System Control Technical Code – Section 7 – Power System Incident Reporting Procedures

Note – The marked up changes in this document reflect the differences between the wording in the Current SCTC (Version 6.0) and the new wording for the Proposed SCTC. We have not marked up where we have changed the location of a clause. Instead, we have noted in the 'Comments' column the location and clause number in the Current SCTC.

Clause reference	Proposed changes to clause	Comments
7.1 Purpose	This section sets out the procedures which govern the notification and investigation of <i>power system</i> incidents and the <i>Power System Controller's</i> and other <i>System Participant's power system</i> reporting obligations. The procedures include provisions dealing with:	This was clause 7.1 in the Current SCTC. These amendments reflect the approach adopted in the National Electricity Rules (NER).
	(a) the establishment and maintenance of the <i>Power System Incident Reporting Guideline</i> and the proposed content of the guideline;	We have added a definition for <i>Power System Incident Reporting Guideline</i> in the Glossary.
	(b) the requirement for System Participants to report the occurrence of power system incidents to the Power System Controller,	
	(c) the requirement for the <i>Power System Controller</i> to assess <i>power system</i> incidents, determine whether they constitute <i>reportable incidents</i> and classify <i>reportable incidents</i> by reference to the criteria set out in this Section 7 and the <i>Power System Incident Reporting Guideline</i> ;	
	(d) the requirement for System Participants to investigate and report on reportable incidents where required by the Power System Controller or the Power System Incident Reporting Guideline;	
	(e) the Power System Controller's obligation to investigate and report on reportable incidents and the obligation of System Participants to cooperate with and assist the Power System Controller in relation to that process;	
	(f) the power of the <i>Power System Controller</i> to make recommendations in reports issued by the <i>Power System Controller</i> under this Section 7 and the obligation of <i>System Participants</i> to comply with recommendations contained within those reports; and	
	(g) the role of the Utilities Commission with respect to the matters covered by this Section 7 and the <i>Power System Incident Reporting Guideline</i> .	
	These procedures are critical to the proper performance of the <i>Power System Controller</i> 's function of monitoring and controlling the operation of the <i>power system</i> with a view to ensuring that the <i>power system</i> operates reliably, safely and securely.	
7.2 Definitions		New clause heading. There is no equivalent clause heading in the Current SCTC.

		The terms and concepts that need to be explained in order to understand Section 7, should be included at the beginning of Section 7. The terms 'incident' and 'event' are currently used interchangeably in Section 7. We think that the term 'incident' should be used as this is more consistent with the current drafting of Section 7 and clause 4.8.15 of the NER.
7.2.1 Reportable incident	 A reportable incident is a power system incident that: (a) had, or could reasonably be expected to have had, an adverse effect on power system security or the reliability of the power system; or (b) caused, or could reasonably be expected to have caused, a material impact (within the meaning of the Power System Incident Reporting Guideline) on supply to customers, and includes, amongst other things, a power system incident that affects: (c) the energy production capability or capacity of a generating system; or (d) the capability or capacity of a transmission network or distribution network to transport energy to customers. 	This is clause 7.3.1 of the current SCTC. We have used the defined term 'power system security'. The term 'reliability', as defined in the Glossary (the definition in the Glossary is the same as the definition in the NER), needs to be linked to a system, device, plant or equipment to make sense. The defined term 'supply' means 'the delivery of electricity' so the word 'electricity needs to be deleted. We have also included a reference to customers because delivery of electricity to customers' is a primary focus of the later definitions. This 'electricity generation assets' should use the defined term 'generating system'. The definitions of 'transmission network' and 'distribution network' should be used as these terms pick up apparatus, equipment and plant.
7.2.2 Major reportable incident	 (a) a reportable incident which involves: (1) load shedding arising from the failure of a generating system; (2) load shedding lasting longer than 0.1 system minutes arising from the failure of a transmission network, excluding where the load shedding is under an agreement between a Network Operator and Network User, or (3) an outage of any transmission network element arising from equipment failure or operator error in a zone substation and which has a material impact (within in the meaning of the Power System Incident Reporting Guideline) on the supply to customers; and 	This is clause 7.3.2 in the current SCTC. This definition should be linked to the concept of a reportable incident and should be definitive not simply inclusive. Additions to the list should be done via the Power System Incident Reporting Guideline processes. The definition of load in the Glossary differs from the definition in the NT NER and the difference means that these words would mean 'loss of the amount of electrical energy delivered at a defined instant at a connection point or aggregated over a group of connection points' whereas the NT NER definition would mean 'loss of a connection point or defined set of connection points at which power is delivered to a person or to another network.' We have amended this definition to reflect the definition of the term in the NT NER. Amending the definition of load will not impact other references to load in the SCTC. This uses the defined term 'load shedding' here instead.

	(b) a <i>reportable incident</i> not referenced in paragraph (a), that the <i>Power System Controller</i> determines, in accordance with the process specified in the <i>Power System Incident Reporting Guideline</i> , should be classified as a <i>major reportable incident</i> .	
7.2.3 Minor reportable incident	A minor reportable incident is a reportable incident that is not a major reportable incident and is not otherwise classified by the Power System Controller as a major reportable incident in accordance with the Power System Incident Reporting Guideline and includes:	This is clause 7.3.3 in the current SCTC. We have added a definition for 'customer minutes' in the glossary.
	(a) an outage which lasts longer than the number of customer minutes specified in the Power System Incident Reporting Guideline and that, in the reasonable opinion of the Power System Controller, should be classified as a minor reportable incident; or	The thresholds are proposed to be defined within the <i>Power System Incident Reporting Guidelines</i> .
	(b) a reportable incident not referenced in paragraph (a), that the Power System Controller determines, in accordance with the process specified in the Power System Incident Reporting Guideline, should be classified as a minor reportable incident.	
7.2.4 Brief and Final	Brief Report means a report that is required to be provided by:	
Reports	(a) a System Participant in accordance with clause 7.4.1(c); or	
	(b) the Power System Controller in accordance with clause 7.4.2(g),	
	which report must meet the requirements of the <i>Power System Guideline</i> (including as to form and content).	
	Final Report means a report that is required to be provided by:	
	(c) the System Participant in accordance with clause 7.4.1(e); or	
	(d) the Power System Controller in accordance with clause 7.4.2(h),	
	which report must meet the requirements of the <i>Power System Guideline</i> (including as to form and content).	
7.3 Notification and classification obligations		We have grouped the operative provisions under separate headings that deal with notification, investigation and reporting.
7.3.1 Notification by a System Participant	(a) System Participants must notify the Power System Controller as soon as reasonably practicable after becoming aware of the occurrence a power system incident which has the potential to be classified as a reportable incident.	This is clause 7.4.2 of the current SCTC.

	(b)	The notice from the <i>System Participant</i> must meet the requirements (including as to form, content, timing and manner of notification) specified in the <i>Power System Incident Reporting Guideline</i> for that type of notice.	
	(c)	The Network Operator is responsible for liaising with Network Users to obtain all necessary information in relation to the occurrence of a power system incident involving the plant or equipment of a Network User which has the potential to be classified as a reportable incident.	
	(d)	If the <i>Power System Controller</i> becomes aware of the occurrence of a <i>power system</i> incident which the <i>Power System Controller</i> believes on reasonable grounds is related to <i>plant</i> or <i>equipment</i> operated or controlled by:	
		(1) a System Participant, or	
		(2) a Network User whose plant and equipment is connected to the System Participant's plant or equipment,	
		the Power System Controller may notify the System Participant of that view and require the System Participant to provide a notice under clause 7.3.1(b) with respect to that power system incident.	
	(e)	Nothing in this clause 7.3.1 prevents a <i>System Participant</i> notifying the occurrence of a <i>power system</i> incident which involves the <i>plant</i> or <i>equipment</i> of another <i>System Participant</i> or a <i>Network User</i> to the <i>Power System Controller</i> .	
7.3.2 Classification of power system incidents and reportable incidents	(a)	If the Power System Controller forms the view that a power system incident is a reportable incident, the Power System Controller must determine whether that reportable incident should be classified as a major reportable incident or a minor reportable incident.	This section provides additional structure surrounding the process, timing and obligations necessary to classify an incident.
	(b)	The determination referred to in paragraph (a) will be made in accordance with the process, criteria and time frames set out in the <i>Power System Incident Reporting Guideline</i> .	
	(c)	The Power System Controller may request a System Participant to provide such additional information and assistance as is reasonably required by the Power System Controller to determine the classification for a power system incident or a reportable incident.	
	(d)	Each System Participant must co-operate with the Power System Controller for the purposes of determining the classification of a power system incident or a reportable incident, including by	

	(e)	providing the information and assistance requested by the <i>Power System Controller</i> under paragraph (c) above. The <i>Power System Controller</i> may at any time prior to concluding an investigation with respect to a <i>reportable incident</i> , change its classification of a <i>power system</i> incident or a <i>reportable incident</i> if the <i>Power System Controller</i> forms the view on reasonable grounds, and after taking into account the requirements (if any) governing the re-classification of <i>reportable incidents</i> in the <i>Power System Incident Reporting Guideline</i> , that: (1) the <i>power system</i> incident no longer satisfies the criteria for a <i>reportable incident</i> (i.e. that the <i>power system</i> incident should cease to be classified as a <i>reportable incident</i>); or (2) the previous classification of a <i>reportable incident</i> no longer reflects the nature of the <i>reportable incident</i> (i.e. that a <i>minor reportable incident</i> should be re-classified as a <i>major reportable incident</i> and vice versa or should cease to be classified as a <i>reportable incident</i>).	
7.3.3 Notification of a reportable incident classification by the Power System Controller	(a)	The Power System Controller must notify the classification of a reportable incident (and any change to that classification made in accordance with clause 7.3.2(e)) to relevant System Participants and the Utilities Commission as soon as reasonably practicable after making that determination or change. A notice from the Power System Controller referred to in paragraph (a) must meet the requirements (including as to form, content, timing and manner of notification) specified in the Power System Incident Reporting Guideline for the relevant type of notice. A notice issued by the Power System Controller under this clause may also include a request for the relevant System Participant to provide further information or to instigate an investigation in relation to the reportable incident.	This is clause 7.4.1 of the current SCTC.
7.4 Investigation and reporting obligations			
7.4.1 System Participant's investigation and reporting obligations	(a)	If requested by the <i>Power System Controller</i> , a <i>System Participant</i> must investigate the occurrence of a <i>reportable incident</i> that is related to its <i>plant</i> or <i>equipment</i> and provide a written report to the <i>Power System Controller</i> which sets out the findings of that investigation and includes such other information as the <i>Power System Controller's</i> request or the <i>Power System Incident Reporting Guideline</i> specify must be included in that type of report.	This wording was in the second half of clause 7.4.2 of the current SCTC. As currently drafted, this clause requires <i>System Participants</i> to report on reportable incidents if requested by the <i>Power System Controller</i> . This would include major reportable incidents and minor reportable incidents.

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- (c) Subject to paragraph (d) below, the System Participant must conduct and complete the investigation and deliver a Brief Report to the Power System Controller in accordance with the requirements of the Power System Controller's request and the Power System Incident Reporting Guideline, as soon as reasonably practicable after receipt of the Power System Controller's notice under clause 7.3.3 and in any event within 5 business days of receipt of that notice.
- (d) If it is not reasonably possible for the System Participant to complete the investigation and provide a Brief Report within the timeframe specified in paragraph (c) (for example, if the investigation has not been able to identify the cause of the reportable incident), the System Participant must provide a Brief Report before the end of that period unless the Power System Controller waives this requirement.
- (e) Where a System Participant provides a Brief Report for a reportable incident under paragraph (d) above and that Brief Report relates to a major reportable incident, a Final Report must be provided to the Power System Controller as soon as reasonably practicable but in any event within 20 business days after receipt of a notification concerning the occurrence of the reportable incident, unless otherwise required by the Power System Controller. For the avoidance of doubt, a System Participant will not be required to provide a Final Report in respect of a minor reportable incident unless otherwise requested by the Power System Controller.

In addition to elaborating on the process and scoping the *Power System Incident Reporting Guidelines*, the timeline for *System Participants* to provide reports has been specified with flexibility delayed reporting by exception.

The requirement for *System Participants* to submit a Brief Report has been revised from 7 to 5 business days and is still subject to delivery with a revised scope if the cause has not yet been identified.

7.4.2 Power System Controller's investigation and reporting obligations

a) The Power System Controller must:

- (1) investigate;
- (2) conduct a review of; and
- (3) report on,

every reportable incident which is notified to the Power System Controller, or of which the Power System Controller becomes aware of.

This is clause 7.4 of the current SCTC.

The deadline for *Power System Controller's* Brief Reports has been reduced from 14 to 10 business days.

Introduced a deadline for the *Power System Controller's* Final Reports at 90 business days to provide sufficient time to analyse the outcomes of reports from

- (b) The purpose of the investigation, review and report under paragraph (a) above is to assess the adequacy of the provision and response of facilities or services and whether the facilities and services were appropriately established, and the appropriateness of actions (including remedial actions) taken to restore or maintain power system security, the reliability of the power system or supply to customers.
- (c) The *Power System Guideline* may specify the factors and other considerations to be taken into account in assessing the matters referred to in paragraph (b).
- (d) The Power System Controller may request a System Participant to provide such information and assistance as is reasonably required by the Power System Controller to conduct and complete its investigations, review and report under paragraph (a) above.
- (e) Each System Participant must co-operate with the Power System Controller for the purposes of conducting and completing its investigations, review and report under paragraph (a) above, including by using its reasonable endeavours to provide the information and assistance requested by the Power System Controller under paragraph (d) above.
- (f) The <u>Power System Incident Reporting Guideline may specify requirements applying to the conduct of the Power System Controller's investigation and review and the form and content of the report.</u>
- (g) The Power System Controller must provide a Brief Report to the Utilities Commission within 10 business days of receipt of a notification for a minor reportable incident or a major reportable incident (or otherwise becoming aware of the occurrence of such a reportable incident), containing key details of the reportable incident, the scope of the investigation and the Power System Controller's recommendations concerning the reportable incident.
- (h) The Power System Controller must provide a detailed report to System Participants and the Utilities Commission as soon as reasonably practicable and in any event within 90 business days of receipt of a notification of a major reportable incident (or otherwise becoming aware of the occurrence of such an incident). For the avoidance of doubt, the Power System Controller will not be required to provide a detailed report in respect of a minor reportable incident.
- Information included in reports on reportable incidents by the Power System Controller must reflect good electricity industry practice and

multiple *System Participants*, resolve any conflicts between investigations and agree on recommendations with *System Participants*.

This is clause 7.4.3 of the current SCTC.

7.5 Power System	investigating, reviewing and reporting on reportable incidents, the Power System Controller will be guided by good electricity industry practice and the requirements of the Power System Incident Reporting Guideline.	
Incident Reporting Guideline		
7.5.1 Obligation to develop and maintain Power System Reporting Guideline Color Ir the	The Power System Controller must develop and maintain a guideline (to be known as the Power System Incident Reporting Guideline). The purpose of the Power System Incident Reporting Guideline is to facilitate the proper discharge of the rights and obligations of the Power System Controller and System Participants under this Section 7 and to provide further detail concerning the various processes referred to in this Section 7. In developing or amending the Power System Incident Reporting Guideline, the Power System Controller must take into account good electricity industry practice, consider the need for consistency between this Code and the Power System Incident Reporting Guideline and consult with the Utilities Commission and System Participants. The Power System Incident Reporting Guideline will include provisions which describe or specify (amongst other things): (a) additional criteria for classifying a reportable incident (b) the form, manner and content of notifications and reports that are required to be provided under this Section 7; (c) the level of investigation required with respect to different types of reportable incidents; (d) the Power System Controller's obligations relating to the investigation of reportable incidents; (e) how the requirements of this Section 7 and the Power System Incident Reporting Guideline are to apply to different power systems; (f) how extensions to timeframes will be assessed in different circumstances; (g) the obligation of the Power System Controller and relevant System	This is clause 7.3.4 of the current SCTC.

the occurrence of a <i>power system</i> incident which has affected or potentially affected the <i>plant</i> or <i>equipment</i> of that <i>Network User</i> , and other requirements, considerations or matters which are reasonably required to efficiently and effectively manage the identification, classification, investigation and reporting of <i>reportable incident</i> in accordance with <i>good electricity industry practice</i> and the <i>Power System Controller's</i> function.	
 (a) The Power System Controller and all other System Participants must comply with the Power System Incident Reporting Guideline. (b) Each Network Operator must ensure that each of its connection agreements with Network Users require each Network User to support and assist the Network Operator in complying with this Section 7 and the Power System Incident Reporting Guideline to the extent that a power system incident is caused by the Network Users plant or equipment. 	
(a) Nothing in this <i>Code</i> prevents the <i>publication</i> of a report by the <i>Power System Controller</i> or by the Utilities Commission.	This is clause 7.5 of the current SCTC.
 (a) Without limiting the Power System Controller's rights under this Code, the System Control Licence and the Electricity Reform Act, following the completion by the Power System Controller of its investigation and reporting obligations under this Section 7 in respect of a reportable incident, the System Participants affected by the reportable incident and the Power System Controller must meet with the view to negotiating in good faith and agreeing any actions to be undertaken by the System Participant that are reasonably required to prevent a repetition of the reportable incident, and the timeframe for undertaking those actions. (b) The System Participant must undertake and complete any actions that have been agreed with the Power System Controller under clause 7.6(a) within the agreed timeframe for undertaking those actions. (c) If: 	
	other requirements, considerations or matters which are reasonably required to efficiently and effectively manage the identification, classification, investigation and reporting of reportable incident in accordance with good electricity industry practice and the Power System Controller's function. (a) The Power System Controller and all other System Participants must comply with the Power System Incident Reporting Guideline. (b) Each Network Operator must ensure that each of its connection agreements with Network Users require each Network User to support and assist the Network Operator in complying with this Section 7 and the Power System Incident Reporting Guideline to the extent that a power system incident is caused by the Network Users plant or equipment. (a) Nothing in this Code prevents the publication of a report by the Power System Controller or by the Utilities Commission. (a) Without limiting the Power System Controller's rights under this Code, the System Controller or by the Utilities Commission.

	(d)	paragraph (a) within 15 business days of commencing negotiations; or (2) a System Participant fails to undertake an action that is agreed under paragraph (a) within the required timeframe, the Power System Controller may refer the matter to the Utilities Commission. A System Participant must provide such evidence to the Power System Controller as is reasonably requested by the Power System Controller to determine whether the System Participant has complied with any action that is agreed under paragraph (a) or a recommendation made by the Power System Controller in a Final Report.	
7.7 Independent investigation of a reportable incident	(a) (b) (c)	Without limiting the <i>Power System Controller's</i> obligations and rights to investigate and report on <i>reportable incidents</i> under this Section 7, the <i>Power System Controller</i> must, if directed by the <i>Utilities Commission</i> , engage an independent expert to: (1) investigate; (2) conduct a review of; and (3) report on, a <i>reportable incident</i> . The terms of reference for the independent investigation must be developed by the <i>Power System Controller</i> , and approved by the Utilities Commission. The <i>Power System Controller</i> and each <i>System Participant</i> must co-operate with the independent expert for the purposes of conducting and completing its investigation, review and report under paragraph (a) above, including by using their reasonable endeavours to provide any information and assistance requested by the independent expert. <i>The</i> cost of the independent investigation will be met by the <i>Power System Controller</i> .	This is clause 7.6 of the current SCTC. As currently drafted, there is no obligation, and only a right of the <i>Utilities Commission</i> .

As the Half Yearly reporting collates incident reports among other matters, it was considered appropriate to clarify the scope of this report and provide it to System Participants. Consequently, the quarterly reports can be made redundant.

Clause reference	Proposed changes to clause	Comments
8.4 Power System Controller Reports	(1)	This content has been merged into clause 8.4.1.

8.4.1 Half yearly report to the <i>Utilities Commission</i>	 (a) The Power System Controller must submit a report to the Utilities Commission and System Participants which sets out: (1) the performance of the power system and details of any reportable incidents; (2) details of any new System Participants and their facilities; (3) details of any issues causing or resulting in a risk to power system security; (4) details of any black system which occurred; (5) any excess use of the Network; (6) any loss of generation/major transmission lines; (7) the occurrence of any under-frequency load shedding; and (8) the occurrence of any lack of reserve/low reserve, during the 6 months before the submission of the report. (b) The report must be issued on or before 31 January and 31 July each year. 	We have combined what are currently clauses 8.4 and 8.4.1 to clarify that the Power System Controller is required to report on the matters listed in clause 8.4.1 in the half yearly reports to the Commission and System Participants.
		Quarterly reports provided limited value as they contained a subset of the information provided in half yearly reports and involved a considerable degree of effort to produce. As Half Yearly are now issued to System Participants the removal of quarterly reports does not change the information received by System Participants.
8.4.2 Annual reports	The Power System Controller may contribute (as resources allow and as requested by a System Participant) information for that System Participant's annual report.	This is currently clause 8.4.3.

Attachment 1 – Glossary of Terms of the Code

Clause reference	Proposed changes to clause	Comments, responses and questions
load	A connection point or defined set of connection points at which electrical power is delivered to a person or to another network or the amount of electrical energy delivered at a defined instant at a connection point or aggregated over a defined set of connection points.	We have amended this definition to reflect the definition of the term in the NT NER.
Power System Incident Reporting Guideline	The guideline developed by the <i>Power System Controller</i> under clause 7.5.1.	

system minute	equals the energy equivalent of 1 minute of supply at maximum historical demand for the power system.	
customer minute	in relation to an <i>outage</i> of any <i>plant</i> or <i>equipment</i> forming part of a <i>power</i> system, equals the duration of the <i>outage</i> in minutes multiplied by the number of <i>customers</i> affected by that <i>outage</i> .	