



Guidelines for Preparing Local Black System Procedures

October 2019

Consultation Report

Executive summary

AEMO is consulting on proposed amendments to the Guidelines for Preparing Local Black System Procedures (LBSPs). The purpose of the amendments is to improve the quality and usefulness of the LBSPs in current and future power system conditions, and enable AEMO to better reflect the capabilities of newer generation technologies in its system restart plans.

AEMO commenced the consultation on 13 August 2019 by publishing the proposed amendments to the Guidelines and calling for submissions. AEMO is particularly consulting with generators, network service providers and market customers (or end users) with major loads.

AEMO received three submissions in response.

After considering the submissions and further reviewing the draft Guidelines and included templates, AEMO proposes the following key changes to the initial draft of the Guidelines:

- Include in the Guidelines a statement about transitional arrangements for existing registered participants and registration applicants who have provided an LBSP to AEMO before the effective date.
- Confirm that LBSPs submitted by network service providers can reference relevant provisions of operating manuals or procedures that have separately been provided to AEMO, if consistency and currency is maintained.
- Clarify the scope of information to be provided in relation to SCADA monitoring and control systems.
- Recognise that some information items will not be applicable to all generating systems and templates should be completed accordingly.
- Other minor drafting changes to clarify the detail and examples of information required.

AEMO has produced an updated draft of the Guidelines and now invites further submissions on that draft by 5:00 pm (Melbourne time) on 18 November 2019.

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1. Consultation process

AEMO is consulting on the proposed amendments to the Guidelines for preparing Local Black System Procedures (LBSPs) under clause 4.8.12(e) of the National Electricity Rules (NER). This draft report commences a second stage of consultation.

AEMO is required to amend the Guidelines in consultation with Generators and Network Service Providers (NSPs), being the registered participant categories required to prepare and submit LBSPs under the NER. Some very large loads will also play an important role in system restart, therefore AEMO invites interested Market Customers (or relevant end users) to participate in this consultation.

The Guidelines are **not** subject to the Rules consultation procedures in rule 8.9 of the NER.

AEMO received three submissions in response to its initial consultation notice, from TransGrid, Ausgrid and Meridian Energy Australia/Powershop (MEA Group). Those submissions and AEMO's responses are summarised in the draft report.

AEMO is now inviting further submissions on the updated draft Guidelines by 18 November 2019. After considering any submissions received, AEMO will determine and publish the final amended Guidelines.

AEMO's intended timeline for this consultation is outlined below. Future dates are indicative only and subject to change.

Process Stage	Date
AEMO issues initial consultation notice and draft Guidelines	13 August 2019
Closing date for submissions on initial consultation	20 September 2019
Publication of updated draft guidelines and report (this document)	31 October 2019
Closing date for submissions on updated Consultation on draft guidelines	18 November 2019
Publication of final guidelines	12 December 2019

2. Summary of submissions and AEMO responses

Table 1 Summary of submissions received on the proposed amendments to the Guidelines for preparing Local Black System Procedures

Item	From	Issue	AEMO response
1	TransGrid	<p>Referencing Existing Documentation</p> <p>The structure of TransGrid's Operating Manuals (OM) means that much of the information AEMO is seeking is already recorded in a controlled document provided to AEMO. In the interest of having a single source of information, our Local Black System Procedure will use referencing to the relevant OM.</p> <p>AEMO will therefore have to ensure that it updates its procedures in response to all OM updates that are referenced in the TransGrid LBSP.</p>	<p>AEMO agrees that the LBSP can refer to an NSP's Operating Manuals (OM) if the latest version of the OM is always provided to AEMO. AEMO notes that:</p> <ul style="list-style-type: none"> • As the OM are often lengthy documents, the LBSP must identify the relevant OM section that addresses the LBSP items. • If the OM is updated such that the section reference in the LBSP is no longer correct or the OM no longer incorporates the required LBSP information, the NSP must submit an updated LBSP to AEMO. <p>The Guidelines will be updated to confirm the above.</p>
2	TransGrid	<p>Routine testing</p> <p>In Section 4: Continuity of NSP Supervisory Systems (monitoring and control), under item 4B AEMO is seeking information regarding routine testing arrangements.</p> <p>The stated objective of the LBSP is provide an information source for AEMO to understand the likely condition and capabilities following a supply disruption. TransGrid considers routine testing arrangements as an Asset Management function and does not see that it is relevant to meeting the LBSP objective.</p> <p>TransGrid's view is that item 4B should be removed from the guideline.</p>	<p>Item 4B under the NSP LBSP template is in the existing Guideline for preparing Local Black System Procedures. The only proposed amendment to item 4B was to add the following note.</p> <p><i>"Note the requirements of NER clause 5.7.4(a2)(2) in your response, where applicable."</i></p> <p>AEMO agrees that this note is not necessary, on the basis that NSPs have separate compliance obligations in this respect. However, AEMO intends to retain item 4B itself, in its existing form. The information provided under 4B can provide useful information relating to monitoring and control systems reliability, an important consideration for system restoration.</p>

Item	From	Issue	AEMO response
3	TransGrid	<p>NER Interpretations</p> <p>TransGrid notes that since the AER published its report in December 2018 on the South Australia System Black event there has been inconsistent interpretations of the National Electricity Rules that need to be resolved. The AEMC has recently issued a Consultation Paper on proposed amendments to the NER in response to rule change requests from AEMO and the AER. The consultation paper clearly identifies the role and function of Local Black Start Procedures (LBSPs) is an area where AEMO and the AER have different interpretations.</p> <p>TransGrid's view is that this impasse on interpretations creates a significant risk which can be effectively mitigated by reaching NEM wide agreement on the interpretation. The market bodies should take the lead in resolving this matter noting that TransGrid is a happy to participate in any consultation.</p> <p>Resolution of this issue should proceed any finalisation of the LBSP Guideline.</p>	<p>The AEMC's September 2019 consultation paper on System Restart Ancillary Services rule changes signals the AEMC's intent to assess how the role and function of the LBSPs are dealt with in the NER. AEMO supports NER changes to remove any perceived ambiguity on the nature and purpose of the LBSP and its relationship with SRAS contract requirements, system restart plans and communication protocols.</p> <p>The AER considered the LBSP should "encompass procedures such as the actions generators (including SRAS providers) and NSPs will undertake when a major supply disruption is declared at their local level." This may involve some overlap with other documents as indicated above. It is nevertheless very clear, and not disputed, that the LBSP must include the information contemplated in NER 4.8.12(f), primarily to provide sufficient information for AEMO to understand the likely condition and capabilities of plant following any major supply disruption, enabling AEMO to effectively co-ordinate safe implementation of the system restart plan.</p> <p>Many LBSPs no longer provide sufficient information to achieve this objective, so there is an immediate need to revise the Guidelines. This was also a recommendation of the AER's investigation report.</p> <p>If the need for more or different information requirements is identified when the AEMC makes its final rule, AEMO will consult on further changes to the Guidelines as required and in accordance with appropriate transitional rules.</p>
4	Ausgrid	<p>The revised item 4A requests information about 'systems to monitor communication system integrity/availability.'</p> <p>Does this requirement refer to the SCADA system's capability to monitor and report on communications availability/integrity between the SCADA manager and managed endpoints; or the capability to monitor the availability/integrity of the underlying telecommunications network that carries the SCADA traffic?</p> <p>Ausgrid's SCADA/control systems internally monitor their own integrity, and flag instances where parts of the SCADA/control system become unavailable. Independent of this, Ausgrid also has monitoring systems for the underlying communications systems used by the SCADA/control systems.</p>	<p>The request for 'systems to monitor communication system integrity/availability' under item 4A is related to integrity of communication used for monitoring and control required to manage and operate the network.</p> <p>Systems to monitor communication system integrity/availability during normal operation could also be utilised for system restoration purposes.</p> <p>AEMO has updated item 4A in the NSP LBSP template to clarify the above.</p>
5	Ausgrid	<p>The revised item 4C requests information about 'capability of emergency power supplies at control centres and data centres.' Does this refer specifically to data centres related to Ausgrid's SCADA/control systems, or more broadly for other functions supporting the Ausgrid business, such as corporate IT data centres?</p>	<p>Item 4C relates to emergency supplies at control centres and data centres only as it relates to operation of the network.</p> <p>If there is no reliance or link between emergency supplies at corporate IT data centres to operate the network, then this information is not necessary.</p> <p>AEMO has updated item 4C in the NSP LBSP template to clarify the above.</p>

Item	From	Issue	AEMO response
6	MEA Group	<p>MEA Group are concerned that the proposed amendments focus on larger capacity generators, implying that a 'one size fits all' approach would be considered appropriate and sufficient for preparing the LBSP.</p> <p>MEA Group would like to engage and consult with AEMO to discuss preferred LBSP guideline amendments that could be implemented to ensure that our small-scale generator preparations for LBSP is efficient and effective, as distinct from implementing amendments that do not relate to our business or incur unnecessary costs and resources."</p>	<p>AEMO understands that MEA Group's concerns relate to certain items in Part A of the Generator LBSP template, particularly examples and scenarios that could be construed to relate mostly to thermal generation.</p> <p>AEMO agrees that further clarification of the Generator LBSP template is required and has updated the items under Part A to clarify.</p> <p>Additionally, the Guidelines will specifically provide that where items are not relevant for a particular generation facility, the Generator can mark it as 'Not Applicable'. However, all fields should still be considered in the LBSP (even if ultimately marked not applicable), to ensure confidence in the information process.</p> <p>AEMO is also conscious that the transformation of the NEM power system will see an increasing number of smaller generating systems, utilising new and regularly upgraded technologies. The importance of gathering and maintaining comprehensive information on their capabilities in system restoration conditions cannot be underestimated.</p>

3. Transitional arrangements

In addition to the submissions, AEMO also received enquiries about the implementation of the amended Guidelines, specifically whether existing Generators and NSPs will need to provide AEMO with a replacement LBSP using the new templates.

AEMO proposes to include transitional arrangements in the Guideline. Following publication of the final amended Guidelines:

- All Generators and NSPs must use the new LBSP template for a new facility if they have not yet submitted a registration application for that facility.
- Generators and NSPs must use the new template if they are required to update their LBSPs to reflect changes in plant performance, relevant contract arrangements, or on request by AEMO under the NER.
- Otherwise, existing LBSPs should be updated to include any additional relevant information required by the new templates within approximately six months (by 30 June 2020). It is highly recommended that the new templates are used (particularly for inverter-connected generation), but not essential provided all applicable items of information are included in the LBSP.
- Extensions of time to complete full LBSPs may be agreed by AEMO in exceptional circumstances. As such, the existing qualification in the template indicating that missing information may be provided when available is removed.
- AEMO will identify major loads likely to be significant in a system restoration and request the responsible Market Customer to submit an LBSP or arrange for the end user to do so.

4. Revised draft Guidelines

AEMO has published a revised draft of the Guidelines (including LBSP templates), marked to show changes from the initial versions published in August 2019.

The amendments:

- Address the changes discussed in this draft report.
- Complete the full drafting of the Guidelines.
- Explain when AEMO expects LBSPs to be updated on a 'significant change of circumstances' as contemplated in the NER.
- Clarify the detail required in the LBSP templates, for example to confirm that they should cover additional installed equipment forming part of the participant's facilities, such as synchronous condensers.

AEMO invites submissions on the revised draft Guidelines by the closing date from interested Generators, NSPs (including transmission, distribution and market network service providers), and Market Customers or end users with very large loads.