Jemena Limited

Day-Ahead Auction of Contracted but Un-Nominated Capacity & Reporting Framework

Consultation Response

Public

6 November 2017

Jemena

An appropriate citation for this paper is:

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1. INTRODUCTION

Jemena welcomes the opportunity to provide a submission to the Day-Ahead Auction of Contracted but Un-Nominated Capacity & Reporting Framework Consultation Paper October 2017 (the Paper). Jemena owns and operates a diverse $9 billion portfolio of gas and electricity distribution and transmission assets across the east coast of Australia.

We are committed to working constructively with the Gas Market Reform Group (the **GMRG**) and are:

- supportive of the establishment of a liquid gas market on the east coast of Australia; and
- actively contributing to achieving the National Gas Objective (**NGO**).

Whist we don't necessarily agree that the Day Ahead Auction of Un-Nominated Capacity is the best reform mechanism to achieve these objectives, in the context of it proceeding we are keen to proactively and constructively work with the GMRG in ensuring the final design is in the long term interests of the gas market as a whole.

We are however, concerned about the overall gas market reform process to date. The consultation process for the GMRG work needs to be improved, to ensure that the impacts on the pipeline sector and the broader gas market are adequately considered. Jemena continues to advocate that the development of reforms should be premised on the concept of 'fit-for-purpose' which incentivises commercially-minded outcomes and minimises costs to market participants and customers.

We stress that ensuring that the incentives for investment in this critical infrastructure remain intact is critical for meeting the long-term interests of customers. Our track record speaks for itself when it comes to delivering an affordable and reliable service for our customers. The ability to meet our customer's needs has been underpinned by operating on the basis of delivering the right infrastructure, in the right place, at the right time.

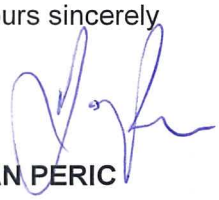
Jemena has committed to over $1 billion of investment in pipeline infrastructure in the last 3 years, including the Northern Gas Pipeline (the **NGP**). The NGP will connect northern gas supplies with the east coast gas market, which will be critical to solving the east coast gas crisis by delivering new gas supply to where it is needed most.

We are also the only pipeline operator currently investing in critical new pipeline infrastructure. As part of this investment in the NGP, Jemena is fostering economic development in regional areas, with 600 of the 900 jobs created during construction ear-marked for people living in the communities surrounding the pipeline route.

We have always worked to provide flexibility in our service provision and work proactively to ensure pipeline capacity is available to meet our customer's needs on fair and reasonable terms.

If you have any queries regarding our submission, please contact Andrew Zancanaro, Southern Pipelines Commercial Manager (03 9173 7835) in the first instance or alternatively me (03 9173 7966).

Yours sincerely



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2. AUCTION PRODUCTS

Based on the limited information provided in the Paper this section outlines our views with regards to the GMRG's auction design recommendations in particular questions 1-9 of the Paper.

2.1 SERVICE PRIORITY

Jemena does not agree with the GMRG's suggested approach to include auctioned products as Secondary Firm Products.

Proceeding with a product that has a priority higher than As Available introduces a number of unintended consequences. In particular:

- **The higher prioritisation is more likely to encourage free riding by shippers who would otherwise contract Firm capacity at the expense of primary shippers and will deter investment.** In Jemena's opinion the Paper contradicts the finding of GMRG's own consultant EnergyEdge, who examined scheduling risk by analysing historic gas flow data related to all Firm, As Available and Interruptible services and concluded that the curtailment risk (which we interpret as being both the priority of scheduling and curtailment in the event of inability to meet scheduled nominations) to shippers is low. In addition the average quantities of available capacity outlined in the report are well in excess of the needs of the majority of shippers who would procure capacity via an auction. Therefore we consider that the higher priority is an unnecessary feature of the products design. The higher prioritisation, large quantities and resulting low price will likely drive shippers away from contracting firm capacity to inefficient contracting outcomes. NERA's own findings supported this conclusion.

- **The reprioritisation will have profound implications for the electricity market due to the role gas fired generators play in stabilising the National Electricity Market (NEM) at a time when we are facing an increase in wholesale energy prices and a reduction in system reliability**. A number of power stations rely on As Available capacity to cost effectively manage their transportation requirements. Established market trading conditions have resulted in well understood risks associated with utilising these services for this purpose. Given the role gas fired generation will play in the National Energy Guarantee (**NEG**) we question whether this is in the interest of consumers and the Governments own policy objectives.

- **Regional markets and STTM markets rely on Interruptible services for system security of supply. Gas flows to these locations irrespective of the nominated quantities. If the auctioned Product ranks ahead of As Available Services there is a risk of curtailment in these markets resulting in insufficient gas to homes in businesses in these regional networks.** As Available, interruptible and overrun services are called upon daily to balance the demand within these networks. If the prioritisation proceeds as suggested by the GMRG it is unclear how pipeline operators will be able to provide this service as is as the prioritisation of the associated balancing services will be less than the auctioned product. On the EGP, not only does this impact the Sydney STTM, it will also impact the regional centres of Bairnsdale, Bombala, Cooma, Nowra, Bombaderry whose sole supply is from the EGP. Given that security of supply is a key component of the NGO we question how proceeding on the basis will not contravene the objective.

- **The "hoarding" of auction product may actually exacerbate the problem that it was designed to solve.** It opens the opportunity for a shipper to cheaply buy capacity through the auction as an option and hoard it in an effort to strategically block those shippers who would otherwise rely on intraday As Available, Interruptible or overrun services.

- **Commercial operations will become extremely complex in managing curtailments, particularly for pipelines that are not fully contracted and will have a mixture of firm, secondary firm, As Available from uncontracted, As available from un-nominated auction capacity, As Available from unallocated auctioned capacity and interruptible services from uncontracted capacity.** Depending on the circumstances the options presented may require pipeline operators to apply different rules at different times. This will require significant investment in systems and additional personnel to manage the additional complexity. It is unclear how this issue is considered in the Paper.

- **We are concerned for the success of the secondary trading market in light of the suggested prioritisation.** The Paper outlines the sellers motivation for selling capacity in the secondary trading market head of an auction, yet has little supporting analysis detailing the buyers incentives knowing that the auction capacity will be available and most likely at a favourable price. On that basis we are concerned for the success of the secondary trading market in light of the suggested prioritisation. This would be a poor outcome given the time, cost and effort expended by all in developing the secondary market to date.

Recommended Alternative Approach

With these concerns in mind Jemena would support a prioritisation that is less than As Available (Option 2).

2.2 INTERRUPTIBLE BACKHAUL

Jemena does not agree with the GMRG's suggested approach to include within auctioned products interruptible backhaul services for single direction pipelines and finds it difficult to understand how the proposal to include an interruptible backhaul service in the auction for single direction pipelines fits within the objective of the original reform to maximise flow on contractually congested pipelines with unnominated capacity.

Issues that we see in offering this type of service include:

- **Limited certainty of auction quantities and curtailment risk leading to a loss of confidence in the auction platform.** Backhaul services on these pipelines is notional and subject to parties flowing gas in the opposite direction. It is unclear how any capacity can be auctioned with any certainty as renominations from shippers will greatly influence quantities available. These can change hourly on some pipelines, therefore in the time that the auction has been run, shipper may have to be curtailed before they have been given a chance to nominate. This is a considerable uncontrollable risk for shippers to manage and we question whether shippers will be willing to participate.

- **Lack of participation due to uncontrollable risk will lead to insufficient cost recovery to justify the implementation costs.** The Paper contends it is a simple administrative matter to schedule backhaul yet offers no evidence of this. This additional service will result in additional implementation costs, yet it is difficult to understand how the benefits of offering the service will cover these costs.

- **Notional backhaul services are already subject to workable competition and are not contractually congested.** The majority of pipelines have multiple shippers transporting gas in the predominant direction of flow. These shippers are listed on the bulletin board. Any one of these shippers would be in a position to offer a competing swap to a shipper wishing to notionally transport gas in the opposite direction. It a commonly traded product that is utilised frequently and formed the basis of one of the largest and most significant gas deals this year between Shell and Santos. On this basis, any back haul service is subject to workably competition and offered as such.

Recommended Alternative Approach

Jemena suggests that these products be excluded from the initial implementation to focus of effective implementation of the firm auction products, consideration for the inclusion of this service could be given as part of the AEMC's biannual review into the effectiveness of the reforms.

2.3 AUCTION PRODUCT RENOMINATION RIGHTS AND IMBALANCES

Jemena does not support auction products with renomination rights or imbalances. It opens the opportunity for a shipper to cheaply buy capacity through the auction and hoard it in an effort to strategically block those shippers who would otherwise rely on intraday As Available, Interruptible or overrun services. Therefore it would be unfair to other shippers that missed out on capacity in the auction and those shippers with lower priority services to be excluded from the opportunity to compete for that residual capacity particularly where the renomination results in an overrun. A fair approach would be to rerun the auction, although this would be impractical, therefore the auction should not include renomination rights.

Allowing shippers to have an imbalance allowance would also be unwise. The product by definition is run daily. It would be difficult to see how a shipper could manage this and take the appropriate actions to clear the imbalance. Imbalances if not managed appropriately can cases significant security of supply issues for pipeline operators and all other shippers as such would contravene the NGO.

Recommended Alternative Approach

Shippers who have auction capacity who require additional capacity above their nomination can manage this through other services such as As Available, Interruptible or secondary trading arrangements. Imbalances can be managed via in pipe trading services.

2.4 RECEPT AND DELIVERY POINT CONSIDERATIONS

We support the GMRG suggested approach to offer point to point auction products. The suggested timing associated with the auction is only ~ 12 hours prior to the start of the gas day. This makes it very difficult for the pipeline operator to, establish the appropriate operating conditions on the pipeline to support the zonal model and may require post auction curtailment as this is the only time that the actual receipt and delivery points become known which in turn may impact the available capacity. It creates an additional market risk that would undermine the auction market.

3. AUCTION DESIGN

Based on the limited information provided in the Paper this section outlines our views with regards to the GMRG's auction design recommendations in particular questions 10-34 of the Paper.

3.1 AUCTION QUANTITY

- A trade-off exists between auction quantity and resulting market prices – lower quantity will lead to higher prices.
- The Paper understates the complex interaction between auction quantity, curtailment risk, how this will operate in practice within the combinatorial auction framework. In particular, for the auction process to maintain its efficiency properties, the winner determination algorithm would need to be re-run after curtailment , prorate curtailment will not result in capacity being allocated to those that value it the most a key requirement of the AEMC recommendations
- The auction quantity should be chosen such that curtailment is minimised as this will be a complex and costly process and likely erode the benefits of the auction. This means that a conservatively low approach to setting quantity should be adopted where there is risk of curtailment.
- We also note that the analysis conducted by EnergyEdge does not consider curtailment risks on combinations of pipeline that would form part of a winning sets and therefore, understate the impact of curtailment, eg, if just one link within a winning set is curtailed then to remove aggregation risks, the whole winning of pipeline links needs to be curtail and the winner determination needs to be re-run.
- We would not support the inclusion of the calculation of auction capacity in the NGR given the limited flexibility in managing change for the industry as a whole.

3.2 AUCTION FORMAT

- Jemena is not supportive of any combinatorial approach due to the inherent complexities. Even the partial combinatorial process, when considering the role of minimum requirements and XOR bids is complex. The inclusion of dynamic backhaul would be highly complex and entails significant gaming risks.
- In the circumstance where curtailment occurs, to maintain the desirable properties of the combinatorial auction process, the complexity of the combinatorial auction increases dramatically.
- A combinatorial auction may not be the best approach because:
  - > Complex implementation means:
    - high implementation costs; and
    - potential deterrence of new entrants
    - impacts transparency as it is difficult to understand
    - pricing on one asset may be heavily influenced by the auction results of adjacent assets
  - > Combinatorial auctions tend to favour bidders that demand larger products - if a bidder wants a single pipeline segment, then in order to beat a bid from a bidder that wants a superset of their demand, then they need other bidders to have demand for other links within the superset.
  - > Combinatorial auctions, combined with second price rule and collusion risks may mean lower demand and prices.
- Insufficient analysis of demand to support implementation of complex combinatorial process:

  - > no consideration of interconnected links in supply assessment by EnergyEdge, which is fundamental to justifying the combinatorial auction design;
  - > insufficient consideration of whether a combinatorial auction, as opposed to a design that focuses on the designing products that meet the demand of potential shippers, eg, hub to hub products, is preferable.
- The AEMC has acknowledged "further work by the GRMG is needed to obtain an estimate of the relative magnitude of [combinatorial auction] costs and benefits."[1] This has not been undertaken.

3.3 PRICING RULE

- Prices are likely to be very low owing to the zero reserve price, format and low level of competition.
  - > This is reflected in the GMRG's fear around collusion in their discussion of information policy due to lack of demand.
- The deviation from the first pricing rule as recommended by the AEMC is likely to lead to a reduction in auction revenues. The pay-as-clear pricing rule allocates the full surplus available to the bidder to incentive them to bid truthfully. The pay-as-bid rule will tend to allocate some of the surplus to the seller.
- Under a specific set of assumptions, the pay-as-bid and pay-as-clear pricing rules will lead to equivalent revenue outcomes in the long term owing to learning from bidders. As the consultation document notes, this requires that valuations are constant over time and that bidders are risk neutral. Both of these assumptions are not well founded and, therefore, it is likely that prices will be lower in a pay-as-clear auction. In particular, valuations are unlikely to be constant over time and have the potential to fluctuate owing to dynamics in related markets, eg, the LNG export market and the wholesale electricity market.
- Higher prices under a pay-as-bid rule will lead to increased incentives for investment in capacity. Pay-as-bid rule may encourage participation for bidders with a smaller demand, owing to the fact that bids may be take advantage of uncertainty regarding valuations from rival bidders, and partially offset their disadvantage due to the combinatorial format

3.4 DETERMINATION OF WINNING BIDDERS

- Profit maximisation algorithm and random tie-break rules are sensible although we acknowledge that this leads to complicated outcomes under a combinatorial auction that impacts transparency as it is difficult to understand as pricing on one asset may be heavily influenced by the auction results of adjacent assets.

3.5 TREATMENT OF CURTAILMENT ON THE GAS DAY

- Curtailment in the context of a combinatorial auction is problematic and there are risks that the curtailment will re-introduce aggregation risks. Pro-rata curtailment will not result in capacity being allocated to those that value it the most, a key requirement of the AEMC recommendations.

[1] AEMC, East Coast Wholesale Gas Markets and Pipeline Framework Review, p 78

3.6 ALLOCATION OF AUCTION RESIDUE

- An allocation of auction residues based on revenue achieved for the products is appropriate. The combinatorial approach will complicate this. The auction design should encourage a positive auction residue. A negative auction residue is evidence that the mechanism is not net beneficial.
- Mechanism for allocating auction residue should not lead to negative auction residues and therefore, a net cost for the sector.

3.7 INFORMATION AVAILABLE TO AUCTION PARTICIPANTS

- A balance needs to be reached between providing information such that bidders can make informed decisions but not such that the information will facilitate collusion.
- The fact that the GMRG has concerns regarding insufficient competition to allow information to be released without concerns regarding collusion brings into the question the benefits claimed by the GMRG with regards to the new demand to be served through this mechanism.

3.8 AUCTION TIMING

- The timing of the auction will have an impact on overall system reliability, responsiveness and efficiency.
- Physically gas can take serval days to move from one end of the pipeline to another whilst commercially receipt and delivery is seen as instantaneous. Daily operation requires careful management of compressors to ensure that the gas is moving to where it is needed most ahead of time to ensure security of supply. For Jemena's assets losing at least 5 hours of time to enable this to happen will increase the risk of curtailment particularly on days with fluctuating gas flows. Including back haul services will only exacerbate this issue.
- Forecasts from auction participants will ordinarily assist in service providers being able to anticipate market requirements. Without this information, the pipeline operator may not be in a position maintain the same amount of capacity that currently exists within the system. Current certainty on operating conditions is what enables pipeline operators to flow above nameplate capacity for short periods of time. Without these forecasts in is unlikely that this will be able to be offered going forward. This withdrawal of short term capacity is unlikely to be in the interests of the market as a whole.
- The auction itself adds significant complexity to our business. As a result it is likely to result in having to employ more personnel to manage daily obligations including shift work. It is difficult to see how that cost won't be passed on the end customers. This is likely to be true for all participants of the wholesale market who do not currently operate out of hours.

Recommended Alternative Approach

Jemena suggests that a much simpler auction design be considered as part of the initial implementation that would be limited to individual pipeline auctions rather than the combinatorial approach. Consideration for how a multiple pipeline auction could work should be part of the AEMC's biannual review into the effectiveness of the reforms. This would give the market suitable time to understand the impact of the auction in the context of the broader reforms and ensure that impacts from unintended consequences are minimised. It would also ensure the likelihood of the platform being implemented within the targeted timeframe. Jemena is concerned about the industry's ability to meet the envisaged timelines given the complexity involved.

4. COVERAGE OF THE AUCTION

Based on the limited information provided in the Paper this section outlines our views with regards to the GMRG's auction design recommendations in particular questions 35-40 of the Paper.

- The proposal to apply the auction to all major transmission pipelines is driven by:
  - > a view that the auction will provide significant benefits which can only be fully realised by allowing a combinatorial auction across all major pipelines; and
  - > a view that the auction will not give rise to dynamic efficiency losses based on the analysis in the NERA report.
- The prospect of significant benefits from the auction has not been demonstrated. Indeed, the GMRG and NERA appear to anticipate that there will be relatively limited demand for auction products.
- Given the negative implications for pipelines that are not fully contracted it would be disproportionate to favour the inclusion of all pipelines to ensure efficiency in the auction platform, given the relative size in investment attributable to the auction platform relative to the investment in pipelines as a whole
- The likelihood that the auction will affect incentives for investment in pipeline capacity is addressed in the NERA report, and this would require a direct response, engaging with the framework for analysis that it introduces and applies.
- Dynamic efficiency losses are not attributable to any single pipeline, as implied by question 37. Rather, dynamic efficiency losses affect the gas pipeline sector at large, through a reduced willingness to invest in new capacity. It may be possible to reduce the prospect of these losses by using a mechanism to limit the volumes available to a contracted but unnominated auction in circumstances of greatest concern.
- The proposed exemptions for pipelines that do not provide third party access or service a single facility are sensible.
- It is important to weigh up the benefits provided by the auction against the costs – both direct in terms of the cost of the auction and indirect in terms of its effect on investment incentives. If the level of trading in the auction is not sufficient to recover its cost, this is a powerful signal that the auction is not efficient, ie, it is not welfare enhancing.
- There is a presumption that somehow pipelines would be incentivised to withhold contracting capacity which lacks supporting evidence. From Jemena's stand point as a pipeline operator the economics of such a decision would never stand up. Furthermore the actions of a pipeline not contracting when there was demand would likely result in arbitration where any decision will be binding on the pipeline operator. In practice Jemena does not see how this suggestion can be seen a credible.
- Through APGA, Jemena understands that capacity auctions in Europe have been implemented on contractually congested interconnect points only. The introduction of auctions on pipelines that are not fully contracted is unique. Jemena is concerned that the GMRG seems confident in readily dismissing the risks associated with such an introduction.

Recommended Alternative Approach

Jemena suggests that the initial auction include fully (100%) contracted pipelines servicing multiple customers only as originally envisaged by the AEMC when it proposed the mechanism. Any further inclusions and exclusions could be considered as part of the AEMC's biannual review into the effectiveness of the reforms.

5. DESIGN AND USE OF THE AUCTION PLATFORM

Based on the limited information provided in the Paper this section outlines views with regards to the GMRG's auction design recommendations in particular questions 41-48 of the Paper.

- With the latest auction design being proposed by NERA, we question the relevance of the proposed AEMO platform. AEMO put forward the proposed platform ahead of NERA's paper. The latest design is significantly more complex and we question the potential cost and timing associated with delivery of such a system as presented.
- It is difficult to provide an informed comment on the platform without information on the likely costs required and delivery schedule associated with implementation of the platform. It would also be useful to understand the costs and schedule impacts associated with the additional functionality of the combinatorial design. Without this it is difficult to comment on the cost benefit of such design.
- Whilst, a suggested cost recovery mechanism was proposed for AEMO developing and implementing the platform, it remains unclear how pipeline operators will be compensated particularly where auction revenues are insufficient. Jemena would expect that potential shippers would incur a minimum service charge that could be periodically reviewed to ensure that recovery of costs. If costs are unlikely to be recovered as it would be at prices beyond what the market would be willing to pay then, we would suggest that those affected pipelines would be able to request to the AER that they be excluded from the auction mechanism.
- STTM interaction and Market Operator Services (MOS) - As previously discussed in our submission As Available, Interruptible and overrun services are called upon daily to provide MOS services. If the prioritisation of the auction product proceeds as suggested by the GMRG it is unclear how pipeline operators and MOS providers will be able to offer this service as the prioritisation of the associated balancing services will be less than the auctioned product. As MOS is fundamental to the STTM design, we have concerns that without further consideration, the STTM will be compromised. We suggest further consultation than what has been provided in the Paper is required with market participants and AEMO to establish a workable solution in light of the auction.

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6. REPORTING FRAMEWORK FOR SECONDARY SHIPPERS

Based on the limited information provided in the Paper this section outlines our views with regards to the GMRG's auction design recommendations in particular questions 50-57 of the Paper.

Jemena is supportive of reforms that provide market transparency, Whist we recognise the challenges in having shippers report off market trades we are keen to see acknowledgement by the industry and regulators that the actual traded volumes of capacity will be much higher than those reported as there are a number of bundled commodity/capacity trades and swaps that won't be subject to the prosed framework. Success of the reforms should not be solely based on these reported volumes. It will be an important for the AEMC to understand this when it assess the success of the reforms in its biannual review.