# ASX Announcement 29 February 2024



# **☐ Jade Signs MOU with HK-Listed Mongolian Mining Corporation**

# Highlights

- Memorandum of Understanding (MOU) for natural gas products signed with Mongolian
   Mining Corporation LLC (MMC)
- MMC is Mongolia's largest producer and exporter of high-quality washed coking coal
- The partnership will focus on using gas in major Mongolian mining operations and trucking logistics as a cleaner energy source that can deliver cost savings and significant environmental benefits
- The MOU accelerates Jade's pathway to reserves and commercialisation goals.

#### **MOU for Gas Offtake Overview**

Jade Gas Holdings Limited (ASX:**JGH**) (**Jade** or the **Company**) confirms the signing of a non-binding MOU for gas products produced by Jade, with Mongolia's largest producer and exporter of high-quality hard coking coal, Hong Kong listed Mongolian Mining Corporation LLC (HKEX:975). MMC is also Jade's joint-venture partner (34%) working with the Company to develop the Baruun Naran coal field (**BNG Project**).

MMC has a market capitalisation of HK\$14 billion and operates two open-pit mines, namely Ukhaa Khudag Mine, located within the TTCBM permit area, and Baruun Naran Mine, located on the west side extension of the TTCBM permit area. These open-pit mines are located within the Tavan Tolgoi coal basin in the Southern Gobi of Mongolia, which is approximately 220km to the Mongolian-Chinese border and about 550km to Baotou, China, an important steel producing city in China.

Key terms of the MOU include:

- MMC will have a non-exclusive option for gas products from Jade's TTCBM and BNG Projects, and;
- Jade to potentially supply two products: Liquified Natural Gas (**LNG**) for heavy vehicles, and gas for electricity generation building on the scoping work Jade has already undertaken on small scale LNG in the region.

#### **MOU Objective**

MMC is considering the potential of gas as an alternative fuel and cleaner energy source to power its Mongolian mining operations and truck fleet. This forms part of MMC's Towards Sustainable Mining (TSM) protocol, and more broadly Environmental, Social, and Governance (ESG) commitment for sustainable energy use and Green House Gas (GHG) emissions management<sup>1</sup>. Negotiating a binding gas sales agreement contemplating commercial terms will be a catalyst for the conversion of resources to reserves.

<sup>&</sup>lt;sup>1</sup> MMC 2023 Interim Results Presentation.



### **Mongolia Gas Opportunity**

Security of energy supply is a prominent and significant issue, with gasoline and diesel shortages in various parts of the country becoming a regular feature. Some media reports<sup>2</sup> have suggested that the increased productivity from Mongolia's mining sector and distribution issues have severely impacted the fuel consumption supply/demand balance. This, coupled with the fact that Mongolia imports more than 95% of all its fuel from Russia, may see the diesel intensive mining sector, move more quickly to address vulnerabilities in the energy supply chain by considering alternate and more robust domestic energy supply option such as gas.

One of the significant opportunities for Jade's strategically located Mongolian gas resource lies in supporting MMC's coal transport operations that consist of a truck-and-road model. MMC own a truck fleet of approximately 450 double-trailer trucks, which move product from its two operating mines for export to the Gashuunsukhait-Ganqimaodu (GS-GM) border port in China.

In the first half of 2023, MMC reported a **four-fold increase** in total number of coal trucks crossing GS-GM border (figure 2), largely returning to pre-covid levels. The cost and environmental footprint associated with the increased truck movements underpins the importance of the partnership being developed under the MOU between Jade and MMC.



Figure 1: MMC truck crossing the Mongolia-China border Gashuunsukhait-Ganqimaodu (GS-GM)

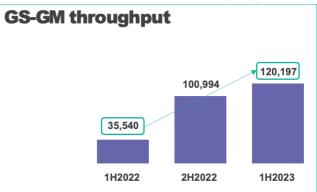


Figure 2: Graph showing the 1H2023 increase in total number of coal trucks crossing GS-GM border<sup>1</sup>

An initiative to convert the MMC truck fleet to gas power has a number of potential material environmental benefits<sup>3</sup>:

- Fewer Emissions: Heavy duty vehicles running on LNG produce up to 25% fewer greenhouse gas (GHG) emissions, up to 50% less Nitrogen Oxides (NO<sub>x</sub>) emissions, and 80% less Particulate Matter (PM) than diesel powered vehicles;
- **Cost:** LNG to offer favourable pricing and greater stability over diesel;
- Maintenance: LNG-fuelled vehicles require less servicing, and as a result can extend the life of the vehicle for up to 3 times longer than a diesel engine; and
- **Efficiency:** LNG offers more efficient combustion in engines for reduced fuel consumption.

LNG application in transportation is rapidly gaining traction as an alternative fuel option in heavy-duty trucks, trains, ships, and even buses, primarily due to its environmental benefits.

<sup>&</sup>lt;sup>2</sup> Geopolitical journal New Eastern Outlook article 7 February 2024 "Who is to blame for Mongolia's fuel shortages?" - https://journal-neo.su/2024/02/07/who-is-to-blame-for-mongolias-fuel-shortages/.

<sup>&</sup>lt;sup>3</sup> Source: BOC Gas website "Benefits of LNG for Heavy Duty Vehicles".



# Commenting on the MOU with MMC, Jade Executive Chairman, Dennis Morton, said:

"This MOU brings us closer to our commercialisation goals – with our 2024 field activity program starting soon, and our ongoing marketing efforts, we look to convert our expansive contingent resource into reserves in the short-term.

The market dynamics for gas continue to grow in our favour as is evident in recent shortages of diesel and gas supply across Mongolia. There is no question now that Government and industry focus on transitioning to a more robust and secure supply chain for cleaner energy. Jade's strategic gas assets in the South Gobi region of Mongolia sit directly in that megatrend."

- ENDS -

Authorised for release on behalf of the Board by Joseph Burke, Executive Director.

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#### **About Jade Gas Holdings Ltd**

Jade Gas Holdings Limited is a gas exploration company focused on the coal bed methane (**CBM**) potential of Mongolia. Jade's flagship project is the Coal Bed Methane gas project over the Production Sharing Agreement (**PSA**) area of Tavantolgoi XXXIII unconventional oil basin, (**TTCBM Project**). Jade operates and manages the project through its subsidiary Methane Gas Resource LLC (**MGR**), a joint venture (**JV**) company partnering with Erdenes Methane LLC (**EM**), the representative of the Mongolian Government. The TTCBM Project has a 2C Gross Unrisked Contingent Resource of 246 Bcf<sup>4</sup>.



<sup>&</sup>lt;sup>4</sup> Refer ASX Release dated 23 August 2022. The Company confirms that it is not aware of any new information or data that materially affects the information included in this market announcement and that all the material assumptions and technical parameters underpinning the estimates continue to apply and have not materially changed.



Jade also entered into a JV with Hong Kong listed Mongolia Mining Corporation Limited (MMC), for the CBM rights over MMC's Baruun Naran coal mine, immediately adjacent to the TTCBM Project, called the **BNG Project**. MMC is Mongolia's largest publicly traded miner with a vision is to become the country's largest diversified mining company. With a known coal resource and operating mine at Baruun Naran, Jade is working with MMC to further appraise and determine the commercial pathway for gas in this project.

Furthermore, Jade holds two prospective **CBM** permits, **Shivee Gobi** and **Eastern Gobi**. Together the permits cover an area of over 18,000km<sup>2</sup> and are well located within existing coal basins and near coal deposits and mines.

Jade's strategy is to develop all of its projects so that gas produced may, in the long-term, provide a reliable supply option to the power and transport sectors in Mongolia, initially in the South Gobi. The company is pursuing multiple commercialisation options to participate in the heavy vehicle transport and power sectors through both compressed and/or liquified natural gas projects. Achievement of this strategy would partially displace the heavy reliance on imported gas and gas liquid products, especially diesel fuel, and coal fired power. This will increase the security of energy supply for Mongolia as well as provide significant improvement in air quality and other environmental outcomes.

Supporting Mongolia's energy transition is a key priority for Jade, and success will result in:

- Improving Mongolia's energy independence
- Supporting Mongolia's significant future energy demand growth
- Decarbonizing the economy by improving the energy mix with cleaner fuel sources
- Environmental and health benefits for the people and country of Mongolia.

#### **Forward Looking Statements**

This announcement contains various statements relating to intentions, future acts and events. These forward-looking statements are expressed in good faith and believed to have a reasonable basis. These statements reflect current expectations, intentions or strategies regarding the future and assumptions based on currently available information. Should one or more of the risks or uncertainties materialise, or should underlying assumptions prove incorrect, actual results may vary from the expectations, intentions and strategies described in this announcement. No obligation is assumed to update forward looking statements if these beliefs, opinions and estimates should change or to reflect other future developments.