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]: 2010/08/17 Period of Consultation [yyyy/mm/dd]: 2010/08/17 through 2010/09/17 Comments From: TransAlta Date [yyyy/mm/dd]: 2010/09/17	Contact: Jerry Mossing Phone: 403-539-2496 E-mail: ars_comments@aeso.ca

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**
Purpose **MOD-024** 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. **MOD-025** 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.	**Purpose** The purpose of this **reliability standard** is to ensure accurate information on the **gross real power**, **gross reactive power**, **net real power**, and **net reactive power** capability of a **generating unit** or an **aggregated generating facility** is reported to the **ISO**.	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: • AESO Generation and Load Interconnection Standard (http://www.aeso.ca/downloads/Generation_and_Load_Standard_Rev1.pdf), • AESO Wind Power Facility Technical Requirements http://www.aeso.ca/downloads/Wind_Power_Facility_Technical_Requirements_Revision0_signatures_JRF.pdf, • power purchase arrangements and/or • Application Guideline Generator Interconnection Requirements – Reactive Power http://www.aeso.ca/downloads/AESO_PPA_Reactive_Power_Guidelines.pdf) . •	Both MOD-024 and MOD-025 have not been approved by FERC as of yet and as such could change after these are implemented in Alberta. TransAlta recommends not sending this standard for AUC approval until FERC has approved.	

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**
Applicability **MOD-024** **4.1.** Regional Reliability Organization. **4.2.** Generation Owner. **MOD-025** **4.1.** Regional Reliability Organization. **4.2.** Generation Owner.	**Applicability** This **reliability standard** applies to: • the **legal owner** of a **generating unit** with a **maximum authorized real power** rating of 9 **MW** or greater and which is directly connected to the **transmission system**; • the **legal owner** of an **aggregated generating** facility with a **maximum authorized real power** rating of 18 **MW** or greater and which is directly connected to the **transmission system**; and • the **ISO**.	☐ New ☒ Amended ☐ Deleted **Alberta Variance:** 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&025-AB-1. 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 *Synchronous Machine Reactive Capability Verification* dated November 25, 1996 (http://www.wecc.biz/library/WECC%20Documents/Documents%20for%20Generators/Generator%20Testing%20Program/Synchronous%20Machine%20Reactive%20Limits%20Verification.pdf) and the 18 MW (20 MVA) is the value referred to in the WECC *Generating Unit Model Validation Policy*	☐ Support ☐ Support with language suggestions ☒ Oppose *Insert comments, reason for position, and alternate proposal (if any).* The term 'legal owner of a generating unit' is not a defined functional entity in the AESO's Alberta Reliability Standards Functional Model and Criteria for Registration. There are therefore no entities currently registered in this category and without the criteria for registration defined it is impossible to determine who should be responsible to comply to this standard or who the AESO is planning to monitor for compliance. Before any standard is approved with new functional entities the AESO should first ensure that the functional model is consulted upon by stakeholders, updated and communicated to stakeholders and provide sufficient time for entities to reach agreement with their commercial	

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		http://www.wecc.biz/library/WECC%20Documents/Forms/AllItems.aspx?RootFolder=%2flibrary%2fWECC%20Documents%2fDocuments%20for%20Generators%2fGenerator%20Testing%20Program&FolderCTID=0x012000278A29140A43884799CB122F821DFD01&View=%7bAF8E6257%2d3EB9%2d4A21%2d8853%2d6477737956B4%7d "GTTF 2006-05 Generating Unit Model Validation Policy.pdf" for aggregated generating facilities.	counterparties and to adjust their registration as required. TransAlta requests the AESO provide an explanation of what is meant by "directly connected". What is the difference between 'directly' and 'indirectly' connected?	
Effective Date **MOD-024** Requirement 1 and Requirement 2 — April 1, 2006. Requirement 3 — January 1, 2007. **MOD-025** 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 January 1, 2011 — 4th 20% compliant	**Effective Date** Ninety (90) **days** after the date the **Commission** approves it.	The AESO is using the WECC *Generator Testing Policy Implementation* http://www.wecc.biz/library/WECC%20Documents/Documents%20for%20Generators/Generator%20Testing%20Program/Generator%20Testing%20Policy%20Implementation%202006-10-27.pdf as the basis for implementing this reliability standard. The following is an excerpt from the WECC Generator Testing Policy Implementation dated 2006-10-27: *Issue 2: A large number of Generator Owners, who complied with the original baseline test requirement,*	☐ Support ☐ Support with language suggestions ☒ Oppose *Insert comments, reason for position, and alternate proposal (if any).* **General Concern** A review of the AESO's implementation schedule shows that given the large volume of standards that are going through stakeholder comment right now it is very possible that the result is a large number of standards	

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**
January 1, 2012 — 5th 20% compliant		*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.* *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 Policy as long as the initial model re-validation is completed within 5 years*	approved at the same time all with a 180 day effective date. (ie. the same effective date) While an effective date of 180 days may work for one standard, it certainly will not work for many that may all fall on the same date. TransAlta requests the AESO develop a reasonable and certain schedule that ensures that effective dates are set up looking at the program as a whole, not just a standard at a time. The effective date should not be approved without this schedule being available so a proper assessment can be made as to the reasonableness of the effective date. In addition TransAlta requests that the AESO provide an answer to the following question regarding effective date: 1) Is it the AESO's intent that WECC's Generator Testing Policy Implementation will be in effect on the effective date of the standard and that the AESO has no intent to implement a replacement policy prior to the effective date of the standard? In order to assess the effective date we must first have	

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		from December 31, 2006.	clear understanding and certainty as to what the standard requires, which in this case is determined by which policy will be in place on the effective date of the standard. This standard must address what happens if, at some point in the future, the ISO develops their own procedure for verifying gross real power, gross reactive power, net real power and net reactive power. That new policy must be appropriately communicated to stakeholders and appropriate effective dates must be established. The requirements to communicate and establish appropriate effective dates must either be captured in the standard or else the reference to the ISO policy must be struck entirely. If struck, at some point in the future if the AESO chooses to establish their own policy a new version of the standard will be developed and go through stakeholder consultation at that time. As the standard is written now it provides an open ended opportunity for the ISO to change the requirements with immediate effect.	

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**
			TransAlta requests that this standard be effective 3 years after the date of AUC approval. Entities may have been completing their testing, but actual test results may not be available. Because of this, generators would have to be retested and as such outages would be required. In order to show progress is being made, TransAlta recommends that AESO request an annual progress report be issued to the AESO to prove progress.	
MOD-024 R1. 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: **MOD-024 R1.1.** Generating unit exemption criteria including documentation of those units that are exempt from a portion or all of these procedures. **MOD-024 R1.2.** Criteria for reporting generating unit auxiliary loads.		☐ New ☐ Amended ☒ Deleted **Alberta Variance:** NERC requirement R1 and it's sub-requirements of MOD-024 and MOD-025 is a WECC responsibility and does not apply to any entities in Alberta.	☐ Support ☐ Support with language suggestions ☒ Oppose *Insert comments, reason for position, and alternate proposal (if any).* TransAlta is concerned that AESO is excluding the requirement language and content of MOD-025 R1 and specifically R1.3, R1.4 and R1.5.2. Testing the generator capability will be dependent on the machine condition and the AVR	

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**
MOD-024 R1.3. 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. **MOD-024 R1.4.** Periodicity and schedule of model and data verification and reporting. **MOD-024 R1.5.** Information to be verified and reported: **MOD-024 R1.5.1.** Seasonal gross and net Real Power generating capabilities. **MOD-024 R1.5.2.** Real power requirements of auxiliary loads. **MOD-024 R1.5.3.** Method of verification, including date and conditions. **MOD-025 R1.5.4.** Method of verification, including date and conditions. **MOD-025 R1.** The Regional Reliability Organization shall establish and maintain procedures to address verification of generator			limiter settings, terminal voltage limitations, etc. TransAlta requests AESO to explain how these limitations will be taken into account as this standard is currently written.	

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**
gross and net Reactive Power capability. These procedures shall include the following: **MOD-025 R1.1.** Generating unit exemption criteria including documentation of those units that are exempt from a portion or all of these procedures. **MOD-025 R1.2.** Criteria for reporting generating unit auxiliary loads. **MOD-025 R1.3.** 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. **MOD-025 R1.4.** Periodicity and schedule of model and data verification and reporting. **MOD-025 R1.5.** Information to be reported: **MOD-025 R1.5.1.** Verified maximum gross and net Reactive Power capability (both lagging and leading) at Seasonal Real Power generating				

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**
capabilities as reported in accordance with Reliability Standard MOD-024 Requirement 1.5.1. **MOD-025 R1.5.2.** Verified Reactive Power limitations, such as generator terminal voltage limitations, shorted rotor turns, etc. **MOD-025 R1.5.3.** Verified Reactive Power of auxiliary loads. **MOD-025 R1.5.4.** Method of verification, including date and conditions.				
MOD-024 R2. 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 days of the approval. **MOD-025 R2.** 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		☐ New ☐ Amended ☒ Deleted **Alberta Variance:** NERC requirement R2 of MOD-024 and MOD-025 is a WECC responsibility and does not apply to any entities in Alberta.	☐ Support ☐ Support with language suggestions ☐ Oppose *Insert comments, reason for position, and alternate proposal (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**
Generator Owners, Generator Operators, Transmission Operators, Planning Authorities, and Transmission Planners affected by the procedure within 30 calendar days of the approval.				
MOD-024 R3. 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. **MOD-025 R3.** 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.	**R1** Each **legal owner** must comply with the procedures the **ISO** 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: • **gross real power** • **gross reactive power** • **net real power** and • **net reactive power** except as contemplated in requirement R1.1. **R1.1** In the absence of a published **ISO** procedure, each **legal owner** must comply with the policies and procedures the **WECC** publishes for verifying and reporting generating capability for: • **gross real power** • **gross reactive power** • **net real power** and • **net reactive power**	☐ New ☒ Amended ☐ Deleted 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. 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. The AESO currently does not have any procedures as contemplated in MOD-024&025-AB requirement R1 and requirement R2. Below are applicable WECC procedures that apply pursuant to R1.1 of this reliability standard:	☐ Support ☐ Support with language suggestions ☒ Oppose *Insert comments, reason for position, and alternate proposal (if any).* **General Comment** For these requirements, AESO needs to ensure that any relevant specific requirements of any reference documents that are to be used for this standard will need to be indicated in this standard and will need to be reviewed by stakeholders. **R1 and R1.1** TransAlta is concerned with not having the ability to report on "**net real power"** and "**net reactive power".** Generating units may not have this metering capability within our facilities and as such	

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**
	R2 Any **ISO** procedures published as contemplated in requirement R1 must be equal to or more stringent than the procedures the **WECC** publishes.	1. "Synchronous Machine Reactive Limits Verification"… http://www.wecc.biz/library/WECC%20Documents/Documents%20for%20Generators/Generator%20Testing%20Program/Synchronous%20Machine%20Reactive%20Limits%20Verification.pdf 2. "Facility Data Requirements" document. Access this document by following this link: http://www.wecc.biz/library/WECC%20Documents/Forms/AllItems.aspx?RootFolder=%2flibrary%2fWECC%20Documents%2fDocuments%20for%20Generators%2fGenerator%20Testing%20Program&FolderCTID=&View=%7bAF8E6257%2d3EB9%2d4A21%2d8853%2d6477737956B4%7d And then open the following folders and documents: • "2006 Generator Test Policy" folder • "2006 Generator Test Program" folder • "GTTF_2005_12_Generating_Facility_Data Requirements.pdf" file	this would have to be gathered either by the TFO or AESO. We recommend that this be accounted for in the standard. **R1** The definition of legal owner, as defined in the ISO Authoritative Document Consolidated Glossary is: "means the **person** who owns electric industry property including any one or more of:(i) a **generating unit**;(ii) any **aggregated generating facilities**;(iii) a **transmission facility**;(iv) an **electric distribution system**;(v) an industrial system that has been designated as such by the **Commission**; and (vi) a **load** facility with **system access service** under subsection 101(2) of the **Act**. " Please specify legal owner of which electric industry property? Is this intended to be legal owner of a transmission facility? Without this clarification it is not clear if this applies to legal owners of all types of property including generating units, aggregated generating units etc. **R1** TransAlta is concerned with the words 'may publish' in this	

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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**
			requirement as there is no specific procedure identified and as such, the affected entities cannot ensure compliance or be audited against this requirement. TransAlta recommends changing the word "may" to "must". **R1.1** TransAlta recommends the removal of the bullets and words • **gross real power** • **gross reactive power** • **net real power** and • **net reactive power** AESO is over extending as 3 of the 4 terms are not approved yet. **R2** The words "more stringent" should be struck from this requirement. As a principle TransAlta suggests that it is inappropriate to make the ARS more stringent than the NERC version. Any rationale as to why the term "more stringent" was chosen should be provided in the Reason for Differences	
MOD-024 M1. The Regional Reliability Organization shall have available for inspection the procedures for the verification and reporting of generator gross and net		☐ New ☐ Amended ☒ Deleted	☐ Support ☐ Support with language suggestions ☐ Oppose	

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**
Real Power capability in accordance with R1. **MOD-025 M1.** 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.		Deleted to align with the removal of NERC R1.	*Insert comments, reason for position, and alternate proposal (if any).*	
MOD-024 M2. The Regional Reliability Organization shall have 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. **MOD-025 M2**. 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,		☐ New ☐ Amended ☒ Deleted Deleted to align with the removal of NERC R2.	☐ Support ☐ Support with language suggestions ☐ Oppose *Insert comments, reason for position, and alternate proposal (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**
Planning Authorities, and Transmission Planners within 30 calendar days of approval.				
MOD-024 M3. 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. **MOD-025 M3**. The Generator Owner shall have evidence it provided verified information of its generator gross and net Reactive Power capability, consistent with that Regional Reliability Organization's procedures.	**MR1** Confirmation exists that the **legal owner** has complied with procedures as specified in requirement R1. **MR1.1** Evidence exists that each legal owner has complied with the policies and procedures the WECC publishes within 5 years from December 31, 2006. **MR2** Where **ISO** procedures exist as specified in requirement R2, those procedures are equal to or more stringent than the procedures for such verification and reporting the **WECC** publishes.	☐ New ☒ Amended ☐ Deleted Amended to align with requirement R1 and its sub-requirements and R2 of this reliability standard.	☐ Support ☐ Support with language suggestions ☒ Oppose *Insert comments, reason for position, and alternate proposal (if any).* **General Comment** For these requirements, AESO needs to ensure that any relevant specific requirements of any reference documents that are to be used for this standard will need to be indicated in this standard and will need to be reviewed by stakeholders. **MR1** See comments in R1 above re legal owner. **MR1** TransAlta would like to state our concern about the use of the word "confirmation". In TransAlta's opinion this is very burdensome and unnecessary. The entity must have evidence that it complied with the procedures and data	

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			storage in order to demonstrate compliance and confirmation from the AESO provides no additional value. Essentially the use of confirmation in this measure is a form of audit. "Here is my evidence, please confirm it is correct". We recommend that the words "Confirmation exists" be removed and make this measure read the same as MR1.1 **MR1** TransAlta finds the NERC measures provide more clarity than the versions provided in the ARS and recommends that NERC M1, M2 and M3 language be used instead. **MR1.1 This measure contradicts the effective date of 90 days. What is the effective date? Please clarify.** This measure has not been written to improve the clarity. By using the words 'within 5 years from December 31, 2006.' It is making it harder to understand. **MR1.1** By using the word 'publishes' in this measure, is the AESO meaning now or in the	

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			future? This word should be replaced with 'published'. **MR1.1** See the comments re legal owner in R1 above. **MR2** Please identify to which entities this measure applies.	
Compliance To view the compliance section D of the NERC reliability standard follow this link: http://www.nerc.com/files/MOD-024-1.pdf http://www.nerc.com/files/MOD-025-1.pdf		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: http://www.aeso.ca/loadsettlement/17189.html.		
Regional Differences None identified.	None identified.	Not applicable in Alberta		

Definitions	**Comments**	**Rationale and/or Alternate Proposal**
(a) New **"gross reactive power"** means: (i) for **aggregated generating facilities** with one or more **collector busses,** the sum of **reactive power** measurements at those **collector busses**; (ii) for **aggregated generating facilities** without a **collector bus**, a **reactive power** measurement at the generator terminal for each **generating unit**; or	☐ Support ☐ Support with language suggestions ☒ Oppose *Insert comments, reason for*	

Definitions	Comments	Rationale and/or Alternate Proposal
(iii) for a **generating unit** that is not part of an **aggregated generating facility**, the **reactive power** measurement at the generator terminal. "**net real power**" means for an **aggregated generating facility** or a **generating unit**, the sum of **real power** measurements at the high voltage side of all step-up transformers directly connected to the **transmission system**.	*position, and alternate proposal (if any).* The ISO Authoritative Document Consolidated Glossary currently does not include the definition "**net reactive power".** Because this standard also does not include a new definition for this, the standard cannot be approved until such time as the definition is approved.	
(b) Removals N/A		
(c) Amendments N/A		