



**Stakeholder Comparison Comment Rationale Matrix**

**2010-08-17**

**AESO AUTHORITATIVE DOCUMENT PROCESS**

**Alberta Reliability Standard – MOD-024&025-AB-1 Verification of Generator Real and Reactive Power Capability**

*NOTE: The AESO is asking market participants to give an initial indication of their support for, or opposition to, the specific Alberta Reliability Standard variances to the NERC requirements referenced below. Such an initial indication assists in the AESO’s practical understanding of the receptivity of the industry to the proposed changes, and in that regard the AESO thanks, in advance, all market participants who choose to respond. With regard to the specific standard changes and their implications, such responses are without prejudice to the rights of market participants under the Act, any regulations, or related decisions of the Commission.*

Date of Request for Comment [yyyy/mm/dd]: <u>2010/08/17</u>	Contact: _____
Period of Consultation [yyyy/mm/dd]: <u>2010/08/17</u> through <u>2010/09/17</u>	Phone: _____
Comments From: <u>Capital Power Corporation</u>	E-mail: _____
Date [yyyy/mm/dd]: <u>2010/09/17</u>	

*Listed below is the summary of changes for the proposed new, removed or amended sections of the standard. Please refer back to the Letter of Notice under the “Attachments to Letter of Notice” section to view the proposed content changes to the standard. Please double-click on the check box for either “Support” or “Oppose” and/or place your comments, reasons for position, and alternate proposals underneath (if any).*

**COMPARISON BETWEEN NERC MOD-024-1 AND MOD-025-1 AND ALBERTA MOD-024&025-AB-1**  
**Verification of Generator Real and Reactive Power Capability**

NERC MOD-024-1 and MOD-025-1	Alberta MOD-024&025-AB-1	AESO Reason for Difference	Stakeholder Comments	AESO Replies
<p><b>Purpose</b>  <b>MOD-024</b> To ensure accurate information on generator gross and net Real Power capability is available for steady-state models used to assess Bulk Electric System reliability.</p> <p><b>MOD-025</b> To ensure accurate information on generator gross and net Reactive Power capability is available for steady-state models used to assess Bulk Electric System reliability.</p>	<p><b>Purpose</b>  The purpose of this <b>reliability standard</b> is to ensure accurate information on the <b>gross real power, gross reactive power, net real power, and net reactive power</b> capability of a <b>generating unit</b> or an <b>aggregated generating facility</b> is reported to the <b>ISO</b>.</p>	<p>The purpose of this reliability standard is to ensure the gross real power, gross reactive power, net real power and net reactive power capabilities are reported to the AESO. The maximum values of these capabilities are determined under the:</p> <ul style="list-style-type: none"> <li>• AESO Generation and Load Interconnection Standard (<a href="http://www.aeso.ca/downloads/Generation_and_Load_Standard_Rev1.pdf">http://www.aeso.ca/downloads/Generation_and_Load_Standard_Rev1.pdf</a>),</li> <li>• AESO Wind Power Facility Technical Requirements <a href="http://www.aeso.ca/downloads/Wind_Power_Facility_Technical_Requirements_Revision0_signatures_JRF.pdf">http://www.aeso.ca/downloads/Wind_Power_Facility_Technical_Requirements_Revision0_signatures_JRF.pdf</a>,</li> <li>• power purchase arrangements and/or</li> <li>• Application Guideline Generator Interconnection Requirements – Reactive Power <a href="http://www.aeso.ca/downloads/AESO_PPA_Reactive_Power_Guidelines.pdf">http://www.aeso.ca/downloads/AESO_PPA_Reactive_Power_Guidelines.pdf</a> .</li> </ul>	<p>Please confirm that market participants owning assets under a PPA may simply report the capabilities listed in the PPAs.</p>	
<b>Applicability</b>	<b>Applicability</b>			

COMPARISON BETWEEN NERC MOD-024-1 AND MOD-025-1 AND ALBERTA MOD-024&025-AB-1

Verification of Generator Real and Reactive Power Capability

NERC MOD-024-1 and MOD-025-1	Alberta MOD-024&025-AB-1	AESO Reason for Difference	Stakeholder Comments	AESO Replies
<p><b>MOD-024</b> 4.1. Regional Reliability Organization. 4.2. Generation Owner.</p> <p><b>MOD-025</b> 4.1. Regional Reliability Organization. 4.2. Generation Owner.</p>	<p>This <b>reliability standard</b> applies to:</p> <ul style="list-style-type: none"> <li>the <b>legal owner</b> of a <b>generating unit</b> with a <b>maximum authorized real power</b> rating of <b>9 MW</b> or greater and which is directly connected to the <b>transmission system</b>;</li> <li>the <b>legal owner</b> of an <b>aggregated generating</b> facility with a <b>maximum authorized real power</b> rating of <b>18 MW</b> or greater and which is directly connected to the <b>transmission system</b>; and</li> <li>the <b>ISO</b>.</li> </ul>	<p><input type="checkbox"/> New <input checked="" type="checkbox"/> Amended <input type="checkbox"/> Deleted</p> <p><b>Alberta Variance:</b> As a result of the similarity and commonality of the subject matter requirements and measures of NERC standards MOD-024-1 and MOD-025-1, they have been combined into one Alberta reliability standard MOD-024&amp;025-AB-1.</p> <p>The value of 9 MW was selected as it equals 10 MVA @ .9 pf. and 10 MVA is the value referred to in the WECC (WSCC) document <i>Synchronous Machine Reactive Capability Verification</i> dated November 25, 1996 (<a href="http://www.wecc.biz/library/WECC%20Documents/Documents%20for%20Generators/Generator%20Testing%20Program/Synchronous%20Machine%20Reactive%20Limits%20Verification.pdf">http://www.wecc.biz/library/WECC%20Documents/Documents%20for%20Generators/Generator%20Testing%20Program/Synchronous%20Machine%20Reactive%20Limits%20Verification.pdf</a>) and the 18 MW (20 MVA) is the value referred to in the WECC <i>Generating Unit Model Validation Policy</i> <a href="http://www.wecc.biz/library/WECC%20Documents/Documents%20for%20Generators/Generator%20Testing%20Program/Synchronous%20Machine%20Reactive%20Limits%20Verification.pdf">http://www.wecc.biz/library/WECC%20Documents/Documents%20for%20Generators/Generator%20Testing%20Program/Synchronous%20Machine%20Reactive%20Limits%20Verification.pdf</a></p>	<p><input type="checkbox"/> Support <input type="checkbox"/> Support with language suggestions <input checked="" type="checkbox"/> Oppose</p> <p>Capital Power is concerned that the applicability section refers to entities that were not listed in the “ARS Functional Model and Criteria for Registration” and therefore no market participants are registered as such.</p> <p>The sudden change in the applicability of the standards creates confusion and inconsistency across standards. Market participants must be able to assess with certainty whether or not they will be monitored and audited for compliance with a standard or group of standards. Changes that can expand or reduce the application of a standard are significant and should be done with care and appropriate stakeholder consultation. The registration process should provide certainty to market participants regarding their compliance program obligations and the AESO’s audit</p>	

**COMPARISON BETWEEN NERC MOD-024-1 AND MOD-025-1 AND ALBERTA MOD-024&025-AB-1**

**Verification of Generator Real and Reactive Power Capability**

NERC MOD-024-1 and MOD-025-1	Alberta MOD-024&025-AB-1	AESO Reason for Difference	Stakeholder Comments	AESO Replies
		<p><a href="#">0Documents/Forms/AllItems.aspx?RootFolder=%2flibrary%2fWECC%20Documents%2fDocuments%20for%20Generators%2fGenerator%20Testing%20Program&amp;FolderCTID=0x012000278A29140A43884799CB122F821DFD01&amp;View=%7bAF8E6257%2d3EB9%2d4A21%2d8853%2d6477737956B4%7d</a> "GTTF 2006-05 Generating Unit Model Validation Policy.pdf" for aggregated generating facilities.</p>	<p>process. Therefore, if the AESO is proposing to change the terms used in the applicability section of the standards it must be done prior to the approval of any standards that contain revised applicability terms. Matters of applicability could potentially have a significant impact on our business and therefore Capital Power would greatly appreciate an opportunity to provide guidance and feedback to improve the reliability standards functional entity definitions and registration criteria.</p>	
<p><b>Effective Date MOD-024</b> Requirement 1 and Requirement 2 — April 1, 2006. Requirement 3 — January 1, 2007.</p> <p><b>MOD-025</b> Requirement 1 and Requirement 2 — January 1, 2007 Requirement 3: January 1, 2008 — 1st 20% compliant January 1, 2009 — 2nd 20% compliant January 1, 2010 — 3rd 20% compliant</p>	<p><b>Effective Date</b> Ninety (90) days after the date the <b>Commission</b> approves it.</p>	<p>The AESO is using the WECC <i>Generator Testing Policy Implementation</i> <a href="http://www.wecc.biz/library/WECC%20Documents/Documents%20for%20Generators/Generator%20Testing%20Program/Generator%20Testing%20Policy%20Implementation%202006-10-27.pdf">http://www.wecc.biz/library/WECC%20Documents/Documents%20for%20Generators/Generator%20Testing%20Program/Generator%20Testing%20Policy%20Implementation%202006-10-27.pdf</a> as the basis for implementing this reliability standard. The following is an excerpt from the WECC Generator Testing Policy Implementation dated 2006-10-27:</p> <p><i>Issue 2: A large number of Generator</i></p>	<p><input type="checkbox"/> Support <input type="checkbox"/> Support with language suggestions <input checked="" type="checkbox"/> Oppose</p> <p>The effective date section does not provide enough clarity about what market participants are required to have completed at 90 days. The AESO states that: "Owners should be allowed to spread generator re-validation over a five-year period". Are we to interpret this to mean that Alberta market participants will have five years from the date the standard</p>	

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<p>January 1, 2011 — 4th 20% compliant January 1, 2012 — 5th 20% compliant</p>		<p><i>Owners, who complied with the original baseline test requirement, are required to perform model re-validation. Many of the Owners have multiple generating facilities. From resource management standpoint, the Owners should be allowed to spread generator re-validation over a five-year period. Many Generator Owners are in the midst of the equipment replacement programs. It makes sense to coordinate the re-validation efforts with the respective replacement programs, as well as maintenance cycles. On the other hand, WECC should have the authority to accept or reject the re-validation schedule proposed by the Generator Owners.</i></p> <p><i>Generator Owners that have complied with the baseline test requirements (as defined in section B.1.2 of the Policy) shall provide to WECC staff, by December 31, 2006, a schedule to perform model re-validation (as defined in section B.1.3 of the Policy). The Generator Owner should coordinate the schedule with the appropriate Transmission Planner(s). The Generator Owner will be considered compliant with the</i></p>	<p>is effective or is the AESO asking market participants to comply with the schedule presented in the WECC document that states that all testing must be completed by December 31, 2011?</p> <p>If the AESO's intent is the former, an effective date of 90 days cannot be complied with. It should be noted that the NERC version of this standard allows market participants five years to complete all revalidations. Is it the AESO intent to require market participants in Alberta to complete in 90 days requirements that NERC has provided market participants 5 years to complete?</p> <p>Although many market participants have already begun revalidations in accordance with the WECC procedures, they were not aware of the documentation and compliance requirements of this reliability standard. As such, they may not have created and retained documentation of these submissions for proof of compliance as will be required. The effective date of this standard</p>	

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NERC MOD-024-1 and MOD-025-1	Alberta MOD-024&025-AB-1	AESO Reason for Difference	Stakeholder Comments	AESO Replies
		<p><i>Policy as long as the initial model re-validation is completed within 5 years from December 31, 2006.</i></p>	<p>should reflect when this standard came into place and should not presume that revalidation efforts related to different requirements (WECC) will satisfy the requirements of this new standard.</p> <p>Furthermore, the AESO has the ability to develop different procedures for revalidation of generating capacity. Should the AESO develop a new procedure, the AESO should provide market participants with a reasonable amount of time to achieve compliance. If the new procedure is more stringent as required by R2, market participants should be allowed another 5 years, consistent with NERC's effective date requirements, to complete revalidation in accordance with the new standard.</p>	
<p><b>MOD-024 R1.</b> The Regional Reliability Organization shall establish and maintain procedures to address verification of generator gross and net Real Power capability. These procedures shall include the following:</p>		<p><input type="checkbox"/> New  <input type="checkbox"/> Amended  <input checked="" type="checkbox"/> Deleted</p> <p><b>Alberta Variance:</b> NERC requirement R1 and it's sub-requirements of MOD-024 and MOD-</p>	<p><input type="checkbox"/> Support  <input type="checkbox"/> Support with language suggestions  <input type="checkbox"/> Oppose</p> <p><i>Insert comments, reason for position, and alternate proposal (if any).</i></p>	

**COMPARISON BETWEEN NERC MOD-024-1 AND MOD-025-1 AND ALBERTA MOD-024&025-AB-1**

**Verification of Generator Real and Reactive Power Capability**

<b>NERC MOD-024-1 and MOD-025-1</b>	<b>Alberta MOD-024&amp;025-AB-1</b>	<b>AESO Reason for Difference</b>	<b>Stakeholder Comments</b>	<b>AESO Replies</b>
<p><b>MOD-024 R1.1.</b> Generating unit exemption criteria including documentation of those units that are exempt from a portion or all of these procedures.</p> <p><b>MOD-024 R1.2.</b> Criteria for reporting generating unit auxiliary loads.</p> <p><b>MOD-024 R1.3.</b> Acceptable methods for model and data verification, including any applicable conditions under which the data should be verified. Such methods can include use of manufacturer data, commissioning data, performance tracking, and testing, etc.</p> <p><b>MOD-024 R1.4.</b> Periodicity and schedule of model and data verification and reporting.</p> <p><b>MOD-024 R1.5.</b> Information to be verified and reported:  <b>MOD-024 R1.5.1.</b> Seasonal gross and net Real Power generating capabilities.  <b>MOD-024 R1.5.2.</b> Real power requirements of auxiliary loads.  <b>MOD-024 R1.5.3.</b> Method of verification, including date and conditions.</p>		<p>025 is a WECC responsibility and does not apply to any entities in Alberta.</p>		

**COMPARISON BETWEEN NERC MOD-024-1 AND MOD-025-1 AND ALBERTA MOD-024&025-AB-1**

**Verification of Generator Real and Reactive Power Capability**

<b>NERC MOD-024-1 and MOD-025-1</b>	<b>Alberta MOD-024&amp;025-AB-1</b>	<b>AESO Reason for Difference</b>	<b>Stakeholder Comments</b>	<b>AESO Replies</b>
<p><b>MOD-025 R1.5.4.</b> Method of verification, including date and conditions.</p> <p><b>MOD-025 R1.</b> The Regional Reliability Organization shall establish and maintain procedures to address verification of generator gross and net Reactive Power capability. These procedures shall include the following:</p> <p><b>MOD-025 R1.1.</b> Generating unit exemption criteria including documentation of those units that are exempt from a portion or all of these procedures.</p> <p><b>MOD-025 R1.2.</b> Criteria for reporting generating unit auxiliary loads.</p> <p><b>MOD-025 R1.3.</b> Acceptable methods for model and data verification, including any applicable conditions under which the data should be verified. Such methods can include use of commissioning data, performance tracking, engineering analysis, testing, etc.</p> <p><b>MOD-025 R1.4.</b> Periodicity and schedule of model and data</p>				

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<p>verification and reporting.</p> <p><b>MOD-025 R1.5.</b> Information to be reported:</p> <p><b>MOD-025 R1.5.1.</b> Verified maximum gross and net Reactive Power capability (both lagging and leading) at Seasonal Real Power generating capabilities as reported in accordance with Reliability Standard MOD-024 Requirement 1.5.1.</p> <p><b>MOD-025 R1.5.2.</b> Verified Reactive Power limitations, such as generator terminal voltage limitations, shorted rotor turns, etc.</p> <p><b>MOD-025 R1.5.3.</b> Verified Reactive Power of auxiliary loads.</p> <p><b>MOD-025 R1.5.4.</b> Method of verification, including date and conditions.</p>				
<p><b>MOD-024 R2.</b> The Regional Reliability Organization shall provide its generator gross and net Real Power capability verification and reporting procedures, and any changes to those procedures, to the Generator Owners, Generator Operators, Transmission Operators, Planning Authorities, and Transmission Planners affected by the procedure within 30 calendar</p>		<p><input type="checkbox"/> New</p> <p><input type="checkbox"/> Amended</p> <p><input checked="" type="checkbox"/> Deleted</p> <p><b>Alberta Variance:</b> NERC requirement R2 of MOD-024 and MOD-025 is a WECC responsibility and does not apply to any entities in Alberta.</p>	<p><input type="checkbox"/> Support</p> <p><input type="checkbox"/> Support with language suggestions</p> <p><input type="checkbox"/> Oppose</p> <p><i>Insert comments, reason for position, and alternate proposal (if any).</i></p>	

COMPARISON BETWEEN NERC MOD-024-1 AND MOD-025-1 AND ALBERTA MOD-024&025-AB-1

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NERC MOD-024-1 and MOD-025-1	Alberta MOD-024&025-AB-1	AESO Reason for Difference	Stakeholder Comments	AESO Replies
<p>days of the approval.</p> <p><b>MOD-025 R2.</b> The Regional Reliability Organization shall provide its generator gross and net Reactive Power capability verification and reporting procedures, and any changes to those procedures, to the Generator Owners, Generator Operators, Transmission Operators, Planning Authorities, and Transmission Planners affected by the procedure within 30 calendar days of the approval.</p>				
<p><b>MOD-024 R3.</b> The Generator Owner shall follow its Regional Reliability Organization's procedures for verifying and reporting its gross and net Real Power generating capability per R1.</p> <p><b>MOD-025 R3.</b> The Generator Owner shall follow its Regional Reliability Organization's procedures for verifying and reporting its gross and net Reactive Power generating capability per R1.</p>	<p><b>R1</b> Each <b>legal owner</b> must comply with the procedures the <b>ISO</b> may publish on the AESO website, and as may be amended from time to time by the AESO on notice to market participants, for verifying and reporting generating capability for:</p> <ul style="list-style-type: none"> <li>• <b>gross real power</b></li> <li>• <b>gross reactive power</b></li> <li>• <b>net real power</b> and</li> <li>• <b>net reactive power</b></li> </ul> <p>except as contemplated in requirement R1.1.</p> <p><b>R1.1</b> In the absence of a published <b>ISO</b> procedure, each <b>legal owner</b> must comply with the policies and procedures the <b>WECC</b> publishes for</p>	<p><input type="checkbox"/> New  <input checked="" type="checkbox"/> Amended  <input type="checkbox"/> Deleted</p> <p>NERC requirement R3 has been split into R1, R1.1 and R2 to clarify that the procedures that must be complied with are those published by the AESO or by the WECC.</p> <p>The Alberta Reliability Standards section of the AESO website, and in particular the section that contains this reliability standard, will contain reference to related external documents, including WECC documents.</p>	<p><input type="checkbox"/> Support  <input type="checkbox"/> Support with language suggestions  <input checked="" type="checkbox"/> Oppose</p> <p>The way this standard is currently drafted is ambiguous and confusing.</p> <p>R1 states that “the ISO <i>may</i> publish” the procedure; however, market participants <b>must</b> have access to the procedure they are required to follow. We recommend that the wording be changed to “the ISO <i>will</i> publish” the procedures on the AESO website.</p>	

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	<p>verifying and reporting generating capability for:</p> <ul style="list-style-type: none"> <li>• <b>gross real power</b></li> <li>• <b>gross reactive power</b></li> <li>• <b>net real power</b> and</li> <li>• <b>net reactive power</b></li> </ul> <p><b>R2</b> Any <b>ISO</b> procedures published as contemplated in requirement R1 must be equal to or more stringent than the procedures the <b>WECC</b> publishes.</p>	<p>The AESO currently does not have any procedures as contemplated in MOD-024&amp;025-AB requirement R1 and requirement R2. Below are applicable WECC procedures that apply pursuant to R1.1 of this reliability standard:</p> <p>1. "Synchronous Machine Reactive Limits Verification"...  <a href="http://www.wecc.biz/library/WECC%20Documents/Documents%20for%20Generators/Generator%20Testing%20Program/Synchronous%20Machine%20Reactive%20Limits%20Verification.pdf">http://www.wecc.biz/library/WECC%20Documents/Documents%20for%20Generators/Generator%20Testing%20Program/Synchronous%20Machine%20Reactive%20Limits%20Verification.pdf</a></p> <p>2. "Facility Data Requirements" document. Access this document by following this link:  <a href="http://www.wecc.biz/library/WECC%20Documents/Forms/AllItems.aspx?RootFolder=%2flibrary%2fWECC%20Documents%2fDocuments%20for%20Generators%2fGenerator%20Testing%20Program&amp;FolderCTID=%2f7bAF8E6257%2d3EB9%2d4A21%2d8853%2d6477737956B4%7d">http://www.wecc.biz/library/WECC%20Documents/Forms/AllItems.aspx?RootFolder=%2flibrary%2fWECC%20Documents%2fDocuments%20for%20Generators%2fGenerator%20Testing%20Program&amp;FolderCTID=%2f7bAF8E6257%2d3EB9%2d4A21%2d8853%2d6477737956B4%7d</a></p> <p>And then open the following folders</p>	<p>R1.1 points to requirements found in WECC procedures. It is a very onerous requirement of Alberta market participants to track and monitor procedures that change in WECC procedures with repercussions and penalties could be levied in Alberta for not doing so. The procedures should be updated directly to the Alberta Standard rather than referenced indirectly. We are concerned that market participants may not be as aware of changes to procedures outside of Alberta and may not be notified of changes in a timely fashion to avoid potential non-compliance. We recommend that the AESO publish the procedures to be followed on the AESO website, whether they be internally developed or adopted from WECC.</p> <p>The NERC version of this standard contemplates the possibility that a market participant may not be able to provide all data requested and should be eligible for an exemption. The AESO version should also state that market participants that do not</p>	

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		and documents: <ul style="list-style-type: none"> <li>• “2006 Generator Test Policy” folder</li> <li>• “2006 Generator Test Program” folder</li> <li>• “GTTF_2005_12_Generating_Facility_Data Requirements.pdf” file</li> </ul>	have the ability to validate any of the four generating capabilities listed in R1 or R1.1 outright will be exempted from providing it, or may engage in one of the alternative methods for model and data verification.  R2 - This requirement is merely a description of how R1 should be completed and would be more appropriately included within R1 rather than creating a new requirement.	
<p><b>MOD-024 M1.</b> The Regional Reliability Organization shall have available for inspection the procedures for the verification and reporting of generator gross and net Real Power capability in accordance with R1.</p> <p><b>MOD-025 M1.</b> The Regional Reliability Organization shall have available for inspection the procedures for the verification and reporting of generator gross and net Reactive Power capability in accordance with R1.</p>		<input type="checkbox"/> New <input type="checkbox"/> Amended <input checked="" type="checkbox"/> Deleted  Deleted to align with the removal of NERC R1.	<input type="checkbox"/> Support <input type="checkbox"/> Support with language suggestions <input type="checkbox"/> Oppose  <i>Insert comments, reason for position, and alternate proposal (if any).</i>	
<p><b>MOD-024 M2.</b> The Regional Reliability Organization shall have</p>		<input type="checkbox"/> New	<input type="checkbox"/> Support <input type="checkbox"/> Support with language	

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<p>evidence that its procedures, and any revisions to those procedures, for verification and reporting of generator gross and net Real Power capability were provided to affected Generator Owners, Generator Operators, Transmission Operators, Planning Authorities, and Transmission Planners within 30 calendar days of approval.</p> <p><b>MOD-025 M2.</b> The Regional Reliability Organization shall have evidence that its procedures, and any revisions to these procedures, for verification and reporting of generator gross and net Reactive Power capability were provided to affected Generator Owners, Generator Operators, Transmission Operators, Planning Authorities, and Transmission Planners within 30 calendar days of approval.</p>		<p><input type="checkbox"/> Amended <input checked="" type="checkbox"/> Deleted</p> <p>Deleted to align with the removal of NERC R2.</p>	<p>suggestions <input type="checkbox"/> Oppose</p> <p><i>Insert comments, reason for position, and alternate proposal (if any).</i></p>	
<p><b>MOD-024 M3.</b> The Generator Owner shall have evidence it provided verified information of its generator gross and net Real Power capability, consistent with that Regional Reliability Organization's procedures.</p> <p><b>MOD-025 M3.</b> The Generator Owner shall have evidence it provided</p>	<p><b>MR1</b> Confirmation exists that the <b>legal owner</b> has complied with procedures as specified in requirement R1.</p> <p><b>MR1.1</b> Evidence exists that each legal owner has complied with the policies and procedures the WECC publishes within 5 years from</p>	<p><input type="checkbox"/> New <input checked="" type="checkbox"/> Amended <input type="checkbox"/> Deleted</p> <p>Amended to align with requirement R1 and its sub-requirements and R2 of this reliability standard.</p>	<p><input type="checkbox"/> Support <input type="checkbox"/> Support with language suggestions <input checked="" type="checkbox"/> Oppose</p> <p>Capital Power does not support MR1 as currently written.</p> <p>MR1 states that in order to</p>	

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<b>NERC MOD-024-1 and MOD-025-1</b>	<b>Alberta MOD-024&amp;025-AB-1</b>	<b>AESO Reason for Difference</b>	<b>Stakeholder Comments</b>	<b>AESO Replies</b>
<p>verified information of its generator gross and net Reactive Power capability, consistent with that Regional Reliability Organization's procedures.</p>	<p>December 31, 2006.</p> <p><b>MR2</b> Where <b>ISO</b> procedures exist as specified in requirement R2, those procedures are equal to or more stringent than the procedures for such verification and reporting the <b>WECC</b> publishes.</p>		<p>demonstrate compliance the market participant must have a "Confirmation" that the legal owner has complied with procedures as specified in requirement R1. It is unreasonable and unfair to require market participants to be responsible for the actions of another party, in this case the AESO. It is not appropriate to place an obligation on a market participant that would put it at risk of being found non-compliant if the AESO does not provide the requested confirmation.</p> <p>Particularly where the standard does not explicitly require that the AESO provide the confirmation. The NERC version of the standard only requires the generator owner to provide evidence that the information was submitted - this is all that a market participant can reasonably be responsible for.</p> <p>Capital Power has voiced this and similar concerns with reliability standards being drafted in such a way that market participants become responsible for actions that are beyond their control. When this standard was</p>	

**COMPARISON BETWEEN NERC MOD-024-1 AND MOD-025-1 AND ALBERTA MOD-024&025-AB-1**

**Verification of Generator Real and Reactive Power Capability**

NERC MOD-024-1 and MOD-025-1	Alberta MOD-024&025-AB-1	AESO Reason for Difference	Stakeholder Comments	AESO Replies
			<p>discussed at the working group prior to public consultation, these issues were raised by Capital Power and other participants. We have also provided comments on this issue in consultation on VAR-002-AB-1, MOD-010&amp;012-AB-1, PRC-011-AB-0, PRC-015-AB-0, and PRC-017-AB-0.</p> <p>Question 6 of the Alberta Reliability Standards Compliance Frequently Asked Questions (FAQs) provides some clarification about compliance obligations with respect to confirmations but it causes us greater concern. The AESO's response states:</p> <p><i>"A registered entity that is unsuccessful in obtaining a confirmation letter must provide a) written evidence (e.g. emails and replies) that they have made a reasonable request for a confirmation letter, b) written evidence that they have escalated the request at least once, and c) any correspondence from the request, and d) the contact information (e.g. name, email, organization, phone number) of</i></p>	

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			<p><i>the person/party that has not responded. The registered entity will not be out of compliance to the standard if reasonable actions have been made to get a confirmation letter."</i></p> <p>The standards should be drafted clearly and endeavor to align the compliance effort with the purpose of the standard. The Purpose section of this standard specifies that the intent is to ensure that the AESO has accurate information on generating capability. Requiring a market participant to maintain documentation that satisfies a, b, c <b>and</b> d creates a potentially lengthy and administratively burdensome process for obtaining confirmations from the AESO. We are unclear if this confirmation is even required to fulfill the purpose of the standard.</p> <p>Furthermore, the AESO's response in the FAQ states that market participants do not necessarily need a confirmation. They just need to prove that they made a concerted effort to obtain</p>	

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			<p>one. Therefore, it appears that this process serves no purpose other than to increase the obligation and risk of non-compliance on market participants. We do not see the need for the confirmation at all. Market participants may request a confirmation from the AESO but this should be at the market participant's discretion, not an obligation applied by the AESO.</p> <p>MR1.1 again confuses the effective date issue as it seems contradictory to an effective date of 90 days and may be impossible to ensure that market participants have the documentation required to demonstrate compliance for revalidations completed before the standard was effective in Alberta.</p>	
<p><b>Compliance</b> To view the compliance section D of the NERC reliability standard follow this link: <a href="http://www.nerc.com/files/MOD-024-1.pdf">http://www.nerc.com/files/MOD-024-1.pdf</a> <a href="http://www.nerc.com/files/MOD-025-1.pdf">http://www.nerc.com/files/MOD-025-1.pdf</a></p>		<p>The Alberta reliability standards do not contain a compliance section. Compliance with all Alberta reliability standards is completed in accordance with the Alberta Reliability Standards Compliance Monitoring Program, available on the AESO website at: <a href="http://www.aeso.ca/loadsettlement/1">http://www.aeso.ca/loadsettlement/1</a></p>		

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**Verification of Generator Real and Reactive Power Capability**

<b>NERC MOD-024-1 and MOD-025-1</b>	<b>Alberta MOD-024&amp;025-AB-1</b>	<b>AESO Reason for Difference</b>	<b>Stakeholder Comments</b>	<b>AESO Replies</b>
		<a href="#">7189.html</a> .		
<b>Regional Differences</b> None identified.	None identified.	Not applicable in Alberta		

<b>Definitions</b>	<b>Comments</b>	<b>Rationale and/or Alternate Proposal</b>
<p><b>(a) New</b></p> <p>“gross reactive power” means:</p> <ul style="list-style-type: none"> <li>(i) for <b>aggregated generating facilities</b> with one or more <b>collector busses</b>, the sum of <b>reactive power</b> measurements at those <b>collector busses</b>;</li> <li>(ii) for <b>aggregated generating facilities</b> without a <b>collector bus</b>, a <b>reactive power</b> measurement at the generator terminal for each <b>generating unit</b>; or</li> <li>(iii) for a <b>generating unit</b> that is not part of an <b>aggregated generating facility</b>, the <b>reactive power</b> measurement at the generator terminal.</li> </ul> <p>“net real power” means for an <b>aggregated generating facility</b> or a <b>generating unit</b>, the sum of <b>real power</b> measurements at the high voltage side of all step-up transformers directly connected to the <b>transmission system</b>.</p>	<input type="checkbox"/> Support <input type="checkbox"/> Support with language suggestions <input checked="" type="checkbox"/> Oppose  Please include a definition for “Net Reactive Power” as it is not included under the AESO’s Consolidated Authoritative Document Glossary.	
<p><b>(b) Removals</b></p> <p>N/A</p>		
<p><b>(c) Amendments</b></p> <p>N/A</p>		