



ASX / MEDIA ANNOUNCEMENT

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CNG “PIPE TO PIPE” TRANSPORTATION PROJECT ECONOMICS

ATTRACTIVE TRANSPORT FEES TO JUSTIFY THE USE OF CNG
 RATHER THAN LNG TRANSPORTATION FOR REGIONAL MARKETS

Global Energy Ventures Ltd (ASX: **GEV**, the **Company**), the leading developer of integrated marine Compressed Natural Gas (CNG) projects, is pleased to provide the following update on the Company’s proposed gas transportation economics.

DEVELOPMENT OF THE ‘PIPE TO PIPE’ CNG TRANSPORTATION SUPPLY CHAIN

For GEV’s initial projects, GEV will pursue the same ownership structure across all three components (gas supply and loading / shipping / unloading and gas sales) of the transportation supply chain, delivering one complete project contractually. The term “**pipe to pipe**” means that GEV’s transportation chain and fee is from the gas supplier’s pipeline to the end customer’s pipeline. This is different to the LNG supply chain, where the difference components (liquefaction, shipping and regas/storage) are usually owned and operated by different parties.

GAS SUPPLY AGREEMENT: GEV’s preference is to enter into gas supply agreement with take-or-pay obligations over a 15-20 year term, ideally matching the take-or-pay obligations with the end-customer at the sales end. The gas pricing mechanism should also ideally match that of the gas sale agreement with the end-customer, minimising the pricing risk across GEV’s transportation chain.

CNG SHIPPING CONTRACT: GEV will either build, own and operate the CNG ships, or enter into a long term shipping contract to lease the CNG ships over the project term. **Under a build, own and operate model, the shipping contract will require performance obligations, where the annual fee is assumed to be a fixed annual payment (US\$ million pa) based on fixed rate of return model.**

GAS SALES AGREEMENT: GEV’s preference is to enter into a gas sale agreement with take-or-pay obligations over a 15-20 year term, ideally matching the take-or-pay obligations with the gas supplier. GEV is targeting high-priced gas markets, sufficient to fund the GEV transportation chain, as well as, providing the customer an attractive and competitive gas price compared to it alternative gas options.





DEVELOPING A CNG OPTIMUM “PIPE-TO-PIPE” TRANSPORTATION FEE

The table below provides an example of the total ‘Pipe-to-Pipe Tariff Fee’ for a 20 year take-or-pay gas supply agreement for an average delivered volume of ~200 MMscf/d, at a sailing distance of 400km and 1,000km respectively. Delivered gas volumes multiplied by the Tariff Fee provides GEV with its annual cashflow (US\$ in this example).

Gas Delivered Volumes	200 MMscf/d avg. (~1.5 Mtpa LNG equivalent or 70 Bcf pa)	
Distance to Market	400 km ~ less than one day’s sail at 14 knots	1,000 km ~ less than two days’ sail at 14 knots
CNG Export Terminal ¹	Comprising of tie-in to main gas pipeline, gas metering, gas treatment, compression, loading jetty (or offshore platform) and loading arms/buoy.	
CNG Ships ²	4 x CNG Ships @ US\$135 million per ship 	6 x CNG Ships @ US\$135 million per ship 
CNG Import Terminal ¹	Comprising of unloading jetty and arms, scavenging compression, gas metering and tie-in pipeline to the main gas sales point.	
Total Capital	US\$ 730 million 3yr construction period, capital spend 20%, 40% and 40%	US\$ 1,000 million 3yr construction period, capital spend 20%, 40% and 40%
Total Opex	US\$35 million pa 3% pa escalation, includes fuel use, excludes export/import port fees	US\$45 million pa 3% pa escalation, includes fuel use, excludes export/import port fees
Total “Pipe to Pipe” Tariff Fee ³ <small>Flat, no escalation assumed</small>	US\$ 2.20 – US\$2.40 / MMBtu Indicative range, ~200MMscf/d delivered gas volumes, 20 year term, 15% Equity IRR and and 1,000 Btu/scf	US\$ 3.00 – US\$3.30 / MMBtu Indicative range, ~200MMscf/d delivered gas volumes, 20 year term, 15% Equity IRR and and 1,000 Btu/scf

1. The capital cost of the CNG Export Terminal and CNG Import Terminal remains the same for both examples, only additional CNG ships are required (see Note 2).
 2. Two additional CNG ships are required for the 1,000 km example in order to maintain the 200 MMscf/d supply rate (due to the additional sailing duration).
 3. The Total “Pipe to pipe” Fee tabled above may vary significantly due to project specific requirements, including but not limited to, customer’s need for strict continuous take or supply, loading and/or unloading rates, applicable port charges at export and/or import terminal, gas heating value, contractual term of transportation, take or pay volumes, customer’s need for liquidation damages, etc.

Source: Global Energy Ventures Ltd.

The key observations and scale advantages of the CNG Optimum gas transport solution are:

- The capital and operating costs of both the CNG Export Terminal and CNG Import Terminal remain the same regardless of distance.
- The number of CNG ships in operation is calculated to maintain an average delivery rate of 200 MMscf/d over the given distance, as well as taking into consideration the gas loading rate, ship speed and gas unloading rate.
- GEV considers that its total “pipe-to-pipe” transport fee of between US\$2.20 – US\$2.40/MMBtu (for 400km) and US\$3.00 – US\$3.30/MMBtu (for 1,000km) is a very attractive option for gas suppliers and/or gas customers, especially in areas where gas volumes are not sufficient to support the development of onshore or floating LNG options, and where distances are regional – justifying the use of CNG rather than LNG transportation.

PROJECT FINANCING:

GEV has commenced early stage discussions with advisors and potential lenders and it is assumed that project financing will be arranged as a single financing facility to fund GEV’s integrated transportation chain, supported by its contracted 15–20yr cash flows. Stable long-term cash flows could attract matching 15–18yr project bonds. Debt providers would need to consider country risk. The scale of a four CNG ship order as outlined in our Letter Of Intent signed with Yantai CIMC Raffles Offshore Ltd (refer to GEV’s ASX announcement dated 3 July 2019) could also qualify for Chinese Export Credit Agency support.

Discussions with several lenders indicate project debt lever of between 70–85% may be available, subject to the credit rating of both the gas supplier and end customer. Alternative options for construction financing or sale and lease back of the CNG ships is also being considered to determine the optimal debt to equity structure that maximises shareholder returns.

The Company will continue to review all debt and equity funding alternatives, concurrently with the advancement of each of its CNG projects, to maximise the returns to our shareholders.



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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 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 **multiple CNG projects** to improve the probability of success;
- Secure **access to strategic gas resources** that provides for an integrated CNG gas supply solution;
- Offer CNG project stakeholders **flexible commercial arrangements**;
- Employ **world class management** and staff that are leaders in their chosen discipline; and
- Maintain the **highest standards** of efficiency, safety and environmental responsibility.

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.