

Consultation Impact Statement



System Strength Impact Assessment Guideline

Generator and Load Model Guidelines and Change Management Requirements

PowerWater

1 Scope

The Network Technical Code and Planning Criteria (NTC) mandates that Power and Water in its role as the Network Operator develop System Strength Impact Assessment Guidelines (SSIAG), Generator and Load Model Guidelines and Model Change Management Requirements (Model Guidelines) for Power and Water's Regulated Networks. Draft versions of these guidelines have been developed by Power and Water and are being released to enable feedback from Users and the Utilities Commission consistent with the relevant provisions in the NTC.

The draft SSIAG have been developed with reference to the AEMO System Strength Impact Assessment Guidelines v1.0 effective from 1 July 2018. They provides guidelines for undertaking a system strength impact assessment for:

- a proposed new generating system;
- an alteration to existing generating systems; or
- a new network service facilities;

connected to one of Power and Water's Regulated Networks.

The draft Model Guidelines provide guidance for Users regarding the requirements they are expected to meet in providing computer models and associated information for their connected plant and equipment. The guidelines have been developed in accordance with clause 3.3.4 of the NTC. Providing models that meet the functional and accuracy requirements specified in the Model Guidelines will assist in maintaining safe and reliable operation of the power system within its specified limits.

While the two guidelines serve different purposes, they are related. For instance, system strength impact assessments rely on having access to sufficient computer models as specified in the Model Guidelines. Given the related subjects covered by the two guidelines they have been released together to enable a more efficient consultation with stakeholders.

2 Consultation process

Clause 3.3.5.16 of the NTC requires that Power and Water in its role as the Network Operator consult with Users before issuing or amending the SSIAG. A draft version of the SSIAG has been developed to facilitate consultation with Users.

Clause 3.3.4(f) of the NTC requires that Power and Water in its role as the Network Operator consult with the Utilities Commission and Users before issuing or amending the Model Guidelines. A draft version of the Model Guidelines has been developed to facilitate consultation with the Utilities Commission and Users.

Consultation will be held over 4 weeks, commencing 31 July 2020 and ending 4pm 28 August 2020. Submissions from stakeholders and interested parties are invited.

It should be noted that Power and Water will publish submissions in full. Should a stakeholder consider sections of their submission as confidential, a separate public version of the submission should be provided to Power and Water for publication.

Please send your submissions and any queries to NetworkDevelopandPlanning.PWC@powerwater.com.au

3 Proposed amendments

This is a new document.

4 Consultation questions

The Network Operator is interested in receiving any feedback on the draft SSIAG and Model Guidelines, and would particularly value feedback on the following questions:

1. Are the draft SSIAG and Model Guidelines aligned with the obligations outlined in the NTC?

2. Do the draft SSIAG provide sufficient detail to enable Users to understand how system strength impact assessments will be conducted and the data and models required for each assessment?
3. Do the draft Model Guidelines provide sufficient detail regarding model validation and accuracy requirements?
4. The draft SSIAG requires an EMT model to be provided by generators to enable a full impact assessment. The Model Guidelines explain the accuracy requirements for such models. Two approaches are being considered by Power and Water regarding the development of EMT models:
 - a) The first requires the adoption of PSCAD as the preferred EMT modelling software for Power and Water's regulated networks. This approach would require that any User required to provide an EMT model for their plant and equipment provide a PSCAD EMT model.
 - b) The second requires the adoption of DigSILENT Powerfactory as the preferred EMT modelling software for Power and Water's regulated networks. This approach would require that any User required to provide an EMT model for their plant and equipment provide a DigSILENT Powerfactory EMT model.

User feedback is sought regarding whether there is a clear preference for either of the above approaches. In expressing a preference PWC would value understanding User feedback on the advantages and disadvantages of each approach? Would requiring either a PSCAD or DigSILENT Powerfactory EMT model meeting the accuracy requirements specified in the Model Guidelines present materially different costs or risks for Users?