



13 July 2018

Mr John Pierce
Chairman
AEMC
PO Box A2449
Sydney South 1235
NSW

Lodged via the AEMC portal

Friday, 13 July 2018

Dear Mr Pierce,

RE: ERC0222 - National Electricity Amendment (Generator technical performance standards (Rule 2018))

ENGIE appreciates the opportunity to comment on the Generator technical performance standards rule change. ENGIE has also contributed to, and supports the Australian Energy Council (AEC) submission, and makes the following additional comments.

1. Provision of reactive power

The requirement for reactive power is a function of load and load patterns, network characteristics, generating patterns and electrical system operation. The requirements for reactive power are local, rather than global, and change over time. Whilst one way of meeting the reactive power needs is to mandate reactive power capability as a connection requirement, it will not lead to a least cost solution from a customer perspective. This is because the costs to new generators are increased and provision of reactive power by distant generators is inefficient from a network operation, network losses and cost perspective.

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It is suggested that a more economically efficient solution would be to provide locational price signals (as set by AEMO and the TNSP) and allow a response from a wider range of technologies to seek lowest cost. In seeking technology neutral solutions, it is essential that demand side response and local generation (including behind the meter generation and storage) is allowed to contribute towards a least cost solution.

If services were sourced by the TNSP/DNSP, the cost of providing such support could then be passed to consumers via transmission and distribution charges instead of trying to pass it through the electricity pool. Cost reflective network tariffs could also assist in signalling the type of service and its value at a given geographic location to customers. Network tariffs are considered far more economically efficient in recovering localised “sunk costs” (ie medium/long term) than 5 minute spot prices in the NEM which apply to the whole market.

In a related area, ENGIE is alarmed at the recent developments where TNSPs have introduced new fees for connection enquiries and increased connection application fees in excess of 200%.

2. Continuous fault ride through

The continuous fault ride through requirements for an automatic access standard are extremely onerous and treat synchronous and asynchronous generators differently. Asynchronous generation faces more stringent requirements and this is inconsistent with the principle of technology neutrality of the NEM design. As this issue has been raised on several occasions by many participants over an extended period of time, it is not revisited further in this submission.

These new proposed requirements will add significant cost to new generation technologies for non-credible contingent conditions.

The requirements appear to be driven by an over-reaction to extreme weather events in South Australia and a more tempered and economically efficient approach is needed. Such an approach would include network solutions, as well as network and generation operational changes ahead of extreme weather conditions.

The proposed requirements are onerous and increase costs of projects and increase risks to project developers. In an efficient market, any additional costs will flow to the customer via energy or energy services costs including renewable energy certificates.

In the recently contemplated National Energy Guarantee (NEG), it is likely that unnecessarily onerous connection requirements will also result in higher costs of allocation of all renewable generation. This is because the marginal price is expected to be set by a new entrant in a transparent market with effective information flows (ie even though there isn't a common clearing price).

3. Negotiation process

To effectively negotiate generator performance standards there needs to be information and knowledge symmetry between the project proponent, AEMO and the TNSP. Typically, a project proponent will have little knowledge in

this highly technical and complex area and will engage a specialist consultant to assist. The consultancy is likely to include detailed and highly specialised modelling. Such consultants are in short supply and typically the information AEMO is able to share is only a portion of what is required. Any information in relation to other connection applicants is confidential and will not be available to third parties.

Under such circumstances it is impossible for the project proponent to negotiate on an equitable basis with AEMO and the TNSP/DNSP on the most effective performance standards.

It is quite likely that a project proponent, seeking a faster and more deterministic (less painful) resolution, may simply comply with what level of services AEMO and the TNSP seeks.

In this case the resultant outcome will be well in excess of least costs and hence not in the long-term interest of consumers.

ENGIE welcomes the AEMCs' proposed new obligations for AEMO and NSP's. AEMO and TNSP/DNSP must provide the connection applicant with detailed reasons for either rejecting a proposed negotiated access standard or require connection applicants to provide additional evidence to support proposed negotiated access standards.

It is essential that AEMO and the TNSP are obliged to provide a detailed explanation and specific evidence of the adverse effects on system security to justify why the proposed negotiated access standard is being rejected.

Without such facts, the connection applicant can't meaningfully negotiate with AEMO and the TNSP and/or develop alternative solutions in conjunction with the equipment manufacturer.

It is further suggested that failure to provide detailed and evidence based reasons should be subject to code breach penalties as administered by the AER.

4. Potential for conflict of interest

It should also be noted that under the proposed arrangement AEMO and the TNSP, in addition to having an information asymmetry advantage, also have a potential conflict of interest.

It is therefore imperative that the AEMC sets a framework that doesn't create a conflict of interest for AEMO when meeting its system security obligations and mandated acquisition of services via the connection agreements.

5. Related work

There are a number of important on-going market design elements under development/review where ENGIE is also directly involved:

- Frequency control frameworks review
- Reliability frameworks review
- Reliability Panels review of the frequency operating standard
- Development of the National Energy Guarantee

All of these areas of work have a bearing on the generator performance standards. The Generator Technical Performance Standards rule change should not prejudge or bias solutions to the above in a particular direction (particularly the mandated rather than market based provision of services). Therefore, the Generator technical performance standard rule change needs to take guidance from the abovementioned work streams prior to its final determination.

ENGIE trusts that the comments provided in this response are of assistance to the AEMC in its deliberations. Should you wish to discuss any aspects of this submission, please do not hesitate to contact me on, telephone, 0417343537.

Yours sincerely,

David Hoch
Regulatory Strategy and Planning Manager