

8 December 2022

Danielle Beinart
Acting Executive General Manager – Networks and Technical
Australian Energy Market Commission
Via email: danielle.beinart@aemc.gov.au

Dear Ms Beinart

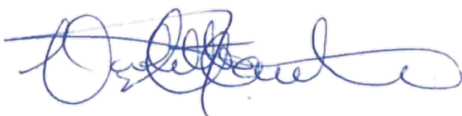
AEMO’s responses to the AEMC’s questions regarding the Declared Wholesale Gas Market (DWGM) interim LNG storage measures rule change

The AEMC has requested AEMO’s views on a number of technical questions to inform the final determination and aid in addressing issues raised by stakeholders in their submissions to the consultation paper. In responding to the AEMC’s questions, AEMO has focussed on technical and operational considerations for the implementation of the rule change.

AEMO notes that it will need to undertake a further round of consultation with stakeholders to develop the LNG Reserve Procedures and to update the Gas Scheduling Procedures to reflect the requirements of the rule change. AEMO expects that this consultation will address a number of residual issues raised by stakeholders, particularly around scheduling of AEMO’s reserve. AEMO recognises that there is limited time to operationalise the rule change ahead of winter-2023 and so system development and Procedure consultation will have to proceed rapidly once the final determination is made.

AEMO welcomes the opportunity to respond to the questions posed by the AEMC and we hope our answers aid the Commission in making a final determination.

Yours sincerely,



Violette Mouchaileh

Executive General Manager – Reform Delivery

cc:

Attachment A: AEMO responses to AEMC’s questions re: DWGM interim LNG storage measures

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Question One: *Whether AEMO considers the proposed buyer and supplier of last resort functions to sit within the existing intervention framework in rule 343, or separately from this framework?*

At a high level, AEMO can foresee two general scenarios where its LNG reserve may need to be scheduled on the assumption that there is an insufficient quantity of bids from market participants.

1. A general shortfall where there is insufficient supply across the DWGM to meet demand.
2. A temporal or locational issue that needs to be resolved by injecting gas from DLNG to maintain minimum pressures.

Both of these scenarios already fall within the threat to system security framework in the NGR. Time permitting, AEMO would first seek a market response and would then look to constrain on supply at DLNG - including supply from AEMO's inventory if there is insufficient supply available from market participants. This action would be an NGR 343 intervention and would be subject to the relevant rule requirements.

Question Two: *Why AEMO considers bidding in the LNG reserve at VoLL preferable to directing it in?*

From a system operation perspective, AEMO does not necessarily have a preference between these options. However, AEMO does note that if its gas is to be directed into the market then:

- This gas would not be priced at the market price.
 - AEMO would potentially need to seek compensation via the dispute resolution process for amounts injected into the market (noting the current Rules would need to be amended to allow this). With proceeds then allocated back to market participants.
- This gas would not be included in the regular scheduling process and would in effect be unpriced. Once injected, the additional supply would have potential market impacts at subsequent schedules.
- In the most extreme event, AEMO expects, if there was a large gas supply shortfall (e.g., exceeding 100TJ/d), this may mean AEMO is unable produce a feasible pricing and/or operating schedule.

Either option will ultimately impact market dynamics including settlement outcomes for market participants. What is important is that an AEMO intervention is transparent and predictable to the market in so far as is practicable. The supplier of last resort framework, where AEMO bids its gas in at VoLL, proposed in the rule change should achieve this outcome.

Question Three: *Whether different approaches (or prices) may be appropriate for system security/emergencies vis-a-vis reliability. For example, would it make sense to use the LNG reserve for:*

- a. *system security/emergencies to occur by way of a direction (e.g. so that costs are shared across the market)*
- b. *reliability to occur by way of a bid at VoLL (or above) (e.g. so that those market participants that want to consume gas get a clear signal of the price at that point)?*

AEMO does not have a strong view on these matters. However, we do note that it can be difficult (or even arbitrary) to differentiate between a reliability or system security issue. A "reliability" issue can

become a system security issue e.g. if a compressor trips that then results in gas being unable to be transported in sufficient volume to a certain part of the network, causing a system security problem. As such, it is unlikely to be practical to design different pricing or intervention frameworks for system security events versus reliability events - particularly ahead of winter 2023.

AEMO does note that for an emergency event, where the system is being shut down, that if necessary AEMO expects to direct in up to 140 TJs of its LNG reserve to facilitate a safe shutdown of the gas network. In a scenario of this nature the market may be suspended under NGR 347 (1)(b) due to an emergency occurring under NGR 333. This arrangement has been established under the current rules and does not relate to the rule change.

Question Four: *How the concerns that stakeholders have raised about competing with AEMO at the VoLL price can most effectively be addressed? It would be useful here to get AEMO to explain in detail how the accreditation process would work and to also briefly explain why bidding in at \$800.001 or changing the maximum market participant bid to \$799.99 are not the preferred options.*

The proposed rule states that the Gas Scheduling Procedures *"must give effect to the principle that LNG stock held on behalf of AEMO should ordinarily be scheduled after LNG stock held on behalf of Market Participants"* and *"must provide for AEMO to place bids for injections of gas from the LNG reserve at a price equal to VoLL"*.

AEMO considers the most practical way to meet this rule requirement is to use bid accreditation constraints to control the amount of AEMO's LNG reserve that may be scheduled for any scheduling horizon. AEMO has the ability to manually alter bid accreditation constraints ahead of publishing a schedule. Under this approach, to prevent AEMO's gas from being scheduled into the market, AEMO would by default apply an MHQ constraint of 0 GJ/hr to its bid. This constraint would mean AEMO's bid would never ordinarily be scheduled. If AEMO determines that its LNG reserve is required due a threat to system security, AEMO would manually adjust its bid accreditation constraint to ensure the appropriate quantity of its injection is scheduled after all market participant bids have been scheduled.

For example:

- It is determined at the 6:00 AM schedule that a total of 89 TJs of market scheduled LNG is required on the gas day for supply to balance demand.
- Say there is a total of 60 TJs of participant LNG available in the bid stack and 200 TJs of AEMO LNG. Assume that bids are at \$800/GJ.
- The desired outcome is to fully schedule 60 TJs of participant LNG and have the balance (29 TJs) come from AEMO's LNG reserve.
- To achieve this at the 6:00 AM schedule, AEMO would apply a bid accreditation constraint of 1208.3 GJ/hr ($1208.3 \times 24 = 29000$) to its injection bid.
 - Note market systems run on whole GJs. Therefore accreditation adjustment would be 1209GJ/h ($1209 \times 24 = 29,016$ GJ). AEMO would compete with participants on tie breaking at \$800 for 16 GJs -> this marginal amount of tiebreaking is due to rounding and cannot be avoided.
- If AEMO then constrains on 89 TJs of LNG: 60 TJs of participant LNG would be scheduled and a maximum of 29TJs of AEMO LNG would be scheduled. This outcome achieves the principle proposed in the draft rule.

Options that alter bid prices in order to ensure relative scheduling priority would require material changes to the market clearing engine's (MCE) logic. MCE changes of this nature are complex and relatively costly and not achievable ahead of winter 2023.

Question Five: *Does AEMO have any concerns with notifying the market about when it is likely to procure gas to fill the DLNG and, if not, what is the most effective and least costly way to do so (e.g. liquefaction schedule, demand forecast)?*

AEMO does not have concerns with sharing any forward liquefaction schedule via system wide notice if AEMO has this information available. AEMO notes that a forward liquefaction schedule is only a forecast and that any LNG injection or other operational issue may cause the forward schedule to change.

Other issues

Forecasting DLNG inventory amount required to manage system reliability.

The AEMC has requested AEMO's view on whether it would be practical to forecast a specific amount of DLNG capacity required for contracting (as opposed to contracting the full amount). AEMO notes that without a regulatory mandated reliability standard or some other established benchmark, AEMO has no basis on which to model or forecast required capacity against. The AEMC would have to consider whether it is practical to develop and implement such a standard ahead of March 2023 however AEMO believes that it would be extremely challenging.

AEMO notes the absence of a reliability standard was raised as an issue in the rule change request and factored into the design of the proposed rule change. AEMO also recognises that there is a broader reform process that is considering whether a standard should be established and these reform measures will inform the design of longer-term arrangements.