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Via online submission

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Australian Energy Market Commission
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GRC0036: Gas day harmonisation rule change proposal – Jemena submission

Jemena Limited (**Jemena**) welcomes the opportunity to comment on the Australian Energy Market Commission's (**AEMC**) consultation paper on the 'Gas day harmonisation' rule change proposal.

Jemena owns and operates the Jemena Gas Network (**JGN**) in NSW that delivers gas to over 1.2 million homes and businesses¹, and partially owns the ActewAGL Distribution gas network in the ACT, Queanbeyan and Palerang. Jemena also owns and operates gas transmission assets including the Queensland Gas Pipeline (**QGP**) and Eastern Gas Pipeline (**EGP**). Jemena, therefore, has a strong interest in this rule change as it would directly impact both us and our customers.

We support the AEMC's assessment framework and consider how costs are shared is an important consideration

The AEMC's consultation seeks to identify and quantify the costs and benefits of the proposed change to assist its assessment against the National Gas Objective (**NGO**).

We support the AEMC's approach and its proposed assessment framework. It is important that change only occurs where there are clearly demonstrated long-term customer benefits that outweigh the collective costs to achieve them.

The AEMC's assessment should also consider how costs are shared, especially given alternatives to the proposed solution (such as a different harmonised gas day start time) may exist where costs are incurred by different consumers, network businesses or market participants that would result in the same benefits to all consumers being realised.

A more preferable rule should include an appropriate cost recovery approach. For example, the costs incurred by market participants as a result of the rule change could be recoverable from the Australian Energy Market Operator (**AEMO**) and then via market participant fees. Otherwise a situation will arise where benefits accrue to market participants in all jurisdictions, but the costs of the change are borne by

¹ The Network consists of the NSW Distribution System, the Wilton-Newcastle trunk pipeline, the Wilton-Wollongong trunk pipeline and the Central West Distribution System.

customers or businesses within a subset of the jurisdictions. This cross-subsidisation would be uneconomic and therefore would not promote the NGO.

We have provided initial impacts and our cost estimate is approximately \$1M

This submission seeks to assist the AEMC's assessment of the rule change by providing a quantified estimate of the costs to Jemena to make the required changes. Jemena's initial cost estimate for implementing the rule change is \$1 million. The work likely involved to implement the proposed solution is set out in **Appendix A**.

We also note that:

- As field changes would be needed across a number of distribution and transmission assets over a very large geographic area at the same or very similar time, our initial cost estimates may underestimate actual costs, given the potential for 'surge pricing'²
- The consultation paper has not included any anticipated impact on ActewAGL Distribution given it is not part of a Short Term Trading Market (**STTM**). However, we consider that ActewAGL Distribution could also be impacted by virtue of it operationally falling within the NSW gas market³
- If the gas day changes from 6:30am AEST to 6:00am AEST, AEMO may amend the Retail Market Procedures (NSW & ACT) or the STTM Procedures to reflect the change. If AEMO does make changes to either of these Procedures, these changes are likely to impact JGN and would also have to be costed.

Benefits are not yet clear

Jemena is not aware of any benefits to us or our customers from harmonising the STTM and Wallumbilla Gas Supply Hub (**GSH**) to the Victorian Declared Wholesale Gas Market (**DWGM**) gas day. It is not clear how material the current complexities are to market participants that arise due the different gas day start times or the additional trading/arbitrage value that would arise from harmonisation. Prior to making a rule, the AEMC should clearly set out the suggested benefits, quantify them and these would need to be shown to exceed the collective costs to the industry of making the change.

The possibility of a preferable rule needs to be considered before accepting the proposed rule change

Jemena considers that, should the AEMC make a rule to harmonise gas day start times, the start time that minimises costs should be adopted. To this end, we have not seen evidence that substantiates that the least cost option is for the STTM and GSH to move to 6:00am.

² Surge pricing may occur where there is high demand and limited supply for a service within a certain period of time, with the increase in pricing required to increase supply.

³ For our cost estimate, we have assumed that harmonisation would occur in all markets and not only those identified in the consultation paper—that is, the ACT would also change to 06:00 AEST. Were the outcome to be different times for ACT and NSW, then this would require replicating existing hardware, software and support—this cost has not been included in our estimate and could potentially double our cost estimate.

This option would attract costs from NSW, ACT, South Australia and Queensland to move to 6:00am. This might, for example, exceed the costs of requiring the GSH and DWGM (and only two states—Victoria and Queensland) to shift to 6:30am.

A more preferable rule should also specify how to appropriately share costs as mentioned above.

The AEMC must ensure coordination of gas days used by all connected facilities and networks

Changes to the gas day start time of a facilitated market will necessitate changes to the gas day times used on transmission pipelines and other facilities (including production facilities and distribution networks) that are connected to these markets, including changes to the gas day times that are specified in contracts between the owners and users of these facilities (as set out in Appendix A).

However, while effectively requiring the alignment of times used on connected facilities for the proposal to be successful, the drafting of the proposed rule does not explicitly specify that this is required. This could create a risk that some counterparties of facility users who would need to agree to a variation to their contract may choose not to do so. A misalignment between gas days used by any two facilities (e.g. a production facility and a pipeline) would create significant complexities and risks for users and potentially one of the operators of these facilities.

For example, a small production facility that is not directly connected to a participant in a facilitated market—but is connected to a pipeline serving that market—may be reluctant to change its own contracts and systems to align with a new gas day start time. If this producer decides not to change times in its Gas Supply Agreements, a shipper that uses both facilities may choose not to agree to change its Gas Transportation Agreement, leaving the pipeline operator without consistent gas days for shippers on the pipeline.

As noted above and detailed further in Appendix A, a similar issue exists regarding alignment in gas day times between the Sydney STTM and the ActewAGL Distribution network. The proposed rule's current drafting raises uncertainty as to whether alignment between the STTM and distribution networks such as the ACT would continue, raising the prospect that significant additional implementation costs would be incurred.

A more preferable rule could mitigate these risks by specifying that the gas day used by facilities connected to—or connected to a pipeline that serves—an STTM, GSH or DWGM must align with those of the facilitated markets. This would remove any potential doubt as to the satisfaction of law/rule change event provisions under contracts.

Implementation should coincide with seasonal resourcing lulls

Jemena would need around six to nine months to prepare, test and implement the change. Implementing the proposed solution is likely to require Jemena—and likely other gas distribution and transmission infrastructure owners—to deploy substantial resources on (or around) a single day to make the required manual changes. Therefore, should the rule change be made, its implementation should seek to align with seasonal resourcing lulls. This is likely to be the summer period for JGN and the EGP (the QGP does not experience seasonal variations in gas flows).

If you wish to discuss the submission, please contact Chris Stewart on (02) 9867 7290 or at christopher.stewart@jemena.com.au.

Yours sincerely

A handwritten signature in blue ink, appearing to read 'Eli Grace-Webb', with a long horizontal flourish extending to the right.

Eli Grace-Webb
General Manager Regulation (Acting)
Jemena Limited

Appendix A – Impacts and cost estimates of the proposed change

Jemena has identified the following likely impacts were the proposed change to be implemented:

- For the JGN distribution network (and parts of the ActewAGL network) an estimated one-off cost of \$450,000 related to:
 1. Metretek coding and field equipment changes
 2. Flow computers and SCADA updates
 3. External communications related to implementation
 4. Contractual implications

- For the EGP and QGP transmission pipelines an estimated one-off cost of \$550,000 related to:
 5. Onsite coding change to computers at each receipt and delivery point
 6. Changes to shipper management system
 7. Contract changes.

Further detail is provided below, however these are initial estimates only and more detail about the proposed change and further analysis would be required to obtain more accurate impact estimates.

1. JGN – Metretek coding and field equipment changes

JGN and ActewAGL have a licence to use Metretek technology to obtain daily meter reads of gas usage from their large industrial customers. This includes devices on site that interrogate the meter hourly and then on a daily basis dial into a 'Metretek' server held by Jemena to upload the daily usage data.

Any change to the gas start day will need to change the time on the Metretek server. As this is a single server that facilitates NSW and ACT data, the main impact under the assumption that both NSW and ACT will change to the same start time is to reschedule two SAP batch jobs to half an hour earlier.

However, it is not clear from the proposed solution whether the intent is for all gas markets, including the ACT, to change to a 06:00 AEST. Were the outcome to be different times for ACT and NSW then this would require replicating the Metretek server, with significant costs not included in our estimate above to replicate hardware, software and support.

Jemena would seek to change the gas day start time on the server, with this rippling through to all the onsite Metretek equipment. As this process has not been attempted before, Jemena would need to run some testing prior to implementation to ensure that on-site equipment picks up the server time change. The outcome of the testing would dictate how much Jemena would need to have on-site technicians make manual adjustments to gas day start times directly to the Metretek field equipment. In a worse-case scenario, all 500 sites need to be visited.

2. Flow computers and SCADA updates

The flow computer is an electronic device used to calculate the gas volume and flow. They receive analogue and digital signals from flow meters and temperature, pressure and density transmitters on our customer sites. Typically, a flow computer

produces instantaneous and cumulative data that JGN uses for network balancing and gas custody transfer. The cumulative data is reset on a daily basis at 0630 AEST as per the gas day.

In order to change the gas day to end at 0600 AEST, JGN would need to change the gas day start time for twenty four flow computers. Failure to change the time to 0600 AEST will contribute to unaccounted for gas consumed between 0600 and 0630.

The cost to change the time depends on complexity of the flow computer. As all flow computers were deployed from the factory with 0630 AEST gas day, we may have to engage the original vendor (a third party) to assist us in changing this time. It is possible that all works need to be conducted onsite as the programming software needs to connect directly to the flow computer. This would mean JGN needs to deploy electrical and instrumental technicians and third party engineers to make the modification at the same time.

There would also be some changes required to change the time in SCADA.

3. External communications related to implementation

JGN will need to ensure that all parties impacted by the change are aware of it and understand their responsibilities to ensure a smooth implementation.

4. Contractual implications

JGN sets out the terms and conditions for the provision of its haulage reference service in its Reference Service Agreement (**RSA**). This includes reference to the current gas day start time of 6:30am AEST. All our customers are party to the RSA.

The RSA includes a mechanism under clause 1.3 which enables us to amend the RSA to reflect changes in the law (or which the National Gas Rule are an extension).

However, this requires us to consult and notify all of the users subject to the RSA.

5. Onsite coding change to computers at each receipt and delivery point

Units that transmit the flow data collected at each receipt and delivery point on the EGP and QGP will need their software modified to reflect the change in gas day time.

Although an initial change can be made via an 'over-the-air' software update, a change will also need to be made by a technician physically visiting each site, some of which are in remote locations. The visit to each point by a technician to update the software on-site is necessary to mitigate the risk of the computers reverting to the original (current) gas day times in the event of a loss of power, which could cause conflicts and a loss of data in the SCADA system.

The change management and implementation exercises would require both SCADA and field resources.

6. Changes to shipper management system

Jemena maintains a system called PypIT to manage our commercial relationships with our shippers, including billing. Jemena will incur one-off costs from the external vendor of this software (Sydac) to develop changes to the system, and of one resource from our Commercial Operations team to test and implement changes.

7. Contract changes

Jemena maintains long-term Gas Transportation Agreements (**GTA**) with parties who own rights to firm capacity on our transmission pipelines. Each GTA specifies the gas day start time. A change in the gas day start time in the facilitated markets will therefore require the gas day times specified in each GTA to be amended.

We estimate the one-off costs to Jemena of drafting and executing amendments to all GTAs could be a significant undertaking.