28 May 2018

SystemStrengthGuidelines@aemo.com.au
AEMO
GPO Box 2008
Melbourne VIC 3001

Dear AEMO,

SA Power Networks recognises the importance of maintaining adequate levels of system strength and welcomes AEMO's guideline document in assisting NSPs to assess the viability of new generator connections within the NEM.

We appreciate the opportunity to comment on AEMO's draft of its System Strength Impact Assessment Guidelines together with any responses AEMO way wish to provide to our comments and queries posed below.

Section Ref	Comment / Query
General query	AEMO should provide greater clarity regarding the size of generator connections these guidelines apply to? For example, do they only apply to connections made under Ch. 5 of the NER or do they also apply to Ch. 5A enquiries? The references to Ch. 5 processes such as suggest they do, however, when read in conjunction with AEMO's power system modelling guidelines which requires the provision of EMT models for systems <5MVA where the aggregate SCR < 10, this becomes less clear. The system strength guidelines suggest a detailed review of strength is not required where the SCR > 3, yet the modelling guidelines state that the connection applicant should provide an EMT model representation of their generating system if it is ≤ 5MVA and the SCR is < 10. This is particularly important for DNSPs who do not normally engage with AEMO on generator connections unless the proposed generator is required to be registered (ie export >5MW[1]).

[1] See Section 2.3.1 of AEMO's Guide to Generator Exemptions & Classification of Generating Units – 20 March 2018

Section Ref	Comment / Query
Section 2.4.1 – Provision of EMT models for full assessment	Where preliminary assessment reveals the need for a "full assessment" to be undertaken, the guidelines suggest that the connection applicant must provide an EMT model to enable the full assessment to be undertaken. In order to perform this assessment, this relies on the NSP having suitable EMT models of other existing connections; this is unlikely to be the case for existing embedded generators. Whilst the modelling guidelines and system strength guideline suggest that such existing connections must provide suitable EMT models to the NSP, there is no incentive for existing generators to provide this in a timely manner and no genuine method of enforcement by DNSP, resulting in potentially lengthy delays to the connection applicant's connection process. In such circumstances, is the NSP entitled to make any assumptions about the likely behavior of these existing connections in order to conduct the assessment? If so, AEMO should provide further guidance on how NSP may proceed with connection applications under such scenarios.
Section 4 – System strength impact assessment process	AEMO should provide some guidance of what it would consider represents "close electrical proximity".
Section 4.1.3 – Consultation with AEMO	As this is a new requirement under the NER and given that AEMO will not be aware of a connection proposal until now or perhaps otherwise never if the generator connection is not required to be registered under a standing exemption, AEMO should advise to whom or where within AEMO these preliminary assessment results should be sent. It is presumed that this requirement for NSPs to consult with AEMO on the findings of its preliminary analysis only applies to those generator connection enquiries subject to Ch5 of the NER and does not apply to enquiries made under Ch.5A of the rules. As stated earlier, it would be appreciated if this could be specifically clarified for the benefit of DNSPs who deal with a significant number of generator connection enquiries below 5MW in size.
Section 4.2 – Full Assessment	Where a full assessment using EMT models is required to facilitate a generating system connection to the distribution network, will AEMO or the relevant upstream TNSP be required to provide a suitable "lumped network model" EMT representation of the upstream network to the DNSP?

Section Ref	Comment / Query
Section 4.2.5 – Sole or Multiple Full Assessments	Can AEMO explain why NSPs can't simply perform assessments on a "first come, first served" basis depending on commitment status? Many generation proposals received by DNSPs are highly speculative in nature which many not proceeding to the Application to Connect phase.
Section A.2.2	Referring to example 2 where the addition of an asynchronous generator at bus N1 causes a significant reduction in available fault level (AFL) at bus N3, AEMO should provide guidance as to either the recommended level of AFL to be maintained (ie headroom) or a maximum % change in AFL that it would deem to be unacceptable at a connection bus (or nearby bus) due to the connection of any new asynchronous generation source without the performance of detailed studies.

Should any of the items raised in this response to the draft system strength impact assessment guidelines require further clarification by AEMO, please contact Steve Fraser on (08) 8404 5442 or at steve.fraser@sapowernetworks.com.au.

Yours sincerely

Grant Cox
Manager Regulatory Affairs