

**Response to Comments on Draft Decision on Proposed Amendments to Western Power’s Technical Rules**

Rule Area	Proposed Change	Draft Decision	Submissions on Draft Decision	GBA Comment
<b>March 2016 Submission</b>				
Three phase fault credible contingency.	Removal of three phase fault credible contingency for voltages at or above 66kV if “consistent with good industry practice based on modes of operation”.	Not approved. The main issue was the application of the term “consistent with good industry practice based on modes of operation” and the lack of transparency as how it was interpreted by Western Power in a particular situation.	<p><b>Western Power</b></p> <p>Western Power has proposed a minor change to the proposed wording to better clarify where a three phase fault should be considered a credible contingency in respect of the existing network, as well as a new clause that requires a higher level of transparency when applied to capital works that trigger the Regulatory Investment Test.</p>	<p>We consider the Authority should approve the changes suggested by Western Power. The purpose of the amendment is to allow Western Power to increase the transfer capacity of network elements that are currently constrained. While we still believe that the application of the term “consistent with good industry practice based on modes of operation” is not well defined and can be interpreted (in relation to the existing network) as Western Power sees fit, this should only be an issue if a user is denied access to network capacity as a result of a conservative interpretation. Should such a situation arise it is still open to an affected user to trigger the dispute procedure in the Access Code.</p>
			<p><b>Steve Davidson</b></p> <p>The proposed changes do not adequately consider safety implications – in particular, equipment must be designed to withstand three phase faults. It also does not take into account that the risk of a three-phase fault is higher in the SWIN than in the NEM because transmission lines are designed to a lower standard; he indicates that this is why three phase faults are currently considered to be a credible contingency.</p>	<p>The proposed change does not increase either the frequency of three phase faults or their clearing time. Further, there is no relaxation of any technical requirement in respect of the three-phase fault withstand capability of equipment connected to the network. Hence no <i>new</i> safety issues arise as a result of the proposed change. The appropriateness of existing safety requirements is a separate issue, which is outside the Authority’s jurisdiction.</p>

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				<p>Mr Davidson's comments on the impact of line design are valid. However, the evidence is that, notwithstanding the lower standard of line design, the frequency of three phase faults on the SWIN is very low – Western Power has stated in its response to the Draft Decision that there have only been two three phase faults since 1 July 2007 – neither of which appear to have been a result of line design issues. To be fair, this information was not available to Mr Davidson when he prepared his submission.</p>
	<p>In its technical report GBA<sup>1</sup> noted that the term <i>credible contingency</i> was used in clause 2.2(d) and proposed that the terms <i>credible contingency</i> and <i>non-credible contingency</i> be used throughout clause 2.2 (including table 2.1) in place of the terms <i>single contingency</i> and <i>multiple contingency</i>.</p>	-	<p><b>Western Power</b>  As a <i>single contingency</i> is not the same as a <i>credible contingency</i> more consultation would be needed before making such a change.</p>	<p>Western Power's position is reasonable. However, there is a lack of clarity in the way the frequency standard is specified due to the use of the term <i>credible contingency</i> in clause 2,2(d). Western Power has acknowledged this and undertaken to consider the issue in a subsequent review of the Rules.</p>

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<i>N-1 Provision</i>	Users wanting to connect to that part of the network designed to meet N-1 requirements should be allowed to do so in situations where there is insufficient transmission capacity, provided they agree to voluntary load shedding or generation runback when, in an N-1 situation, the available network capacity is required by other users entitled to remain connected.	Approved	<p><b>Steve Davidson</b></p> <p>The wording would be simplified and the result would be the same if the phrase <i>involuntary generator runback</i> was inserted into the existing clause.</p>	<p>Generator runback cannot be involuntary as it requires a special protection scheme that can only be installed with the cooperation of the generator owner.</p> <p>We agree that alternative wording might address Western Power's concern – the phrase <i>involuntary load shedding or generator tripping</i> is one possibility. However, it is not the Authority's role to write the Rules and it only suggests changes to the proposed wording if it considers that the proposal lacks clarity or is ambiguous. In our view, Western Power's proposed wording is clear and reasonably concise.</p>
<i>Weak infeed fault protection</i>	Western Power proposed to increase the maximum allowed protection clearance time where there is a weak infeed to the transmission system from a generator embedded in the distribution network	Approved	-	-
<b>April 2016 Submission</b>				
NCR amendment	Western Power proposed to amend the wording of clause 2.5.2 to provide greater clarity on how the NCR rating of a substation is determined.	Not approved as the Authority considered that Western Power's proposed wording did not provide the clarity that it was seeking.	<p><b>Western Power</b></p> <p>Western Power accepted the Draft Decision and intends now to use the wording proposed by GBA in its review of the proposal<sup>2</sup>.</p> <p><b>Steve Davidson</b></p> <p>A techno-economic comparison of the existing requirement and the proposed change should be undertaken.</p>	<p>We recommend the Authority approve the revised wording.</p> <p>There is no change to the existing requirement. This only issue is the clarity with which the NCR requirement is prescribed in the Rules.</p>

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Reference to Electricity (Supply Standards and System Safety) Regulations 2001	Western Power proposed that this reference be updated.	Approved	-	-
Incorrect cross reference and typographical error	Western Power proposed that these be corrected.	Approved	-	-
Dates of Standards and Regulations	Western Power proposed to make changes to the glossary to clarify that the most recent version of standard applied, even where the standard is sated in the body of the Rules.	Not approved. The Authority agreed with the intent of the change but considered that the way Western Power's proposed to implement the change in the Rules was not consistent with good industry practice.	<b>Western Power</b> Western Power concurs with the Draft Decision and plans to revise the way this change is implemented in the Rules as required by the Authority.	

Note 1: *Review of Western Power's Application for Technical Rules Amendments.* Geoff Brown & Associates Ltd, 31 August 2016, Section 3.1.3;

Note 2: *ibid.*, Section 4.1.

Prepared by:

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