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13<sup>th</sup> July 2018

Submitted online to: <https://www.aemc.gov.au/rule-changes/generator-technical-performance-standards>

Dear Mr Adams,

**Generator Technical Performance Standards**  
**Reference: ERC0222**

The Australian Energy Council (the “**Energy Council**”) welcomes the opportunity to make a submission in response to the Australian Energy Market Commission’s (“**AEMC**’s”) *Generator Technical Performance Standards Draft Rule Determination*, and thanks the AEMC for conducting such a comprehensive inquiry, which has resulted in a detailed, even-handed assessment of the proposed rule change. The Energy Council does note, however, that the draft rule determination has been proposed while other matters such as the Frequency Control Frameworks Review, Reliability Frameworks Review, the Reliability Panel’s Review of the Frequency Operating Standard, and development of the National Energy Guarantee are ongoing. Therefore the Energy Council would advise caution in the proposed rule change’s implementation, and recommends further consideration by the AEMC of the effect these other matters’ outcomes will have on any final determination.

The Energy Council is the industry body representing 21 electricity and downstream natural gas businesses operating in the competitive wholesale and retail energy markets. These businesses collectively generate the overwhelming majority of electricity in Australia and sell gas and electricity to over ten million homes and businesses.

## **Discussion**

### Negotiated Access Standards

The rule change retains the concept of a minimum access standard (less than which access to the network will not be granted) and an automatic access standard (equal to or greater than which access to the network will be unconditionally granted), with parties having the latitude to agree a negotiated access standard on the continuum between the minimum and automatic access standards. However the draft rule specifies that the proposed negotiated access standard must be “as close as practicable to the corresponding automatic access standard having regard to: ... the commercial and technical feasibility of complying with the automatic access standard ...”.<sup>1</sup> This implies an obligation on connecting generators to strive for the automatic access standard, while providing little guidance on how technical and commercial decisions by the proponent will be assessed.

Quite rightly within the rules there is only a technical test for the proposed generator connection, but the Energy Council sees a problem with how the test can be passed. The revised Rule 5.3.4A(g) requires the network service provider (“**NSP**”) to advise the applicant (including providing detailed reasons) that its proposed negotiated access standard has been rejected, and this will assist in facilitating a dialogue between the proponent, the NSP and the Australian Energy Market Operator (“**AEMO**”). Nevertheless the basis for the NSP’s and AEMO’s assessment of technical parameters, such as quality of supply<sup>2</sup> and the proposed generator’s technical requirements,<sup>3</sup> is the current system model. (See, for example, Rule S5.2.5.4(d).) Using the current system model does not consider other concurrent or future connection applications which, if successful, may alter the power system’s characteristics. Undoubtedly the NSP and AEMO would experience difficulty in deciding which generators of those applying are most likely to connect, but to optimise the required

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<sup>1</sup> Draft Rule 5.3.4A(b1)(3)

<sup>2</sup> Draft Rule 5.3.4A(b)(3)

<sup>3</sup> Draft Rule S5.2.5

technical characteristics of the currently proposed generator and its efficient use of capital, the Energy Council recommends that the draft rule provides additional guidance on the technical assessment required to be conducted by the NSP and AEMO in negotiating an access standard. Furthermore, while Rules 5.3.4A(d1) and 5.3.4A(g) oblige AEMO and the NSP to provide detailed reasons for any rejection of the proposed negotiated access standard, the Energy Council suggests that the powers of the Independent Engineer, as set out in Rule 5.4.1, be expanded to include a review of AEMO's and the NSP's decisions in regard to the acceptance of a proposed negotiated access standard.

#### Reactive Power Control

The Energy Council appreciates the AEMC's work in harmonising reactive power control standards across synchronous and non-synchronous generators, but harbours concern that the operation and switching of generators' control systems to regulate voltage, reactive power and power factor must be in accordance with a procedure agreed with AEMO and the NSP.<sup>4</sup> As the National Electricity Rules stand, there are limited requirements for generators to agree matters with AEMO.<sup>5</sup> Given the negotiating power asymmetry between AEMO, the NSP and the generator seeking to connect, the applicant has limited recourse in seeking to expedite matters with AEMO and the NSP in order to facilitate its connection to the network. The Energy Council therefore recommends that the draft rule include, as a minimum, obligations for AEMO and the NSP to act reasonably in agreeing the tripartite procedures, thereby reducing the risk of parties commencing dispute proceedings under Section 8.2 of the National Electricity Rules. Again, the role of Independent Engineer may assist in resolving any disagreements between the parties.

#### Consequential Changes

As the AEMC would appreciate, the Energy Council's members were concerned that material plant changes, which might occur when replacing an aging or failing piece of equipment, would trigger the review of a generator's performance standards and impose a more severe compliance obligation. The Energy Council is therefore supportive of the provision introduced in draft Rule 5.3.4A(b)(1A), which requires alterations to a generator's performance standard as a result of equipment changes to fall between the existing performance standard and the automatic access standard, irrespective of whether the existing performance standard is now less than the prevailing minimum access standard. By including this provision, the AEMC has ensured that aging generators can extend their operating lives or improve their performance, which may have the effect of improving system security or reliability, or reducing costs to consumers.

Nevertheless the Energy Council is cautious about the increased demands being placed on generators to provide power system models when making minor plant changes. Each modelling exercise conducted is expensive and time-consuming given the limited number of firms able to complete the necessary work. While it is appreciated that NSPs and AEMO need to have confidence that the proposed plant changes will not have an adverse effect on the power system, the increased detail required in carrying out such modelling will act to delay upgrade and replacement projects, with little benefit to be accrued. Instead the Energy Council proposes that the modelling work required for minor upgrades be minimised or simplified to reduce its impost, particularly if equipment changes do not act to substantively alter the plant's performance characteristics. It is suggested that this can be achieved by providing more guidance within Rule 5.3.9(d) about the materiality of equipment changes which would trigger an assessment of a generating system's performance.

#### Transitional Arrangements

While the Energy Council understands the AEMC's desire to commence its final rule as soon as feasible, the Energy Council does not believe the proposed eight week transitional window sufficiently recognises the practical complexities of the negotiation frameworks, and the supporting role of third parties in facilitating these commercial and technical discussions. An example of such complexity is AEMO's recently increased modelling requirements, which can only be completed by a handful of expert independent companies and take, at a minimum, several months to produce a working model before discussions with counterparties can take place. The Energy Council therefore suggests that the rule should only take effect six months from the date of publication of the final rule, as this will allow advanced projects more time to complete negotiations, other projects sufficient time to reconsider their commercial position, and take into consideration reduced staff availability during the Christmas-New Year period.

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<sup>4</sup> Draft Rule S5.2.5.13(b)(2A)

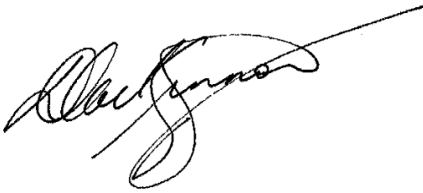
<sup>5</sup> Ten instances in the National Electricity Rules Version 110

## Conclusion

In conclusion, the Energy Council supports the draft rule determination although cautions that consideration in any final determination should be given to other reviews and market developments currently being mooted. It is clear that as the generation mix changes from conventional generation to predominantly renewable generation, the connection standards need to be amended, and the proposed more preferable rule substantially addresses this need without imposing overly stringent requirements on new generators and existing plant making equipment changes. Nevertheless the Energy Council would like to see further changes in the rules to mitigate the negotiating power asymmetry between the parties, and to take into account practical considerations which will affect generators currently seeking to connect.

Any questions about this submission should be addressed to the writer, by e-mail to [Duncan.MacKinnon@energycouncil.com.au](mailto:Duncan.MacKinnon@energycouncil.com.au) or by telephone on (03) 9205 3103.

Yours sincerely,

A handwritten signature in black ink, appearing to read 'Duncan MacKinnon', with a long horizontal flourish extending to the right.

**Duncan MacKinnon**  
Wholesale Policy Manager  
Australian Energy Council