

Jemena Limited

**Submission to the Australian Energy Market
Commission - Assessment of Alternative Market
Designs - Review of the Victorian DWGM**

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EXECUTIVE SUMMARY

- Jemena owns and operates a diverse \$9 billion portfolio of energy and water transportation assets across the east coast of Australia. Jemena is committed to proactively implementing the key pipeline recommendations from the Gas Market Reform Package, supportive of the establishment of a liquid gas market on the east coast of Australia and actively seeking to contribute to achieving the National Gas Objective.
- Jemena considers the proposal in the Assessment of Alternative Market Designs paper (the **Paper**) to establish a gas trading platform at Longford (similar to the platforms in place at Wallumbilla and Moomba) represents a practical and cost-effective solution to improving trading within the Victorian Declared Wholesale Gas Market (the **DWGM**), and would align with the broader east coast gas market design and reform. While Jemena supports this option presented by the AEMC, there are other options presented in the Paper that Jemena has significant concerns regarding the potential impacts, and practicalities, of implementation, not just within Victoria but also for other Australian jurisdictions and from a national perspective.
- The adoption of any market design for the DWGM, with respect to the AEMC's Terms of Reference for the DWGM review, the COAG Energy Council's (the **COAG**) vision for a future Australian gas market and the National Gas Objective, should also consider the following:
 - Does the market design provide the right market signals and incentives to encourage investment in pipeline infrastructure?
 - Does the market design impact negatively on energy security within Victoria and in other jurisdictions?
 - How practically and cost-effectively can the market design be implemented?
- In responding to the options, Jemena has limited its commentary to Options 3.4 and 4.2 which are likely to directly impact Jemena's assets and/or have a material impact on the National Gas Objective. As previously noted, Jemena has significant concerns on the potential impacts of other options presented in the Paper. However, given Jemena's limited role within the DWGM, we feel that other market participants will be better placed to comment in detail on these matters.
- *Option 3.4 – Prohibiting physical contracting* does not appear able to achieve any of the objectives due to:
 - Undermining investment certainty for gas exploration and development due to increasing level of market price (volatility) risk and removing long-term contracting to underwrite capital intensive investment;
 - Complex, and a protracted process, to transition from the current physical contracting method to utilising financial derivative products to manage spot price risk due to the need to manage legacy gas sale agreements (**GSA**) between participants;
 - Potentially reducing the level of energy security in neighbouring jurisdictions (like New South Wales and South Australia) from integrating the DWGM intra-day market schedule with the once-a-day design of the Short Term Trading Market (the **STTM**) if the boundaries of the Victorian Declared Transmission System (the **DTS**) are revised; and
 - It is potentially risky from a technical and operational perspective to have two operators running different portions of the same asset due to the potential for inefficient operations and utilisation, as well as system security implications. The current infrastructure cannot support the proposed changes, for example, there are insufficient meters and valves.
 - Jemena also has concerns over potential sovereign risk implications from Option 3.4, that could arise from infringement on our property rights and our ability to serve our customers' needs.

- *Option 4.2 – Forward physical trading at Longford* appears to have ability to achieve all of these objectives due to:
 - Providing a commodity price for gas undiluted by transportation costs would align with the COAG Energy Council vision for the “establishment of a liquid wholesale gas market and, consequently, an efficient and transparent reference price for gas that provides market signals for investment and supply.”
 - The establishment of a trading platform at Longford, similar to the platforms at Moomba and Wallumbilla, would mean there would be a gas price for the three major production zones on the east coast gas market and may improve the level of trading between Victoria and other jurisdictions due to minimising the level of complexity associated with trading between jurisdictions;
 - It would not create the same deterrents to investment as Option 3.4 due to retaining physical contracting but would also provide market participants an alternative means to manage price risk in the DWGM through the introduction of forward physical trading; and
 - It could be done quickly and cost-effectively due to the ability to leverage off the existing market hub platforms that exist at Wallumbilla and Moomba.

1.1 INTRODUCTION

Jemena welcomes the opportunity to provide a submission to the Paper, as part of the AEMC’s ongoing review into the DWGM.

Jemena owns and operates a diverse \$9 billion portfolio of energy and water transportation assets across the east coast of Australia. This includes a regulated electricity distribution network which serves 320,000 customers in north-west Melbourne, as well as part ownership of the United Energy and ActewAGL electricity distribution networks. We also own gas distribution and transmission assets throughout eastern and northern Australia.

The Australian east coast gas sector and its governance arrangements are currently going through a period of unprecedented change. This has been largely in response to the rise of the Queensland LNG export industry around Gladstone and the impact this has had on the market. The COAG Energy Council requested the AEMC and the Australian Competition and Consumer Commission (the **ACCC**) to review the east coast gas markets in light of these developments. In August 2016, the COAG Energy Council launched a comprehensive Gas Market Reform Package, informed by the findings and recommendations of the ACCC *Inquiry into the East Coast Gas Market* and the AEMC’s *Eastern Australian Wholesale Gas Market and Pipelines Framework Review: Stage 2 Final Report*.

Jemena participation in the DWGM is limited to the operation of the VicHub interconnection facility that connects the Eastern Gas Pipeline to the DWGM. Other Gas assets owned and operated by Jemena include the Eastern Gas Pipeline that transports gas between Longford in Victoria to New South Wales, Jemena gas distribution network in Sydney that serves 1.3 million customers, the Queensland Gas Pipeline and the soon to be constructed Northern Gas Pipeline.

While the commentary in the submission reflects Jemena’s position as an industry participant in Victoria on the edge of the DWGM/DTS, we are well placed to provide insights on the flow of gas between east coast Australian jurisdictions. It is important that consideration is given to the broader impact on the east coast gas market from market design decisions made in Victoria as well as to the large body of reform work occurring nationally through the Gas Market Reform Package. There is a risk of delivering suboptimal outcomes when policy and market design decisions are made in isolation.

Jemena has been committed to proactively implementing the key pipeline recommendations from the Gas Market Reform Package. Throughout this process, Jemena has maintained its stance that the market framework for gas

(transmission) pipelines needs to continue to provide a strong incentive for efficient investment, given how critical this is in the long-term interests of customers. This consideration is also pertinent to the AEMC's review into the DWGM as there needs to be a clear emphasis on finding the option that best aligns the long-term interests for Victorian customers. There is little merit in pursuing competition for the sake of competition if customers will be worse off in the long-term.

There has also been public acknowledgement of the important role that gas plays in contributing towards energy security. Most notably there was the acknowledgement of the linkage between the east coast gas market and the National Electricity Market (the **NEM**), in particular the impact the gas supply constraints have had on energy security and reliability in the *Independent Review into the Future Security of the National Electricity Market* led by Dr Alan Finkel. There recent Federal Government decision to put in place export controls on LNG exports through the Domestic Gas Security Mechanism inherently recognises the importance of gas in meeting energy security and affordability objectives. Given the uncertainty around the development of future gas supply nationally, the adoption of any market design should have consideration to whether it will impact on the level of gas currently available within Victoria and other jurisdictions. As the owner of the Jemena electricity distribution network in greater north-west Melbourne, we have an interest in seeing that there is adequate gas-powered generation capacity in Victoria to ensure our customers have reliable and affordable energy supply.

Despite the uncertainty in relation to development of new gas supply, there is impetus around bringing new gas supply to market to arrest the current gas shortfall. Once new gas supplies have been commercialised, having the right pipeline infrastructure investment in the right place, at the time will be important. The market design adopted mustn't serve as a deterrent to long-term investment in new gas supply and critical transportation infrastructure. It also must not be so complex for participants to comply with, and that the difficulty and cost of implementation puts additional costs into the market, offsetting any competitive gains.

With respect to the AEMC's Terms of Reference for the DWGM review, the COAG Energy Council's vision for a future Australian gas market and the National Gas Objective, the following should also form part of considering whether or not to adopt any market design for the DWGM:

- Does the market design provide the right market signals and incentives to encourage investment in pipeline infrastructure?
- Does the market design impact negatively on energy security within Victoria and in other jurisdictions?
- How practically and cost-effectively can the market design be implemented?

As noted, in responding to the options Jemena has limited its commentary to Options 3.4 and 4.2 which are likely to directly impact Jemena's assets and/or have a material impact on the National Gas Objective.

1.2 WHICH OPTION DOES NOT ACHIEVE THE REFORM OBJECTIVES

Option 3.4 – Prohibiting physical contracting

Under this proposed market design, gas producers would be required to offer all their gas through the DWGM compared to the current approach of allowing trading through the DWGM and physical trading of gas through long-term contracts outside the DWGM mechanism. This is a similar approach to the gross pool wholesale exchange of the NEM, where generators are required to bid all of their production through the pool. The Paper contemplates a range of possibilities on the geographical extent of the prohibition of physical contracting; from producers currently "on the edge" of the DTS to all producers in Victoria connected to the interconnected network, regardless of whether they are in close proximity to the existing DTS.

Jemena comment(s)

The prohibiting of physical bilateral contracting under this option would reduce the level of price certainty gas producers currently enjoy due to increasing their exposure to market price (volatility) risk through the DWGM. Given the exploration and development of gas supply typically requires long-term investment time horizons to recover the significant capital outlay, this option provides a poor signal for investment in long-term production and exploration, making any investment in new supply difficult to justify. With respect to the current east coast gas market shortage and that developing more gas supply is the biggest issue in the market, this suggestion undermines the requirement for more gas.

Additionally, there would be complexity in transitioning from the current physical contracting method to utilising financial derivative products to manage spot price risk due to existing GSAs between participants. In terms of being practically implementable in order to achieve the reform objectives, this option is likely to take many years to be implemented due to the need to account for unique terms within the legacy bespoke GSAs between participants and similarly ensure these participants remain commercially whole during the transition. This would delay any benefits from the reform process flowing through to customers.

In regards to potentially extending the boundaries of the DTS under this option, there are energy security implications which would need to be considered as well as it significantly decreases the security of supply of gas to other states such as New South Wales and South Australia. This is attributable to the different gas market designs in operation in Victoria and other east coast jurisdictions like New South Wales and South Australia:

- the Victorian DWGM operates on an intraday basis - price and gas nominations are initially set at 6am, with adjustments made at four hourly intervals throughout the day to account for injections and withdrawals i.e. supply and demand adjustments within the DWGM.
- the STTM design in New South Wales and South Australia operates on a once-a-day basis – e.g. if 100/TJ is nominated to flow to Sydney then 100/TJ will flow to Sydney (subject to constraints within the network).

As the intraday schedule changes in Victoria to account for changes in the underlying supply and demand balance within the DWGM, New South Wales and South Australia may be left without sufficient gas supply to meet the nominations set once-a-day. The only mechanism for correcting this is contingency gas (which is reserved for emergency use only when the Australian Energy Market Operator (the **AEMO**) needs to rebalance the gas market when competitive forces have failed to do so).

Additionally, under this option, other transmission pipelines (including SEA Gas Pipeline and the Eastern Gas Pipeline), would be included in the DTS. AEMO would assume operatorship of these pipelines within the boundaries of Victoria whilst the asset owners would retain operatorship within neighbouring jurisdictions. It is potentially risky from a technical and operational perspective to have two operators running different portions of the same asset due to the potential for inefficient operations and utilisation, as well as system security implications. The current infrastructure cannot support the proposed changes, for example, there are insufficient meters and valves. Jemena also has concerns over potential sovereign risk implications from Option 3.4, that could arise from infringement on our property rights and our ability to serve our customers' needs.

On balance, this Option would appear to be against the objectives of the reform process and is not aligned with the national interest.

1.3 WHICH OPTION COULD BEST ACHIEVE THE REFORM OBJECTIVES

Option 4.2 – Forward physical trading outside the DWGM at Longford

This market design would include contractual methods (such as the introduction of non-compulsory standardised shorter-term gas contracts in order to reduce transaction costs) to provide DWGM participants with the flexibility to manage risk around the current disconnect between trading through the spot market of the DWGM and the long-term contractual positions of participant's GSAs. It also canvasses the potential introduction of one or more facilitated gas trading platforms, at points outside, or on the edge of, the DTS such as Longford. Using these platforms, market participants could choose to trade standardised gas products of a variety of different tenures and start dates (similar to the Wallumbilla and Moomba gas hubs). The DWGM would be retained and be substantially similar or identical to its current design. Market participants would still be required to make bids/offers in the DWGM and be allocated access to the DTS on that basis.

Jemena comment(s)

With respect to the overall east coast gas market, development of a trading hub location at Longford (similar or identical to the gas supply hub design at Wallumbilla and Moomba) would provide the east coast gas market with pricing at the gate of all three major gas production zones. This would complete the east coast gas market holistically by providing pricing signals at these major points and would also have the benefit of providing a commodity price for gas that has not been diluted by transportation costs (and would not require back-calculating to remove the transportation component). On this basis, establishing a trading platform at Longford under Option 4.2 would best align with the COAG Energy Council's objective for the vision for Australia's future gas market for the "establishment of a liquid wholesale gas market and, consequently, an efficient and transparent reference price for gas that provides market signals for investment and supply."

Option 4.2 may also have the benefit of improving the trading of gas between Victoria and other east coast Australian jurisdictions. Adopting a trading platform design at Longford that is similar to the ones at Wallumbilla and Moomba would likely minimise the complexity for participants to trade gas between jurisdictions and would meet the COAG Energy Council's objective for "market arrangements that allow participants to readily trade gas between hub locations and support a national approach to gas trading."

Further, given this option would not prohibit bilateral contracting between participants, it would not create the same deterrents to investment that Option 3.4 would through the introduction of increased market price (volatility) risk. This would ensure that investment in critical infrastructure continues to be made to protect the long-term interests of customers and would also meet the COAG Energy Council's objective for "a supportive regulatory framework for infrastructure investment that facilitates responses to these market signals."

To complement this long-term certainty needed to facilitate investment, Option 4.2 would also provide market participants an alternative means to manage price risk in the DWGM through facilitating flexibility in their physical positions via forward physical trading rather than the creation of financial derivative products to manage this. As noted in the Paper, it would seek to "plug the gap" between trading spot physical gas on the DWGM and long-term physical gas through GSAs. Participants would be able to hedge against the spot price on a short-term basis. It would also not introduce the energy security risks from expanding the boundaries of the DTS, resulting in an ineffectual integration of the intra-day DWGM market design with the once-a-day operation of the STTM in New South Wales and South Australia.

The practicality of implementing this option at Longford from an industry perspective is also a marked improvement over what is proposed in Option 3.4. It could be done quickly and cost-effectively due to the ability to leverage off the existing trading platforms that exist at Wallumbilla and Moomba. The level of cost-effectiveness would be dependent on the precise nature of changes to facilitate physical trade at Longford, but on balance this option is likely to be relatively low cost to implement. AEMO also has experience in implementing and operating these trading platforms at gas supply hubs meaning that the marginal implementation cost of additional hubs is relatively low.

1.4 CONCLUDING COMMENT

The principles of any well-functioning market should be premised on providing signals so participants can make informed commercially-focussed operation and investment decisions. Creating additional complexity for participants to comply with in order to realise any of these benefits is also not commensurate with good market design. Finally, the practicality of implementing a market design must also be considered as creating additional central market costs will ultimately be borne by customers.

On balance, Option 3.4 appears to have limited to no ability to meet the reform objectives. The practicality associated with implementing the option means it is unlikely to be able to be done in a timely way. Further, there may be unintended energy security consequences that arise from the potential revisions to the DTS boundaries. Given there is also currently an urgent need to develop new gas reserves, this option undermines this due to decreasing the certainty participants require for long-term gas exploration and development.

With respect to the remit of the AEMC's review of the DWGM, the COAG Energy Council's vision for Australia's future gas market and the National Gas Objective, Option 4.2 appears to be the most compatible, practical and effective option to address this wide range of objectives. It has the benefit of providing long-term investment certainty but also improving the flexibility of participants ability to manage their risk. The implementation of a gas trading platform/gas supply hub at Longford would also complete the east coast gas market holistically by having a hub at the three major gas production centres on the east coast.