



ASX / MEDIA ANNOUNCEMENT

31 JANUARY 2020

## ACTIVITIES REPORT FOR THE DECEMBER 2019 QUARTER

### Highlights:

- CNG Commercialisation Study underway in Brazil on an in-development oil field located in the offshore Pre-salt Basin. Completion expected March quarter 2020.
- Positive discussions continue with a target list of Brazil upstream oil and gas operators and downstream gas markets, with follow-on technical due diligence to continue in the March quarter 2020.
- Launch of CNG Optimum into the US Gulf of Mexico and due diligence for the selection of a shallow water offshore export site nearing completion. The preferred site is connected to under-utilised pipeline infrastructure providing access to the US Henry Hub gas market. Completion expected in the March quarter 2020.
- Independent reports on gas market options for a US export CNG project completed, leading to positive gas marketing discussions undertaken and continue with multiple groups for offtake in the Yucatan Peninsular, Mexico.
- Positive discussions in the US on gas supply, gas processing and pipeline capacity, to deliver gas to the proposed offshore CNG export site.
- Extension to the Shipyard Letter of Intent (LOI) signed with Yantai CIMC Raffles Offshore, Ltd for construction of the Optimum CNG ships. LOI terms extended to 30 June 2020.
- Strategic Alliance executed with CIMC Raffles & ENRIC for the development of an integrated EPC wrap across the CNG supply chain (compression/loading/transport/unloading).
- Cash position \$4.4 million (including the receipt of a \$1.4 million R&D Rebate) and zero debt.

**Commenting on the quarter, Chairman & CEO Maurice Brand said:** *"The December quarter has focussed on business development and commercialisation. Work is underway in Brazil on a CNG Commercialisation Study for an in-development oil and gas project seeking to award contracts in 2020. Positive progress has been made through the technical stages of our agreed program for delivery in March 2020. We continue to highlight Brazil as a region ideal for marine CNG given the abundance of off-shore gas currently being re-injected, or proposed to, as well as the proximity of such gas to large on-shore gas markets. We will advance technical and commercial discussions with our priority list of operators of upstream oil and gas and downstream users for gas in the March quarter."*

*Aligned with GEV's strategy of developing a portfolio of projects, the Company announced the launch into the US Gulf Coast gas market to develop an offshore CNG export terminal where we are now finalising the selection of a site in the Gulf of Mexico. The proposed site can access the abundant supply of Henry Hub gas and it will remove the considerable capital expenditure to install gas gathering, processing and pipelines to an offshore location as well as the considerable cost and time to permit new infrastructure. On gas marketing activities, we are pleased at the response to date from our priority list of bankable gas supply and offtake parties and we will target a detailed update to Shareholders during the March 2020 quarter."*

Global Energy Ventures Limited (ASX: GEV) ("GEV" or the "Company") presents its quarterly activities report for the period ending 31 December 2019.

### BRAZIL CNG COMMERCIALISATION PLAN COMMENCES

- In early December 2019, the Company announced a CNG Commercialisation Study and work program had commenced on an in-development oil field located in the offshore Brazilian Pre-Salt.
- The objective and outcome of the Commercialisation Plan is to validate the CNG opportunity displays suitable technical viability and commercial value to each participant.
- First oil and gas production from the selected Brazilian oil field is expected in early 2024 via a Floating Production, Storage and Offloading (FPSO) vessel, designed for up to 8.5 million m<sup>3</sup> (300MMscf) of natural gas per day.

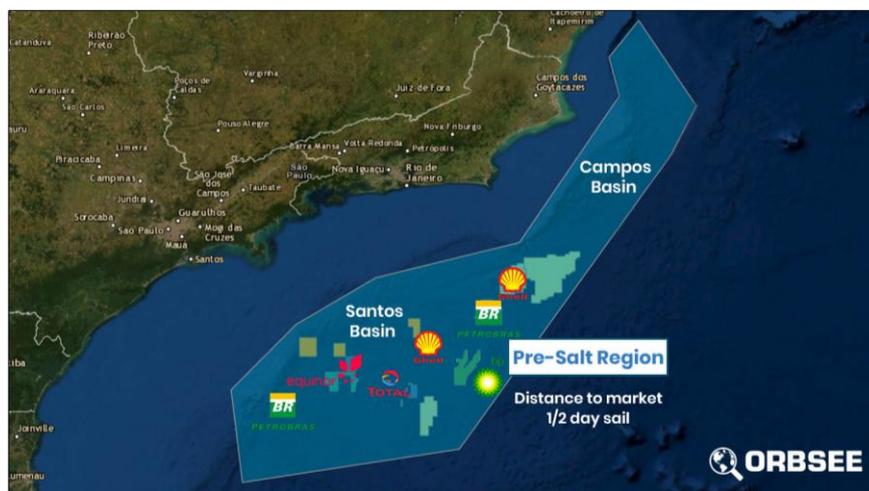


- Based on the proposed timetable for development of the oil field, GEV anticipates that a successful outcome to the detailed technical and commercial analysis could lead to the awarding contracts in 2020.
- Technical workshops commenced in December 2019 with resources from both teams engaged on the technical and process design of a full CNG supply chain, taking gas from the FPSO, loading the Optimum CNG ships and transporting the CNG to a nominated port in Brazil for unloading.
- GEV is targeting completion of the CNG Commercialisation Plan at the end of March 2020.
- GEV’s project team includes members of the Project Development team, our CNG Engineering team based in Calgary, the Commercial team based in Perth, local partner GAIA, technical process engineering consultants, as well as our strategic partners.

**Figure 1:** GEV’s scope of work includes a Submerged Turret Loading system, a fleet of CNG ships and CNG Import & Unloading Facilities



**Figure 2:** The selected field located in the Santos Basin of the Brazilian Pre-Salt within proximity to Rio de Janeiro & São Paulo gas markets.



*Brazilian Pre-Salt: Geological formation (reservoir) located below a layer of salt. Also used to describe the prolific oil and gas region in which Santos and Campos Basins are located.*

**The Company’s early analysis and technical work in Brazil has verified the significant benefits of evacuating and commercialising gas via a marine CNG solution, including:**

- Management of the performance of the oil and gas reservoir;
- Potential to reduce the capital spend on gas reinjection;
- Gas sales revenue, due to an accelerated gas development timeline;
- There is a ready market for imported gas; and
- Reduced environmental impacts & permitting compared to other alternatives.

**In addition to the CNG Commercialisation Plan outlined above, the Company continues to advance discussions**



with global energy groups about the commercialisation of GEV’s Optimum CNG supply chain in Brazil. Groups include upstream field operators and downstream operations for gas in Brazil. GEV is targeting multiple commercialisation opportunities.

### CNG OPTIMUM LAUNCH INTO THE US GULF OF MEXICO (USA)

- GEV announced on 28 October 2019 the Gulf of Mexico, USA, as its next region to develop a CNG export terminal following the completion of preliminary due diligence on numerous offshore platforms connected to existing offshore and onshore gas pipelines serving producers in and near the US Gulf of Mexico.
- The US Gulf of Mexico contains underutilised gas pipelines and platforms with connecting pipelines to shore for access to the major gas resources in the Gulf States.
- The US Gulf of Mexico strategy is to select a US CNG export site that will include three key elements:
  - i. Must be offshore and in Federal waters. This will minimise development approval cost and schedule;
  - ii. Provide access to Henry Hub pricing and connected pipeline transport costs are reasonable; and
  - iii. The new offshore platform site needs to be in shallow water with met ocean conditions that allow for our preferred gas loading system for the CNG Optimum ship.
- Removing the considerable capital expenditure to install gas gathering, processing and pipelines to an offshore location as well as the considerable cost and time to permit such infrastructure will ensure our project can be implemented in a timely manner.
- Having selected a preferred export site location, GEV is now advancing discussions with the operator of the onshore gas processing facility and associated pipeline with capacity to transport GEV’s initial requirement of 220MMscf/d (or 80bcf/year) to the offshore site. This includes a detailed technical, commercial and regulatory assessment of the proposed offshore project and determine the critical parameters, including detailed schedule, project capital, operating costs and activities required to be undertaken to receive the various licenses required. This work has continued into the March 2020 quarter in order to complete due diligence and secure the necessary commercial agreements and develop a consolidated schedule of activities to deliver a project through to a FID decision.
- Adjoining pipelines to the nominated gas processing facility currently transport gas for major gas suppliers and gas aggregators who can offer gas supply at or close to the Henry Hub Index pricing. Henry Hub spot pricing has recently traded as low as USD 2.00/MMBtu.

Figure 3: CNG Offshore Export Terminal location and target markets with a 1,500nm sailing distance.



- Discussions with end customers for gas commenced in the December quarter, and are continuing in 2020, with multiple gas markets within a 1,500 nautical miles distance (refer Figure 3). Our work with gas market specialists has converted to engagement with multiple end customers and confirmed the available markets are either: 1) Constrained; 2) are paying much higher delivered LNG prices; and 3) are proposing new gas fired power generation contemplating LNG or other higher priced



fuels.

- The target regional markets available to such a CNG transport solution will include Mexico, Central America and the Caribbean, with GEV's initial focus on the Yucatan region, Mexico.
- GEV has commenced work with consultants and legal advisors on defining the regulatory approval process required to attain all approvals to operate an offshore CNG export project. The process is well defined, and the Company expects that all approvals can be obtained in a timely and economic manner.
- **GEV will make a detailed update to Shareholders during the March quarter 2020.**

#### **US gas is plentiful and relatively low cost with multiple markets from the US Gulf Coast**

- US Energy Information Administration Energy Outlook now forecasting US natural gas production increasing to 100 Bcf/d by 2025, keeping pressure on lower prices for longer.
- GEV's view of a looming gas oversupply is expected to keep Henry Hub Index prices stable and lower for longer that has established the US as a major exporter of gas via LNG. Analyst consensus forecast a long-term range of USD 2.50 – 3.00/MMBtu.

#### **EXTENSION TO SHIPYARD LETTER OF INTENT (LOI) SIGNED WITH YANTAI CIMC RAFFLES OFFSHORE, LTD**

- GEV, together with the Company's ship broker Clarksons Platou (**Clarksons**) and technical advisor SeaQuest Marine Project Management Ltd (**SeaQuest Marine**), completed a significant milestone culminating in the Company announcing on 3 July 2019 a Letter of Intent (**LOI**) with Yantai CIMC Raffles Offshore Ltd (**CIMC**) to build the CNG Optimum 200MMscf ship. **GEV is delighted to confirm the extension of the LOI through to 30 June 2020 at no change to the commercial terms.**
- GEV and CIMC continue to work towards a binding shipbuilding Engineering, Procurement & Construction (**EPC**) shipbuilding contract, employing GEV's CNG Optimum design, for four (4) firm CNG Optimum ships, with the option for GEV to order up to an addition four (4) ships. This program will be in parallel to the development of our maiden CNG project.
- As a reminder, the highlights of the LOI with CIMC include:
  - Proposed construction cost of USD 135 – 140 million per ship;
  - Order for 4 firm ships and an option up to 4 additional ships;
  - Construction schedule of 30 months for the first ship and then every 4 months for each new build;
  - Performance guarantee for the CNG Optimum ship to operate in the intended and defined waters for the purpose of delivering CNG from gas supply to gas buyer;
  - Term of the LOI is now extended to 30 June 2020.

#### **STRATEGIC ALLIANCE AGREEMENT WITH YANTAI CIMC RAFFLES OFFSHORE, LTD (CIMC) & SHIJAZHUANG ENRIC GAS EQUIPMENT CO. LTD (ENRIC) TO DEVELOP A CNG 'EPC WRAP'**

- As highlighted in the September 2019 quarterly report, the GEV's strategic relationship within the CIMC Raffles group has been enhanced with the execution of a Strategic Alliance Agreement (SAA) with Yantai CIMC Raffles Offshore Ltd (CIMC) and Shijiazhuang Enric Gas Equipment Co. Ltd (ENRIC) on 21 October 2019.
- Demonstrating CIMC's support for the commercialisation of the Optimum CNG, all three parties are now working together to develop and execute CNG transport projects across regions that include Brazil and the US.
- The ability to offer of a complete "EPC Wrap" for the construction and commissioning of all related CNG project facilities and related infrastructure (i.e. entire CNG value chain – "pipe to pipe") will:
  - mitigate against the areas of critical project execution risk, such as delivery and pricing; and
  - assist in the financing of GEV's future CNG projects.



Figure 4: Single EPC Wrap with GEV, CIMC Raffles, and ENRIC.



- For further background information on CIMC Raffles and ENRIC please refer to the Company’s ASX announcement dated 21 October 2019 ( [www.gev.com/investors](http://www.gev.com/investors) )

## CORPORATE

- **Cash as at 31 December 2019 was \$4.41 million** (\$4.25 million 31 September 2019), post the quarterly net operating outflows of \$0.165 million. The quarter includes the receipt of a \$1.44 million R&D Rebate (gross of fees) as announced to the ASX on 8 November 2019. Refer to the separately announced Appendix 4C for further details. The Company remains debt free.
  - Staff costs and travel remain the predominant cash outflow for the Company with our team working internationally on a monthly basis to progress multiple CNG commercialisation activities in Brazil and detailed technical, commercial and regulatory assessments of the proposed US CNG export project. To date the Company continues to minimise its project costs from the in-house skills of the GEV project team, while also leveraging the extensive CNG studies completed in the past by SeaNG (acquired in 2017 by GEV).
  - The December quarter cash outflows includes the final bonus payments of US\$162,500 to two former employees of SeaNG who GEV retained to successfully complete the ABS approvals for the Optimum CNG ship. Both employees located in our Canada office remain with GEV supporting the technical work on our CNG projects along with working with CIMC Raffles and ABS on future design enhancements and the construction of the Optimum CNG ship.
- The company held its Annual General Meeting on 22 November 2019. All resolutions were passed, including the appointment of Ernst & Young as the Company’s Auditor.

## APPENDIX 4C

Please refer to the Company’s lodged Appendix 4C Report with the ASX.

– END –

**This ASX announcement has been authorised for release by the Executive Chairman & CEO, Maurice Brand, of Global Energy Ventures Limited**

## FOR FURTHER INFORMATION PLEASE CONTACT

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## REGISTERED OFFICE

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**ABOUT GLOBAL ENERGY VENTURES LTD**

The Company’s mission is to create shareholder value through the delivery of integrated CNG solutions to global gas markets. CNG is a well proven gas transport solution with design and commercial advantages along with being safe and environmentally friendly. This will be achieved by:

- Continue the roll out of GEV CNG Optimum ship and maintaining global leadership in marine CNG design;
- Pursue a portfolio CNG projects to improve the probability of success;
- Offer CNG project stake-holders flexible commercial arrangements;
- Secure access to strategic gas resources that provides for an integrated CNG gas supply solution;
- Employ world class management and staff that are leaders in their chosen discipline; and
- Maintain the highest standards of efficiency, safety and environmental responsibility.

**CNG OPTIMUM – APPROVED FOR CONSTRUCTION**

- Containment system integrated into the ship design
- Long horizontally stacked pipe minimises connections & optimises the cargo hold
- Optimum IP overcomes the storage pipes rubbing together in a marine environment



OPTIMUM STORAGE SYSTEM		CNG SHIP	
200MMscf (6 MMm <sup>3</sup> )	Loaded Gas Volume	190m	Length
250 bar	Operating Pressure	17.0m	Depth
X80/ERW	Pipe Grade & Weld Type	31.8m	Breadth
500mm	Pipe Diameter	9.4m	Full Load Draft
100m	Individual Pipe Length	47,500 mt	Displacement
130km	Total Length of Pipes	14 knots	Service Speed

**FORWARD LOOKING STATEMENTS**

This announcement may contain forward looking statements that are subject to risk factors associated with the gas and energy industry. The expectations reflected in these statements are currently considered reasonably based, 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, economic and financial markets conditions, including availability of financing . All references to dollars, cents or \$ in this document is a reference to AUD Dollars, unless otherwise stated. Investors should make and rely upon their own enquiries before deciding to acquire or deal in the Company’s securities.