# Plant Outage Procedure

# Response to Stakeholder Submissions

**22 October 2020**

PowerWater

# 1 Introduction

The Plant Outage Procedure (Procedure) was prepared by Power and Water Corporation (Power and Water) in its capacity as the Power System Controller under Section 4.4B (e) of the System Control Technical Code (SCTC).

The draft Procedure was published on 10 July 2020 and submissions were invited from stakeholders and interested parties by 7 August 2020. Submissions were received from ENI Australia (ENI) and Assure Energy. A late submission was received from Territory Generation (TGen).

Power and Water acknowledges and appreciates the effort of these stakeholders in making submissions on the draft Procedure. Power and Water has considered each issue raised in submissions and responded to the specific matters in the Section 3 of this document, including the highlighting the revisions that have been made in the Procedure to address the issues raised by stakeholders.

# 2 Outage Testing Request and Return to Service Templates

Questions were raised regarding the method and format of submitting Outage Testing Requests (OTR) paperwork. To aid System Participants, instructions for completing both the OTR and Return To Service (RTS) paperwork have been included in the Procedure in Appendix A. If any party would like to request a familiarisation session, they are welcome to do so via SCOperationsPlanning.PWC@powerwater.com.au.

Stakeholders are advised that the OTR and RTS tools are being updated to new versions in the coming months. The Outage Testing Request Tool Version 3 will supersede the Generator Outage Testing Request Tool Version 2 currently in use. The Return to Service Tool Version 3 will supersede the Return to Service Tool Version 2 currently in use.

Existing participants will be issued with a new template on 2 November 2020. They are invited to start using the new template from this date onwards. Generators are expected to fully transition by 18 November 2020, after which requests received will be sent back as not approved with a request to resubmit via the new template.

# 3 Detailed responses to submissions received

Please note that the words used in Issue/Comment column in the table below are in general our summarised interpretation of the issues raised by stakeholders and are not a verbatim quote from individual submissions. The submissions are available on our website. The Reference Number (Ref#) in the table is an internal tracking number to ensure all issues have been addressed.

| Ref# | Theme | Stakeholder | Issue/Comment | Power and Water Corporation Response |
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| 1 | Scope & general approach | TGen | Noted that the Scope section of the Procedure did not include Tennant Creek power system, but noted it is included elsewhere in the document. | Power and Water agrees with the requirement for inclusion of Tennant Creek power system. Section 2, Paragraph 2 of the Procedure has been updated for consistency and clarity. |
| | | TGen | Noted that inertia and black start services were not listed specifically as reasons for not approving outages, but noted that TGen has had outages not approved for these reasons in the past.<br><br>TGen noted concern that this may not be consistently or fairly applied across all generators. If these grounds are to be considered in the future, TGen wishes to engage in how this can be consistently applied across all Generator Participants. | The list provided in the General Approach section was not intended to be exhaustive, rather a high level indication of the common assessment criteria issues that occur to add context to the Procedure. For clarity, the reasons for not approving outages in Section 3 wording of the Procedure has been updated to include frequency control requirements of SSG Chapter 7 and 8. Black start as a specific criteria is not considered to be a necessary addition to this list.<br><br>In Power and Water's view, strict application of the criteria and processes outlined in the Procedure across all Generator Participants will result in consistent and fair application, however recognises that fairness is objective to each party. |
| | | EDL | EDL requested clarification that System Control will perform coordination of generation and network plant outages in the same outage window where this will maximise overall generation availability. | Power and Water accepts this recommendation to be in line with System Control's SCTC responsibilities to coordinate outage planning, and has included a sentence in Section 3 of the Procedure to clarify. |
| | | TGen | TGen expressed the view that approval of outages on an as received basis is inequitable given TGen will be required to provide sufficient generation to meet system demand plus reserves. TGen was of the view this philosophy will encourage early outage requests resulting in variations and increased administration effort for the outage planning process. | The approach to prioritising outage requests in the order they are received is the process that System Control currently follows. System Control will not allow outages to be approved should they result in breaches to reserves, unless the outage is required to address safety and/or system security concerns.<br><br>Whilst System Control does anticipate some additional administrative workload initially while Generator Participants become accustomed to the new procedure and processes, it is anticipated that once Generator Participants align their internal planning processes to match the |

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| | | | | requirements of the Procedure, this administrative workload will decrease. |
| 2 | Elevated risk factors | TGen | TGen noted that routine servicing and maintenance tasks exceeding 3 days would fit the Elevated Risk Outage definition. TGen requested clarity on any anticipated additional requirements deemed necessary in assessing and approving Elevated Risk Outages and requests the requirement be removed for standard servicing and minor corrective work. | The Elevated Risk definition lists a range of outage considerations that System Control has identified that will impact the chances of a proposed outage proceeding.<br><br>Outages greater than 3 days are included in the definition because they require increased coordination by System Control to find an outage window that does not conflict with other System Participants' plans, and there is also a greater likelihood of a forced outage elsewhere in the power system occurring during a longer period, which will affect the planning of conditions to allow the outage to proceed. |
| | | Assure Energy | Noted that an outage that occurs during the wet season may incur additional controls or not be permitted to occur at all. Requested further information on Wet Season including dates, additional controls, and reasoning why it would not be permitted. | System Control intends to accommodate outages in peak demand periods whereby the outage principles maintained in Section 3 are met. System Control will not approve outages that reduce generation capacity below the standby reserve requirements. During the wet season (October – April), the system load in Darwin-Katherine system is significantly higher, and therefore more generation capacity is required to cover the system load, and less generation outages are able to occur concurrently.<br><br>When assessing the risk of approving an outage, System Control must consider the risk of credible contingency events and the potential impact to customer supply. Depending on the location of the plant to be taken out of service, a network element might be identified as required to be in operation to maintain system security during a System Participant's outage. System Control utilises prior outage data to assess the likelihood of unplanned network outages, which in most cases is significantly higher during storms in the wet season (October - April).<br><br>Power and Water recognises that for some Generator Participants, particularly new solar installations, the wet season may be a preferred time to schedule outages. System Control will endeavour to accommodate these requests wherever possible, subject to an appropriate risk assessment outcome. |
| | | TGen | TGen acknowledged benefits associated with planning key outages during low demand periods, however | The scheduling of major / critical outages will be optimised by System Control through the continuous review, assessment, and coordination of |

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| | | | expressed concern that generators will be incentivised to plan outages concurrently.<br><br>Requested detail on how the Power System Controller will prioritise competing outage works planned in low demand periods. | requests received from each System Participant during the Annual Plant Maintenance Forecast, Preliminary Assessment, and Outage Testing Request processes.<br><br>System Control will accommodate outages in peak demand periods whereby the outage principles maintained in Section 3 are upheld. |
| 3 | Documentation requirements | Assure Energy | Requested more specific details on the documentation required for consideration, and how the Generation Outage Testing Request tool is accessed. | In response to this query the final Plant Outage Procedure includes specific detail of the template and instructions for completing an Outage Testing Request and Return to Service in Appendix A. A custom Outage Testing Request tool is provided to individual System Participants during compliance and commissioning of the associated plant. System Control will provide a familiarisation session on request at this time. |
| | | Assure Energy | Requested more specific detail on what documentation is required for the Preliminary Assessment response (Section 6.2). | A preliminary assessment requires a draft OTR form or email containing all relevant information contained in a completed OTR, plus compliance with sections 6.1.1, 6.1.2, and 6.1.3 of the Procedure.<br><br>System Control will work with System Participants to gain familiarisation with the processes and documentation requirements during the compliance stage of connection, or ongoing as required. |
| | | Assure Energy | Requested details or an example of the Risk Notification to be provided or referenced under the Procedure (Section 7.3). | Risk Notice examples and a familiarisation session can be provided to new System Participants on request. Requests should be sent to SCOperationsPlanning.PWC@powerwater.com.au. |
| | | Assure Energy | What is the minimum notice period regarding Out of Service - plant disconnected from the system (Section 7.1.1). | Minimum notice period is specified in SCTC 6.5.2(e) as 10 working days. |
| 4 | Opportunistic maintenance | Assure Energy | The Opportunistic maintenance section does not mention Solar Generators where night-time provides an opportunity for maintenance activities to occur. Assure would prefer that any opportunistic maintenance occurs at night so that solar generation is not affected. | It would be appropriate for a Generator Participant with solar plant to request opportunistic maintenance overnight, provided it meets the requirements in section 7.1.3. The wording has been updated to include reference in the application of self-scheduled units outside of the commitment schedule. |
| | | TGen | TGen notes that the 15 minute recall requirement for a short term outage is inadequate for scenarios where plant isolations are required for inspections or minor non-intrusive work. Requested that an allowance of at least 30 minutes apply. | Power and Water agrees that a 15 minute recall time does not allow time for works that require isolations and or permits. It is not the intent that the short term outage process cater for intrusive works that require isolations and permits to be carried out safely. To manage the safety risk, the wording has been updated to require OTR forms to be submitted to |

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| | | | | the control room with the reason for the outage, rather than rely on verbal communication. |
| 5 | Planned outage changes | Assure Energy | Planned outages maybe cancelled by System Control for a number of reasons beyond the control of Power Producer, no detail is provided on how/if any costs incurred by late cancellation by Power and Water can be passed on (Section 8.1). | Power and Water agree that there are scenarios out of a Generator's control, such as a forced outage or failed testing of another Generator Participant's plant that will result in late of cancellation of planned outages. There is no mechanism to recover the costs incurred due to outage cancellation. As stated in the procedure, priority will be given to planned outage requests based on the date they are received by System Control, and the System Control will work with System Participants to minimise the scenarios where this occurs. |
| | | Assure Energy | Requested further explanation on the extension procedure, noting a perceived disconnect between when an outage extension request must be submitted and when Power and Water will provide a revised risk notification for testing. | Timeframes for approval of testing requirements will depend on the outage cause, remedial actions taken while out of service, and requirements of the testing activities. In most circumstances, low risk changes or testing will be approved following a forced outage by the next business day, but higher risk testing activities following forced outages that have required significant rectification work will require a longer assessment period. For example, if the works require setting changes, or will affect the performance of the generating unit and therefore require compliance or R2 validation testing, then significant engineering assessment or planning would be required. The wording in the Procedure has been updated to reflect this explanation. |
| 6 | Outage penalties | Assure Energy | Asked for clarification of the penalties for a forced outage. | If a forced outage of plant occurs, be it failure to come in to service when requested, or an unplanned disconnection from the power system, System Control will not authorise reconnection to the power system until the cause is identified and corrective action taken, in line with the procedure requirements. |
| | | TGen | Proposed that all generators seeking to take plant out of service provide a means of supporting the reduction of capacity of the plant they are taking out of service at the time of the request via provision of alternate capacity or contractual arrangements with another generator. Believes this is in line with SCTC Clause 4.4A. | There are no established guidelines for System Control to assess compliance for capacity arrangements in the I-NTEM outside of calculating out of balance settlements. Power and Water notes that it is not an item on the Utilities Commission's published 2020-21 Priorities. Any proposal for capacity mechanisms would be best directed to the Northern Territory Government's priority electricity market reform program. |
| | | TGen | Proposed that when System Control applies test requirements such as the need for additional spinning reserve on the system to manage the system security risk during testing, generators seeking an outage | Under the current I-NTEM arrangements, as per SCTC A6.11, generators are required to pay TGen $5.40/MWh for ancillary service provision. A change to this Ancillary Service Price, or a SCTC amendment to introduce a schedule rates for different conditions, will require significant analysis |

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| | | | should provide a means of procuring support for testing requirements. | and justification of the cost of provision to be submitted. It is noted that the arrangements for ancillary services provision is currently subject to a comprehensive review by the Department of Industry Tourism and Trade as part of the Northern Territory Government's priority electricity market reform program. |
| | | TGen | Proposed that the Network Operator be required to provide a means of supporting their planned outages that impact generation dispatch, such as contracting a generator for the service. | There are no regulatory mechanisms for this to occur in the I-NTEM and the proposal is outside the scope of this Procedure. System Control will endeavour to optimise outage times using the processes outlined in this Procedure. |