

18 July 2024

TO: Senate Environment and Communications Committee
RE: Hearing on Middle Arm Supplementary Submission from IEEFA

Thank you for the opportunity to share our research on the Middle Arm Industrial Precinct with the Senate Environment and Communications References Committee at its hearing on 17 June.

Having reviewed the transcripts from the hearing, I noted much of the information shared would benefit from further context. Therefore, we are now providing this supplementary submission.

As a financial analyst, I strongly suggest the Committee put the organisations cited below on notice to clarify the following points before allowing this project to continue. For taxpayers, it represents a substantial financial risk on their investment.

Kind regards

Joshua Runciman, Lead Analyst, Australian Gas

Matters for clarification

We would like the Committee to put Tamboran Resources on notice to answer the following question:

- Tamboran should clarify how many wells it intends to drill. Under its current environmental management plan (EMP) for the Shenandoah South pilot project, Tamboran noted it intends to drill six wells in the next 18 months. The company has separately identified that it may drill up to 200 wells in the Beetaloo basin. Tamboran should provide clarification on the scope of the project and what it means for its anticipated water usage. Once this is clear, we recommend further research be undertaken into how this will impact existing industries, particularly agriculture and communities.

We would like the Committee to put Santos on notice to clarify the following:

- Santos noted that Australia has an advantage in supplying Japan due to our geographic proximity. Does Santos have a view on how material this shipping advantage is in financial terms? Is it likely to offset Qatar's competitive advantage due to its very low liquified natural gas (LNG) production costs?
- With regards to Santos's proposed Bayu Undan carbon capture and storage (CCS) facility, which is referenced as one of the options to decarbonise the precinct, Santos should explain procedures for the project's end of life and ongoing management, and liability for any risks. This is because taxpayers risk ongoing liability for any failures or mediation of CCS project infrastructure. For example, when CCS projects like the Gorgon facility in Western Australia close, liability for any ongoing failures or remediation works is generally expected to be transferred to taxpayers after a period of 15 years. As a comparison, the US has a 50-year window for companies to hold responsibility for any adverse scenarios that might arise. IEEFA suggests that the Committee should consider whether the proposed Middle Arm subsidy will create further risks for taxpayers if it leads to the use of CCS.
- In light of Australia's carbon budget, Santos should explain whether its proposed CCS facility will capture Scope 3 emissions arising from the Middle Arm Precinct development (carbon dioxide (CO₂) emitted during the end use of LNG). CCS projects around the world are focused on Scope 1 (CO₂ emitted during the mining stage) and sometimes Scope 2 (CO₂ emitted during the refining stage). In our recent [submission regarding CCS for Glencore](#), IEEFA highlights that Scope 3 has never been included in any CCS projects despite constituting the vast majority of emissions from the production and use of gas.

We would like the Committee to put Santos and Australian Energy Producers on notice to clarify the following:

- Both Santos and Australian Energy Producers referenced forecasts from the International Energy Agency (IEA) and Wood Mackenzie that show LNG demand increasing in Asia. Santos and Australian Energy Producers should provide further guidance on the other

LNG demand forecasts (including those outlined under alternative IEA scenarios) that show limited growth or declining demand. Australia's largest customers (Japan and South Korea) have already started moving away from LNG to renewables, and Japan is resuming use of its nuclear plants.

- Both Santos and Australian Energy Producers referenced 40 CCS projects globally that have captured over 50 million tonnes (Mt) of CO₂ per annum. We would like them both to provide context to this number. According to the IEA, the global gas industry produced 7,524Mt of CO₂ in 2022. Addressing only 50Mt of this CO₂ has left 7,474Mt of CO₂ emitted into the atmosphere. Australian Energy Producers and/or Santos should clarify how much CO₂ will be produced by the Middle Arm Precinct (Scopes 1, 2 and 3), how much will be captured, and at what cost. IEEFA's research shows that it cannot possibly be a financially viable option to offset the emissions for the Middle Arm project (which is required given Australia's Safeguard Mechanism and our national carbon budget).
- As an example, IEEFA notes that Gorgon, Australia's largest CCS project, had an initial goal to capture 80% of its Scope 1 reservoir CO₂ emissions, which was later revised to 60%. Based on performance to date, the project is capturing less than half of the 60% goal. Given the proposed use of CCS to decarbonise the Middle Arm precinct, how can either Santos or Australian Energy Producers ensure its success without risking financial cost increases that undermine the returns to the project? Of the 40 CCS projects globally, only three have achieved capture rates of more than 80%, while none of the global CCS projects have achieved more than 90% of their targets.

We would like the Committee to put Australian Energy Producers on notice to provide clarification and information on the following:

- Australian Energy Producers referenced AEMO forecasts that 13 gigawatts of additional gas generation capacity will be required on the east coast by 2035-40. Is Australian Energy Producers aware of any forecast utilisation rates for this new generation capacity? Is this new generation capacity likely to be dispatched if it relies on gas from Beetaloo (given the relatively high estimated costs of Beetaloo gas as outlined in the Future Gas Strategy Analytical Paper)?
- Australian Energy Producers stated that the IEA has said that CCS is vital for reaching net zero. Is Australian Energy Producers or its members considering other options to offset emissions associated with the development of new fossil fuel projects (given the IEA does not support CCS for new fossil fuel developments)? If yes, can they explain what these options are and how they might improve the financial business case for government investment in the Middle Arm Sustainable Development Precinct? How do these options compare on a financial basis with CCS?

We would like the Committee to put Empire Energy on notice to clarify the following:

- Empire Energy noted that it is currently appraising its Beetaloo gas resource, with a view to commercial development. When does Empire Energy anticipate completing this



appraisal? Based on appraisal to date, is Empire Energy confident that its gas resources are commercially viable?