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**3 October 2019**

**ERC0253 and ERC0255 draft determinations – NEM intervention and compensation frameworks**

AGL Energy (AGL) welcomes the opportunity to comment on the Australian Energy Market Commission's (AEMC) draft rule determinations regarding the threshold for participant compensation and the application of the regional reference node (RRN) test.

AGL is one of Australia's leading integrated energy companies and the largest ASX listed owner, operator and developer of renewable generation. Our diverse power generation portfolio includes base, peaking and intermediate generation plants, spread across traditional thermal generation as well as renewable sources. AGL is also a significant retailer of energy and provides energy solutions to over 3.6 million customers in New South Wales, Victoria, Queensland, Western Australia and South Australia.

The Australian Energy Market Operator (AEMO) may intervene in the National Electricity Market (NEM) to maintain or restore system reliability and/or security. The National Electricity Rules (NER) provide that when a relevant AEMO intervention event occurs, the dispatch price and ancillary services price is set at the value that would have applied in that region had the AEMO intervention event not occurred. Participants that are directed on receive compensation whether or not intervention pricing is applied. The purpose of intervention pricing is to ensure that all other participants receive or pay a market reflective spot price.

AGL supports the need for a robust intervention framework to minimise the impact of intervention events on market signals and outcomes. AGL considers that as a general principle, whenever the spot price is altered due to any intervention in the NEM, this distortion should be corrected to maintain an effective price signal to generation and load. We believe the current arrangements with respect to intervention pricing achieve this outcome and no change is necessary at this time.

AGL is highly concerned that the consequences of the AEMC's draft determination have not been appropriately considered. We consider the draft rules to be an example where the strict application of theoretical economic principles results in adverse market outcomes. The draft rule seeks to address short term price concerns, but which do not also address or take into account the underlying issue, which is that certain increasingly scarce services are not "valued" under the current market arrangements.

Should the AEMC proceed with the draft determination, it must concurrently reform this aspect of the NEM and create relevant markets for those services, to avoid adverse outcomes. AGL strongly suggests that the final determination be delayed until the full impacts of the draft rule and findings from related AEMC reviews can be further considered.



Attachment A to this submission provides further comments on each aspect of the draft determination.

If you have any queries about this submission, please contact Liz Gharghori on (03) 8633 6723 or [lgharghori@agl.com.au](mailto:lgharghori@agl.com.au).

Yours sincerely,

Elizabeth Molyneux  
General Manager Energy Markets Regulation



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## **Attachment A**

### **Directed participant compensation**

The AEMC has examined the appropriateness of the existing compensation framework and determined to amend the National Electricity Rules (NER) so that the \$5,000 threshold for additional compensation claims by directed participants will be applied per intervention event, rather than per trading interval. This is consistent with independent expert determinations.

AGL supports this proposed amendment on the basis that it will better allow directed participants to recover their costs.

That said, we note that directed generators, regardless of the application of intervention pricing, typically lose out commercially as a result of being directed. While the compensation scheme allows for cost recovery, this cannot accurately quantify the “losses” a directed generator can face. For example, when a gas-powered generator is directed on, this typically occurs when that generator would not be choosing to participate in the Market. That generator is using fuel that it would have commercially preferred to use another time. The generator can recoup fuel costs, but this does not address risks the generator now faces in having to purchase additional gas later, which it may have to do at a higher price through the spot market.

The AEMC has indicated that this rule change is likely to result in an increase in directions. AGL considers that any rule changes that would see a potential increase in the frequency of directions issued to participants should be made with caution. This is discussed further in the ‘market intervention’ section below.

### **Affected participant compensation**

The AEMC intends to make no change to the application of the \$5,000 threshold to affected participant compensation payments. The rationale provided is that it would not be in the best interests of consumers to pay affected participant compensation, nor would it be appropriate to calculate this based on the intervention pricing run, which the AEMC describes as infeasible.

AGL does not agree with this characterisation and utility of the intervention pricing run; we consider that it plays a critical role in countering distortion caused by AEMO intervention. Nor do we agree with the assertion that the consistent approach to the \$5,000 threshold across directed and affected participants would result in a materially negative outcome for either consumers or generators.

The AEMC uses an example from 2018 to highlight the potential costs to consumers of paying affected participant compensation for system strength directions. In the example, the AEMC reverses the claim status (from CS pays AEMO to AEMO pays CS) and states that had the \$5,000 per intervention event threshold not applied to CS Energy for impacts on the dispatch targets of Gladstone Power Station, \$285,000 would have been payable to CS Energy by AEMO. The AEMC uses this example to highlight why the \$5,000 threshold for affected participant compensation should continue to apply per trading interval, and not be extended to the intervention event.



AGL does not believe this is an appropriate example to be used as evidence for this rule change. The example does not in any way reflect the impact that AEMO's proposed rule change would have on the quantum of compensation paid to or by affected participants. As stated by the Independent Expert who determined the matter, and not disputed by AEMO, an error in the compensation calculation methodology erroneously caused the large compensation amount. The methodology error was uncovered by the Intervention Pricing Working Group, which also supported an amendment to the affected participant compensation methodology to include a short-run marginal cost component, to ensure there would be no windfall gains or losses through the compensation process.

AGL does not believe adequate justification has been shown for this decision from either a theoretical or practical perspective and is concerned that a single erroneous example which has since been addressed is used as evidence for the decision. AGL believes that consistency between directed and affected participants is desired.

### **Market intervention**

The AEMC has made a more preferable draft rule on the RRN test, the first aspect of which extends the application of the RRN test to the Reliability and Emergency Reserve Trader (RERT). AGL generally supports this aspect of the draft rule.

The AEMC has determined that further clarification to the application of intervention pricing is warranted and proposes to remove intervention pricing where the reason for the intervention is to obtain a service where a dispatch price is not currently set through the NEM dispatch process. This would occur even where the provision of the service results in the provision of energy or Frequency Control Ancillary Services (FCAS) as a by-product which has the effect of distorting the energy or FCAS price. In effect, this means that there would be no intervention pricing applied if AEMO issues directions for services such as system strength, inertia, or voltage control.

Pointing to the 2017 work of SW Advisory and Endgame Economics, the AEMC takes the view that there is no economic rationale for intervention pricing being applied to directions for anything other than energy and FCAS, as there is no scarcity signal to preserve for services that are unpriced.

The AEMC does concede that system strength directions in South Australia alter the supply demand balance, but does not consider the impact on the supply and demand balance to be relevant for determining when to apply intervention pricing.

AGL appreciates how the AEMC has stepped through its analysis to come to this view, nevertheless we fundamentally disagree with the AEMC's conclusion.

### **At what point should a distortion be corrected?**

AGL's view diverges from the AEMC's in considering what distortion in the market needs to be corrected. Take the example of typical system strength directions in SA:

- There would likely be high levels of wind generation and a wholesale price which would not be sufficient for significant gas generation to be committed.

- AEMO may direct a thermal unit or combination of thermal units to stay online to ensure there is adequate system strength.
- The thermal unit then generates at minimum levels to provide the required service, which has the effect of increasing supply into the bid stack, with an overall decrease in the market price.

AGL considers this is an uneconomic outcome for the market overall, with specific impact on the displaced generators. This scenario causes a distortion because of the fundamental physical characteristics of the generators that are typically directed – to provide the additional service (eg system strength) they must generate at some minimum safe level of energy. AGL does not consider this energy by-product to be part of the fundamental supply mix that should be used for setting prices in the market.

The intervention pricing run corrects the distortion caused by the directed units' place in the bid stack. The draft rule would remove this correction to set market prices based on the uneconomic dispatch of plant. In a market the size of SA, this could cause significant distortion, with a risk of extended periods of negative prices that do not reflect the true economics underlying the market. In late September, the directed participant energy has been as high as 36% of South Australian demand, a significant distortion to the market were it not for the current intervention pricing methodology.

As an aside, AGL notes that different types of directed units will have different minimum generation levels (for example a CCGT as compared an OCGT). If directed to generate for system strength reasons, even though they are providing the same 'service', they will have different impacts on the bid stack and spot price. We anticipate this may become an even more significant issue in other NEM regions as generation types with much higher minimum generation levels may be directed to operate (e.g. black coal generators in Queensland and large gas generators in Victoria).

The AEMC takes the view that applying intervention pricing in such instances causes distortion by providing false investment signals for energy, when it is not energy that the market needs. The AEMC is concerned that intervention pricing could lead to new entrants (non-synchronous generation) being enticed to enter the market because of high spot prices, exacerbating the system strength problem. AGL does not agree that this approach is theoretically correct – our view is that the intervention price is a more accurate representation of the energy price. In these instances, the intervention price reflects fundamental supply and demand rather than the price distorted by the minimum generation operations of directed power stations.

AGL acknowledges the AEMC's concern that intervention pricing may lead to higher market prices being seen and the entry of new participants on that basis. In the South Australian example, this may result in yet more wind generation entering the market, which in the AEMC's view is likely to exacerbate low system strength conditions. However, this argument must be challenged against the realities faced by generators seeking to connect to the NEM, particularly in complying with the "do no harm" provisions of the NER. The strengthened connections rules are resulting in incoming renewable generation committing to add-ons such as synchronous condensers, to provide enough system strength and inertia to offset any potential grid instability the newly connected generation may otherwise cause. Using AEMO's South Australian system strength matrix, it can be argued that additional wind generation would not fundamentally exacerbate low system strength conditions but would result in a higher quantum of wind generation constrained off to meet existing system strength limits. If the AEMC has concerns with the NER connections framework, perhaps it is that part of the NER that should be examined.



Further, new entrants to the market, particularly in SA, would be acutely aware of the drivers behind the price outcomes in that region, along with factors such as the ElectraNet synchronous condenser solution currently under development, which is intended to reduce the frequency of directions in SA. Concern about sending false market signals attributes a level of naivete to potential market entrants that we would be surprised to see in practice.

Rather than lead to more efficient investment outcomes, AGL anticipates that the draft rule may lead to less efficient investment outcomes. For example, extended periods of lower or negative prices when system strength is typically called upon may signal that there are potential gains to investing in batteries. However, such investment decisions would be based on distorted and erroneous market outcomes. Also, should the network build to address the inertia or system strength requirements (such as ElectraNet's synchronous condensers in South Australia), there is a real risk of battery investments being devalued. Such an outcome would not meet the National Electricity Objective, particularly with respect to efficient investment and operation of assets.

The draft determination acknowledges that in South Australia, the spot price could be expected to fall if intervention pricing is not applied because of the additional supply brought into the market. The AEMC considers that the market will 'self-correct' in response to the additional generation coming online, with generators likely to rebid rather than pay to generate. This may result in AEMO needing to issue even more directions than at present.

AGL is highly concerned with the increased business risk that this places on directed participants, as directions make it more difficult to plan fuel requirements and maintenance. We note that secondary effect scenarios, such as participants mothballing during shoulder periods to conserve fuel or to avoid commercially unfavourable pricing outcomes, have not been investigated. AGL urges the AEMC to reconsider any rule changes that would potentially see an increase in the number of directions issued.

AGL also notes that the desired rebidding behaviour may be inhibited by certain financial arrangements, such as the power purchase agreements (PPA's) with renewable generators. Semi-scheduled generators with PPA's may be indifferent to pool price and therefore would not rebid to minimise its generation and impact revenue.

### **The case for new markets**

The AEMC has separated its review of system strength and inertia frameworks from consideration of the intervention framework, which is understandable given the significant level of detail involved. However, by not aligning the timing of this work, stakeholders do not have the opportunity to consider these interrelated frameworks together.

AGL has been surprised by the draft determination, given the rule proposal by AEMO was significantly narrower in scope. We would imagine a change of the nature and significance of the draft determination would be considered once the relevant services have been priced as a separate market-based service or somehow valued in combination with the energy price.

The AEMC has indicated that market mechanisms for services are likely to be required in future:

*A market mechanism will complement and build on the certainty created through the TNSP obligation by providing the ability to continuously adjust the level of service provision in real*

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*time to maximise efficiency. Ultimately, the combined TNSP obligation and market mechanism will form an enhanced framework which efficiently balances certainty and flexibility for the management of system frequency in the long-term interests of consumers.<sup>1</sup>*

The Energy Security Board (ESB) has also stressed the need for reform in this area:

*The key risk for system security going forward is that the pace of reform in the market and regulatory arrangements does not match the pace of change in the power system...*

*The market and regulatory arrangements need to provide incentives to deploy innovative measures to both reduce the need for system security services and to supply them more efficiently.<sup>2</sup>*

The existing system strength and inertia services framework gives responsibility for maintaining minimum levels of these services to Network Service Providers (NSPs). To date, the framework has not led to NSPs contracting for services from generators. Should the draft rule be made, this would further reduce any inclination on the part of the NSPs to engage generators for these services.

AGL is concerned that by proceeding with changes such as the RRN test draft rule, the AEMC is opening the door to a NEM where some services are appropriately valued and paid for and some are not. For example, the system strength and inertia frameworks where NSPs are paid to provide these services, and the NER provisions for network support and control ancillary services where generators can be paid for the service they provide, compared with AEMO's proposed primary frequency control rule change requests. The draft rules not only seek to disadvantage participants by setting a distorted market price, they also fail to deal with the issue of services not being valued appropriately.

AGL believes this aspect of the rule change is a significant change to the structure of the current market design. While we agree that the market overall could be structured more efficiently to incorporate additional services, we don't believe this has been progressed sufficiently to make the proposed changes to intervention pricing in the time frame that the AEMC are seeking.

AGL looks forward to the System Strength and Inertia frameworks review and consultation to create a consistent, efficient and transparent design. AGL believes that each must inform the other to achieve the best, long-term outcome. On this basis, we urge the AEMC to give stakeholders the benefit of time to assimilate the system strength and inertia frameworks review findings (due in October 2019) before moving towards a final decision on this aspect of interventions, currently expected on 7 November 2019.

### **Concerns with the process to date**

The AEMC began these rule changes as part of a broader investigation into intervention mechanisms and system strength, combining rule change and market review processes. This draft rule was not an option that was subject to prior consultation and has come as a surprise to industry. Because of this approach, and the subsequent separation of the system strength issues, AGL does not consider that the consultation

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<sup>1</sup> AEMC 2017, Managing the rate of change of power system frequency, Rule Determination, 19 September 2017, Sydney, p. vii.

<sup>2</sup> Energy Security Board, Post 2025 Market Design, Issues Paper, September 2019, p. 24.



process has adequately provided stakeholders with an opportunity to understand the potential outcomes of the RRN test draft rule.

The AEMC characterises the RRN test draft rule as a clarification, as per the intent of the AEMO rule change proposal:

*AEMO's proposed drafting changes are also intended to enhance the clarity of the RRN test and reduce ambiguity, but without altering the current meaning of clause 3.9.3(d).<sup>3</sup>*

The rule change proposal directly addresses the question of whether intervention pricing should apply to non-market traded services, with AEMO being clear that there was no intention to change the overall application of intervention pricing through the proposal:

*AEMO notes the issue highlighted in its recent review of intervention pricing, that the application of the RRN test may not always result in optimal price signal outcomes when interventions are required for system security reasons (unrelated to supply shortfalls). Based on stakeholder feedback, AEMO considers this issue does not have a straightforward solution and is unlikely to meet the requirements for a non-controversial rule. It is therefore not addressed by this rule change request.<sup>4</sup>*

Given the significant diversion from the rule change proposal's purpose and anticipated significant impacts of the proposed change to intervention pricing, we do not consider that the AEMC has adequately justified the draft determination. Detailed consideration of the practical outcomes of the draft rule is required, along with considering the intervention pricing frameworks with those of system strength and inertia. We request that the AEMC delay the final determination to allow stakeholders to benefit from the October 2019 review of those inextricably linked matters.

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<sup>3</sup> AEMO, Electricity Rule Change Proposal, Regional Reference Node Test Following Activation of the Reliability and Emergency Reserve Trader, November 2018, p. 5.

<sup>4</sup> AEMO, Electricity Rule Change Proposal, Regional Reference Node Test Following Activation of the Reliability and Emergency Reserve Trader, November 2018, p. 2.