Background:

Territory Generation:

- Is the only licenced generator in the Alice Springs and Tennant Creek power systems supplying all of the dispatched energy and ancillary services
- Provides most of the energy and ancillary services in the Darwin-Katherine power system
- Operates in excess of 40 synchronous generating units in the three regulated power systems

Questions for PWC's Generator Performance Standards Information Session, Monday 18 January 2019:

Grandfathering:

- Summarise the practical changes in the new standards from the current standards and how they depart from the NEM, in particular:
 - Reactive Power Capability, new 3.3.5.1
 - o Generating System Response to Voltage Disturbances, new 3.3.5.4
 - Frequency Control, new 3.3.5.11
- Outline the requirements for existing generation to make changes to comply with the new standards
- Is there any intention to include any 'grandfathering' clauses in the System Control Technical Code similar to Clause 12.2 in the Network Technical Code?

Hierarchy of documents:

- Has or will the utilities commission be undertaking a legislative review to ensure changes and modifications to these two codes and one guideline do not result if conflicts between their governing acts and regulations.
- There appears to be confusion and inconsistency regarding the classifications of Generation. The Network Technical Code discusses semi-scheduled or non-scheduled generation while the proposed changes to the SCTC removes one but maintains the other.
- There are several references to C-FCAS throughout the two code documents. The definitions of these seem to only be incorporated in the SSG which is a subsidiary document to the SCTC. Would it be more appropriate to locate the definitions into a code, not the subsidiary document?

Forecasting:

• The modification to 3.11 of the SCTC appears to be a placeholder for a requirement on generators to provide forecasts of generation active power capability. The details are indicated to be contained in the Secure System Guidelines, but there does not appear to be any details contained in the SSG's.

- Provide a description of the proposed forecast requirements and advise when these details will be finalised.
- Advise what System Control is proposing to do with the forecast information provided from generators
- It is stated on page 21 of the Consultation Paper that 'The Power System Controller will not undertake daily plant production forecasting'.
 - Advise how System Control is proposing to utilise the forecasts of active power plant capability provided by generators
 - Advise how System Control is proposing to change its own forecasting practices

General questions/clarifications:

- Are the generator performance standards intended to cover batteries and other ancillary service provider technologies? Eg flywheel
- NTC sections 2.2.2, 13.9 and 16.3 all reference the term 'spinning reserve' will these be modified to C-FCAS?
- SSG Section 8 currently states that all three regulated power systems are not operating under C-FCAS requirements, rather all are still operating under 'spinning reserve' requirements. Will all three power systems be changed over to C-FCAS prior to the GPS being enacted?
- SSG Section 8, C FCAS: During the UC consultations on generator licence applications of large scale solar PV, System Control made various representations on proposed Generator Performance Standards in the lead up to this current consultation. Amongst which was the inclusion of some examples on meeting the C FCAS and inertia requirements, 'Attachment B'. In those examples, there were highlighted deficiencies in the SSG C-FCAS specifications including a standard ramp rate curve to apply to determining the C FCAS quantities. Would it be appropriate that these changes be included in this round of changes to the SSG? The examples themselves would seem to be appropriate to include in a Guideline.
- SSG Appendix A refers to a constraint that is no longer applicable due to reconfiguration of connections at CIPS. The Appendix should be reviewed if not deleted.

Other considerations:

• Can you outline the proposed schedule?