standing history in developing compressed gas carriers through to final construction approval.

GEV has demonstrated that the simplicity and energy efficiency of its shipping solution is ideally suited for exporting hydrogen over medium distances (i.e., Australia to Asia-Pacific) providing a lower delivered cost and eliminating the technical barriers of other transport alternatives.

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.