

Stakeholder Comments and AESO Reply Matrix

2010-09-27

AESO AUTHORITATIVE DOCUMENT PROCESS

Alberta Reliability Standard – PRC-018-AB-1 Disturbance Monitoring Equipment Installation and Data Reporting



COMPARISON BETWEEN NERC PRC-018-1 AND ALBERTA PRC-018-AB-1 DISTURBANCE MONITORING EQUIPMENT INSTALLATION AND DATA REPORTING				
NERC PRC-018-1	Alberta PRC-018-AB-1 Draft 2 from previous consultation ¹	AESO Reason for Difference	Stakeholder Comments	AESO Replies
Purpose Ensure that Disturbance Monitoring Equipment (DME) is installed and that Disturbance data is reported in accordance with regional requirements to facilitate analyses of events.	Purpose The purpose of this reliability standard is to ensure that disturbance monitoring equipment is installed and that disturbance data is reported in accordance with regional requirements to facilitate analyses of events.	Clarified the purpose to align with the content of the reliability standard.		
Applicability 4.1. Transmission Owner. 4.2. Generator Owner.	Applicability This reliability standard applies to: <ul style="list-style-type: none"> TFOs that own disturbance monitoring equipment as identified in the list as required in requirement R1, as published by the AESO on the AESO website, and as may be amended from time to time by the AESO on notice to market 	<input type="checkbox"/> New <input checked="" type="checkbox"/> Amended <input type="checkbox"/> Deleted Amended to identify the responsible entities in Alberta.	AltaLink Management Ltd <input type="checkbox"/> Support <input checked="" type="checkbox"/> Support with language suggestions <input type="checkbox"/> Oppose 1. AltaLink recommends that the wording be adjusted to outline a process for revising the list, as	1. The AESO agrees and the procedures for amending the disturbance monitoring

¹ This version of the reliability standard was consulted on in July 2010.

COMPARISON BETWEEN NERC PRC-018-1 AND ALBERTA PRC-018-AB-1 DISTURBANCE MONITORING EQUIPMENT INSTALLATION AND DATA REPORTING				
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	<p>participants.</p> <ul style="list-style-type: none"> GFOs that own disturbance monitoring equipment as identified in the list as required in requirement R1, as published by the AESO on the AESO website, and as may be amended from time to time by the AESO on notice to market participants. ISO 		<p>per R1, that includes a stakeholder consultation activity and adds an appropriate effective date to allow TFOs and GFOs enough time to adopt any changes in requirements or revisions to the referenced equipment list.</p> <p>2. AltaLink would also request that the wording be changed to clarify and specify the reference to the 'list' or information document that defines the applicable disturbance monitoring equipment scope of R1.</p>	<p>equipment list now are included in the disturbance monitoring equipment document which contains the list and will be published on the AESO website.</p> <p>2. The AESO will publish a link on the AESO website to the disturbance monitoring equipment list. The current version of the list will be included in the re-consultation documents for proposed PRC-018-AB-1 Draft 2.1.</p>
			<p>Nexen Inc</p> <p><input type="checkbox"/> Support</p> <p><input type="checkbox"/> Support with language suggestions</p> <p><input checked="" type="checkbox"/> Oppose</p> <p>3. Similar to other comments already provided, Nexen is concerned with the confusion associated with TFO functional entity definition. Nexen suggests that issues surrounding the TFO functional entity must be completed prior to introducing any new standards utilizing the TFO designation.</p>	<p>3. The revised Alberta reliability standards functional model and criteria for registration is posted on the AESO website. Please refer to the announcement letter and the revised document at:</p> <ul style="list-style-type: none"> Functional Model Changes and Applicability Functional Model and Criteria

COMPARISON BETWEEN NERC PRC-018-1 AND ALBERTA PRC-018-AB-1 DISTURBANCE MONITORING EQUIPMENT INSTALLATION AND DATA REPORTING				
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				for Registration The AESO recently consulted on a number of defined terms, such as 'legal owner' and 'operator', for application in Alberta reliability standards to ensure definitional consistency as part of the AESO's Transition of Authoritative Document ("TOAD") project.
			Suncor Energy <input type="checkbox"/> Support <input type="checkbox"/> Support with language suggestions <input checked="" type="checkbox"/> Oppose 4. Suncor is recommending that as new assets and registered entities (additions to the AESO list) are identified as applicable to this Standard, that the Standard be revised to include the current and updated list. This includes gaining input on the additions from market participants on the ARS Working Groups and Committee. This will ensure that binding obligations are clearly identified within the Standard, which is subject to non-compliance penalties.	4. Please see AESO Replies 1 and 2 above. The AESO does not agree with Suncor that review by the ARS working group is required for additions. If additions are required to the list of disturbance monitoring equipment the AESO will follow the procedures for amending the disturbance monitoring equipment list which is set out in the DME document that is to be published on the AESO website.

COMPARISON BETWEEN NERC PRC-018-1 AND ALBERTA PRC-018-AB-1 DISTURBANCE MONITORING EQUIPMENT INSTALLATION AND DATA REPORTING				
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			<p>5. Suncor is also recommending that a new entity classification be added to the reliability standards – a market participant / registered entity who owns a transmission asset (TAOs). Classifying all transmission owners as TFOs forces these entities to seek and administratively handle exemptions for standards that are otherwise not applicable, as is the case with this Standard.</p>	5. Please see AESO Reply 3 above.
			<p>TransCanada <input type="checkbox"/> Support <input type="checkbox"/> Support with language suggestions <input checked="" type="checkbox"/> Oppose</p> <p>6. As TransCanada has discussed with the AESO, there is considerable uncertainty and confusion in the industry with respect the TFO classification or the recently introduced “legal owner of a transmission facility”. Until this is resolved TransCanada cannot support the development or approval of any further reliability standards that are applicable to TFOs or legal owners of a transmission facility. TransCanada recommends that the AESO</p>	6. Please see AESO Reply 3 above.

COMPARISON BETWEEN NERC PRC-018-1 AND ALBERTA PRC-018-AB-1 DISTURBANCE MONITORING EQUIPMENT INSTALLATION AND DATA REPORTING				
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			initiate a process engaging all stakeholders to resolve this issue/	
<p>Effective Date Phased in over four years after BOT adoption: Requirements 1 and 2:</p> <ul style="list-style-type: none"> - 50% compliant two years after initial issuance of regional requirements per RELIABILITY STANDARD PRC-002 Requirement 5. - 75% compliant three years after initial issuance of regional requirements per reliability standard PRC-002 R5. - 100% compliant four years after initial issuance of regional requirements per reliability standard PRC-002 R5. <p>Requirements 3 through 6:</p> <ul style="list-style-type: none"> - 100% compliant six months after BOT adoption for already installed DME. - 100% compliant six months after installation for DMEs installed to meet Regional Reliability Organization requirements per reliability standard PRC-002 Requirements 1, 2 and 3. 	<p>Effective Date Ninety (90) days after the date of approval by the Commission.</p>	<p>A ninety day implementation timeline was selected as this reliability standard currently applies to installed disturbance monitoring equipment. Any new installations will be performed in accordance with direction provided by the ISO.</p>	<p>AltaLink Management Ltd</p> <p><input checked="" type="checkbox"/> Support <input type="checkbox"/> Support with language suggestions <input type="checkbox"/> Oppose</p> <p>7. AltaLink supports this assuming that the list, as per R1, does not change between now and when the standard gets approved by the Alberta Utilities Commission.</p>	<p>7. The AESO does not expect the list of disturbance monitoring equipment to change in the immediate future.</p>
			<p>Suncor Energy</p> <p><input type="checkbox"/> Support <input type="checkbox"/> Support with language suggestions <input checked="" type="checkbox"/> Oppose</p> <p>8. While this Standard is not applicable to Suncor, we are recommending the following:</p> <p>1) That additional time be granted (beyond the 90 days) to newly identified registered entities in which the standard does not currently apply, to meet compliance requirements. The recommendation is to allow a 2 year time period for</p>	<p>8. The effective date of proposed PRC-018-AB-1 has been amended in proposed PRC-018-AB-1 Draft 2.1 to October 1, 2012, to allow sufficient time for market participants to prepare for and implement proposed PRC-018-AB-1 Draft 2.1.</p>

COMPARISON BETWEEN NERC PRC-018-1 AND ALBERTA PRC-018-AB-1 DISTURBANCE MONITORING EQUIPMENT INSTALLATION AND DATA REPORTING				
NERC PRC-018-1	Alberta PRC-018-AB-1 Draft 2 from previous consultation ¹	AESO Reason for Difference	Stakeholder Comments	AESO Replies
			<p>newly identified entities (above those stated) to do the following:</p> <ul style="list-style-type: none"> o Conduct engineering assessments; o Schedule outage periods; o Complete risk assessments; and, o Coordinate equipment additions with regional entities. 	
<p>R1. Each Transmission Owner and Generator Owner required to install DMEs by its Regional Reliability Organization (reliability standard PRC-002 Requirements 1-3) shall have DMEs installed that meet the following requirements:</p> <p>R1.1. Internal Clocks in DME devices shall be synchronized to within 2 milliseconds or less of Universal Coordinated Time scale (UTC)</p> <p>R1.2. Recorded data from each Disturbance shall be retrievable for ten calendar days.</p>	<p>R1 The ISO must maintain and publish a list of all disturbance monitoring equipment that this reliability standard applies to, which includes all disturbance monitoring equipment the WECC requires to be installed in Alberta.</p> <p>R2 Each TFO and GFO that is directed to install disturbance monitoring equipment by the ISO must install disturbance monitoring equipment that meet the following requirements:</p> <p>R2.1 Internal clocks in disturbance monitoring equipment devices must be synchronized to within two milliseconds or less of the Coordinated Universal Time (UTC) scale.</p> <p>R2.2 Recorded disturbance data must be retrievable for at least ten (10) days</p>	<p><input type="checkbox"/> New <input checked="" type="checkbox"/> Amended <input type="checkbox"/> Deleted</p> <p>Amended to identify requirements of the responsible entities in Alberta and for clarity and consistency.</p> <p>Removed reference to PRC-002 as included in the NERC requirement as these requirements apply to the WECC. The ISO will review new requirements as they are developed by WECC.</p>	<p>AltaLink Management Ltd</p> <p><input type="checkbox"/> Support <input type="checkbox"/> Support with language suggestions <input checked="" type="checkbox"/> Oppose</p> <p>9. Regarding R1 AltaLink would request that the wording be changed to clarify and specify the reference to the 'list' or information document that defines the applicable disturbance monitoring equipment scope of R1. ie. direct reference to 2010-003RS.</p>	<p>9. Please see AESO Replies 1 and 2 above.</p>

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			<p>10. Regarding R2 The ISO is specifying the equipment to install. The ISO is obtaining the data directly with no intervention or visibility to the TFOs. AltaLink requests R2 be modified to reflect.</p> <p>For example, AltaLink believes it is possible to meet requirement R2.1 based on the specification of the PMUs, at the sited indentified in 2010-003RS, however the AESO would know the setting in the PMU since they are the ones to set it. The requirement should be adjusted to reflect the TFO has no accountability within R2.1.</p>	<p>10. The legal owner of a transmission facility, legal owner of a generating unit and legal owner of an aggregated generating facility is accountable to procure and install disturbance monitoring equipment and needs to confirm Alberta requirement R2 is met. AltaLink's comment regarding data collection is true for the phasor measurement units but would not be true for any future additions of sequence of events or disturbance recorders.</p>
			<p>11. AltaLink believes R2.2 is in conflict with other current AESO requirements and should be revised or removed. Is the intent of R2.2 that DME would store 10 days worth of data? This requirement is different from Section 2.2 of AESO PMU Requirements ver2.00. The 10 days requirement is also different from the 7 days as per the AESO Requirements.</p>	<p>11. Thank you for advising the AESO of the conflict. The AESO confirms that it is the intent of Alberta requirement R2.2 for disturbance monitoring equipment to store ten (10) days worth of data. The AESO will review the "Phasor Measurement Unit Requirements" document and take steps to eliminate any conflicts.</p>

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			<p>Suncor Energy <input type="checkbox"/> Support <input checked="" type="checkbox"/> Support with language suggestions <input type="checkbox"/> Oppose</p> <p>12. Support the maintenance of a list and periodic revision of the Standard to show the most current list.</p>	<p>12. The AESO agrees with Suncor that the list of disturbance monitoring equipment be maintained as per Alberta requirement R1.</p> <p>Please see AESO Replies 1 and 2 above.</p>
			<p>TransAlta <input type="checkbox"/> Support <input type="checkbox"/> Support with language suggestions <input checked="" type="checkbox"/> Oppose</p> <p>13. TransAlta is concerned about who bears the initial and ongoing costs if disturbance monitoring equipment (DME) is directed to be installed for the purpose of increased reliability of the BES. TransAlta believes that the installation of any DME is clearly for the benefit of the system as a whole and as such should be considered a system cost and recovered through the AESO's tariff. TransAlta asks for confirmation from the AESO as to how these costs will be</p>	<p>13. The AESO appreciates TransAlta's concern about who bears the initial and ongoing costs associated with the installation and maintenance of disturbance monitoring equipment as required by proposed PRC-018-AB-1. However, the AESO considers cost allocation matter to be outside of the scope of the development of the Alberta reliability standards. The AESO recommends that comments regarding the recovery of certain</p>

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			<p>treated. TransAlta has asked for confirmation on this point in the Operations Working Group meetings as well.</p> <p>14. R1- TransAlta believes that the list the AESO is maintaining and publishing should be referenced in this standard for clarify.</p>	<p>costs through the ISO tariff should, more appropriately, be brought forward during the AESO's general tariff application hearing.</p> <p>14. Please see AESO Replies 1 and 2 above.</p>
<p>R2. The Transmission Owner and Generator Owner shall each install DMEs in accordance with its Regional Reliability Organization's installation requirements (reliability standard PRC-002 Requirements 1 through 3).</p>	<p>R3 Each TFO and GFO must install disturbance monitoring equipment as directed by the ISO.</p>	<p><input type="checkbox"/> New <input checked="" type="checkbox"/> Amended <input type="checkbox"/> Deleted</p> <p>Amended to identify the responsible entities in Alberta and for clarity and consistency.</p> <p>The ISO will review and implement, as appropriate, relevant requirements and standards that are developed by the WECC.</p>	<p>AltaLink Management Ltd</p> <p><input type="checkbox"/> Support <input checked="" type="checkbox"/> Support with language suggestions <input type="checkbox"/> Oppose</p> <p>15. AltaLink recommends the following language suggestions: "Each TFO and GFO must install disturbance monitoring equipment as directed and specified by the ISO."</p>	<p>15. The AESO will not provide detailed specifications. The AESO will provide functional requirements for disturbance monitoring equipment. The legal owner of a transmission facility, legal owner of a generating unit and legal owner of an aggregated generating facility will need to provide further specifications for the disturbance monitoring equipment and then must order and install such equipment.</p>

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			<p>16. AltaLink recommends that the wording be added to outline the process for revising the list, as per R1, that includes a stakeholder consultation activity and adds an appropriate effective date to allow TFOs and GFOs enough time to adopt any changes in requirements or revisions to the referenced equipment list.</p>	<p>16. Please see AESO Replies 1 and 2 above.</p>
			<p>Capital Power Corporation</p> <p>17. The equipment being contemplated under this standard is clearly for the benefit of monitoring system performance and the causes of system disturbances and, therefore, should be recovered as a system cost. For TFOs, the costs associated with Disturbance Monitoring Equipment (DME) would be recoverable under the tariff. For GFOs, the AESO has been clear that the costs associated with system projects would not be considered a participant related cost. We ask the AESO to confirm that the cost of installing and maintaining DME would be considered a system-related cost and also be recovered through</p>	<p>17. Please see AESO Reply 13 above.</p>

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			the AESO tariff.	
			<p>Suncor Energy</p> <p><input type="checkbox"/> Support</p> <p><input type="checkbox"/> Support with language suggestions</p> <p><input type="checkbox"/> Oppose</p> <p>18. As Suncor is not a TFO, if this equipment was required to be installed in the future on Suncor's assets to increase the reliability of the BES, how will costs be recovered by Suncor and allocated to system?</p> <p>19. Suncor is also recommending that the AESO list should be referenced in this standard to allow entities to gain an exemption.</p>	<p>18. Please see AESO Reply 13 above.</p> <p>19. Please see AESO Replies 1 and 2 above.</p>
			<p>TransAlta</p> <p><input type="checkbox"/> Support</p> <p><input type="checkbox"/> Support with language suggestions</p> <p><input checked="" type="checkbox"/> Oppose</p> <p>20. The standard should include a timeframe in which a DME must be installed after a registered entity receives direction from the AESO.</p> <p>21. TransAlta is concerned that PRC</p>	<p>20. The AESO agrees with TransAlta, a timeframe will be established with the affected party in the direction issued by the AESO. Please also see Reply 1.</p> <p>21. The PRC-002 reference is to the</p>

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			002, which is referenced in this requirement in the NERC version of the standard includes the requirement for the Regional Reliability Organization to establish requirements for the installation of DMEs and reporting of data. As this standard is not applicable in Alberta it is not clear to TransAlta where these criteria exist in order to determine the installation requirements. TransAlta has been asking for clarity about these requirements in the Operations Working Group as well.	NERC standard that is applicable to the WECC and not the AESO. The AESO will review any standards or criteria the WECC produces for applicability in Alberta, and consult appropriately with market participants.

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<p>R3. The Transmission Owner and Generator Owner shall each maintain, and report to its Regional Reliability Organization on request, the following data on the DMEs installed to meet that region's installation requirements (reliability standard PRC-002 Requirements 1.1, 2.1 and 3.1):</p> <p>R3.1. Type of DME (sequence of event recorder, fault recorder, or dynamic disturbance recorder).</p> <p>R3.2. Make and model of equipment.</p> <p>R3.3. Installation location.</p> <p>R3.4. Operational status.</p> <p>R3.5. Date last tested.</p> <p>R3.6. Monitored elements, such as transmission circuit, bus section, etc.</p> <p>R3.7. Monitored devices, such as circuit breaker, disconnect status, alarms, etc.</p> <p>R3.8. Monitored electrical quantities, such as voltage, current, etc.</p>	<p>R4 Each TFO and GFO must maintain and report, within 30 days of the ISO's request, the following data on the disturbance monitoring equipment:</p> <p>R4.1 Type of disturbance monitoring equipment, sequence of event recorder, fault recorder or dynamic disturbance recorder.</p> <p>R4.2 Make and model of disturbance monitoring equipment.</p> <p>R4.3 Installation location.</p> <p>R4.4 Operational status.</p> <p>R4.5 Date last tested.</p> <p>R4.6 Monitored elements which may include, without limitation, transmission circuit and bus section.</p> <p>R4.7 Monitored devices which may include, without limitation, circuit breaker, disconnect status and alarms.</p> <p>R4.8 Monitored electrical quantities which may include, without limitation, voltage and current.</p>	<p><input type="checkbox"/> New <input checked="" type="checkbox"/> Amended <input type="checkbox"/> Deleted</p> <p>Amended to identify the responsible entities in Alberta and for clarity and consistency.</p> <p>Split the requirement for TFOs and GFOs to report to the ISO and for the ISO to report to the WECC (refer to R5 in the Alberta reliability standard below).</p> <p>Alberta Variance²: Added a time period by which data on disturbance monitoring equipment is to be submitted to the ISO. This was included to add clarity and to make the requirement measurable.</p>	<p>AltaLink Management Ltd</p> <p><input type="checkbox"/> Support <input type="checkbox"/> Support with language suggestions <input checked="" type="checkbox"/> Oppose</p> <p>22. AltaLink recommends that this requirement include wording revisions similar to the Applicability Section pertaining to the list.</p> <p>23. Furthermore, as the DMEs are installed under direction from AESO (R3), which obtains directly the data mentioned in R4.3, 4.6, 4.7 and 4.8. Thus, TFOs and GFOs have little to do with this data other than ensuring the equipment is working.</p> <p>We suggest the removal of these 4 requirements mentioned above from this standard or the accountability for providing and reporting be changed to the ISO.</p>	<p>22. Please see Replies 1 and 2. The disturbance monitoring equipment that this requirement applies to, are only those identified in the document.</p> <p>23. The AESO acknowledges that directions to install disturbance monitoring equipment will come from the AESO. However, the data to be reported to the AESO in Alberta requirements R4.1 to 4.8 is data that must be provided by the owner of the equipment and accordingly it is appropriate for the accountability for providing and reporting to lie with legal owner of a transmission facility, legal owner of a generating unit and legal owner of an aggregated generating facility.</p>

² An Alberta variance is a change from the US Reliability Standard that the AESO

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Refer to NERC requirement R3.	R5 The ISO must provide the data received from the TFOs and GFOs in requirement R4 to the WECC within 45 days of the WECC's request..	<input checked="" type="checkbox"/> New <input type="checkbox"/> Amended <input type="checkbox"/> Deleted Alberta Variance³: Added a time period by which data on disturbance monitoring equipment is to be submitted to the WECC. This was included to add clarity and to make the requirement measurable	AltaLink Management Ltd <input type="checkbox"/> Support <input type="checkbox"/> Support with language suggestions <input checked="" type="checkbox"/> Oppose 24. See comments under R4 above.	24. Please see AESO Reply 4 above.
			Suncor Energy <input checked="" type="checkbox"/> Support <input type="checkbox"/> Support with language suggestions <input type="checkbox"/> Oppose	
R4. The Transmission Owner and Generator Owner shall each provide Disturbance data (recorded by DMEs) in accordance with its Regional Reliability Organization's requirements (reliability standard PRC-002 Requirement 4).	R6 Each TFO and GFO must provide all disturbance data recorded by disturbance monitoring equipment to the ISO within 30 days of a request. R7 The ISO must provide disturbance data recorded by a GFO's or TFO's disturbance monitoring equipment to the WECC within 60 days of WECC's request.	<input type="checkbox"/> New <input checked="" type="checkbox"/> Amended <input type="checkbox"/> Deleted Split the requirement for TFO and GFO to provide disturbance data to the ISO and for the ISO to provide disturbance data to the WECC. Alberta Variance⁴: Added a time period by which disturbance data recorded by disturbance monitoring equipment is to be submitted to the ISO and to the WECC. This was included to add clarity and to make the requirement measurable.	AltaLink Management Ltd <input type="checkbox"/> Support <input type="checkbox"/> Support with language suggestions <input checked="" type="checkbox"/> Oppose 25. Related to R6 - As the DMEs are installed under direction from AESO (R3), which obtains directly the data TFOs and GFOs have little to do with this data other than ensuring the equipment is working. We suggest the accountability for providing and reporting be	25. Alberta requirement R6 has been amended. Please see revised wording in proposed PRC-018-AB-1 Draft 2.1. The AESO agrees with AltaLink that dynamic disturbance recorder data is provided directly to the AESO as a business practice for expediency. However there may

³ An Alberta variance is a change from the US Reliability Standard that the AESO

⁴ An Alberta variance is a change from the US Reliability Standard that the AESO

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			changed to the ISO.	be cases where this method of delivery is not available, such as during communication failures for the dynamic disturbance recorders at which point the AESO will make a written request. Further, for future additions of sequence of event recorders or fault recorders to the disturbance monitoring equipment list, such equipment will most likely not be communicating directly to the AESO. Accordingly, the legal owner of a transmission facility, legal owner of a generating unit and legal owner must be accountable to provide disturbance data to the AESO.
			<p>Suncor Energy</p> <input type="checkbox"/> Support <input checked="" type="checkbox"/> Support with language suggestions <input type="checkbox"/> Oppose	
			<p>26. If the AESO is requesting the disturbance data within 10 days of the incident, should the recorder only have 10 days of storage as per R2.2? Please clarify requirement.</p>	<p>26. Alberta requirement R6 states the data must be provided within thirty (30) days of a request, but the data itself only needs to be retrievable for ten (10) days.</p>
R5. The Transmission Owner and	R8 The ISO must archive all data	<input type="checkbox"/> New	AltaLink Management Ltd	

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Generator Owner shall each archive all data recorded by DMEs for Regional Reliability Organization-identified events for at least three years.	recorded by disturbance monitoring equipment for all WECC or ISO identified events for at least three years.	<input checked="" type="checkbox"/> Amended <input type="checkbox"/> Deleted Amended for clarity and consistency.	<input checked="" 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> AltaLink has no comment on ISO requirements.	
			Suncor Energy <input checked="" type="checkbox"/> Support <input type="checkbox"/> Support with language suggestions <input type="checkbox"/> Oppose	
R6. Each Transmission Owner and Generator Owner that is required by its Regional Reliability Organization to have DMEs shall have a maintenance and testing program for those DMEs that includes: R6.1. Maintenance and testing intervals and their basis. R6.2. Summary of maintenance and testing procedures.	R9 Each TFO and GFO that is directed by the ISO to have disturbance monitoring equipment must implement a maintenance and testing program for disturbance monitoring equipment that includes: R9.1 Maintenance and testing intervals and their basis. R9.2 Summary of maintenance and testing procedures	<input type="checkbox"/> New <input checked="" type="checkbox"/> Amended <input type="checkbox"/> Deleted Amended for clarity and consistency.	AltaLink Management Ltd <input checked="" type="checkbox"/> Support <input type="checkbox"/> Support with language suggestions <input type="checkbox"/> Oppose	
			Suncor Energy <input type="checkbox"/> Support <input type="checkbox"/> Support with language suggestions <input checked="" type="checkbox"/> Oppose 27. While this Standard is not	27. Please see AESO Reply 8 above.

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NERC PRC-018-1	Alberta PRC-018-AB-1 Draft 2 from previous consultation ¹	AESO Reason for Difference	Stakeholder Comments	AESO Replies
			<p>applicable to Suncor, we are recommending the following:</p> <p>That additional time be granted (beyond the 90 days) to newly identified registered entities in which the standard does not currently apply, to meet compliance requirements. The recommendation is to allow a 2 year time period for newly identified entities to meet the requirements set out in this Standard.</p>	
<p>M1. The Transmission Owner and Generator Owner shall each have evidence that DMEs it is required to have meet the functional requirements specified in Requirement 1 and are installed in accordance with its associated Regional Reliability Organization's requirements (R2).</p>	<p>MR1 A list exists that identifies all disturbance monitoring equipment according to requirement R1.</p> <p>MR2 Measures for this requirement are identified in the sub-measures below:</p> <p>MR2.1 Confirmation exists that the disturbance monitoring equipment is synchronized as specified in requirement R2.1.</p> <p>MR2.2 Confirmation exists that the disturbance monitoring equipment stores disturbance data as specified in requirement R2.2.</p>	<p><input type="checkbox"/> New <input checked="" type="checkbox"/> Amended <input type="checkbox"/> Deleted</p> <p>Amended to align with requirement R1 and R2.</p>	<p>AltaLink Management Ltd</p> <p><input type="checkbox"/> Support <input type="checkbox"/> Support with language suggestions <input checked="" type="checkbox"/> Oppose</p> <p>28. See comments under R1.</p> <p>29. See comments under R2.</p> <p>30. Measures should be revised to align with requested requirement changes.</p>	<p>28. Please see AESO Reply 9 above.</p> <p>29. Please see AESO Replies 10 and 11 above.</p> <p>30. The measures have been amended in proposed PRC-018-AB-1 Draft 2.1.</p>

COMPARISON BETWEEN NERC PRC-018-1 AND ALBERTA PRC-018-AB-1 DISTURBANCE MONITORING EQUIPMENT INSTALLATION AND DATA REPORTING				
NERC PRC-018-1	Alberta PRC-018-AB-1 Draft 2 from previous consultation ¹	AESO Reason for Difference	Stakeholder Comments	AESO Replies
			<p>Capital Power Corporation</p> <p><input type="checkbox"/> Support</p> <p><input type="checkbox"/> Support with language suggestions</p> <p><input checked="" type="checkbox"/> Oppose</p> <p>31. Capital Power does not support MR2.1 or MR2.2 as currently written.</p> <p>MR2.1 and MR2.2 state that in order to demonstrate compliance a “Confirmation” exists that the disturbance monitoring equipment complies with the requirements. It is unreasonable and inappropriate to make market participants 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 noncompliant if the AESO does not provide a requested confirmation. 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</p>	<p>31. The AESO agrees with Capital Power that it is inappropriate for a market participant to potentially be non-compliant because they are awaiting confirmation activities originating from the AESO. In the AESO’s opinion, it is more appropriate to require the market participant to retain evidence of complying with the measures, which may be produced to the AESO upon a compliance request.</p> <p>Accordingly, the AESO has amended the Alberta measures in proposed PRC-018-AB-1 Draft 2.1 and removed “confirmation” from the demonstration of compliance. Please see the amended measures in proposed PRC-018-AB-1 Draft 2.1.</p>

COMPARISON BETWEEN NERC PRC-018-1 AND ALBERTA PRC-018-AB-1 DISTURBANCE MONITORING EQUIPMENT INSTALLATION AND DATA REPORTING				
NERC PRC-018-1	Alberta PRC-018-AB-1 Draft 2 from previous consultation ¹	AESO Reason for Difference	Stakeholder Comments	AESO Replies
			<p>for.</p> <p>We have provided similar comments on this issue in consultation on VAR-002-AB-1, and MOD 010&012-AB-0.</p> <p>Furthermore, after review of the Alberta Reliability Standards Compliance Frequently Asked Questions pertaining to obtaining a Confirmation from the AESO, we are increasingly concerned. The answer to Question 6 states that:</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 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</i></p>	

COMPARISON BETWEEN NERC PRC-018-1 AND ALBERTA PRC-018-AB-1 DISTURBANCE MONITORING EQUIPMENT INSTALLATION AND DATA REPORTING				
NERC PRC-018-1	Alberta PRC-018-AB-1 Draft 2 from previous consultation ¹	AESO Reason for Difference	Stakeholder Comments	AESO Replies
			<p><i>confirmation letter.</i>"</p> <p>As stated in the Purpose section of this standard, the intent is to ensure disturbance monitoring equipment is installed and data is reported according to WECC's requirements. The intent is not to initiate a potentially lengthy and administratively burdensome process of obtaining a confirmation for which the purpose is unclear and is ultimately not required.</p> <p>The FAQ significantly increases the obligation of market participants to maintain documentation as market participants must satisfy a, b, c and d to demonstrate reasonable actions to avoid non-compliance.</p> <p>Furthermore, the FAQ states that market participants don't necessarily need a confirmation, and instead just need to prove that they made a concerted effort to obtain one. Therefore, it appears that this process serves no purpose other than to increase the obligation and risk of noncompliance on market participants and we do not see the necessity of the confirmation</p>	

COMPARISON BETWEEN NERC PRC-018-1 AND ALBERTA PRC-018-AB-1 DISTURBANCE MONITORING EQUIPMENT INSTALLATION AND DATA REPORTING				
NERC PRC-018-1	Alberta PRC-018-AB-1 Draft 2 from previous consultation ¹	AESO Reason for Difference	Stakeholder Comments	AESO Replies
			<p>at all.</p> <p>If a market participant can provide evidence that they have submitted the information required and the standard clearly states the system and data requirements, then confirmation from the AESO that the information provided is sufficient is unnecessary.</p> <p>32. It is the AESO's responsibility to notify the market participant if the information provided is unsatisfactory.</p>	<p>32. The AESO disagrees with Capital Power's comment as the onus is on a market participant to provide accurate information. However, If the AESO sees errors in any information provided, it will advise market participants accordingly.</p>
			<p>Nexen Inc</p> <p><input type="checkbox"/> Support</p> <p><input type="checkbox"/> Support with language suggestions</p> <p><input checked="" type="checkbox"/> Oppose</p> <p>33. Nexen does not support the requirement to have a confirmation from the AESO in order to be compliant. Nexen submits market participants should not be responsible for compliance obligations that are dependent upon the actions of another party.</p>	<p>33. Please see AESO Reply 31 above.</p>

COMPARISON BETWEEN NERC PRC-018-1 AND ALBERTA PRC-018-AB-1 DISTURBANCE MONITORING EQUIPMENT INSTALLATION AND DATA REPORTING				
NERC PRC-018-1	Alberta PRC-018-AB-1 Draft 2 from previous consultation ¹	AESO Reason for Difference	Stakeholder Comments	AESO Replies
			<p>Can the AESO outline its rationale exceeding the requirements outlined in the NERC standard (i.e. where submitting evidence is sufficient)?</p> <p>While Nexen acknowledges that a confirmation may be useful instrument in certain circumstances, it should not be a compliance requirement.</p>	
			<p>Suncor Energy</p> <p><input checked="" type="checkbox"/> Support <input type="checkbox"/> Support with language suggestions <input type="checkbox"/> Oppose</p>	
			<p>TransAlta</p> <p><input type="checkbox"/> Support <input type="checkbox"/> Support with language suggestions <input checked="" type="checkbox"/> Oppose</p> <p>34. TransAlta sees no value in the large number of measures that are defined for each simply provide a reference back to the subrequirement but no additional guidance as to what is required. TransAlta therefore recommends</p>	<p>34. The AESO has chosen to include separate measures for requirements R1.1 and R1.2 due to the difference in the subject matter which require different types of evidence for compliance. Please also see AESO Reply 31</p>

COMPARISON BETWEEN NERC PRC-018-1 AND ALBERTA PRC-018-AB-1 DISTURBANCE MONITORING EQUIPMENT INSTALLATION AND DATA REPORTING				
NERC PRC-018-1	Alberta PRC-018-AB-1 Draft 2 from previous consultation ¹	AESO Reason for Difference	Stakeholder Comments	AESO Replies
			<p>that MR2 should be reworded as suggested below and that all of the remaining measures for the subrequirements be removed.</p> <p>Proposed wording for MR2. TFO's and GFO's that own disturbance monitoring equipment as identified in the list as required in requirement R1 have evidence that DMEs it is required to have, meet the functional requirements specified in R2, R2.1 & R2.2 and are installed in accordance with (to be determined, see comments under R3 above).</p> <p>MR2.1, MR2.2 TransAlta's recommendation is to remove these measurements, however we would also like to state our concern about the use of the word "confirmation". If confirmations are to be used in the measures of the standards they should only be used to confirm receipt of data by the AESO. TransAlta believes confirmations are being used incorrectly in these measures as it would have the registered entity seek confirmation from the AESO that our equipment is meeting technical specifications</p>	above.

COMPARISON BETWEEN NERC PRC-018-1 AND ALBERTA PRC-018-AB-1 DISTURBANCE MONITORING EQUIPMENT INSTALLATION AND DATA REPORTING				
NERC PRC-018-1	Alberta PRC-018-AB-1 Draft 2 from previous consultation ¹	AESO Reason for Difference	Stakeholder Comments	AESO Replies
			<p>(i.e.: synchronized as specified, storing data as specified). In TransAlta's opinion this is very burdensome and unnecessary. The entity must have evidence of synchronization and data 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".</p> <p>As a general principle, TransAlta believes that a confirmation from the AESO should be an option available to the entity to assist them in demonstrating their own compliance, however a confirmation should not be a requirement if the entity has proper evidence, such as paper trails of submissions etc, to demonstrate compliance.</p>	
			<p>TransCanada <input type="checkbox"/> Support <input checked="" type="checkbox"/> Support with language suggestions <input type="checkbox"/> Oppose</p> <p>35. The requirement of confirmation" is much more onerous than the NERC standard which only</p>	<p>35. Please see AESO Reply 31 above.</p>

COMPARISON BETWEEN NERC PRC-018-1 AND ALBERTA PRC-018-AB-1 DISTURBANCE MONITORING EQUIPMENT INSTALLATION AND DATA REPORTING				
NERC PRC-018-1	Alberta PRC-018-AB-1 Draft 2 from previous consultation ¹	AESO Reason for Difference	Stakeholder Comments	AESO Replies
			requires “evidence”. There is no reason for Alberta to make the standards more strict than the NERC versions. This stricter requirement creates additional work and risk for Alberta entities. Confirmation should be changed to evidence.	
<p>M2. The Transmission Owner and Generator Owner shall each maintain the data listed in Requirements 3.1 through 3.8 for the DMEs installed to meet its Regional Reliability Organization’s DME installation requirements.</p> <p>M2.1 The Transmission Owner and Generator Owner shall each have evidence it provided this DME data to its Regional Reliability Organization within 30 calendar days of a request.</p>	<p>MR3 Confirmation exists that disturbance monitoring equipment has been installed as specified in requirement R3.</p>	<input type="checkbox"/> New <input checked="" type="checkbox"/> Amended <input type="checkbox"/> Deleted Amended to align with requirement R3.	<p>AltaLink Management Ltd</p> <input type="checkbox"/> Support <input checked="" type="checkbox"/> Support with language suggestions <input type="checkbox"/> Oppose <p>36. See comments under R3.</p> <p>Measures should be revised to align with requested requirement changes.</p>	<p>36. Please see AESO Replies 15, 16 and 30 above.</p>
			<p>Capital Power Corporation</p> <input type="checkbox"/> Support <input type="checkbox"/> Support with language suggestions <input checked="" type="checkbox"/> Oppose <p>37. See comments provided on MR2.1 and MR2.2.</p>	
			<p>Nexen Inc</p> <input type="checkbox"/> Support <input type="checkbox"/> Support with language suggestions	

COMPARISON BETWEEN NERC PRC-018-1 AND ALBERTA PRC-018-AB-1 DISTURBANCE MONITORING EQUIPMENT INSTALLATION AND DATA REPORTING				
NERC PRC-018-1	Alberta PRC-018-AB-1 Draft 2 from previous consultation ¹	AESO Reason for Difference	Stakeholder Comments	AESO Replies
			<input checked="" type="checkbox"/> Oppose 38. Please see comments provided in MR1 above.	38. Please see AESO Reply 33 above.
			Suncor Energy <input checked="" type="checkbox"/> Support <input type="checkbox"/> Support with language suggestions <input type="checkbox"/> Oppose	
			TransAlta <input type="checkbox"/> Support <input type="checkbox"/> Support with language suggestions <input checked="" type="checkbox"/> Oppose 39. MR3 TransAlta recommends that this measurement be rewritten as follows: “Evidence exists that disturbance monitoring equipment as been installed as specified in R3.” Please see comments above in R2 regarding the use of the word “confirmation” and as above, we are also concerned that in this case it is being used incorrectly, not to confirm receipt of data, but rather to confirm technical aspects for which the registered entity will have records to demonstrate compliance and a	39. Please see AESO Reply 31 above.

COMPARISON BETWEEN NERC PRC-018-1 AND ALBERTA PRC-018-AB-1 DISTURBANCE MONITORING EQUIPMENT INSTALLATION AND DATA REPORTING				
NERC PRC-018-1	Alberta PRC-018-AB-1 Draft 2 from previous consultation ¹	AESO Reason for Difference	Stakeholder Comments	AESO Replies
			confirmation from the AESO provides no additional value. In this case the technical aspects are records of equipment installation.	
			<p>TransCanada</p> <p><input type="checkbox"/> Support</p> <p><input checked="" type="checkbox"/> Support with language suggestions</p> <p><input type="checkbox"/> Oppose</p> <p>40. The requirement of confirmation” is much more onerous than the NERC standard which only requires “evidence”. There is no reason for Alberta to make the standards more strict than the NERC versions. This stricter requirement creates additional work and risk for Alberta entities. Confirmation should be changed to evidence.</p>	40. Please see AESO Reply 31 above.

COMPARISON BETWEEN NERC PRC-018-1 AND ALBERTA PRC-018-AB-1 DISTURBANCE MONITORING EQUIPMENT INSTALLATION AND DATA REPORTING				
NERC PRC-018-1	Alberta PRC-018-AB-1 Draft 2 from previous consultation ¹	AESO Reason for Difference	Stakeholder Comments	AESO Replies
	<p>MR4.5 Data is complete and accurate for each disturbance monitoring equipment device as specified in requirement R4.5.</p> <p>MR4.6 Data is complete and accurate for each disturbance monitoring equipment device as specified in requirement R4.6</p> <p>MR4.7 Data is complete and accurate for each disturbance monitoring equipment device as specified in requirement R4.7.</p> <p>MR4.8 Data is complete and accurate for each disturbance monitoring equipment device as specified in requirement R4.8.</p>		<p>Nexen Inc <input type="checkbox"/> Support <input type="checkbox"/> Support with language suggestions <input checked="" type="checkbox"/> Oppose</p> <p>43. Please see comments provided in MR1 above.</p>	<p>43. Please see AESO Reply 31 above.</p>
			<p>TransAlta <input type="checkbox"/> Support <input type="checkbox"/> Support with language suggestions <input checked="" type="checkbox"/> Oppose</p> <p>44. MR4 TransAlta sees no value in the large number of measures that are defined for each subrequirement, given that they simply provide a reference back to the subrequirement but no additional guidance as to what is required. TransAlta therefore recommends that MR4 be reworded and suggests the AESO look at the NERC measurements for simplicity.</p> <p>Please see comments above in R2 regarding the use of the word “confirmation” and as above, we are also concerned that in this</p>	<p>44. The AESO has reduced the number of measures for Alberta requirement R4 down to one. Please see the revised measure in proposed PRC-018-AB-1 Draft 2.1. Please also see AESO Reply 31 above.</p>

COMPARISON BETWEEN NERC PRC-018-1 AND ALBERTA PRC-018-AB-1 DISTURBANCE MONITORING EQUIPMENT INSTALLATION AND DATA REPORTING				
NERC PRC-018-1	Alberta PRC-018-AB-1 Draft 2 from previous consultation ¹	AESO Reason for Difference	Stakeholder Comments	AESO Replies
			<p>case it is being used incorrectly, not just to confirm receipt of data, but also to confirm that an entity retained data. In order to demonstrate compliance on this aspect an entity will simply need to produce the data (i.e. Show retention of data), and a confirmation from the AESO provides no additional value</p> <p>45. MR4.1 to MR 4.8 While TransAlta believes these measures should be removed, we would also like to comment on the use of the words “complete and accurate” which are subjective and are hard to measure.</p>	<p>45. The AESO agrees with TransCanada, and accordingly, has removed the wording “complete and accurate” from the measure in proposed PRC-018-AB-1 Draft 2.1.</p>
			<p>TransCanada <input type="checkbox"/> Support <input checked="" type="checkbox"/> Support with language suggestions <input type="checkbox"/> Oppose</p> <p>46. The requirement of confirmation” is much more onerous than the NERC standard which only requires “evidence”. There is no reason for Alberta to make the standards more strict than the NERC versions. This stricter requirement creates additional work and risk for Alberta entities.</p>	<p>46. Please see AESO Reply 31 above.</p>

COMPARISON BETWEEN NERC PRC-018-1 AND ALBERTA PRC-018-AB-1 DISTURBANCE MONITORING EQUIPMENT INSTALLATION AND DATA REPORTING				
NERC PRC-018-1	Alberta PRC-018-AB-1 Draft 2 from previous consultation ¹	AESO Reason for Difference	Stakeholder Comments	AESO Replies
			Confirmation should be changed to evidence.	
	MR5 Confirmation exists that data is provided as specified in requirement R5.	<input checked="" type="checkbox"/> New <input type="checkbox"/> Amended <input type="checkbox"/> Deleted Added to align with requirement R5.	AltaLink Management Ltd <input type="checkbox"/> Support <input type="checkbox"/> Support with language suggestions <input checked="" type="checkbox"/> Oppose 47. See comments under R4 and R5 above. Measures should be revised to align with requested requirement changes as needed.	47. Please see replies 22, 23, 24 and 30 above.
			Nexen Inc <input type="checkbox"/> Support <input type="checkbox"/> Support with language suggestions <input checked="" type="checkbox"/> Oppose 48. Please see comments provided in MR1 above.	48. Please see AESO Reply 33 above.
			TransCanada <input type="checkbox"/> Support <input checked="" type="checkbox"/> Support with language suggestions <input type="checkbox"/> Oppose 49. The requirement of confirmation”	49. Please see AESO Reply 31

COMPARISON BETWEEN NERC PRC-018-1 AND ALBERTA PRC-018-AB-1 DISTURBANCE MONITORING EQUIPMENT INSTALLATION AND DATA REPORTING				
NERC PRC-018-1	Alberta PRC-018-AB-1 Draft 2 from previous consultation ¹	AESO Reason for Difference	Stakeholder Comments	AESO Replies
			is much more onerous than the NERC standard which only requires “evidence”. There is no reason for Alberta to make the standards more strict than the NERC versions. This stricter requirement creates additional work and risk for Alberta entities. Confirmation should be changed to evidence.	above.
M4. Each Transmission Owner and Generator Owner that is required to install DMEs to meet its Regional Reliability Organization’s DME installation requirements, shall have an associated DME maintenance and testing program as defined in Requirement 6.	MR6 Confirmation exists that disturbance data is provided as specified in requirement R6. MR7 Confirmation exists that data is provided as specified in requirement R7	<input type="checkbox"/> New <input checked="" type="checkbox"/> Amended <input type="checkbox"/> Deleted Amended to align with requirement R6 and R7.	AltaLink Management Ltd <input type="checkbox"/> Support <input type="checkbox"/> Support with language suggestions <input checked="" type="checkbox"/> Oppose 50. See comments under R6 and R7 above. Measures should be revised to align with requested requirement changes as needed.	50. Please see AESO Replies 25 and 30 above.
			Capital Power Corporation <input type="checkbox"/> Support <input type="checkbox"/> Support with language suggestions <input checked="" type="checkbox"/> Oppose 51. See comments provided on MR2.1 and MR2.2.	51. Please see AESO Reply 31 above.

COMPARISON BETWEEN NERC PRC-018-1 AND ALBERTA PRC-018-AB-1 DISTURBANCE MONITORING EQUIPMENT INSTALLATION AND DATA REPORTING				
NERC PRC-018-1	Alberta PRC-018-AB-1 Draft 2 from previous consultation ¹	AESO Reason for Difference	Stakeholder Comments	AESO Replies
			<p>Nexen Inc <input type="checkbox"/> Support <input type="checkbox"/> Support with language suggestions <input checked="" type="checkbox"/> Oppose</p> <p>52. Please see comments provided in MR1 above.</p>	<p>52. Please see AESO Reply 31 above.</p>
			<p>TransAlta <input type="checkbox"/> Support <input type="checkbox"/> Support with language suggestions <input checked="" type="checkbox"/> Oppose</p> <p>53. MR6 and MR7 As a general principle, TransAlta believes that a confirmation from the AESO should be an option available to the entity to assist them in demonstrating their own compliance; however a confirmation should not be a requirement if the entity has proper evidence, such as paper trails of submissions etc, to demonstrate compliance.</p>	<p>53. Please see AESO Reply 30 above.</p>
			<p>TransCanada <input type="checkbox"/> Support <input checked="" type="checkbox"/> Support with language suggestions <input type="checkbox"/> Oppose</p>	

COMPARISON BETWEEN NERC PRC-018-1 AND ALBERTA PRC-018-AB-1 DISTURBANCE MONITORING EQUIPMENT INSTALLATION AND DATA REPORTING				
NERC PRC-018-1	Alberta PRC-018-AB-1 Draft 2 from previous consultation ¹	AESO Reason for Difference	Stakeholder Comments	AESO Replies
			<p>54. The requirement of confirmation” is much more onerous than the NERC standard which only requires “evidence”. There is no reason for Alberta to make the standards more strict than the NERC versions. This stricter requirement creates additional work and risk for Alberta entities. Confirmation should be changed to evidence.</p>	<p>54. Please see AESO Reply 31 above.</p>
	<p>MR8 Confirmation exists that the ISO archived all data recorded by disturbance monitoring equipment for all WECC and ISO identified events as specified in requirement R8.</p>	<p><input checked="" type="checkbox"/> New <input type="checkbox"/> Amended <input type="checkbox"/> Deleted</p> <p>Added to align with requirement R8.</p>	<p>AltaLink Management Ltd</p> <p><input checked="" type="checkbox"/> Support <input type="checkbox"/> Support with language suggestions <input type="checkbox"/> Oppose</p> <p>AltaLink has no comment on ISO requirements.</p>	
			<p>Nexen Inc</p> <p><input type="checkbox"/> Support <input type="checkbox"/> Support with language suggestions <input checked="" type="checkbox"/> Oppose</p> <p>55. Please see comments provided in MR1 above.</p>	<p>55. Please see AESO Reply 31 above.</p>
			<p>TransCanada</p> <p><input type="checkbox"/> Support <input checked="" type="checkbox"/> Support with language</p>	

COMPARISON BETWEEN NERC PRC-018-1 AND ALBERTA PRC-018-AB-1 DISTURBANCE MONITORING EQUIPMENT INSTALLATION AND DATA REPORTING				
NERC PRC-018-1	Alberta PRC-018-AB-1 Draft 2 from previous consultation ¹	AESO Reason for Difference	Stakeholder Comments	AESO Replies
			<p>suggestions <input type="checkbox"/> Oppose</p> <p>56. The requirement of confirmation” is much more onerous than the NERC standard which only requires “evidence”. There is no reason for Alberta to make the standards more strict than the NERC versions. This stricter requirement creates additional work and risk for Alberta entities. Confirmation should be changed to evidence.</p>	<p>56. Please see AESO Reply 31 above.</p>
	<p>MR9 Confirmation exists that a written maintenance and testing program was implemented as specified in requirement R9.</p> <p>MR9.1 Interval information is included as specified in requirement R9.1.</p> <p>MR9.2 A summary as specified in requirement R9.2 exists and includes clear and detailed procedures.</p>	<p><input checked="" type="checkbox"/> New <input type="checkbox"/> Amended <input type="checkbox"/> Deleted</p> <p>Added to align with requirement R9.</p>	<p>AltaLink Management Ltd</p> <p><input type="checkbox"/> Support <input checked="" type="checkbox"/> Support with language suggestions <input type="checkbox"/> Oppose</p> <p>57. MR9.2 should be changed to “A summary as specified in requirement R9.2 exists”.</p> <p>The reference to “clear and detailed” is vague and conflicts with the stated requirement to provide a summary.</p>	<p>57. Please see AESO Reply 30 above.</p>
			<p>Capital Power Corporation</p> <p><input type="checkbox"/> Support <input type="checkbox"/> Support with language</p>	

COMPARISON BETWEEN NERC PRC-018-1 AND ALBERTA PRC-018-AB-1 DISTURBANCE MONITORING EQUIPMENT INSTALLATION AND DATA REPORTING				
NERC PRC-018-1	Alberta PRC-018-AB-1 Draft 2 from previous consultation ¹	AESO Reason for Difference	Stakeholder Comments	AESO Replies
			suggestions <input checked="" type="checkbox"/> Oppose 58. See comments provided on MR2.1 and MR2.2.	58. Please see AESO Reply 31 above.
			Nexen Inc <input type="checkbox"/> Support <input type="checkbox"/> Support with language suggestions <input checked="" type="checkbox"/> Oppose 59. Please see comments provided in MR1 above.	59. Please see AESO Reply 31 above.
			TransAlta <input type="checkbox"/> Support <input type="checkbox"/> Support with language suggestions <input checked="" type="checkbox"/> Oppose 60. MR9 TransAlta sees no value in the large number of measures that are defined for each subrequirement, given that they simply provide a reference back to the subrequirement but no additional guidance as to what is required. TransAlta therefore recommends that MR9 be reworded and suggest the AESO look at the NERC measurements for simplicity	60. The AESO has proposed to include separate measures for Alberta requirements R9.1 and R9.2 due to the difference in the subject matter which require different types of evidence for compliance.

COMPARISON BETWEEN NERC PRC-018-1 AND ALBERTA PRC-018-AB-1 DISTURBANCE MONITORING EQUIPMENT INSTALLATION AND DATA REPORTING				
NERC PRC-018-1	Alberta PRC-018-AB-1 Draft 2 from previous consultation ¹	AESO Reason for Difference	Stakeholder Comments	AESO Replies
			<p>61. Please see comments above in R2 regarding the use of the word “confirmation” and as above, we are also concerned that in this case it is being used incorrectly, not to confirm receipt of data, but rather to confirm technical aspects for which the registered entity will have records to demonstrate compliance and a confirmation from the AESO provides no additional value. In this case the technical aspects are such things as interval records, which can simply be produced by the entity. There is no value in having the AESO confirm the records exist.</p>	<p>61. Please see AESO Reply 31 above.</p>
			<p>TransCanada <input type="checkbox"/> Support <input checked="" type="checkbox"/> Support with language suggestions <input type="checkbox"/> Oppose</p> <p>62. The requirement of confirmation” is much more onerous than the NERC standard which only requires “evidence”. There is no reason for Alberta to make the standards more strict than the NERC versions. This stricter requirement creates additional work and risk for Alberta entities.</p>	<p>62. Please see AESO Reply 31 above.</p>

COMPARISON BETWEEN NERC PRC-018-1 AND ALBERTA PRC-018-AB-1 DISTURBANCE MONITORING EQUIPMENT INSTALLATION AND DATA REPORTING				
NERC PRC-018-1	Alberta PRC-018-AB-1 Draft 2 from previous consultation ¹	AESO Reason for Difference	Stakeholder Comments	AESO Replies
			Confirmation should be changed to evidence.	
Compliance To view the compliance section D of the NERC reliability standard follow this link: http://www.nerc.com/files/PRC-018-1.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 “disturbance monitoring equipment” means devices capable of monitoring and recording system data pertaining to a disturbance , including any or all of the following: <ul style="list-style-type: none"> (i) sequence of event recorders which record equipment response to the disturbance; (ii) fault recorders, which record actual waveform data replicating the system primary voltages and currents and which include protective relays that provide this functionality; and (iii) dynamic disturbance recorders which record incidents that portray system behaviour during disturbances, such as low-frequency (0.1 Hz - 3 Hz) oscillations, abnormal frequency or voltage excursions, and which include protective relays and phasor measurement units that provide this functionality.⁵ 	AltaLink Management Ltd <input type="checkbox"/> Support <input type="checkbox"/> Support with language suggestions <input checked="" type="checkbox"/> Oppose <i>Insert comments, reason for position, and alternate proposal (if any).</i> 63. This definition, while technically correct, is significantly larger and different than the 4 PMU units	63. AESO does not agree with AltaLink’s recommendation. A broad definition of disturbance

⁵ This definition will be included in the document that contains the list of disturbance monitoring equipment to which the reliability standard applies.

Definitions	Comments	Rationale and/or Alternate Proposal
	<p>defined in ID 2010-003RS as applicable under this standard and could lead to confusion and potentially significant concerns for AltaLink if the applicable equipment for this standard were to change in the future to this much larger set of equipment.</p> <p>AltaLink recommends that the definition be modified or removed/replaced by that contained in the ID document applicable to this standard.</p> <p>64. Furthermore, as described above, AltaLink requests changes be to the requirements to outline the process for revising the applicable equipment list, that includes a stakeholder consultation activity and adds an appropriate effective dates to allow TFOs and GFOs enough time to adopt any potential changes in requirements or revisions to the referenced equipment list.</p>	<p>monitoring equipment is appropriate and will enable technology changes that could broaden the range of equipment used for disturbance monitoring.</p> <p>64. Please see Replies 1 and 2 above.</p>