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RE: Generator Technical Performance Standards – Consultation Paper (19 September 2017) (ERC0222)

Ausgrid welcomes the opportunity to make a submission to the Australian Energy Market Commission's (AEMC) Generator Technical Performance Standards rule change Consultation Paper.

Ausgrid has participated in various working group meetings chaired by Energy Networks Australia (ENA) who is also making a submission to the AEMC. Ausgrid supports the comments and feedback provided in ENA's submission.

Ausgrid's feedback generally focuses on Distribution level issues and is largely consistent with the key themes and positions outlined by ENA in their response.

Matters of interest to Ausgrid include:

- Negotiated Access Standards.

  In AEMO's Rule change proposal[1], it was stated in sect 5.1.1:

  > "To maintain a robust *power system*, *AEMO* expects any *negotiated access standards* should be as close as reasonably practicable to the *automatic access standard*."

  Ausgrid supports the move to require the Generator proponents to provide evidence for moving the access standard away from the Automatic Access standard.

- Reactive Support

  As noted by ENA, where the siting of the generator requires reactive support to maintain the network operability, Ausgrid concurs that such reactive support is to be provided by the Generator proponent, not by the Network Support Provider. This is on the basis that the generator is not carrying its fair share of the network costs to connect and is effectively shifting it onto the broader customer base.

- High voltage disturbance ride through (S5.2.5.4)

  AEMO have proposed that the figure S5.1a.1 (power frequency voltage) be revised to have a much higher voltage envelope for an extended period, and that the generators be able to operate at these higher voltages. Ausgrid has concerns that this will expose the network to voltages higher for longer periods than designed which may lead to asset failure and/or customer equipment failure. Ausgrid recommends that the proposed voltage withstand

[1] https://www.aemo.com.au/-/media/Files/Electricity/NEM/Security_and_Reliability/Reports/AEMO-GTR-RCP-110817.pdf

requirements in section S5.2.5.4 be reconsidered in the light of impacts to network and/or customer assets and with reference to overseas jurisdictional requirements for overvoltage.

Consideration should be given to compliance of supply voltage to customers with regards to the limits imposed by AS 60038 and AS 61000.3.100 and to the risk of damage to customer equipment that may be just within the upper voltage limits. AS/NZS IEC/TR 61000.2.14 may be referred to for guidance on the effect of overvoltages on customer equipment.

- Power Quality compliance

  Ausgrid supports ENA's recommendation that the AEMC consider referencing AS 61000.3.13 for Voltage Unbalance allocations (see S5.1a.7 Voltage unbalance and Table S5.1a.1). In addition Ausgrid suggests that the AEMC consider review of S5.1a.5 *Voltage fluctuations* and S5.1a.6 *Voltage waveform* distortion to refer to the current versions of the AS/NZS61000 series of technical reports. ENA members have carried out some preliminary work in this area and would provide assistance in drafting the changes.

If you have any queries or wish to discuss this matter in further detail please contact the undersigned on (02) 9269 4222 or via email mwebb@ausgrid.com.au, alternatively Greg Strain on (02) 9269 4179 or via email gstrain@ausgrid.com.au

Yours sincerely,

Matthew Webb

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