



Date of Request for Comment: September 18, 2018			
Period of Consultation: September 18,	2018 through October 3, 2018		
Alberta Reliability Standard	Market Participant Comments and/or Alternative Proposal	AESO Replies	
New	AltaLink Management Ltd ("AML")		
The AESO is seeking comments from market participants with regard to the following matters:  1. Are there any requirements contained in proposed new PRC-002-AB-2 that are not clearly articulated? If yes, please indicate the specific section of proposed new PRC-002-AB-2, describe the concern and suggest alternative language.	<ol> <li>Are requirement R4.3.1 and R4.3.2 applicable irrespective of the protection application? Some protection applications may not use overcurrent or phase under voltage functionality. In this case setting an overcurrent or phase under voltage trigger will cause planned switching to be recorded in addition to other system events. This could cause fault records to be overwritten.</li> </ol>	1. The intent of requirement R4 is to capture the fault recording data of the connected system elements on the bulk electric system buses identified in requirement R1.1 for the duration specified in requirement R11.1. If setting triggers solely pursuant to requirements R4.3.1 and R4.3.2 results in undesired events being captured and poses the risk of overwriting data, the legal owner may add additional trigger(s) with the associated threshold(s) in accordance with their own practices and standards.	
Please provide any additional comments regarding proposed new PRC-002-AB-2	2. If requirements R4.3.1 and R4.3.2 are applicable irrespective of the protection application, what are the threshold/setpoints for these triggers?	2. Please see AESO reply #1.	
	Altalink understands the R6 requirements should be recorded for 10 days, as defined in R11.1. Please confirm.	<ol> <li>Yes, the dynamic disturbance recording data required in requirement R6 is required to be retrievable for a period of 10 days, inclusive of the day the data was recorded, as specified in requirement R11.1.</li> </ol>	
	4. Per ISO rules, section 502.9, the data from Altalink's Phasor Measurement Units (PMU) is streamed to the ISO. The PMU's data then is sent to Altalink Phasor Data Concentrator (PDC). Altalink understands that the current PMU's data satisfies the continuous dynamic data recording requirement of R8. Please confirm.	4. No, the current PMU's data does not satisfy the continuous dynamic data recording requirement of R8. However, the AESO has amended requirement R8 to exempt any applicable entity that complies with subsection 7(1) of Section 502.9 of the ISO rules, Synchrophasor Measurement Unit Technical Requirements from the requirement to have continuous data recording and storage.	



- 5. Altalink understands the R8 requirements should be recorded for 10 days, as defined in R11.1. Please confirm.
- Please clarify whether the dynamic disturbance recording data storage subjected to R8 applies to the continuous data stream or to the disturbance records.
- 7. For R11.3. Please provide Appendix 3.
- 8. The existing PMU data is being streamed per ISO rules-section 502.9, which is not in COMTRADE format. Does this meet the reuirements of R11.4?
- 9. In Appendix 1, step 2, please clarify the system operating conditions to be used to determine maximum 3 phase fault level (e.g. all generators on regardless of seasonal operation?)
- 10. In Appendix 2, AltaLink interprets the term of 50% compliant to refer to 50% of identified buses in R1 and identified system elements in R5. AltaLink would suggest the following revised wording: Entities must be at least 50% compliant for identified buses in R1 and identified system elements in R5 within 4 calendar years of the effective date of PRC-002-AB-2, and 100% compliant within 6 calendar years of the effective date.
- 11. Altalinks understands that, the disturbance monitoring equipment (PMUs) identified by AESO regarding PRC-018, should remain in service until the requirements detailed in the implementation plan of PRC-002 are met. Please confirm.

- 5. Yes, requirement R11 applies to the dynamic disturbance recording data specified in requirement R8.
- 6. Requirement R8 applies to both continuous data recording and storage.
- 7. The AESO acknowledges the comment. Appendix 3 has been added.
- 8. Requirement R11.4 applies to the format for fault recording and dynamic disturbance recording data and not the continuous streaming. Please see AESO reply #4 for further information for PMUs with on-line streaming.
- 9. Appendix 1, step 2 requires the list of determined bulk electric system buses to be reduced to the buses that have a maximum available calculated 3-phase short circuit MVA of 1,500 MVA or greater. Therefore, system operating conditions need to reflect the conditions which allow the legal owner of a transmission facility to make such a determination.
- 10. The AESO appreciates the comment; however, the implementation plan is based on the lists created in accordance with requirements R1 and R5, which lists are explicit and readily available. In addition, in order to maintain consistency with the North American Electric Reliability Corporation's ("NERC") implementation plan, the AESO prefers to keep the wording as-is.
- 11. The AESO is of the opinion that the implementation plan of PRC-002-AB-1 is clear. The implementation plan provides details of the coordination between the effective date of the requirements of PRC-002-AB-1 and the retirement of PRC-018-AB-1. Specifically, the implementation plan states

"Reliability standard PRC-018-AB-1 remains effective



	throughout the phased implementation period of PRC-002-AB-2 and is applicable to an entity's disturbance monitoring and reporting activities not yet transitioned to PRC-002-AB-2."
12. (General Comment): Altalink understands that the current congifuration (mentioned in comment #4) satisfies the general intent of dynamic disturbance data recording requirements of PRC-002, please confirm. If the AESO's requirements are otherwise, AltaLink is concerned for the potential incremental costs due to substantial changes in configuration required.	12. It is the responsibility of each legal owner and operator to determine whether its facilities meet the requirements of the Alberta reliability standards. In general, the AESO believes that the monitoring requirements outlined in PRC- 002-AB-2 are aligned with common industry practices.
TransAlta Corporation ("TransAlta")	
13. R1, R5: TransAlta requests the AESO includes a list of all identified system elements in R1 and R5. The list can be similar to that available in PRC-018-AB-1 and should include either disturbance monitoring equipment (DME) list or system elements where sequence of events recording data, fault recording data, and dynamic disturbance recording data are required.	13. Please note that requirement R1 applies to the legal owner of a transmission facility and not the AESO. With regard to requirement R5, once the reliability standard is effective, the AESO will notify all legal owners in accordance with R5.3.